DELHI
TECHNOLOGICAL
UNIVERSITY

6th ANNUAL REPORT

6 वाँ वार्षिक प्रतिवेदन
2019-20

2019-20

6th A N N U A L R E P O R T

6 वाँ वार्षिक प्रतिवेदन

(01 अगस्त, 2019 - 31 जुलाई, 2020)
(01 August, 2019 - 31 July, 2020)

दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)
Govt. of NCT of Delhi

Bawana Road, Delhi-110042

उपराज्यपाल
दिल्ली
LIEUTENANT GOVERNOR
DELHI

राज निवास
दिल्ली-११००५४
RAJ NIWAS
DELHI-110054

MESSAGE

I am pleased to learn that the Delhi Technological University is publishing its Annual report for the Academic Year 2019-2020.

Delhi Technological University (erstwhile Delhi College of Engineering) has a glorious past of more than 79 years and is widely acclaimed for its excellence in education, research & training. For the past decades. DTU has been synonymous with excellence in academia as well as research.

The University has been imparting quality education through outcome and value-based education systems. It has kept pace with an increasingly globalized India by constantly upgrading its curriculum, providing state-of-the-art research facilities and equipping students with the latest technological knowledge. I have been informed that, in the past years, the University has actively collaborated with institutions of national & international repute and has figured in the 800-1000 bracket in world University Ranking 200, and the 300-350 bracket in Asia University Rankings 2020.

I extend my best wishes to the faculty, staff and students of the University for all their future endeavors.

(Anil Baijal)

ARVIND KEJRIWAL
CHIEF MINISTER

Govt. of National Capital Territory of Delhi
Delhi Secretariat, I.P. Estate, New Delhi-110002
Tel. : 23392020, cmdelhi@nic.in

D.O.No.: OSDCMI/1
Date: 18|01|2021

MESSAGE

It gives me immense pleasure to learn that the **Delhi Technological University** is publishing its Annual report for the academic year 2019-2020. I extend my best wishes to all the stakeholders on this occasion for their truly magnificent achievement.

Education over time has gone through many innovations, especially in the present era with technological advances and globalization. I feel proud to see that the University is adapting to these transformations. In a nation that requires rapid modernization along with sustainable development, a work force comprising of youth that excels in their respective fields with technical acumen, flair, quality consciousness and awareness shall go a long way.

I am happy to note that significant progress and growth of DTU in the last few years. I learnt University has ranked 47th among universities and 36th for engineering in the NIRF. The introduction of management programs at both undergraduate and postgraduate levels and research collaborations with premier institutions is evidence of DTU's commitment towards building world-class quality human resources.

I congratulate Vice-Chancellor and his team involved the compilation of the Annual report. I wish High success to the faculty members, staff and students of the University.

(Arvind Kejriwal)

MANISH SISODIA
मनीष सिसोदिया

DEPUTY CHIEF MINISTER
GOVT. OF NCT OF DELHI
उप मुख्यमंत्री, दिल्ली सरकार
DELHI SECTT, I.P. ESTATE
दिल्ली सचिवालय, आई॰पी॰एस्टेट,
NEW DELHI-110002
नई दिल्ली-110002
Email : msisodia.delhi@gov.in

D.O. No. DYCM/2021/131
Date : 18/1/21

MESSAGE

As Delhi Technological University publishes its Annual Report for the Academic Year 2019-2020, it gives me immense pleasure to behold yet another year of achievement achieving an immensely important milestone in the journey of Delhi Technological University to success. I congratulate all stakeholders in their efforts to make this day possible. This is certainly a moment of great pride for the faculty members, students and their family members & friends.

It is a matter of great pride to witness the evolution of students of Delhi Technological University into skilled and qualified professionals by overcoming the difficulties arisen due to COVID-19 pandemic. A degree is a basis for a durable foundation. On this occasion, students are not just taking away a piece of paper, but their years of hard work, their visa to future career and themselves as an aware and accountable citizen.

It is my fervent hope that the remarkable accomplishment of students and the administration in this Academic Year in DTU will not merely a momentous occasion in their lives, but one that will contribute to their vision for change in the world. It is incumbent upon all of us to contribute to the nation and its development with all our hearts, knowledge and skills.

I congratulate all stakeholders of DTU involved in the compilation of the Annual Report. I wish high success to the faculty members, staff and students of the University.

(Manish Sisodia)

H. RAJESH PRASAD
IAS

प्रधान सचिव (शिक्षा/प्रशिक्षण व तकनीकी शिक्षा/उच्च शिक्षा)
राष्ट्रीय राजधानी क्षेत्र
दिल्ली सरकार
पुराना सचिवालय, दिल्ली-110054
दूरभाष: 23890187 टेलीफैक्स: 23890119

Pr. Secretary (Education/TTE/HE)
Government of National Capital Territory of Delhi
Old Secretariat, Delhi-110054
Phone : 23890187, Telefax : 23890119
E-mail : secyedu@nic.in

DO No. DTU/IQAC/2020/96/484
Dated:- 22.12.2020

MESSAGE

I congratulate Delhi Technological University is shortly bringing out its Annual Report for the Academic Year 2019-20.

Delhi Technological University is the premier engineering Institution in India and has always been the alma mater to generations of top quality engineers. Through a combination of their hard work, dedication and technical skills in science, technology, and engineering, DTU alumni have been a dominant force in many a domain all over the World. I also believe that the onus to uphold the invaluable legacy of DTU lies on its alma mater who has graduated in the past, those who are graduating today, and those who will graduate in the future. I am sure that they will surpass the expectations of all stakeholders in their future professional lives.

I learn that DTU has been accredited by NAAC recently as 'A' grade and has ranked 36th in NIRF Ranking. The University has successfully completed its academic activity during pandemic period also using latest ICT so as to enable the final year students get their degree in time.

I congratulate Vice-Chancellor and his team involved in the compilation of the Annual report. I wish high success to the faculty members, staff and students of the University.

(H. RAJESH PRASAD)

VISITOR

His Excellency Shri Ram Nath Kovind
President of India

CHANCELLOR

Hon'ble Shri Anil Baijal
Lt. Governor, Govt. of NCT, Delhi

Shri Arvind Kejriwal
**Hon'ble Chief Minister
Govt. of NCT, Delhi**

Shri Manish Sisodia
**Hon'ble Deputy Chief Minister and Minister
for Training & Technical Education
Govt. of NCT, Delhi**

Prof. Yogesh Singh
Vice Chancellor

Prof. S. K. Garg
Pro-Vice Chancellor

Prof. Samsher
Registrar

Prof. M. M. Tripathi
Director, Internal Quality Assurance
Cell (IQAC)

DEANS

Prof. S. C. Sharma
Dean, Academics (PG)

Prof. A. Trivedi
Dean, Industrial Research
Development

Prof. Madhusudan Singh
Dean, Academics (UG)

Prof. R.S. Mishra
Dean, Outreach &
Extension Activities

Prof. S. Indu
Dean, Student Welfare

Prof. Samsher
Dean, Continuing
Education

Prof. Vishal Verma
Dean, International Affairs

Prof. Pravir Kumar
Dean, Alumni Affairs

Prof. Narendra Kumar-II
Dean, Student Discipline

HEAD OF DEPARTMENTS

Prof. S. G. Warkar
Head of Department
Applied Chemistry

Prof. Sangita Kansal
Head of Department
Applied Mathematics

Prof. Rinku Sharma
Head of Department
Applied Physics

Prof. Jai Gopal Sharma
Head of Department
Biotechnology

Prof. Nirendra Dev
Head of Department
Civil Engineering

Prof. Rajni Jindal
Head of Department
Computer Science and
Engineering

Prof. Rajan Yadav
Head of Department
Delhi School of Management

Prof. Ranganath M. Singari
Head of Department
Department of Design

HEAD OF DEPARTMENTS

Prof. N. S. Raghava
Head of Department Electronics
& Communication Engineering

Prof. Uma Nangia
Head of Department
Electrical Engineering

Prof. S. K. Singh
Head of Department
Environmental Engineering

Dr. Nand Kumar
Head of Department
Humanities

Prof. Kapil Sharma
Head of Department
Information Technology

Prof. Vipin
Head of Department
Mechanical Engineering

Prof. Amit Mookerjee
Head of Department
University School of Management and Entrepreneurship

VISION, MISSION & QUALITY POLICY

VISION

"To be a world class university through education, innovation, and research for the service of humanity"

MISSION

1
To establish Centres of excellence in emerging areas of science, engineering, technology, management and allied areas.

2
To foster an ecosystem for incubation, product development, transfer of technology and entrepreneurship.

3
To create environment of collaboration, experimentation, imagination and creativity.

4
To develop human potential with analytical abilities, ethics and integrity.

5
To provide environment friendly, reasonable and sustainable solutions for local and global needs.

QUALITY POLICY

The university is committed to achieving global standards of excellence in the field of Science, Technology, Management and allied areas by disseminating knowledge through cutting-edge research, education and innovation. We adopt best practices to maintain high standards in the core and allied functions through continuous evaluation and improvement of our processes.

CORE VALUES

Integrity
We do what we say through trust, transparency and honesty.

Compassion
We foster civilized mindset for kindness, consideration and benevolence.

Commitment
We dedicate ourselves completely to all our endeavors.

Creativity
We nurture innovation, imagination and ideation.

Collaboration
We promote team work through togetherness, harmony and acknowledgment.

Inclusion
We embrace diversity with respect, acceptance and affirmation.

ROADMAP FOR ACHIEVING VISION

Strengthening Education

- Flexible Curriculum
- Outcome-based education
- Focus on research, innovation & Entrepreneurship
- Project and Experiment based learning

Product Development & Enterpreneurship

- Incubation & Innovation Foundation (19 companies working currently)
- Product & Entrepreneurship
- Track introduced in UG & PG curriculum

Collaboration & Creativity

- Research Excellence Award & Grants for researchers
- MoUs with leading industries and universities
- Research Track introduced in PG & UG Curriculum

Ethics & Integrity

- FECs on values, ethics and sports
- Regular workshop on ethical values, professionalism
- Training programs for development of analytical abilities & critical thinking

Historical Background

Delhi Technological University (DTU) is a non-affiliating, teaching and research University at Delhi to achieve excellence in science, engineering, technology, management and allied areas and matters connected there with or incidental thereto. The University enables students to face the wide-ranging changes taking place in the fields of science, technology, environment and management. This includes innovation, design, development, construction, production, managerial and entrepreneurial activities. The University lays great emphasis on assisting students in the development of national character, self-confidence, leadership and fostering an ecosystem for creativity and imagination.

This university was initially established with the name of Delhi Polytechnic in the year 1941 and was renamed to Delhi College of Engineering in 1965. In 2009, Delhi Technological University was reconstituted from Delhi College of Engineering by the Government of NCT of Delhi. The University has an illustrious history spanning over 79 years.

The newly established East Delhi Campus of DTU has been functional since the 2017-18 academic session. It is located at Vivek Vihar, Phase II, Delhi. This campus endeavors to provide quality education, research, and innovation in the emerging areas of management relevant to industry and society.

This premier institution is globally well-known for its outstanding education, research, and innovations. The University currently offers various inter-disciplinary and industry relevant programmes in science, technology, management, and allied areas at both the undergraduate and postgraduate level. The University has established a strong academia-industry interface and has collaborations with reputed research organizations, industries, and premier institutions. A great many alumni of the institute have excelled at home and abroad and through their contributions to the profession of engineering they have brought high honour and enhanced the dignity of engineering fraternity being rolled out from institutions in India. In fact, the DTU is a highly preferred choice of the meritorious students in the country. With its illustrious history, strong alumni power worldwide, profound contributions to the growth of quality human capital in engineering and technology and a campus vibrant with technology innovations unleashing the enormous power of creativity of the talented new generation professionals, DTU has earned the reputation of being one of the premier University of Technology in the Country.

Sustainablitiy

- Green Campus
- Zero Discharge Campus
- Sewerage Treatment Plant
- Solar Power Plant
- Organic to Wate Energy Plant

CONTENTS

ANNUAL REPORT : AT A GLANCE
2019 - 20

DEPARTMENTS/CENTRES/UNITS

Academic Departments/Centres	15
Service Centres/Other Units	09

GRANTS

Govt. of NCT, Delhi Plan Grant:
₹ 26,75,00,000

STUDENTS ADMITTED

B. Tech.	2100+178*
B. Tech. (Lateral Entry)	18
B. Tech. (Continue Edu.)	50
B.Des.	66
BBA	133
BA-ECONOMICS	128
M. Tech.	315+19*
M. Tech. (PT)	7
MBA	151
MBA (IEV)	16
MBA (BA)	21
MBA (FBE)	11
MBA (Executive)	49
M.Sc.	101
Ph.D.	232
Total	**3,595**

*supernumerary: DASA / ICCR / SII / DTU Portal / PMSS

STUDENTS STRENGTH

B. Tech.	8255
B. Tech. (Continue Edu.)	585
B.Des.	132
BBA	411
BA-ECONOMICS	373
M. Tech.	620
M. Tech. (PT)	22
MBA	325
MBA (IEV)	16
MBA (BA)	50
MBA (FBE)	11
MBA (Executive)	91
M.Sc.	101
Ph.D.	1204
Total	**12,196**

FACULTY/STAFF STRENGTH

Academic Staff	316
Non-Academic Staff	53
Total	**369**

CONSULTANCY PROJECTS

Number of Projects	30
Outlay (₹)	₹ 3,17,07,259/-
MoUs	21

SPONSORED RESEARCH PROJECTS

Number of Projects	10
Outlay (₹)	4,98,57,960/-

NUMBER OF DEGREES AWARDED

B. Tech.	1787
B. Tech. (Continue Edu.)	98
BBA	92
BA-ECONOMICS	86
M.Tech.	262
M.Tech. (PT)	21
MBA	167
MBA (BA)	27
MBA (Executive)	43
Ph.D.	64
Total	**2647**

RESEARCH PUBLICATIONS

Journals	969
Conference/Symposia	753
Patent	03
Book Chapters	80
Total	**1805**

OUR VISIONARY LEADERS

PRINCIPALS

Prof. W. W. Wood
Jan. 1941 to Aug.1946

Prof. R.G.P.S. Fairbairn
Sept. 1946 to Sept. 1949

Prof. S.C. Sen
Sept. 1949 to Dec. 1966

Prof. J. N. Moudgil
Feb. 1968 to April 1971

Prof. R. C. Narayanan
Feb. 1972 to May 1980

OUR VISIONARY LEADERS

PRINCIPALS

Prof. M. L. Mandal
June 1980 to July 1989

Prof. N. L. Sachdeva
Aug. 1999 to Feb. 2003

Prof. D. Goldar
Feb. 2003 to Aug. 2003 &
Oct. 2006 to Dec. 2007

Prof. Ashok Bhattacharyya
Jan. 2008 to Aug. 2008

Prof. P.B. Sharma
Dec. 1990 to Aug. 1999
Aug. 2003 to Oct. 2006
Aug. 2008 to July 2009

OUR VISIONARY LEADERS

HON'BLE CHANCELLORS

SHRI TEJENDRA KHANNA
July 2009 to July 2013

SHRI NAJEEB JUNG
July 2013 to Dec. 2016

SHRI ANIL BAIJAL
Dec. 2016 to till date

VICE CHANCELLORS

Prof. P.B. Sharma
July 2009 to July 2014

Prof. Pradeep Kumar
Aug. 2014 to Sept. 2015

Prof. Yogesh Singh
Sept., 2015 to till date

Vice Chancellor's **REPORT**

Delhi Technological University (Erstwhile Delhi College of Engineering) has a glorious past of more than 79 years and is widely acclaimed for its excellence in education, research & training. DTU's transformation from Delhi Polytechnic to Delhi College of Engineering and then finally to Delhi Technological University has taken an astounding shape and the autonomy granted to it has spurred progress in several uncharted territories. The various transformations have helped us to remain young and energetic in our endeavor for academic excellence.

With a history of over 79 years in providing technical education within modern educational infrastructure, DTU is an institution which defines and continues to update frontiers of Engineering. DTU is fully networked with Industrial, Academic & Scientific community. It has partnerships with leading Universities and Industries in India & abroad. DTU has the alma mater of a highly distinguished pool of World class Engineers and Technologists which includes **Vinod Dham,** the father of the Pentium Chip, **Promod Haque**, the world's most widely acclaimed Venture Capitalist, **Raj Soin**, the Avionics wizards of US & a top ranking Techno Entrepreneur, **Durgadas Agrawal**, the renowned Techno-Entrepreneur based in Houston, to name a few. Delhi Technological University has been the pioneer of Quality Technical Education, Research and Innovation.

Our University has kept the quality of education & research as its main focus of academic and Professional activities, and this has earned us a high reputation in the country and abroad. This is evident from DTU figuring several times among the Top Ten Engineering Institutions in the country, along with the prestigious IITs. Delhi Technological University, has taken several new initiatives in restructuring and strengthening its academic programmes at Postgraduate and Undergraduate levels during the years. Introduction of new programs at the postgraduate level and focus on research and development are crucial factors that have helped in the recognition of DTU as a premier University for higher learning. The University has emerged as the leading Technological University for higher technical education and research in the country. DTU continues to be the one of the most

sought-after destination for undergraduate and postgraduate studies and attracts the top performers in national examinations such as JEE (Mains) and GATE.

We are aware of the enhanced expectations of the student community and public at large and strive to live up to our image that has been so persistently built up over the years. We at DTU are committed to achieve our goals to create an environment in which we can nurture our students to be knowledgeable, innovative and trained to work unceasingly to serve the Nation and society. The development of the Nation depends upon their technical competence and work ethics that they have imbibed during their formative years as students. We are focused to keep pace with the continual progress in the fields of science and technology. The characteristics of the student population at the university are undergoing a significant change in the recent times. The university has responded pragmatically to the large increase in its intake by substantially reorienting itself academically, technologically and administratively and using it as a great opportunity to retain its leadership in engineering education in the country. The undergraduate curriculum for engineering education is designed in such a way that it introduces a new rigor and methodology in undergraduate teaching, laying emphasis on developing analytical skills and challenging the students intellectually.

Admissions

In the year 2019-20, with the initiative of Government of NCT of Delhi, admission to the B. Tech. Programmes at Delhi Technological University was conducted through common counseling, Joint Admission Counseling (JAC), along with three other technical universities/ institutes viz. Indira Gandhi Delhi Technical University for Women (IGDTUW), Netaji Subhas Institute of Technology (NSIT) and Indraprastha Institute of Information Technology Delhi (IIITD). In this way, total 2100 admissions in B. Tech. at DTU were made through common counseling, 18 in B. Tech. (Lateral Entry) and 50 admissions were made in B. Tech (Continue Education). A total of 168 students have been admitted to the category PIO/ FN/ NRI through DASA. Total of 10 students were admitted under PMSSS in B. Tech. A total of 133 students were admitted in BBA, 128 in BA-Economics (Hons.), and 66 in B. Des. In 2019-20.

690 students were admitted in post-graduate programs out of which 248 were enrolled in MBA, 341 students in M. Tech and 101 in M.Sc. In 2019-20, 232 Ph.D. scholars were admitted. All Post graduate and PhD students involved in research were given the opportunity to interact with research community at the National and International level by providing funds to attend International/ National Conferences through TEQIP-III. The research scholars are the primary beneficiary of TEQIP-III scheme, however a good number of PG and UG students have also been benefited.

Training and Placements of Students

With the mission of providing leading industries with the brightest minds of country DTU entered the 2019-20 placements seasons with confidence. The process began in June 2019 by sending invitation to companies to visit the University for pre- Placement Talks and provide their job announcements. The talks provided avenue for interaction and familiarization of students with the recruiting organizations and their work profile. In academic year 2019-20, a total of 296 organizations took part in campus placements and offered 1545 jobs to B. Tech. students. Highest salary package offered was 1.07 Crores per

annum. Students from B. Tech., M. Tech, MBA programs in various fields of engineering and technology, also participated in the placement process.

Choice Based Credit System (CBCS) has been introduced in the curriculum by the University. The choice-based credit system features a broad-based, flexible education system and at par with global standards. This system allows the students to select among various courses including Foundation courses, Foundation Elective courses, Departmental Core courses, Allied Engineering courses, Industrial Training and Projects, University Elective courses and Departmental Elective courses.

Foundation Elective Courses include Skill & Capability enhancement courses, Personality development courses, Personality development courses, Ethics and values related courses, Foreign & Indian language related courses, Sport related courses.

Departmental Elective Courses are offered where students can select course from any department/ discipline or MOOC's from various online platforms such as NPTEL, Coursera, etc.

The University Student Internship Program (USIP) has awarded paid internship for academic and administrative support work. The mobile application based online attendance monitoring system has been put in place for better monitoring and engagement of students.

Continuing Education and Outreach Programmes

Continuing Education Programme (CEP), Quality Improvement Programme, Curriculum Development Programme and Faculty Development Programme (FDP) activities continued to attract wide interest from industry, academia and from our own faculty. The CEP courses at DTU, aim at working professionals, and have sustained its significant activities despite the challenging industrial scenario prevailing throughout this period. The FDP programs, sponsored by TEQIP-III at DTU are meant for faculty. These courses are very popular, and a large number of college teachers are benefited from them. With a view of having more interactions between industry professionals and teachers, special attempts have been made to open up the FDP programs to college teachers and industry professionals. This has been found to be a very worthwhile experience for the teachers and the industry personnel. As per the career advancement scheme implemented in this session, numerous promotions have been granted.

The University has established Center of Outreach and Extension activities with an aim to organize a variety of activities for promoting public awareness. Several schemes based on social entrepreneurship have been implemented by the University. The schemes will include Digital literacy, E-waste collection, Water filtration units set up, Health camps, Blood donation camps, Organ donation camps, Cloth donation camps, awareness camps on depression and thalassemia, training workshops for acid attack survivors, skill development for women, recycling of biodegradable waste into useful manure and cleanliness drive. Recently DTU has adopted five villages in college vicinity under the Unnat Bharat Abhiyan.

In addition to it the National Service Scheme (NSS), NSS-DTU provides extended dimension to the higher education system and orient the students towards community service while they are studying in the institution, and to establish a meaningful linkage between the campus and the community.

Center of Human Resource Development has been established which aims to upgrade and enhance the skills and knowledge of faculty at DTU.

Faculty Centric Policies

Professional Development Fund was granted to faculty with initial grant of 2 Lakhs for facility creation and 2 Lakhs grant in every three years for attending conferences, workshops and training programs. Career Advancement Scheme is done on continuous basis. Various awards for Excellence in Teaching was given also Institution of Adjunct Professorship & Professor for lifetime was awarded. Awards for Excellence in Research were also given to the various researchers: Outstanding Research Award (Cash Prize INR 5,00,000/-) & Commendable Research Award (Cash Prize INR 50,000/-). 70 Researchers have been awarded the coveted prize in 2019-20.

Campus Infrastructure Development

In order to cope with the increased need of the students w.r.t their hostels, a proposal for construction of buildings under 'Phase-II Construction at DTU Campus' at a cost of ₹291.88 Crore has been submitted to the government which covers construction of one boys and two girl's hostels for 990 students, two academic blocks for 3000 students. Organic Waste to Energy Plant, largest in educational institute of North India has been recently developed with capacity of 1 TPD. A new building is being developed for Delhi School of Management. A Single Storied Block, Multi-purpose Hall (SPS Type), to accommodate 3,000 persons at a time is under construction. Double storied Design Centre, SPS Building, is under construction. Double Storied Faculty Block which will provide 30 number of faculty offices is under construction. Sewerage Treatment Plant (STP) Waste on Bio-Filter having capacity of 1 M.L.D (Million Litre per Day) is under construction. Solar power plant of capacity 432 Kwp has been installed for power generation at DTU Campus and it is best in terms of technological parameters currently available commercially as per MNRE guidelines. The plant is installed at roof top and it covers an area of 7050 Sq mtrs. The plant through LT power feeds to electrical, electronics, mechanical, science and civil blocks of the campus.

DTU Studio

The Television Studio at Delhi Technological University is an example of Innovation and Industry Academia Collaboration. The spacious television studio can handle Pre-Production, Production and Post-Production activities for various activities like Interview, Panel Discussion, short plays, lectures, etc. DTU Studio comprises of a multi camera setup with lighting grids and a Teleprompter, Production control room with control panels which can handle multiple video and audio sources online and offline, Graphics and special effects generators, video edit suites with a Mac equipped with Final Cut Pro Video Editing software, Motion, Live-Type, EDIUS 9.0 video editing software and Photoshop CS6, etc. Our experienced and competent team of professionals renders these services by making use of ultra-modern technology with quality standards in tandem with exact requirements and necessities as required. The students of Delhi Technological University are engaging in a whole range of In-house and Outdoor production activities.

Sports and Gymnasium

The students of Delhi Technological University are provided with excellent facilities and encouraged to take part in the tournaments held in and around NCR Delhi, particularly,

engineering institutions. Delhi Technological University is having 400 m running track, ground for Football, Hockey, Cricket, two courts for Volley Ball, two courts for Basketball, three courts for Tennis and five courts for Badminton, Three Kabaddi courts, Indoor Games facilities are also provided i.e. Table Tennis rooms, Chess rooms, Carom rooms and Gyms are also available in each hostel of the DTU campus. In 2019-20, basketball court, tennis court and volleyball court have been reconstructed. Cricket ground maintenance is done and cricket practice nets have been installed. A new indoor hall for table tennis and badminton has been opened. Total 8 new coaches (Athletics: 01, Cricket: 01, Badminton: 01, Kabbadi: 01, Football: 01 & Volleyball: 03), 1 Gym trainer and two grounds men have been appointed. Sports council of DTU has organised several tournaments during 2019-20 academic sessions through a new sport fest named as AAHVAAN.

Health Centre

The DTU is having a modest Health Centre managed by well experienced doctors. Services of five medical practitioners are available to the students throughout day and evening. The University health centre is also visited by specialized medical practitioners for ENT, Eye, Dental care etc. for expert advice and treatment. University is also having tie up with nearby leading hospitals for emergency. A large number of hospitals are in the vicinity of the University; some of them are Dr. Bhim Rao Ambedkar Hospital, Saroj Hospital, Mahavir Hospital, Jaipur Golden Hospital, and Satyam Hospital etc. A new sports medicine-cum-physiotherapy centre has been added to provide the necessary expert advice. The following Doctors engaged in the university health centre. New doctors are engaged in the departments of Gynecology: Dr. Nishi Jha, Psychiatry: Dr. Gaurav Gupta and Clinical Psychology: Dr. Neha Golchha. Two qualified new nursing staffs (One Male and One Female) are deputed to provide adequate nursing facility to all the stake holders viz., students, faculty staff etc.

DTU Innovation and Incubation Foundation

DTU Innovation and Incubation Foundation (DTU IIF) was established in 2016, pursuant to subsection (2) of section 7 of the Companies Act, 2013 and rule 8 of the Companies (Incorporation) Rules, 2014. Currently 27 start-ups are being incubated in DTU IIF. Students can start their own industry with infrastructural, expert and monetary support from the university. There is a special pool of experts that helps the enterprise stand on its own feet. Initial seed funding is provided by the university. Also, students are encouraged to float their entrepreneurship career for two years through an Entrepreneurial track. If they are not satisfied with their enterprise, they are eligible for interviews and placements. In the year 2019-20 total 4 Start-ups were incubated in DTU IIF.

National and International Collaborations

The DTU has signed 21 MoUs in 2019-20 with various universities, institutions and organizations.

- EPF, ÈCOLE D INGÈNIEUR – E – S, France
- Balitar Islamic University, East Java, Indonesia
- Dr. Soetomo University, Surabaya, Indonesia
- Mandala College of Economics, East Java, Indonesia

ix

- PGRI Adi Buana, East Java, Indonesia
- STIE Wilwatikta, East Java, Indonesia
- STIKI Malang, East Java, Indonesia
- STTM, East Java, Indonesia
- Universitas Wisnuwardhana Malang, East Java, Indonesia
- University of Kanjurahan, East Java, Indonesia
- University of Pesantren Tinggi Darul'Ulum, Jombang Indonesia
- Widya Kartika University, Surabaya, Indonesia
- PGRI, Madiun
- STT Atlas Nusantara, Malang
- Nanjing University of Aeronautics & Astronautics, China
- Universitas Mercu Buana, Jakarta, Indonesia
- La Trobe University, Victoria, Australia
- Technical University of Crete, Chania, Crete, Greece
- University of Transport Technology, Vietnam
- National Formosa University, Taiwan
- Mapua University, Philippines

Engagement with Alumni

Recent Activities of Alumni Office included the Homecoming Meet for the Golden Jubilee batches which was organized during 10th and 11th January, 2020 with over 160 attendees.

Our Alumni has donated in big way in the year 2019-20. Dr. Bhuvenesh C. Goswami, graduated in 1959, contributed an amount of ₹5,00,000 in 2020. A scholarship from the year 2020 has been started in the name of Goswami Brothers Scholarship to help the meritorious students of the university.

TEQIP–III: A World Bank Project

TEQIP-III Project started in DTU in July 2013 with an overall funding of ₹ 12.5 Crore. The main objectives of TEQIP-III project are to strengthen PG education, research and innovation, promote industry partnership in education and research, and build quality faculty capacity. Delhi Technological University has been selected as Mentor Institute for the TEQIP-III Project for Mentee Institute is Madhav Institute of Technology and Science, Gwalior is w.e.f. 01.04.2017 and shall conclude by 30th September, 2020.The institute is covered under Sub-component 1.3: Twinning Arrangements to Build Capacity and Improve Performance.

The main objectives of TEQIP-III Project at DTU are:

- Procurement of Goods (equipment, furniture, books LRs, software and minor items) and minor civil works for improvement in teaching, training and learning facilities System-level initiatives to strengthen sector governance and performance which include widening the scope of Affiliating Technical Universities (ATUs) to improve their policy, academic and management practices towards affiliated institutions;
- Improvement in Teaching, Learning and Research competence:

x

- Improve student learning
- Student employability
- Increasing faculty productivity and motivation
- Establishing a twinning system

- Twining arrangements with institutions under Sub-component 1.1 to build capacity and improved performance

- Individual institutional mentors

Cultural, Sports and Technical Festivals

The university not only concentrates on academic activities, but also gives emphasis on an all-round development of its students. The university has therefore, created excellent infrastructure for a variety of co-curricular and extracurricular activities and various technical societies are functioning in the University under the faculty advisors and mentors. The DTU-SA along with its different technical societies of various departments generally plan, organize and manage the various student activities throughout the year. The various societies working in the University are: Computer society of India, DTU Chapter, The Institution of Engineering and Technology, IET, DTU Chapter, Robotics Society, SR-DTU, IEEE, DTU, Society of Manufacturing Engineering, DTU, SAE, DTU Chapter, ASME, DTU Chapter, International Society for Optical Engineering (SPIE), Society for Experimental Mechanics (SEM), American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), DTU Chapter, Society of Plastics Engineers (SPE) DTU, American Society of Civil Engineers (ASCE), DTU Chapter and Society for Environmental Engineering, DTU. The various societies have organised their annual function in Jan-Feb, 2020 and later they have also organised the Technical festival from in February, 2020. The cultural spectacle started with inauguration ceremony, a gracious beginning to the highest on energy fest.

Engifest'20

The much-awaited Engifest 2020 with the theme "A Utopian Escapade" was held from 14th-16th February. As our vision was to make it bigger than it ever was, preparations were started from November only. The three-day fest was a plethora of activities ranging from electrifying to dance performances to heart wrenching drama. True to its spirits, Engifest 2020 provided a platform to students from all over India to discover their passion and showcase their talent. As the COVID-19 Pandemic spread, to boost morale among quarantined students across the subcontinent, Team Engifest and DTU Cultural Council came up with the idea of Engifest 2.0 - Quarantine Edition. A, first of its kind, 3-day online cultural extravaganza was organized by the Cultural Council from 22 May to 24 May 2020. It was a grand renaissance to the idea of online concerts, providing the luxury and thrill of concerts and events all brought to the audience at the comfort of their homes.

Aahvaan'20

Aahvaan 2020 was organized from 21st-23th of February 2020. The opening ceremony held in the Sports Complex, DTU. Around 2500 participants took part in Aahvaan this year with more than 200 people staying inside the campus and bonding with each other both on and off field.

E-Summit'20

E-Summit 2020 was organised from 30th January to 1st Feburary 2020. It saw a participation of over 16,000+ dynamic entrepreneurs and students from across the country. Leadership Lecture Series was organised with speakers such as Mr. Adarsh Nair, Mr. Alok Goel, Youtubers RJ Abhinav, Slayy Point and Comedian Kenny Sebastian. Startup Internship Fair was also organized which saw a participation by more than 1000 students in various Companies and Startups.

Adapting to the COVID 19 Situation

The outbreak of a global pandemic caught everyone by surprise. The world witnessed an unprecedented crisis and even in such times DTU continued its tradition of staying ahead in innovation by becoming one of the first and few academic institutions of the country to develop an online system for assessment of students. These exams were the first exams in the entire country to be proctored by AI as well as manual invigilation. The innovative efforts of DTU were praised by everyone.
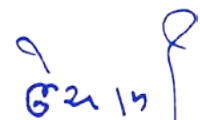
DTU Ranking

According to NIRF Ranking 2020, DTU has been awarded the 36th Rank in Engineering Colleges of India. In the Times Engineering Survey, DTU has been ranked on the 1st position among 155 Engineering Institutes. India Today Survey of 2020, ranks DTU at 9th place among all the engineering institutions of India. Outlook India ranks DTU at 17th spot out of 150.

Acknowledgment

DTU is grateful to the financial support provided by GNCTD, MHRD, DST, AICTE, UGC, CSIR, DBT and DRDO. My sincere thanks to all the faculty members, employees, students and alumni for their devotion and hard work invested in DTU. Over the years, DTU has contributed significantly to the national cause of providing excellent technical education and will continue with this same tradition in the coming years. I am deeply indebted to the Hon'ble Chancellor, Shri Anil Baijal, Lieutenant Governor of NCT of Delhi, Hon'ble Shri Arvind Kejriwal, Chief Minister, Hon'ble Shri Manish Sisodia, Deputy Chief, Minister, and Minister of Higher and Technical Education, for their guidance, support and co-operation which enables DTU to attain its goal. I take this opportunity to thank the Chief Secretary, Principal Secretary (Finance) and Secretary (Higher Education) and Director TTE, for their incessant cooperation by providing grants for the development of DTU. My sincere gratitude to the Members of Board of Management, Finance Committee, Planning Board, Academic Council, Finance Committee and other Committees of DTU for their valuable contribution which enables DTU to achieve its mission. I compliment the Editorial team for their untiring efforts which was invested in compiling this report.

With best wishes,

Prof. Yogesh Singh
(Vice Chancellor, DTU)

Ranking of India's best Engineering Institutions
NIRF, India Today, Times, Outlook Ranking

	2015	2016	2017	2018	2019	2020
NIRF			39	41	34	36
India Today	5	5		7	8	9
Times	8	7	5	5	2	1
Outlook	13	13	14	13	17	15
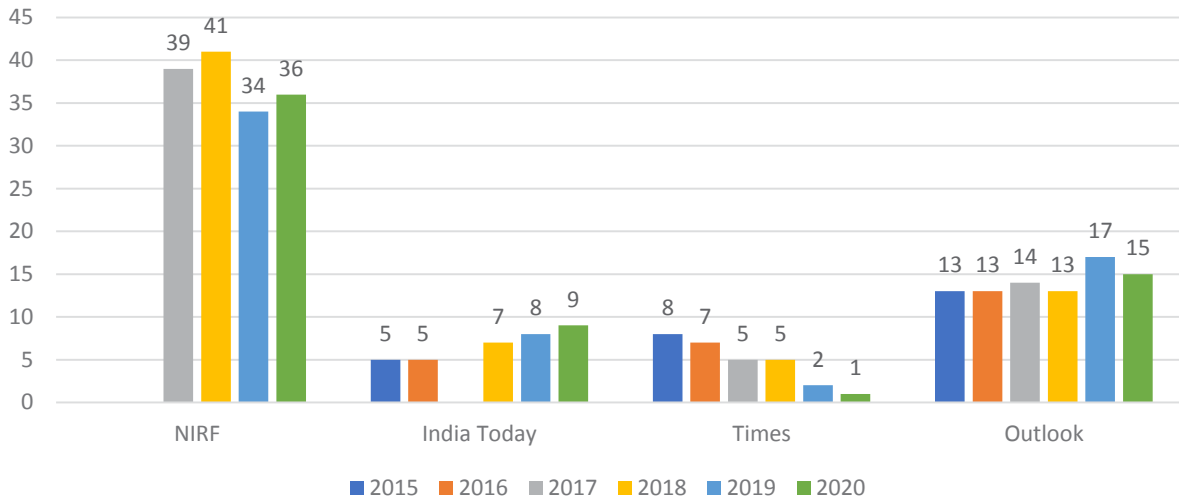
Year-wise Comparison of Scopus-Indexed Publications

Year	Number of publications
2013	302
2014	336
2015	345
2016	525
2017	548
2018	665
2019	969
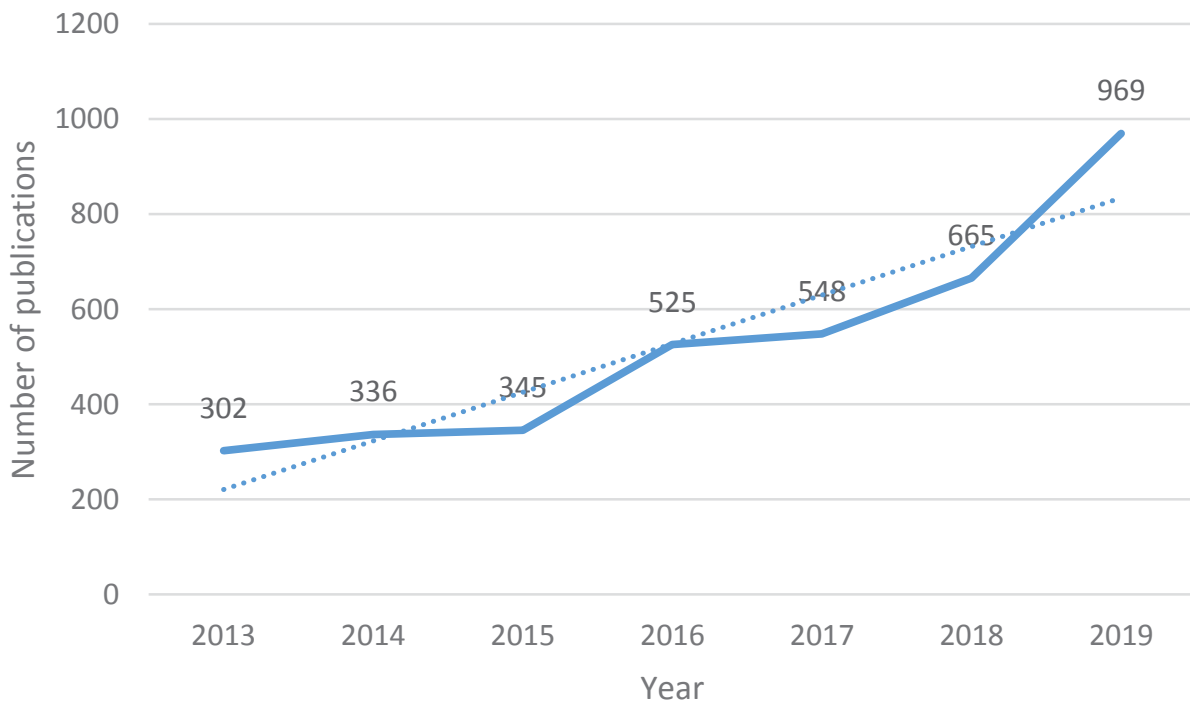
Citation Analysis of Publications (As per data collected from Scopus)

Number of citations

Year	Citations
2013	1849
2014	2375
2015	2922
2016	4024
2017	4981
2018	6613
2019	9661
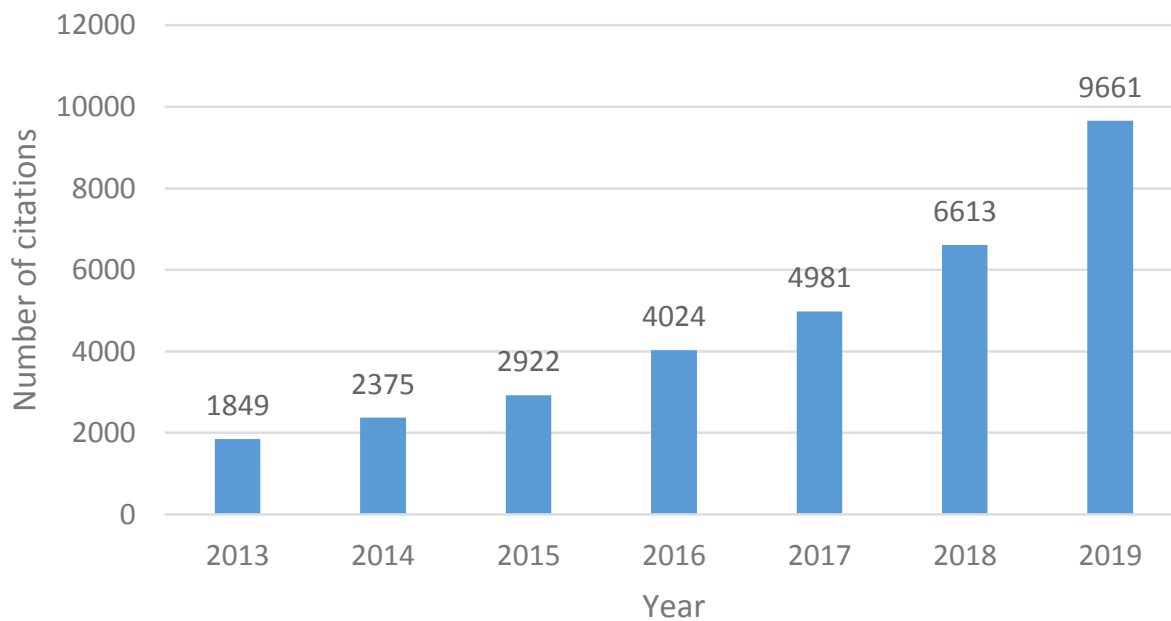
H-index of University (as reported by Scopus): 79

Year-wise h-index of University (as reported by Scopus)

h-index (as reported by Scopus)

Year	h-index
2016	34
2017	44
2018	60
2019	69
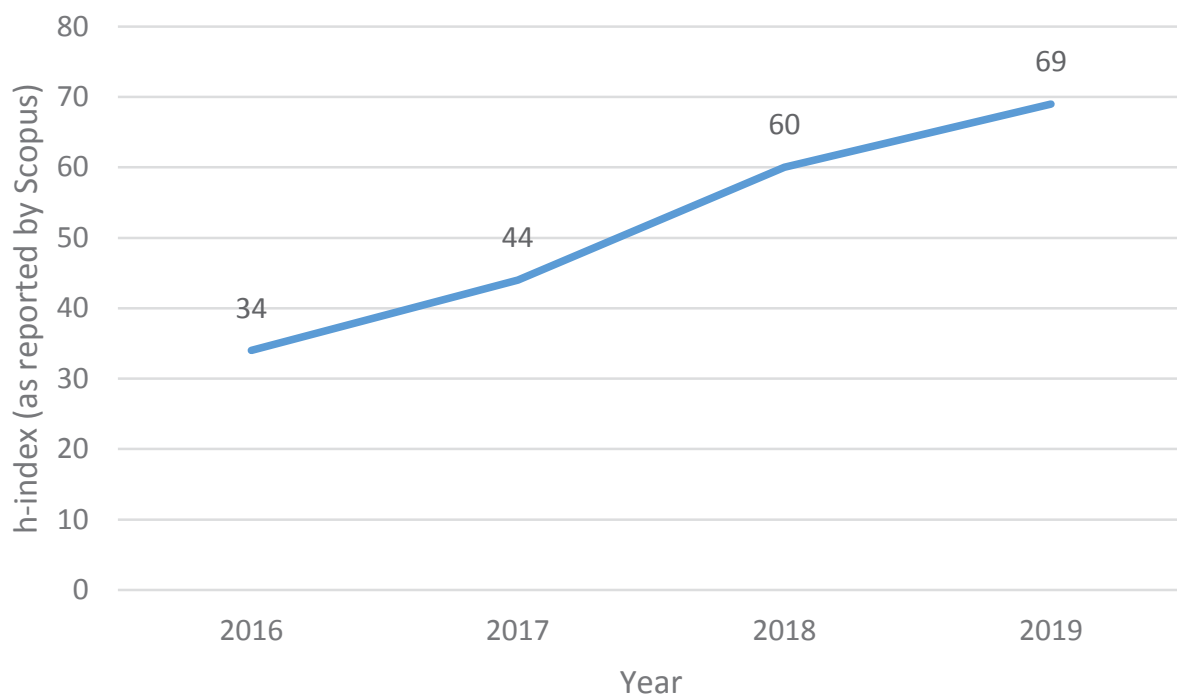
Year

Number of Students Admitted in the University

	2015-16	2016-17	2017-18	2018-19	2019-20
UG	1726	1934	2471	2566	2673
PG	474	439	514	543	690
Ph.D	36	184	211	227	232

No. of Students Admitted
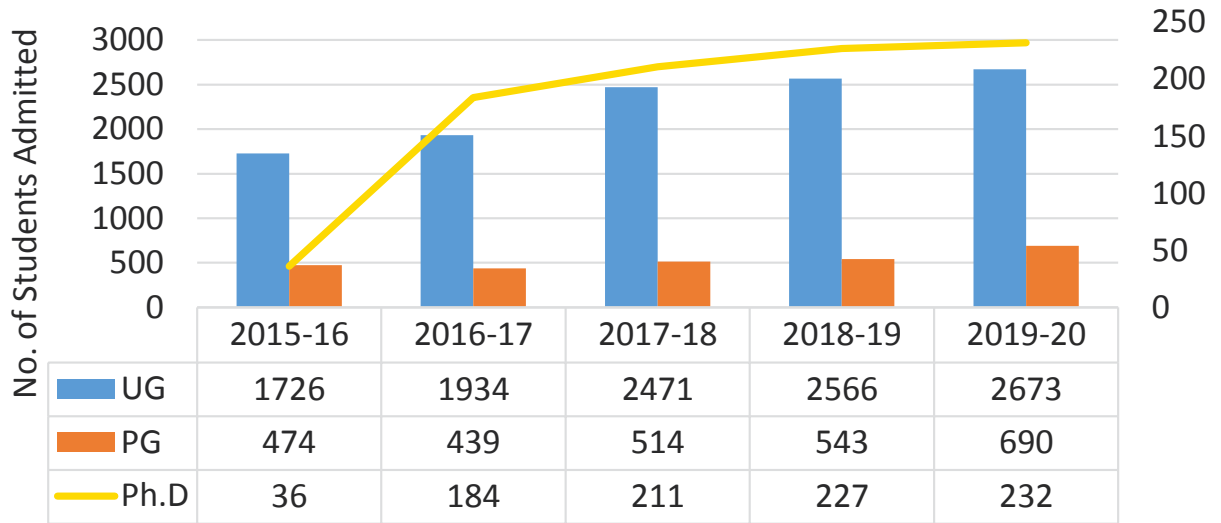
Students Growth at the Campus

	2015-16	2016-17	2017-18	2018-19	2019-20
Students #	8612	8850	9780	11019	12196

No. of Students
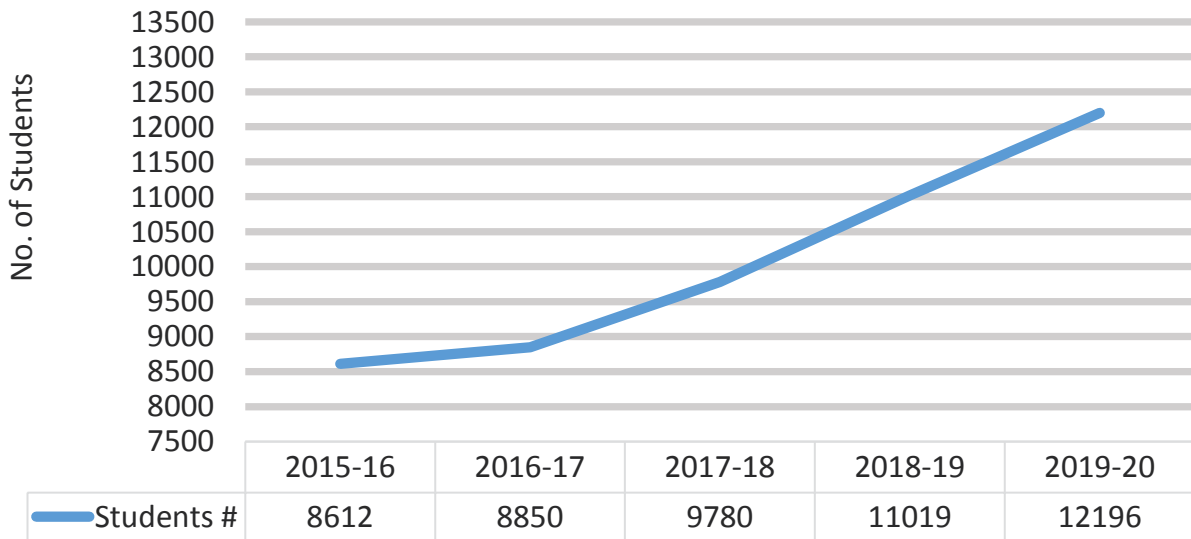
Placement Data of B.Tech. Program

	2015-16	2016-17	2017-18	2018-19	2019-20
No. of Offers	1025	1122	1053	1306	1344
No. of Companies Visited	261	268	292	323	296
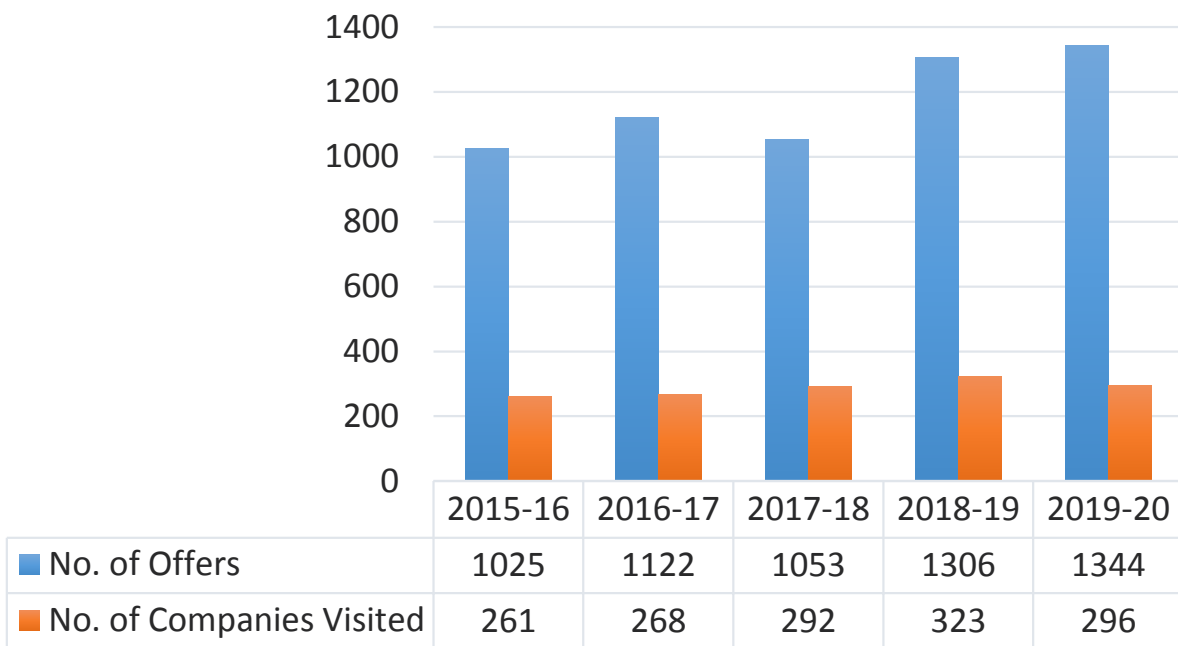
Year-wise Number Students Graduated from the University

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
UG	1534	1605	1664	1648	1637	2063
PG	490	510	382	390	446	520
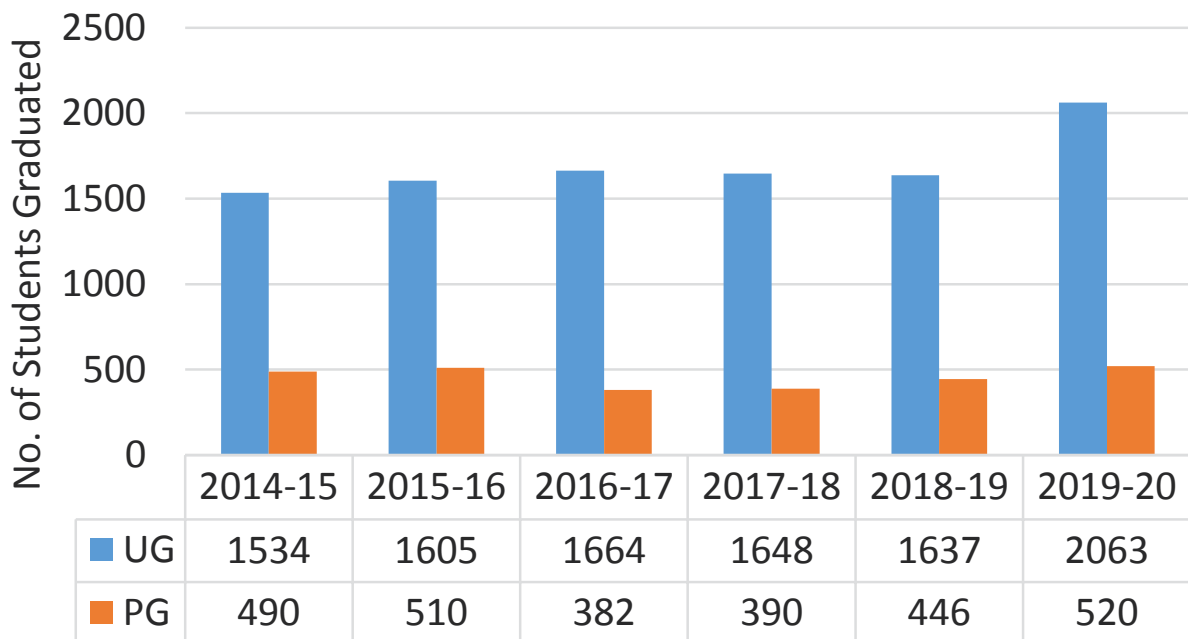
Year-wise Number of Faculty at the University

	2015	2016	2017	2018	2019
Professor	69	84	90	92	104
Associate Professor	69	55	50	52	51
Assistant Professor	56	73	104	127	161
Total	194	212	244	271	316
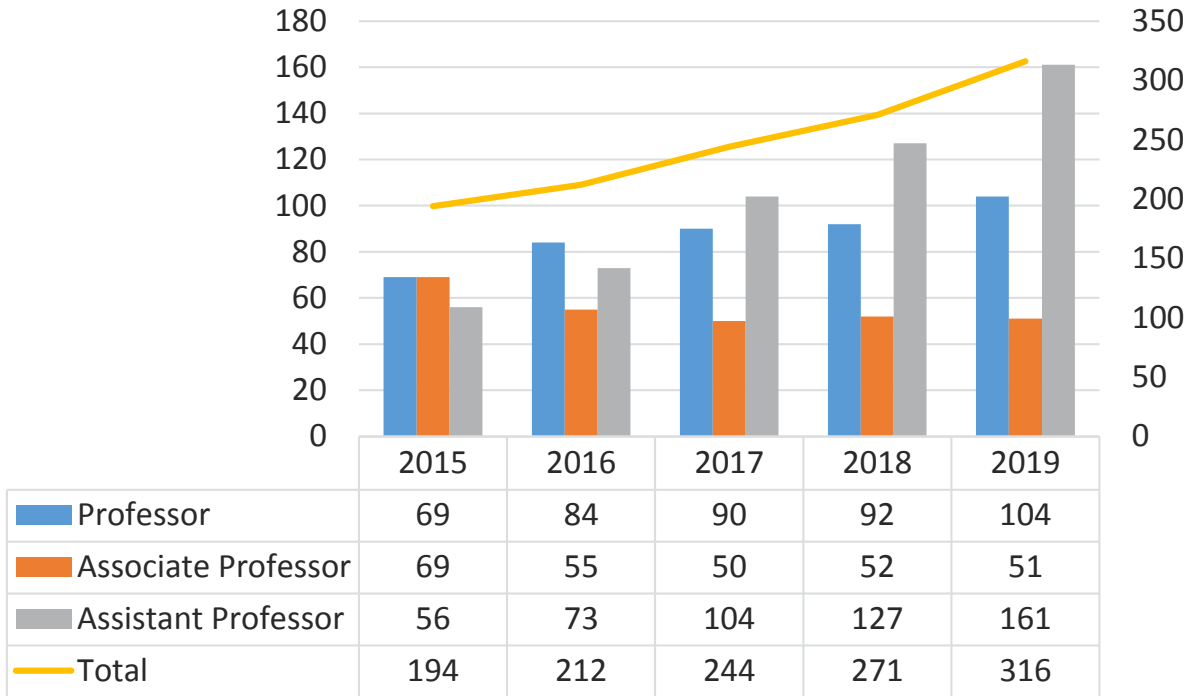
Number of Ph.D Degrees Awarded (As per convocation year)
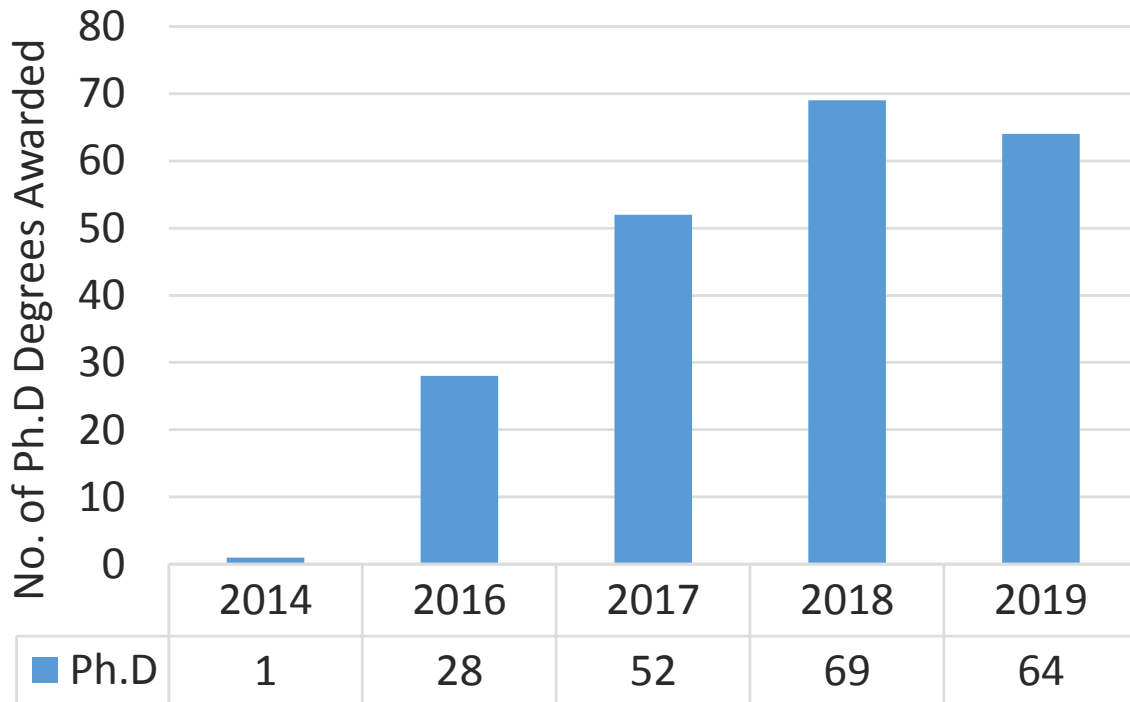
	2014	2016	2017	2018	2019
Ph.D	1	28	52	69	64

Orientation, 2019

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

Convocation, December, 2019

Research Excellence Awards, March 2020

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

Republic Day 2020

International Yoga Day 2020

YUVAAN, January, 2020

World Students' Day, October 2019

Independence Day 2019

1 Organization and Administration

1.1 University Court

S. No.	NAME	Designation	Position in the Court
1	Sh. Anil Baijal	Hon'ble Chancellor/L.G., Delhi	Chairperson
2	Prof. Yogesh Singh	Vice Chancellor, Delhi Technological University	Member
3	Principal Secretary/ Secretary (Finance)	Govt. of NCT of Delhi, Delhi Secretariat, I.P. Estate, New Delhi 110002	Member
4	Principal Secretary/ Secretary (Training and Technical Education)	Govt. of NCT of Delhi, Muni Mayaram Marg, Pitam Pura, Delhi 110088	Member
5	Principal Secretary/ Secretary (Higher Education), Directorate of Higher Education	Govt. of NCT of Delhi, B-Block, 5, Sham Nath Marg, Delhi-110054	Member
6	Prof. Anil K. Tyagi	Vice Chancellor, Guru Govind Singh Indraprastha University, Sector 16 C, Dwarka, Delhi 110078	Member
7	Prof. Parimal H. Vyas	Vice Chancellor, Maharaja Sayajirao University of Baroda, Pratapgunj, Vadodra, Gujarat - 390002	Member
8	Prof. Saibal Chattopadhyay	Ex-Director, Indian Institute of Management-Kolkata, Diamond Harbour Road, Joka, Kolkata, West Bengal 700104	Member
9	Prof. Lalit Awasthi	Director, National Institute of Technology, Grand Trunk Road, Bye pass, Jalandhar, Punjab 144011	Member
10	Prof. M.N. Doja	Director, Indian Institute of Information Technology, Sonepat	Member
11	Prof. Bhim Singh	Deptt. of Electrical Engineering, IIT, Hauz Khas, Delhi 110016	Member
12	Prof. Rajive Kumar	Advisor-I, P & AP Bureau, AICTE, Nelson Mandela Marg, Vasant Kunj, New Delhi 110067	Member
13	Prof. Samsher	Registrar, Delhi Technological University	Member Secretary

1.2 Board of Management

S. No.	NAME	Designation	Position in the Board
1	Prof. Yogesh Singh	Hon'ble Vice Chancellor, Delhi Technological University	Chairperson
2	Sh. Rajeev Verma	IAS, Principal Secretary (Finance), Govt. of NCT of Delhi, Delhi Secretariat, I.P. Estate, New Delhi-110002.	Member

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	NAME	Designation	Position in the Board
3	Ms. Manisha Saxena	IAS, Secretary (T.T.E.) & Secretary (Higher Education), Govt. of NCT of Delhi, Muni Maya Ram Marg, Pitam Pura, Delhi 110088	Member
4	Prof. Parimal H. Vyas	Vice Chancellor, Maharaja Sayajirao University of Baroda, Vadodra, Gujarat 390002	Member
5	Prof. I.K. Bhat	Vice Chancellor, Manav Rachna University, Sector 43, Aravali Hills, Faridabad, Haryana 121004	Member
6	Prof. Rajeev Tripathi	Director, Motilal Nehru National Institute of Technology Allahabad, Teliargunj, Prayagraj, Uttar Pradesh 211004	Member
7	Prof. Madhusudan Singh	Dean, Academic (UG), Delhi Technological University	Member
8	Prof. A. Trivedi	Dean, Industrial Research and Development, Delhi Technological University	Member
9	Prof. R. S. Mishra	Professor, Mechanical Engg. Department, Delhi Technological University	Member
10	Prof. Narendra Kumar (II)	Professor, Electrical Engg. Department, Delhi Technological University	Member
11	Prof. Samsher	Registrar, Delhi Technological University	Member Secretary

1.3 Academic Council

S. No.	Name	Designation	Position in the Academic Council
1	Prof. Yogesh Singh	Delhi Technological University	Chairperson
2	Prof. Smriti Srivastava	Professor of Computer Engineering, Head Division of ICE, NSIT, Delhi	Member
3	Prof. Tarun Das	Professor of Mathematics and Registrar, University of Delhi	Member
4	Prof. Surendra Yadav	Professor of Management, IIT, Delhi	Member
5	Dr. Bhim Singh	CEA Chair Professor & Head, Deptt. of Electrical Engineering, Indian Institute of Technology, Delhi	Member
6	Sh. Lokesh Mehra	A-166, Ground Floor, Sarita Vihar, New Delhi 110076	Member
7	Prof. S.G. Deshmukh	Professor, Mechanical Engineering, IIT Delhi, Hauz Khas, Delhi	Member
8	All Deans & HODs	Delhi Technological University	Member

S. No.	Name	Designation	Position in the Academic Council
9	Prof. Rakesh Kumar	Professor, Civil Engineering Department	Member
10	Prof. Narendra Kumar-I	Professor, Electrical Engineering Department	Member
11	Prof. Naveen Kumar	Professor, Mechanical Engineering Department	Member
12		Controller of Examinations, Delhi Technological University	Member
13	Sh. Neeraj Kumar Bhagat	Associate Professor, Elect. Engineering Department	Member
14	Dr. M. Jayasimhadari	Assistant Professor, Applied Physics Department	Member
15	Prof. Samsher	Registrar, Delhi Technological University	Member Secretary

1.4 The Planning Board

S. No.	NAME	Designation	Position in the Board
1	Prof. Yogesh Singh	Vice Chancellor, Delhi Technological University	Chairperson
2	Prof. S.K. Garg	Pro Vice Chancellor, Delhi Technological University	Member
3	Padma Shri Prof. Pritam Singh	(Former Director, IIM, Lucknow), A-14, PWO Complex, Sector 43, Gurugram, Haryana 122001	Member
4	Prof. Prem Vrat	Pro-Chancellor, NorthCap University, Sector 23-A, Gurugram, Haryana 122017	Member
5	Prof. I.K. Bhat	Vice Chancellor, Manav Rachna University, Sector 43, Faridabad, Haryana 121004	Member
6	Prof. J.P. Saini	Vice Chancellor, Netaji Subhash University of Technology, Sector 3, Dwarka, Delhi 110078	Member
7	Prof. Anu Singh Lather	Vice Chancellor, Ambedkar University Delhi, Lothian Road, Kashmere Gate, Delhi 110006	Member
8	Prof. Samsher	Registrar, Delhi Technological University	Member Secretary

1.5 Finance Committee

S. No.	NAME	Designation	Position in the Committee
1	Prof. Yogesh Singh	Vice Chancellor, Delhi Technological University	Chairman
2	Principal Secretary/ Secretary (Finance)	Govt. of NCT of Delhi, Delhi Secretariat, I.P. Estate, New Delhi 110002	Member

S. No.	NAME	Designation	Position in the Committee
3	Principal Secretary/ Secretary (Training and Technical Education)	Govt. of NCT of Delhi, Muni Mayaram Marg, Pitam Pura, Delhi 110088	Member
4	Prof. I.K. Bhat	Vice Chancellor, Manav Rachna University, Sector 43, Faridabad, Haryana 121004	Member
5	Prof. S. K. Garg	Pro Vice Chancellor, Delhi Technological University	Member
6	Prof. Samsher	Control of Finance/Registrar, Delhi Technological University	Member Secretary

1.6 Internal Quality Assurance Cell (IQAC)

S. No.	Name	Designation
1	Prof. Yogesh Singh, Vice Chancellor	Chairperson
2	Prof. S.K. Garg, Pro Vice Chancellor	Member
3	Prof. Anu Singh Lather, Vice Chancellor, Ambedkar University	Member
4	Prof. H.C. Taneja, Dean (PG)	Member
5	Prof. Madhusudan Singh, Dean (UG)	Member
6	Prof. A. Trivedi, Dean (IRD)	Member
7	Prof. Nirendra Dev, HoD (Civil Engineering)	Member
8	Prof. Neeta Pandey, Deptt. of Electronics & Communication Engineering	Member
9	Prof. V.K. Minocha, Deptt. of Civil Engineering	Member
10	Prof. Samsher, Registrar	Member
11	Prof. S.G. Deshmukh, Director, IIITM Gwalior	External Expert Member
12	Sh. Sanjeev Kumar Gupta, Managing Director (Corporate Affairs), Accenture Services pvt. Ltd., Gurgaon	External Expert Member
13	Sh. Arun Gupta, Alumni, C-10/6, Sector-17, Rohini, Delhi	External Expert Member
14	Prof. M.M. Tripathi, Dept. of Electrical Engineering, Director (IQAC)	Member Secretary
15	Dr. Nilam, Associate Director (IQAC)	Special Invitee
16	Dr. Grish Kumar, Associate Director, IQAC	Special Invitee

S. No.	Name	Designation
17	Dr. Shilpa Pal, Associate Director, IQAC	Special Invitee
18	Mr. Sanjay Patidar, Assistant Director, IQAC	Special Invitee
19	Sh. Kamal Pathak, Controller of Examination	Special Invitee
20	Sh. D.P. Dwivedi, Consultant (Finance & Planning)	Special Invitee

1.7 Administration

S. No.	NAME	Designation
1	Prof. Yogesh Singh	Vice Chancellor
2	Prof. Ashutosh Trivedi	Dean, Industrial Research & Development
3	Prof. S.C. Sharma	Dean, Academics (Postgraduate Studies)
4	Prof. Madhusudan Singh	Dean, Academics (Undergraduate Studies)
5	Prof. S. Indu	Dean, Student Welfare
6	Prof. Vishal Verma	Dean, International Affairs
7	Prof. Samsher	Dean, Continuing Education
8	Prof. R.S. Mishra	Dean, Extension & Outreach
9	Prof. Rajesh Rohilla	Dean, Alumni Affairs
10	Prof. Narendra Kumar - II	Dean, Student Discipline & Chief Warden
11	Prof. Samsher	Registrar
12	Sh. Kamal Pathak	Controller of Examinations
13	Sh. R.K. Shukla	Librarian, OSD (East Delhi Campus)
14	Prof. S.G. Warker	HOD, Applied Chemistry
15	Prof. Sangita Kansal	HOD, Applied Mathematics
16	Prof. Rinku Sharma	HOD, Applied Physics
17	Prof. Jai Gopal Sharma	HOD, Bio Technology
18	Prof. Nirendra Dev	HOD, Civil Engineering
19	Prof. Rajni Jindal	HOD, Computer Science & Engineering
20	Prof. Rajan Yadav	HOD, Delhi School of Management
21	Prof. Ranganath M. Singari	HOD, Design
22	Prof. N.S. Raghava	HOD, Electronics and Communication Engineering
23	Prof. Uma Nangia	HOD, Electrical Engineering

S. No.	NAME	Designation
24	Prof. S.K. Singh	HOD, Environmental Engineering
25	Prof. Nand Kumar	HOD, Humanities
26	Prof. Kapil Sharma	HOD, Information Technology
27	Prof. Vipin	HOD, Mechanical & Production Engineering
28	Prof. R. C. Sharma	HOD, University School of Management & Entrepreneurship, East Delhi Campus
29	Prof. Rajesh Rohilla	HOD, Training & Placement
30	Prof. Naokant Deo	OIC, B.Tech. (Evening)
31	Ms. Divya Narayan	HOD, Computer Centre/Chief Operating Officer
32	Prof. M.M. Tripathi	Director, IQAC
33	Prof. Rachana Garg	Director, Equal Opportunity Cell
34	Prof. Nirender Dev	Director, HRDC
35	Prof. Dinesh Kumar	OSD (Recruitment)
36	Prof. Vijay Gautam	Director, Centre for Competitive Examination
37	Prof. Raj Kumar Singh	OIC, Workshop
38	Dr. Geeta Singh	OIC, Store Purchase
39	Prof. A.K. Gupta	Chief Vigilance Officer
40	Dr. Manoj Sharma	Deputy Director (East Delhi Campus) & CEO, DTU, IIF
41	Prof. Neeta Pandey	Coordinator, TEQIP – III
42	Sh. Rajesh Birok	OIC, Health Centre
43	Prof. Rajeshwari Pandey	Associate Dean, Academics (Undergraduate Studies)
44	Prof. S.G. Warker	Associate Dean, Continuing Education
45	Prof. Amit Srivastava	Associate Dean, Extension & Outreach
46	Dr. Ruchika Malhotra	Associate Dean, Industrial Research & Development
47	Dr. Rishu Chaujar	Associate Dean, Academics (PG Studies)
48	Dr. Ram Singh	Associate Dean, Student Welfare
49	Dr. Roli Purwar	Associate Dean, International Affairs
50	Dr. Yasha Hasija	Associate Dean, Alumni Affairs
51	Dr. Nitin Puri	Security Officer & Transport Officer
52	Sh. D.P. Dwivedi	Consultant (Planning & Finance)
53	Sh. A.K. Srivastava	Director (Physical Education)

1. ORGANIZATION AND ADMINISTRATION

S. No.	NAME	Designation
54	Sh. Anoop Lather	Consultant (Youth & Cultural Affairs) & PRO
55	Sh. Bimal Jain	Chief Project Officer / Estate Officer
56	Sh. Nand Kishore	Deputy Registrar (Finance)
57	Dr. Ravinder Kaushik	Deputy Registrar, Establishment, Legal, PIO
58	Sh. Anil Kumar	Deputy Registrar, General Administration
59	Sh. Jitendra	Deputy Registrar, Establishment, Pension
60	Sh. Madhukar Cherukari	EDP Manager
61	Sh. Piyush Vaish	Knowledge Network Management
62	Dr. Vivek Tripathi	Assistant Registrar, INT. Affairs
63	Dr. Lokesh Garg	Assistant Registrar (on Deputation to AU)
64	Sh. Jasbir Singh	Sr. A.O. Accounts Branch (Deputation Basis)
65	Sh. Jaspal Singh	Sr.AO/DDO, Accounts Branch (On Deputation)
66	Sh. Pradeep Kumar Teotia	Assistant Registrar, Estt. Branch,Pension Branch (Deputation Basis)
67	Ms. Renu Paisal	Assistant Registrar, East Campus (Deputation Basis)
68	Sh. Sunil Chikkara	Section Officer, Establishment
69	Sh. Sunila Kr. Yadav	Section Officer, Academic PG
70	Sh. Madhuresh Kr. Jha	Section Officer, Examination Branch
71	Sh. Vikas Sharma	Section Officer, Store & Purchase
72	Sh. Virender Singh Kaithait	AAO, Accounts Branch (On Deputation)
73	Sh. Manoj Kumar	AAO, Accounts Branch (On Deputation)
74	Ms. Indu Sethi	AAO, Accounts Branch (On Deputation)

2 Academic and Non-Academic Staff

2.1 Academic Staff

S. No.	Department	Prof.	Assoc. Prof.	Asstt. Prof.	Programmer/Scientist	Total
1	Applied Chemistry	5	3	7	0	15
2	Applied Mathematics	8	2	12	0	22
3	Applied Physics	4	3	14	0	21
4	Biotechnology	3	2	8	0	13
5	Civil Engineering	14	07	4	1	26
6	Computer Science and Engineering	1	7	12	1+1	22
7	Delhi School of Management	2	0	12	1	15
8	Electronics and Communication Engineering	11	5	26	0	42
9	Electrical Engineering	19	6	25	2	52
10	Environmental Engineering	1	1	4	0	6
11	Humanities	2	2	1	0	5
12	Information Technology	1	2	4	0	7
13	Mechanical Engineering	21	10	12	0	43
14	University School of Management & Entrepreneurship (USME)	3	1	15	0	19
15	Department of Design	3	0	5	0	8
	Total	**98**	**51**	**161**	**6**	**316**

2.2 Non-academic Staff

S. No.	Post	Total Filled Post	Preseent Posting	Remarks
1	Knowledge Network Manager	1	Computer Center	Regular
2	Executive Engg.	1	Engg. Cell	Deputation
3	Programmer	1	Computer Center	Regular
4	A.E. (Civil)	1	Engg. Cell	Deputation
5	A.E. (Elect.)	1	Engg. Cell	Regular
6	Foreman INST	2	Mech. Engg	Regular
		1	Electical (1)	Re Employed

S. No.	Post	Total Filled Post	Preseent Posting	Remarks
7	Foreman	8	Elect Engg. (2)	Regular
			ECE (1)	Regular
			Mech. Engg. (4)	Regular
			CSE (1)	Regular
		1	Elect(1)	Re Employed
8	Sr. Mech	18	Applied Phy. (3)	Regular
			Civil Engg. (2)	Regular
			Elect (1)	Regular
			ECE (2)	Regular
			Env. (1)	Regular
			Mech (9)	Regular
		1	Civil(1)	Re Employed
9	System Manager	1	Computer Center	Regular
10	Console Operator	1	IT	Regular
11	Jr. Mech	7	AP (1)	Regular
			Elect (01)	Regular
			Mech (5)	Regular
		1	VC Branch (1)	Re Employed
12	Jr. Engg. (Civil)	1	Engg. Cell	Regular
13	Jr. Engg.(Elect.)	1	Engg. Cell	Regular
14	Draughtman	1	Mech. Engg.	Regular
15	Electrician	1	Engg. Cell	Regular
16	Tech. Asst.	3	BT (1)	Regular
			Ece (1)	Regular
			Applied Phys. (1)	Regular
TOTAL		**53**		

3   Academic Programmes

3.1 Undergraduate Courses

S. No.	Department	B. Tech. Programme	Duration	Sanctioned Intake	Total No. Admitted
1	Applied Chemistry	Polymer Science & Chemical Technology	4 years	68	67
2	Applied Mathematics	Mathematics and Computing	4 years	134	133
3	Applied Physics	Engineering Physics	4 years	105	104
4	Biotechnology	Biotechnology	4 years	68	67
5	Civil Engineering	Civil Engineering	4 years	134	133
		Civil Engineering (Contd. Edu.)	4 years	60	09
6	Computer Science & Engineering	Computer Engineering	4 years	398	397
		Software Engineering	4 years	134	133
7	Electrical Engineering	Electrical Engineering	4 years	266	301
		Electrical Engineering (Contd. Edu.)	4 years	60	265
8	Electronics & Communication Engineering	Electronics & Communication Engineering	4 years	203	202
		Electronics & Communication Engineering (Contd. Edu.)	4 years	60	06
9	Environment Engineering	Environment Engineering	4 years	68	67
10	Information Technology	Information Technology	4 years	134	133
11	Mechanical Engineering	Mechanical Engineering	4 years	266	265
		Production & Industrial Engineering	4 years	68	67
		Automotive Engineering	4 years	68	67
		Mechanical Engineering (Contd. Edu.)	4 years	60	11
Total				**2354**	**2150**
Kashmiri Migrant				**01**	**-**
B.Tech. Lateral Entry			**3 years**	**35**	**18**
Total NRI Candidates				**285**	**168**
Total PMSSS Candidates				**10**	**10**
Grand Total				**2685**	**2346**

S. No.	Department	Programme	Duration	Sanctioned Intake	Total No. Admmited
1	University School of Management & Entrepreneurship (USME)	BBA	3 Years	132+18 (FN)	133
		BA-Economics (Hons.)	3 Years	132+18 (FN)	128
2	Department of Design	B. Des.	4 Years	66+9 (FN)	66
Total				375	327

3.2 Post Graduate Courses

S. No.	Department	M. Tech. Programme	Duration	Sanctioned Intake	Total No. Admmited	
1	Applied Chemistry	Polymer Technology	2 years	22+5	05 [04+01 (spn)]	
2	Applied Physics	Nano Science & Technology	2 years	22+5	02 [01+01 (spn)]	
3	Biotechnology	Bioinformatics	2 years	22+5	06	
		Bio Medical Engineering	2 years	20+5	06	
		Industrial Biotechnology	2 years	21+5	05	
4	Civil Engineering	Geotechnical Engineering	2 years	22+5	24	
		Hydraulic & Water Resources	2 years	21+5	19	
		Structural Engineering	2 years	22+5	23 [21+02 (spn)]	
		Geo Informatics	2 years	18	03	
5	Computer Science & Engineering	Computer Science & Engineering	2 years	22+5	26	
		Software Engineering	2 years	22+5	21	
6	Electrical Engineering	Control & Instrumentation	2 years	22+5	20	
		Power System	2 years	22+5	26	
7	Electronics & Communication Engineering	Signal Processing & Digital Design	2 years	22+5	24 [23+01 (spn)]	
		Microwave & Optical Communication Engineering*	2 years	21+5	03	
		VLSI Design and Embedded System	2 years	22+5	24 [23+01 (spn)]	
8	Environment Engineering	Environmental Engineering	2 years	22+5	22 [21+01 (spn)]	
9	Information Technology	Information System	2 years	22+5	20 [19+01 (spn)]	
10	Mechanical Engineering	Thermal Engineering	2 years	22+5	22	
		Production Engineering	2 years	22+5	12	14
		Computational Design	2 years	20+5	02 (Merged with Prodn. Engg.	
Total				551	315	

S. No.	Department	Programme	Duration	Sanctioned Intake	Total No. Admmited
1	Delhi School of Management	MBA	2 years	150	125
		EMBA	2 years	75	49
2	University School of Management & Entrepreneurship (USME)	MBA	2 years	60	26
		MBA(Business Analytics)	2 years	38	21
		MBA (IEV)	2 years	40	16
		MBA (FBE)	2 years	40	11
Total				403	248
Grand Total				**954**	**563**

*Jointly Run by Applied Physics Department

3.3 Ph.D. Programmes

S. No.	Department	Admissions
1	Applied Chemistry	11
2	Applied Mathematics	14
3	Applied Physics	22
4	Biotechnology	18
5	Civil Engineering	19
6	Computer Science & Engineering	19
7	Delhi School of Management	08
8	Electrical Engineering	24
9	Electronics & Communication Engineering	37
10	Environmental Engineering	11
11	Humanities (English)	03
12	Humanities (Economics)	03
13	Information Technology	04
14	Mechanical Engineering	32
15	Design	05
	USME	**02**
	Total	**232**

4   Academic Departments

4.1   Department of Applied Chemistry

35 Journal Publications

4 Conference Publications

3 Book Chapters

Faculty 15

ACADEMIC PROGRAMMES

- B. Tech. (Polymer Science and Chemicals Technology)
  Intake: 68
  Students Admitted: 67

- M. Tech. (Polymer Technology)
  Intake: 22+5
  Students Admitted: 5

- Ph.D. Research Scholars: 11

LABORATORIES

The department has well-established laboratories such as Applied Chemistry Lab, Polymer Chemistry Lab, Polymer Testing & Characterization Lab, Polymer Processing Lab, Chemical Technology Lab, Chemical Reaction Engineering Lab, Instrumentation Lab, Heat and Mass Transfer Lab, Fibre Technology Lab, Computer Aided Design, Innovation Lab, and four Research Labs. All UG/PG students and Research Scholars carry out their projects in these laboratories jointly with experts from industry and teachers of the department.

SALIENT FEATURES

The department aims to provide state-of-art knowledge and practical skills to the UG and PG students in the diverse subjects of Applied Chemistry, Chemical Engineering, and Polymer Science. Facilitating R&D activities at UG level is the prime concern. Innovations in chemistry, chemical and polymers are focused to provide green technologies, products to global industries and design of novel separation processes. New molecules for improving human health and medical care, hydrogels for improved agri-products, innovative polyfibrils for clean water, specialty polymers for solar and biosensor technology, nano-embedded and green polymers for food packaging are some of the main areas in which our PG and doctoral students are excelling beyond imagination.

ACADEMIC STAFF

Professors: 05

- **Prof. (Dr.) S. G. Warkar** (HoD), Ph.D., Areas of Interest are Inorganic Chemistry and Polymers
- **Prof. (Dr.) D. Kumar**, Ph.D., Areas of Interest are Conducting Polymer
- **Prof. (Dr.) Archana Rani**, Ph.D., Areas of Interest are Organic Chemistry
- **Prof. (Dr.) R. C. Sharma**, Ph.D., Areas of Interest are Electro Solution Chemistry, Molten Electrolytes
- **Prof. (Dr.) Rajinder K. Gupta**, Ph.D., Areas of Interest are Organic Chemistry & Bio-polymer, Nutraceuticals & functional foods

DST Inspire Faculty: 01

- **Dr. Chandra Mouli Pandey**, Ph.D., Areas of Interests are Biosensors, Nano-materials, Point of Care Diagnostics

Associate Professors: 03

- **Dr. Anil Kumar,** Ph.D., Area of Interest are Bio Inorganic Chem, Solar Cell, Cell Imaging, Electronic Structure cal. using G03 suite program

- **Dr. Ram Singh**, Ph.D., Area of Interest are Organic and Medicinal Chemistry, Neuro-chemistry, Natural Products
- **Dr. Roli Purwar**, Ph.D., Area of Interest are Bioplomers, Polymeric membranes, Textiles processing, Natural Materials and their application, Medical Textiles, Effluent treatment

Assistant Professors: 06

- **Dr. Richa Srivastava**, Ph.D., Areas of Interest are Organic Synthesis, Supramolecular Chemistry, Biomimetic Reactions
- **Dr. Saurabh Mehta**, Ph.D., Areas of Interest are Organic Synthesis (conventional and combinatorial), bioorganic and Medicinal Chemistry, etc
- **Dr. D. Santhiya**, Ph.D., Areas of Interest are Nano-Biotechnology, Biosynthesis of nanopatterned materials, Environmental Biotechnology, Surface Chemistry
- **Dr. Raminder Kaur**, Ph.D., Areas of Interest are Reaction Engineering, Polymer Composites, Bio-based Polymers
- **Dr. Poonam**, Ph.D., Area of Interest is Material Chemistry
- **Dr. Manish Jain**, Ph.D., Areas of Interest are Chemical Engineering, Membrane based separations and Polymer Science.

Achievements of the Department

- The department of Applied Chemistry is one of the oldest departments of the University. We provide state-of-art knowledge and practical skills to the UG and PG students in the diverse subjects of Applied Chemistry, Polymer Science and Chemical Technology. The innovations are focused to provide green technologies and products to global industries. The department has fifteen well-managed laboratories to carry out project work and research. In last one year, the department has published more than 35 research papers, attended national and international conferences/ seminars and filed one patent. The department has also contributed towards conference proceeding and book chapters of national and international repute. The students of the department have been placed in well-established industries and also some of them taken admission in foreign universities.

Teachers provided with financial support to attend Conferences, Seminars, etc.

- Mr. Manish Jain received ₹57,820/- for attending NBA and NAAC Accreditation by ESCI the Institute of Engineers (India)

Participation in Professional Development Programmes by our Faculties

- Roli Purwar attended One week online Short-Term Program – Recent Trends in Textile and fashion by NIT Jalandhar.

- Manish Jain attended Recent Trends in Security and Cryptography by Department of Applied Mathematics Delhi Technological University

- Manish Jain attended Graph Theory and Its Applications by Department of Applied Mathematics Delhi Technological University

- Manish Jain attended Induction/ Orientation Programme for "Faculty in Universities / Colleges / Institutes of Higher Education" by Ramanujan College, Delhi University

- Dr. Raminder Kaur attended AICTE Sponsored Faculty Development Program on, "Universal Human Values" by Human Resource Development Centre (HRDC) & Centre for Value Based Education, Delhi Technological University, New Delhi, India

- Dr. Raminder Kaur attended TEQIP-III Sponsored Faculty Development Program on, "Recent Trends in Security and Cryptography" by Department of Applied Mathematics, Delhi Technological University, New Delhi, India

- Dr. Raminder Kaur attended TEQIP-III Sponsored Faculty Development Programme on, "Disaster Mitigation and Management" by Department of Civil Engineering, Delhi Technological University, New Delhi, India

- Dr. Raminder Kaur attended SWAYAM ARPIT Online Coursefor Career Advancement Scheme (CAS) promotion, "Online Refresher Course in Chemistry for Higher Education by Sri Guru Teg Bhadur Khalsa College, University of Delhi

- Dr. Raminder Kaur attended National Level Faculty Development Program on "Multidisciplinary Approach towards Emerging trends in Science & Humanities (MASH-2020]" by Ramachandra college of Engineering, Eluru

- Dr. Raminder Kaur attended Online Faculty Development Program on "Supply Chain Management: Tools and Techniques" by Department of Production & Industrial Engineering, Punjab Engineering College (Deemed University) Chandigarh

- Dr. Richa Srivastava attended SWAYAM ARPIT Online Coursefor Career Advancement Scheme (CAS) promotion, "Online Refresher Course in Chemistry for Higher Education by Sri Guru Teg Bhadur Khalsa College, University of Delhi

- Dr. Richa Srivastava attended 6 days-Online FDP on Mass Spectrometry and Thermal Analysis Techniques by Centre for Ocean Research and Department of Chemistry, Satyabama Institute of Science and Technology, Chennai, Tamil Nadu, in association with Ministry of earth Sciences- Earth Science Technology Cell

- Dr. Ram Singh attended SWAYAM ARPIT Online Coursefor Career Advancement Scheme (CAS) promotion, "Online Refresher Course in Chemistry For Higher Education by Sri Guru Teg Bhadur Khalsa College, University of Delhi

- Dr. Ram Singh attended Workshop on E-Resources: A Gateway for Research, 4th Ed by Central Library, DTU

- Dr. Ram Singh attended In-house Training Programme on 'ISO/IEC 17025: 2017 Lab Awareness & Internal Auditing as per NABL Requirements' by IQAC, DTU

- Dr. Deenan Santhiya attended SWAYAM ARPIT Online Coursefor Career Advancement Scheme (CAS) promotion, "Online Refresher Course in Chemistry for Higher Education by Sri Guru Teg Bhadur Khalsa College, University of Delhi

- Dr. Poonam attended SWAYAM ARPIT Online Coursefor Career Advancement Scheme (CAS) promotion, "Online Refresher Course in Chemistry for ZHigher Education by Sri Guru Teg Bhadur Khalsa College, University of Delhi

- Dr. Deenan Santhiya attended Teqip-III sponsored One-week faculty development programme on Disaster mitigation and management by Department of Civil Engineering, DTU

- Dr. Deenan Santhiya attended Teqip-III sponsored One-week short term training program on Recent trends in security and cryptography organized by Department of Applied Mathematics, DTU

- Dr. Deenan Santhiya attended AICTE Sponsored Three Days Faculty Development Program for student Induction on Universal Human Values organized by Human Resource Development Centre and Centre for Value Based Education, by DTU

- Dr. Deenan Santhiya attended E-Resources: A Gateway for Research (2019) organized by the Central Library, DTU

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Roli Purwar delivered lecture in 2nd International Conference on Emerging Trends in Traditional and Technical Textiles (ICETT 2019)

- Dr. Anil Kumar delivered lecture on Recents advances in Porphyrinoid chemistry at Department of Chemistry, Bapuji Institute of Engineering and Technology, Davanagere, Karnataka

- Dr. Ram Singh delivered lecture on Importance of Chemistry in Sustainable Development; at MRS College of Professional Sciences, Indore, in MHRD, Govt of India (Commission for Scientific and Technical Terminology) supported two days seminar on Hindi Technical words use in chemistry

- Dr. Ram Singh delivered lecture on Chemistry for Sustainable Development; National Webinar at NREC College, Khurja

Important Professional Affliations

- Prof. D Kumar, Life-member, Indian Science Congress Association (ISCA)

- Prof. D Kumar, Member, Royal Society of Chemistry, UK

- Prof. D Kumar, Fellow member, Indian Chemical Society (FICS)

- Prof. RC Sharma, Member, Indian Chemical Society, Kolkata

- Prof. A Rani, Life member, Indian society for Technical Education (ISTE)

- Prof. A Rani, Life Member, Indian Chemical Society

- Prof. R K. Gupta, Member, Alexanderv on Humboldt

- Dr. Raminder Kaur, Life Member, Indian Institute of Chemical Engineers

- Dr. Raminder Kaur, Life Member, The society of polymer science", INDIA

- Dr. Raminder Kaur, Life Member, Asian polymer association

- Dr. Raminder Kaur, Life Member, Indian Science Congress Association

- Dr. Raminder Kaur, Life Member, Materials Research Society of India

- Dr. Raminder Kaur, Life Member, Society for Materials Chemistry

- Dr. Raminder Kaur, Life Member, Indian Society of Analytical Scientists

- Dr. Ram Singh, Life Member, Vijnana Bharati

- Dr. Ram Singh, Fellow Member, International Science Congress Association, India

- Dr. Ram Singh, Life Member, The Indian Science Congress Association, Kolkata, India

- Dr. Ram Singh, Life Member, Indian Academy of Neurosciences

- Dr. Ram Singh, Life Member, International Brain Research Organization

- Dr. Ram Singh, Life Member, Indian Society of Analytical Scientists

- Dr. Ram Singh, Life Member, Association of Chemistry Teachers

- Dr. Ram Singh, Member, International Association of Advance Materials

- Dr. Ram Singh, Honorary President Brilliant Uniflow of Talents and Intelligence (BUTAI)

- Dr. Ram Singh, Member, The International Natural Product Sciences Taskforce (INPST)

- Dr. Richa Srivastava, Life Member, The Indian Science Congress Association, Kolkata, India

- Dr. Richa Srivastava, Life Member, Indian Society of Analytical Scientists

- Dr. Manish Jain, Member, Indian Institute of Chemical Engineer.

Teachers receiving awards, recognition and fellowships from Government bodies

- Dr. Anil Kumar received Visiting Associate Professor by Schulich Faculty of Chemistry Technion IIT HAIFA

4. ACADEMIC DEPARTMENTS

17

- Dr. Ram Singh received Outstanding Scientist Award in the 7th International Scientist Awards on Engineering, Science and Medicine, held on 04th & 05th Jul 2020, Coimbatore, India

Teachers awarded International Fellowship for advanced studies/ research

- Dr. Anil Kumar received Visiting Associate Professor from Schulich Faculty of Chemistry Technion IIT HAIFA

Teachers receiving seed money for research in current year (INR in lakhs)

- Dr. Saurabh Mehta, received seed money of 3 Lakhs from DTU

- Dr. Manish Jain, received seed money of 4.9 Lakh form DTU

Students provided with financial support to attend Conference, Seminars, etc.

- Babita Veer received ₹69000/- to attend 26th World Congress on Chemistry, UK

- Poonam received ₹69000/- to attend 26th World Congress on Chemistry, UK

Detail of awards for innovation won by department/teachers/ research scholars/students during the current year

- Dr. Roli Purwar won innovation award as Teacher for Swelling and Drug Release Kinetics of Hydrogel Nanofibrous Mats in 2nd International Conference on Emerging Trends in Traditional and Technical Textiles Organized by NIT Jalandhar

- Babita Veer won innovation award as Student Student for Spectroscopic studies of metalloflavin complexes in different solvent systems in 3-days International conference "Indian Analytical Congress (IAC)" organized by ISASDC and FICCI at Amity University, Noida, NCR, India.

Functional MoUs with Institutions of National, International Importance, Other Universities, etc.

- MoU was signed between DTU and Amicures Research Pvt Ltd in 2019 for a period of 5 years to promote and enhance research interest between DTU and Amicures in the area of pharmaceuticals and health care

Students qualifying in state/ national/ international level examinations during the current year

- Vedant Vashishtha and Ashutosh Tripathi cleared GATE

- Soham Sardana and Purujit Tandon cleared TOEFL

- Parth Goel and Purujit Tandon cleared GRE

- Aayush Singh cleared XAT

Detail of student progression to higher education (previous graduating batch) (the current year)

- Soham Sardana from B.Tech. PSCT, joined University of Toronto

- Vedant Vashishtha from B.Tech. PSCT joined IIT Bombay

- Ashutosh Tripathi from B.Tech. PSCT joined Motilal Nehru National Institute of Technology, Allahabad

- Aayush Singh from B.Tech. PSCT joined XLRI Jamshedpur

- Purujit Tandon from B.Tech. PSCT joined TU Delft, Netherland

- Parth Goel from B.Tech. PSCT joined London Business School

Detail of capability enhancement and development schemes organised by department

Online workshop on "Curriculum Development for B.Tech. - Chemical Engineering Program"'

1. GGSIPU (Prof. Arinjay Jain, Chemical Engineering Dept)

2. IIT Delhi (Prof. S K Khare, Biochemistry Dept; Prof. K D Nigam Chemical Engineering Dept)

3. PU, Chandigarh (Prof. Susheel K Kansal, Chemical Engineering Dept)

4. Fluor Daniel India Pvt. Ltd (Mr. Rakesh Bagrola)

5. BPCL (Mr.Ashutosh Yadav, Sr. Research Scientist)

6. IOCL (Mr. Rohit Kodan)

7. RIL (Ms. Sakshi Malik)

Detail of Patents filed/published/ awarded during the current year

- Delhi Technological University applied for a patent with title Bio-based rigid polyurethane foam composition and method thereof Filed by A Agarwal, R Kaur, RS Walia; Applied Chemistry/ME

4.2 Department of Applied Mathematics

47 Journal Publications

10 Conference Publications

4 Book Chapters

Faculty 22

ACADEMIC PROGRAMMES

- B. Tech. (Mathematics and Computing)
  Intake: 134
  Students Admitted: 133
- M. Sc. (Mathematics)
  Intake: 33
  Students Admitted: 33
- Ph.D. Research Scholars: 14

LABORATORIES

The Department of Applied Mathematics offers state-of-the-art computing facilities to all the undergraduate and graduate students, research scholars and faculty members. A high-speed Local Area Network connection through the Institute's central facilities, ensure that all students and faculty have the most modern computing facilities, including round-the clock internet and e-mail connection, to meet their academic and research needs. Department has three computational labs. Computational lab I, II and III fully functional and have 90 computer systems with latest configuration.

SALIENT FEATURES

The Department of Applied Mathematics is the pride of DTU. The aim of the department is to impart the sound knowledge of Mathematics, Statistics and Computing to the students through teaching and research. The department is achieving its goals/objectives with the help of highly qualified faculty. The research output of the department is very impressive and speaks clearly for the quality of work. Faculty members are also actively involved in research, projects and various academic activities.

ACADEMIC STAFF

Professors: 08

- **Prof. Sangita Kansal**, M.Sc., Ph.D., Area of Interest is Graph Theory and Petri net Theory
- **Prof. H.C. Taneja**, M.Sc., M.Phil., Ph.D., Area of Interest is Information Theory
- **Dr. S. Sivaprasad Kumar**, M.Sc., M.Phil., Ph.D., Area of Interest is Complex Analysis
- **Dr. R. Srivastava**, M.Sc., Ph.D., Area of Interest is Numerical Simulation
- **Dr. Naokant Deo**, M.Sc., Ph.D., Area of Interest is Approximation Theory
- **Dr. Anjana Gupta**, M.Sc., M.Phil., Ph.D., Area of Interest is Optimization Techniques
- **Prof. L.N. Das**, M.Sc., Ph.D., Area of Interest is Operations Research
- **Prof. V.P. Kaushik**, Ph.D., Area of Interest is Operations Research

Associate Professors: 02

- **Dr. Chandra Prakash Singh**, M.Sc., Ph.D., Areas of interest are General Relativity and Cosmology
- **Dr. Aditya Kaushik**, Ph.D., Areas of interest are Differential Equations and Numerical Analysis

Assistant Professors: 12

- **Dr. Nilam**, Ph.D., Area of Interest is Mathematical Modeling
- **Dr. Vivek Kumar Aggarwal**, M.Sc., Ph.D., Area of Interest is Numerical Analysis
- **Mr. Rohit Kumar**, M.Sc., Areas of Interest are Quantum Computing and Graph Theory

- **Ms. Goonjan Jain**, B.E., M.Tech., Areas of Interest are Natural language processing, Information retrieval

- **Dr. Dinesh Udar**, M.Sc., Ph.D., Area of Interest is Algebra

- **Dr. Satyabrat Adhikari**, Ph.D., Area of Interest is Quantum Information Processing

- **Mr. Dhirendra Kumar**, M.Sc., M.Tech., Areas of Interest are Medical image processing, Image classification, Signal processing

- **Ms. Payal**, M.Sc., Area of Interest is Petri Net Theory

- **Ms. Trasha Gupta**, B.Sc., M.Sc., M.Tech., Areas of Interest are Machine Learning, Image Processing

- **Ms. Sumedha Seniaray**, B.Tech., M.Tech., Areas of Interest are Database Management Systems, Datawarehouse, Software Engineering, Operating Systems, Discrete Mathematics

- **Mr. Anshul Arora**, B.Tech., M.Tech, Areas of Interest are Android Security, Network Security, Malware Detection

- **Mr. Jamkhongam Touthang**, M.Sc., M.Phil., Areas of Interest are Functional Analysis, Complex Analysis

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

Achievements of the Department

- The Department of Applied Mathematics has conducted two short term training programs in the academic year 2019-20. The Department of Applied Mathematics has started M.Sc. Mathematics program in the academic year 2019-20.

Teachers provided with financial support to attend Conferences, Seminars, etc.

- Prof. H.C. Taneja for attending received ₹30000 for attending Evaluating Volatile Markets Using Information Theoretic Measures, Presented at Ist International Conference on Mathematical Modeling, Computational Intelligece Techniques and Renewable Energy, by PDPU Gandhinagar

- S. Sivaprasad kumar, received ₹22122 for attending MMCITRE2020 by PDPU, Gujarat

- C.P. Singh received ₹10000 for attending International conference on Differential Geometry and Relativity, by Department of Mathematics & Statistics, DDU Gorakhpur University, Gorakhpur and The Tensor Society.

Participation in Professional Development Programmes by our Faculties

- Aditya Kaushik attended Graph Theory and its Applications organized by DTU

- Aditya Kaushik attended Power Quality and Reactive Power Management organized by DTU

- Aditya Kaushik attended Python Programming organized by K.L. University, Hyderabad

- Anshul Arora attended One Week Short Term Training Program on Graph Theory and its Applications organized by Department of Applied Maths, DTU, Delhi

- Anshul Arora attended Faculty Development Program on Emerging Trends in Data Science and IOT organized by Department of CSE and IT, Arka Jain University, Jamshedpur

- Dr. Dinesh Udar attended Orientation Programme organized by Ramanujan College, DU

- Payal attended STTP on "Recent Trends in Security and Cryptography" organized by Delhi Technological University

- Payal attended STTP on "Graph Theory and its Applications" organized by Delhi Technological University

- Payal attended AICTE Training and Learning (ATAL) Online FDP on "Internet of Things" organized by IIT Nagpur (ONLINE)

- Payal attended FDP on "Recent Trends in Domination in Graphs: Algorithms, Complexity and Applications" organized by NIT Warangal (ONLINE)

- Payal attended International Conference on "Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets" organized by Jawaharlal Nehru University (ONLINE)

- Payal attended Online course "Mathematical Thinking in Computer Science", organized by University of California San Diego and National Research University Higher School of Economics (Offered through Coursera)

- Satyabrata Adhikari attended Orientation Programme for "Faculty in Universities / Colleges / Institutes of Higher Education". organized by Teaching Learning Centre, Ramanujan College University of Delhi

- Sumedha Seniaray attended Faculty Development Programme on "Universal Human Values" organized by Delhi Technological University

- Sumedha Seniaray attended Short Term Training Programme on "Recent Trends in Security and Cryptograpy" organized by Department of Applied Mathematics, Delhi Technological University

- Sumedha Seniaray attended Short Term Training Programme on "Graph Theory and its applications" organized by Department of Applied Mathematics, Delhi Technological University

- Sumedha Seniaray attended One Week Faculty Development Programme on "Data Science" organized by Department of CSE, PEC, Chandigarh

- Dhirendra Kumar attended 18th Refresher Course in Computer Sciences & Information Technology organized by JNU, New Delhi

- Dhirendra Kumar attended Participated in TEQIP III Sponsored One Week Short Term Training Program on Graph Theory and Its Applications organized by DTU

- Dhirendra Kumar attended International Webinar: Mathematical Modeling and Multidisciplinary Mathematics organized by Centre of Education, Indian Institute of Teacher Education (IITE), Gandhinagar

- Dhirendra Kumar attended AICTE Training And Learning (ATAL) Academy Online FDP on "Data Science" organized by Punjab Engineering College (Deemed to be University).

- Dhirendra Kumar attended the Online National Level Faculty Development Program on "Artificial Intelligence" organized by Department of CSE, IT, and MCA, Chaitanya Bharti University, Hyderabad in collaboration with Brain-O-Vision India

- Dhirendra Kumar attended One day International Webinar on "Seamless ICT Usage to Safe guard Community against Highly Contagious Diseases" organized by Department of Physics, Harish Chandra Post Graduate College, Varanasi-221001, Uttar Pradesh, India

- Dhirendra Kumar attended The Online Faculty Development Program on "Python Programming" organized by Department of Computer Science & Engineering, K L deemed to be University, Hyderabad

- Dhirendra Kumar attended Online Faculty Development Programme on "Power Quality and Reactive Power Management" organized by Department of Electrical Engineering, Delhi Technological University, Delhi in association with Clariant Power System Ltd., Pune

- Dhirendra Kumar attended Five-Day International Conference on Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets (ICRTMA-GPN-2020) organized by School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi-110067, India

- Goonjan Jain attended FDP on Recent Trends in AI and Machine Learning organized by Department of Information Technology, DTU

- Goonjan Jain attended One day MSC Curriculum Workshop organized by Department of Applied Mathematics, DTU

- Goonjan Jain attended STTP on Recent Trends in Security and Cryptography organized by Department of Applied Mathematics, DTU

- Goonjan Jain attended STTP on Graph Theory and its Application organized

- by Department of Applied Mathematics, DTU

- Goonjan Jain attended Orientation Programme organized by TLC, Ramanujan College, DU

- Goonjan Jain attended Industrial Training on "A project Based Learning using Virtual IoT Lab" organized by NITTTR, Chandigarh

- Goonjan Jain attended Industrial Training on "Artificial Intelligence and Machine Learning - A Project based Learning Approach" organized by NITTTR Chandigarh

- Jamkhongam Touthang attended AICTE Faculty Development Program for Student Induction organized by AICTE, India

- Jamkhongam Touthang attended GSuite for Education Training organized by HRDC, DTU

- Jamkhongam Touthang attended COVID-19: What you need to know (CME Eligible) organized by OSMOSIS, Coursera

- Jamkhongam Touthang attended Advanced Machine Learning and Signal Processing organized by IBM, Coursera

- Jamkhongam Touthang attended Mathematics for Machine Learning: Linear Algebra organized by Imperial College London, Coursera

- Jamkhongam Touthang attended Mathematics for Machine Learning: Multivariate Calculus organized by Imperial College London, Coursera

- Jamkhongam Touthang attended Python Data Structures organized by University of Michigan, Coursera

- Jamkhongam Touthang attended Programming for Everybody (Getting started with Python) organized by University of Michigan, Coursera

- Jamkhongam Touthang attended Introduction to Data Analytics for Business organized by University of Colorado, Coursera

- Trasha Gupta attended One-Week Short Term Training Programme (STTP) on "Recent Trends in Security & Cryptography", held in DTU, organized by Department of Mathematics, DTU

- Rohit Kumar attended STTP on "Recent Trends in Security and Cryptography" organized by Delhi Technological University

- Rohit Kumar attended STTP on "Graph Theory and its Applications" organized by Delhi Technological University

- Rohit Kumar attended Orientation Programme organized by Ramanujan College, DU

- Rohit Kumar attended Online Symposium on Quantum Information and Quantum Computation (QuantumTalks) organized by IIIT Hyderabad

- Rohit Kumar attended GSuite for Education Training organized by HRDC, DTU

- CP Singh attended Short-term Training Programme(STTP) on "Graph Theory and its Applications" organized by Dept. of Applied Mathematics DTU

- CP Singh attended Short-term Training Programme(STTP) on "Recent Trends in Security and Cryptography" organized by Dept. of Applied Mathematics DTU

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Anshul Arora delivered Two Expert Lectures in Punjab Engineering College Chandigarh on Probability and Statistics for Data Science and Case Study: Data Science in Intrusion Detection

- Goonjan Jain visited as External expert in the selection committee for selection of student assistants for an industry consultancy project in IGDTUW, Delhi. Interview was conducted online.
- Sangita Kansal visited DCR University of Science & Technology, Murthal to deliver lecture on "Graph Theory and Petri Net Theory"
- Sangita Kansal visited UGC-HRDC, Jamia Millia Islamia, New Delhi to deliver lecture on "Petri Nets: A graphical tool and its various aspects"
- Sangita Kansal visited JNU, New Delhi to deliver lecture on "Signed Petri Net"
- Sangita Kansal acted as Member of the Expert Committee DST-INSPIRE Fellowship
- Sangita Kansal acted as Subject Matter Expert in the Selection Panel of University of Petroleum and Energy Studies, Dehradun

Important Professional Affliations

- Aditya Kaushik, International Association of Engineer, Life Member
- Aditya Kaushik, Vijñāna Parishad of India, Annual Member
- Aditya Kaushik, Soft Computing Research Society, Member
- Dhirendra Kumar, IEEE, Professional Member
- Goonjan Jain, Computer Society of India (CSI), Life time member,
- Goonjan Jain, IEEE Professional Member
- Sangita Kansal, Ramanujan Mathematical Society, Life member
- Sangita Kansal, Academy of Discrete Mathematics& Applications, Life member
- Sangita Kansal, American Mathematical Society, Life member
- Sangita Kansal, SIAM, Life member

- S. Sivaprasad Kumar, Research Group in Mathematical Inequalities and Applications (RGMIA), Lifetime Member
- S. Sivaprasad Kumar, Indian Mathematical Society, Lifetime Member
- S. Sivaprasad Kumar, Society for special functions and its applications, Lifetime Member
- C.P. Singh, Indian Association for General Relativity and Gravitation, Life Member
- C.P. Singh, Astronomical Society of India, Life member
- C.P. Singh, Indian Mathematical Society, Life member
- C.P. Singh, The Tensor Society of India, Life member
- C.P. Singh, Fellow of Royal Astronomical Society, UK, Member

Teachers / Students receiving awards, recognition and fellowships from Government bodies

- Komal Mahto received Prime Minister's Scholarship, 2020
- Anish Sachdeva received Summer Research Scholar from University of Auckland, NZ in Department of Mathematics, 2020
- Dr. Nilam received Commendable research Award, 2020
- C.P. Singh won Premier Research Award awarded by DTU
- C.P. Singh won Commendable Research Award awarded by DTU

Teachers receiving seed money for research in current year (INR in lakhs)

- H.C. Taneja received seed money of 2 Lakhs from DTU

Students provided with financial support to attend Conference, Seminars, etc.

- Shubham Pasari received ₹7000 to attend International Conference on Electronics and Sustainable Communication Systems (ICESCS 2020) organized by Hindustan Institute of Technology, Coimbatore

- Khyati Mahendru received financial support to attend Grace Hopper Conference India 2019 organized by AnitaB.org

Grants for research sponsored by non-government organization

- Prof. Sivaprasad Kumar received amount of ₹265000 by DTU.

- Dr. Anjana Gupta received amount of ₹300000 by DTU.

Students qualifying in state/ national/ international level examinations during the current year

- Apurv Agarwal cleared CAT

Detail of student progression to higher education (previous graduating batch) (the current year)

- Kasvi Srivastav from B.Tech. MCE joined UBC for Masters

Detail of capability enhancement and development schemes organised by department

- Short Term Training Programme on "Recent Trends in Security and Cryptograpy" organized by Dr. Aditya Kaushik (Coordinator), Mr. Anshul Arora (Co-coordinator), Mr. Dhirendra Kumar (Co-coordinator), Ms. Sumedha Seniaray (Co-coordinator), Department of Applied Mathematics, Delhi Technological University sponsored by TEQIP-III

- Short Term Training Programme on "Graph Theory and its applications" organized by Prof. Anjana Gupta (Coordinator), Dr. C. P. Singh (Co-coordinator), Ms. Trasha Gupta (Co-coordinator), Ms. Payal (Co-coordinator), Department of Applied Mathematics, Delhi Technological University sponsored by TEQIP-III

4.3 Department of Applied Physics

108 Journal Publications

35 Conference Publications

18 Book Chapters

Faculty 21

ACADEMIC PROGRAMMES

- B. Tech. (Engineering Physics)
  Intake: 105
  Students Admitted: 104
- M. Tech. (Nano Science and Technology)
  Intake: 22+5
  Students Admitted: 2
- M. Sc. Physics
  Intake: 30
  Students Admitted: 33
- Ph.D. Research Scholars: 22

LABORATORIES

The Department has 27 Labs:

Applied Physics Lab, Digital Electronics Lab, FPGA Design Lab, Mobile & Satellite Communication Lab, EMT, Antenna and Propagation Lab, Alternate Energy Storage & Conversion Devices Lab, Condensed Matter Physics Lab, Communication System Lab, Optics Lab, Microprocessor & Interfacing Lab, Fiber Optics & Optical Communication Lab, Microwave Engineering Lab, Advanced Instrumentation Lab, Innovation Lab and many more.

SALIENT FEATURES

Applied Physics Department is a major department of Delhi Technological University providing cutting edge research, innovation and education in the emerging areas of science and technology. The objective of the department is to create future generations of skilled Engineers and Scientists by providing quality education through cutting edge technologies and innovative teaching techniques so as to make them well equipped to face present and future challenges and their overall sustainable professional growth.

ACADEMIC STAFF

Professors: 04

- **Prof. Rinku Sharma**, (Head), Ph.D., Areas of interests are Atomic & Molecular Physics, Plasma Physics THz Radiation Emission and linear nonlinear properties of low dimensional structures.

- **Prof. R. K. Sinha**, Ph.D., Areas of interests are Fibre optics and optical communication

- **Prof. S. C. Sharma**, Dean (Acad PG), Ph.D., Areas of interests are Plasma Physics/ Plasma Applications, Nanotechnology, Dusty Plasma/Strongly Coupled Dusty Plasma, High Power Microwave Devices, THz Radiation Emission/Short Pulse Lasers, FET/MOSFET Devices

- **Prof. A. S. Rao**, Ph.D., Areas of interests are Solid state spectroscopy and atmospheric sciences.

Associate Professors: 03

- **Dr. Vinod Singh**, Ph.D., Areas of interests are Synthesis and characterization of functional nanomaterials

- **Dr. Rishu Chaujar**, Ph.D., Areas of interests are Semiconductor device modelling simulation, analysis of MOSFET & HEMTS for RF & wireless applications

- **Dr. Nitin K. Puri**, Ph.D., Areas of interests are Nanostructured materials & thin films, high energy heavy ion beams induced structure modifications

4. ACADEMIC DEPARTMENTS

29

Assistant Professors: 14

- **Dr. M. S. Mehata**, Ph.D., Areas of interests are Fluorescent spectroscopy, quantum dots, organic LEDs, thin films
- **Dr. Pawan K. Tyagi**, Ph.D., Areas of interests are Carbon nanotubes; field emitters, graphene synthesis single crystal diamond synthesis.
- **Dr. Yogita Kalra**, Ph.D., Areas of interests are Fibre and integrated optics, nano photonics, photonic crystals and their device applications
- **Dr. M. Jayasimhadri**, Ph.D., Areas of interests are Optical/fluorescent spectroscopy Luminescent Materials, Materials science, nanotechnology
- **Dr. Ajeet Kumar**, Ph.D., Areas of interests are Fibre optics, integrated optics, solar energy
- **Dr. Amrish K. Panwar**, Ph.D., Areas of interests are Energy storage & conversion devices
- **Dr. Richa Sharma**, Ph.D., Areas of interests are Multiferroic Magnetoelectric Composites, Thermoelectric Materials Ferroelectric Materials, Energy Harvesting Materials
- **Dr. Mukhtiyar Singh**, Ph.D., Areas of interests are Theoretical Condensed Matter Physics, Density Functional Theory
- **Dr. Renuka Bokolia**, Ph.D., Areas of interests are Ferroelectric ceramics, Upconversion luminescence, Phosphors, Dielectric materials
- **Dr. Bharti Singh**, Ph.D., Areas of interests are Material Science. Thin films and Nanostructures deposition techniques.
- **Dr. Sarita Baghel**, Ph.D., Areas of interests are Solar Cells and solar materials
- **Mr. Yogendra Meena**, M.Sc., Areas of interest is Physics
- **Dr. Deshraj Meena**, Ph.D., Areas of interests are Gas Sensors based on metal oxides.
- **Dr. Kamal Kishor,** Ph.D., Areas of interests are Fibre Optics, Nano Photonics: Devices, Sensors & Components based on Photonic Crystals

अनुप्रयुक्त भौतिकी लैब-1
APPLIED PHYSICS LAB-1

Teachers Provided with Financial Support:

- Prof. Suresh C. Sharma was given financial support to attend 3rd Asia Pacific Conference on Plasma Physics at Hefei China

- Dr. Mohan Singh Mehata was given financial support to attend 15th DAE-BRNS Biennial Trombay symposium on radiation & photochemistry organized by BARC, Mumbai

- Dr. Mohan Singh Mehta was given financial support to attend International conference on emerging advancement in science & technology & 10th India-Japan science & technology conclave organized by SSPL DRDO and Indian JSPS Alumni Association

- Dr. Yogita Kalra was given financial support to attend Faculty Development Programme on Developing Competencies to enhance performance viz a viz Organisational Image organized by National Institute of HRD and Advancement (NIHA) and TEQIP-III Sponsored by TEQIP III@DTU

- Prof. Rinku Sharma was given financial support to attend Faculty Development Programme on Developing Competencies to enhance performance viz a viz Organisational Image organized by National Institute of HRD and Advancement (NIHA) and TEQIP-III sponsored by TEQIP III, DTU

- Dr. Mukhtiyar Singh was given support of 1500 INR to attend Faculty Induction Training/Orientation programme organized by Ramanujan College, University of Delhi

- Dr. Mukhtiyar Singh was given financial support to attend Residential Training Programme on "Preventive Vigilance & e-procurement: Key to Good Governance organized by National Productivity Council, Jaipur

- Dr. Amrish K. Panwar was given financial support of ₹49,000/-+taxes to attend Residential Training Program: Conflict Resolution & Financial Management organized by National Productivity Counselling, at Gangtok (Sikkim) sponsored by TEQIP-III, DTU

- Dr. M. Jayasimhadri was given financial support of about 1.9 Lakhs to attend 8th International workshop on Photoluminescence in Rare Earths: Photonic Materials and Devices (PRE'19) organized by Université Côte d'Azur, CNRS, INPHYNI, UMR 7010, Parc Valrose 06100 Nice, France

- Dr. Bharti Singh was given financial support of about ₹20000 to attend two day Symposium on 2D materials organized by IIT Jodhpur

- Dr. Bharti Singh was given financial support of ₹15,815 to participate in Residential Training Programme on "Interpersonal Effectiveness and Team Building" organized by National Productivity Council, Jaipur

- Dr. Renuka Bokolia was given financial support of about ₹1500 to attend Faculty Induction Training/Orientation programme organized by Ramanujan College, University of Delhi

- Dr. Renuka Bokolia was given financial support to attend Residential Training Programs on "Management Development Programme for Teaching Staff" conducted by Engineering Staff College of India (ESCI) Hyderabad.

- Dr. Renuka Bokolia was given financial support of about ₹750 to attend Two Week Online Faculty Development Programme on Managing Online classes and Co- Creating MOOCs-3.0" organized by Ramanujan College

- Dr. Richa Sharma was given financial support to attend Residential Training Programs on "Self Development, Organisational Image viz a viz Customer centric approach" organized by National Institute of HRD and Advancement (NIHA), Delhi

Participation in Professional Development Programmes by our Faculties

- Dr. Rishu Chaujar attended Professional Development Programmes on Recent Trends in AI and Machine Learning by Dept of IT, DTU from July 29th to August 2nd, 2019

- Dr. Rishu Chaujar attended Professional Development Programmes on Power Quality and Reactive Power Management by Dept of EE, DTU form July 06th to 20th, 2020

- Dr. Rishu Chaujar attended Professional Development Programmes on "From the Big Bang to Dark Energy" by University of Tokyo of duration of 4 week course completed on June 18th, 2020

- Dr. Mohan Singh Mehata attended Two-week faculty development programme on Managing Online Classes and Co-crating MOOCs 3.0 organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of MHRD from July 25th to August 10th, 2020

- Dr. Mohan Singh Mehata attended One-week faculty development programme on Role of Energy Management in Smart City, organized by Department of Electronic and Mechanical Engineering, Sharda University, Greater Noida, UP from June 15th to 19th, 2020

- Dr. Mohan Singh Mehata participated in a one-week in-house faculty development programme on "Recent Developments in renewable energy systems" organized by Department of Mechanical, Automobile and Production & Engg, DTU from November, 25th to 29th, 2019

- Dr. Mohan Singh Mehata participated in the two day TEQIP sponsored international workshop on Geohazards Risk reduction initiatives in South and South East Asia (GeORiskSEA-2019) organized by Departmet of Civil Engg., DTU from November 21st to 22nd, 2019

- Dr. Deshraj Meena attended Professional Development Programmes on E-Resources: A Gateway for Research, 4th ed. organized by DTU

- Dr. Deshraj Meena attended Professional Development Programmes on Recent Trends in Security and Cryptography organized by DTU from November 19th to 23th, 2019.

- Dr. Deshraj Meena attended Professional Development Programmes on Graph Theory and Its Applications organized by DTU from November 25th to 29th, 2019.

- Dr. Deshraj Meena attended Professional Development Programmes on Induction/ Orientation Programme organized by Ramanujan College, University of Delhi, Delhi from June 04th to July 01st, 2020

- Dr. Deshraj Meena attended Professional Development Programmes on Managing Online Classes and Co-Creating MOOCS 3.0 organized by Ramanujan College, University of Delhi, Delhi form July 25th to August 10th, 2020.

- Dr. Ajeet Kumar attended Professional Development Programmes on E-Resources: A Gateway for Research organized by DTU from September 02nd to 06th, 2019

- Dr. Ajeet Kumar attended Professional Development Programmes on

International Workshop on Geohazards Risk Reduction Initiatives in South and South East Asia organized by DTU from November 21st to 22nd, 2019

- Dr. Ajeet Kumar attended One Week FDP on Role of Energy Management in Smart City organized by Department of Electrical & Electronics Engineering and Department of Mechanical Engineering, School of Engineering & Technology, Sharda University, Greater Noida U.P from June 15th to 19th, 2020.

- Dr. Ajeet Kumar attended Two Weeks Faculty Development Programme on "ADVANCED CONCEPTS FOR DEVELOPING MOOCS" organized by Teaching Learning Center, Ramanujan College, University of Delhi from July, 02nd - July 17th, 2020

- Dr. Ajeet Kumar attended Two Week Online Workshop on "Comprehensive e-Learning to e-Training guide for Administrative Work" organized by Teaching Learning Center, Ramanujan College, University of Delhi from May 25th - June 05th, 2020

- Dr. Ajeet Kumar attended One Week online FDP on Recent Trends in Material Science and Engineering organized by Department of Physics School of Basic Sciences and Research Sharda University from May, 25th - 31th, 2020

- Dr. Ajeet Kumar completed a MOOC course on "Introduction to Programming with MATLAB" on COURSERA on June 22th, 2020

- Dr. Yogita Kalra attended Faculty Development Programme on Developing Competencies to enhance performance viz a viz Organisational Image organized by National Institute of HRD and Advancement (NIHA) from August 08th to 11st, 2019

- Dr. Yogita Kalra attended Faculty Development Programme on Recent Developments in Renewable Energy Systems organized by Delhi Technological University from November 25th to 29th, 2019

- Dr. Yogita Kalra attended International Workshop on Geohazards Risk Reduction Initiatives in South and South East Asia organized by Delhi Technological University from November 21th to 22th, 2019

- Dr. Yogita Kalra attended One day National Seminar on Recent Trends in Applied Physics and Engineering organized by Delhi Technological University on February 10th, 2020

- Dr. Yogita Kalra attended One Week FDP on Role of Energy Management in Smart City organized by Department of Electrical & Electronics Engineering and Department of Mechanical Engineering, School of Engineering & Technology, Sharda University, Greater Noida U.P form June 15th to 19th, 2020

- Dr. Yogita Kalra attended Two Weeks Faculty Development Programme on Advanced Concepts For Developing MOOCs organized by Teaching Learning Center, Ramanujan College, University of Delhi from July 02nd to 17th, 2020

- Dr. Yogita Kalra attended Two Week Online Workshop on Comprehensive e-Learning to e-Training guide for Administrative Work organized by Teaching Learning Center, Ramanujan College, University of Delhi from May 25th to 05th, 2020

- Dr. Yogita Kalra attended One Week online FDP on Recent Trends in Material Science and Engineering organized by Department of Physics, School of Basic Sciences and Research, Sharda University from May 25th to 31st 2020

- Dr. Yogita Kalra attended Professional Development Program on Mind Control: Managing Your Mental Health During COVID-19 Online course by Coursera on June 19th, 2020

- Dr. Vinod Singh attended TEQIP-III sponsored One Week Faculty Development Programme on "Disaster Mitigation and Management" organized by DTU DELHI from November 25th to 29th, 2019

- Dr. Mukhtiyar Singh attended Professional Development Program on E-Resources: A Gateway for Research (2019) organized by Central Library, DTU on September 02nd - 06th, 2019

- Dr. Mukhtiyar Singh attended Residential Training Program on "Preventive Vigilance & e-procurement: Key to Good Governance organized by National Productivity Council, Jaipur from September 23rd to 27th, 2019

- Dr. Mukhtiyar Singh attended Professional Development Program on Recent Trends in Security and Cryptography organized by Department of Applied Mathematics, DTU from November 18th to 22th, 2019

- Dr. Mukhtiyar Singh attended Professional Development Program on Disaster Mitigation and Management organized by Department of Civil Engineering, DTU from November 25th to 29th, 2019

- Dr. Mukhtiyar Singh attended Professional Development Program on Recent Research Directions and Key Concepts in Electrical Engineering organized by Department of Civil Electrical Engineering, DTU from December 02nd to December 06th, 2019

- Dr. Mukhtiyar Singh attended Faculty Induction Training/Orientation program organized by Ramanujan College,

University of Delhi from June 04th to July 01st, 2020

- Dr. Amrish K. Panwar attended Workshop on E-Resources: A Gateway for Research 4rd edition (2019) organized by Central library, DTU from September 02nd to 06th, 2019

- Dr. Amrish K. Panwar attended FDP: Mass Spectrometry and Thermal Analysis Techniques organized by Centre for Ocean Research, Sathyabama Institute of Science and Technology, Chennai in Association with Ministry of earth sciences-Earth Science Technology Cell from July 13th to 18th, 2020

- Dr. M. Jayasimhadri attended Digital Workplace: Essentials for Non-IT Executives organized by External (National Productivity Council) from 29th July, 2019 to 2nd August, 2019

- Dr. M. Jayasimhadri attended Professional Development Programmes on Recent Trends in Welding Technology organized by DTU internally from August 22nd to 23rd, 2019

- Dr. M. Jayasimhadri attended Professional Development Program on Geohazards Risk Reduction Initiatives in South and South East Asia (GeoRiskSEA-2019) organized by DTU internally from November 21st to 22nd, 2019

- Dr. M. Jayasimhadri attended Professional Development Program on Recent Developments in Renewable Energy Systems organized by DTU internally from 25th to 29th November, 2019

- Dr. M. Jayasimhadri attended Professional Development Program on Geo-Meteorological Hazards Risk Management organized by DTU & National Institute of Disaster

Management, Ministry of Home Affair from 10th to 14th February, 2020

- Dr. M. Jayasimhadri attended Professional Development Programmes on Recent trends in Applied Physics and Engineering (RTAPE-2020) organized by DTU on 10th February, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Higher Education in India after Covid-19 organized by ARSDC, DU on 7th May, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Role of Ayurveda in Management of Covid-19 organized by ARSDC, DU on 9th May, 2020

- Dr. M. Jayasimhadri attended The 2020 Virtual Conferenc on Lasers and Electro-Optics (CLEO) organized by USA from 11th to 15th May, 2020

- Dr. M. Jayasimhadri attended Professional Development Programmes on Research Methodology: An overview organized by ARSD College, DU on 12th May, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Sustainable Energy Sources for the Transportation Applications organized by DTU on 14th May, 2020

- Dr. M. Jayasimhadri attended Virtual Symposium on Emerging Areas of Photonics to Celebrate International Day of Light organized by DDUC, DU on 16th May, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Comprehensive e-learning to e-training guide for administrative work organized by MHRD, TLC, RC, DU from 25th May, 2020 to 5th June, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Recent trends in Materials Science and Engineering organized by Sharda University form 25th May, 2020 to 31st May, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Creative writing of Research Proposals & Articles organized by Adikavi Nannaya University on 4th June, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Perfect Tenses and Modals by Coursera, University of California from 8th June, 2020 to 3rd July, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Role of Energy Management in Smart City organized by Sharda University from 15th to 19th June, 2020

- Dr. M. Jayasimhadri attended Professional Development Program on Advanced Concepts for developing MOOCS organized by Teaching Learning Centre, Ramanujan College, University of Delhi from 2nd to 17th July, 2020

- Dr. Bharti Singh attended One Day National Seminar on "Recent Trends in Applied Physics and Engineering" organized by Applied Physics, DTU on 10th Feb, 2020

- Dr. Bharti Singh participated in workshop entitled "E-content Development" organized by CPDHE, D.U from 23rd May to 29th May 2020

- Dr. Bharti Singh attended Workshop entitled "E-Resources: A Gateway for Research (2019)" organized by Central Library, Delhi Technological University from Sept. 2nd to 6th, 2019

- Dr. Bharti Singh attended one-month online "Faculty Induction Training/ Orientation programme" organized by

Teaching Learning Centre & Research Development and Services Cell of Ramanujan College, University of Delhi from June 4, 2020 to July 1, 2020.

- Dr. Bharti Singh attended 2 Week FDP on "Managing Online Classes and Co-Creating MOOCs 3.0" organized by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Teaching Learning Centre (Ramanujan College), University of Delhi during 25th July - 10th August.

- Dr. Renuka Bokolia attended Two Week Online Faculty Development Programme on Managing Online classes and Co-Creating MOOCs-3.0" organized by Ramanujan College from 25th July to 10th August 2020.

- Dr. Renuka Bokolia attended G-suite for Education Training with Techno@Team organized by DTU from July 4th to 6th, 2020

- Dr. Renuka Bokolia attended Online Induction Training/ Orientation Programme for Faculty In Universities/ Colleges/ Institutes of Higher Education organized by Ramanujan College,under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Human Resource Development (MHRD) from June 4th to July 1st 2020

- Dr. Renuka Bokolia attended Faculty Development Programme on "Recent Trends in Materials Science and Engineering organized by School of Basic Sciences & Research, Sharda University from May 25th to 31st , 2020

- Dr. Renuka Bokolia attended Workshop on "E-Contents Development and Online Pedagogy" Conducted by the Centre for Professional Development in Higher Education (CPDHE), from May 23th – 29th, 2020

- Dr. Renuka Bokolia attended Faculty Development Programme National Webinar entitled "Challenges and Opportunities in Higher Education in India for the 21st Century organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under (PMMMNMTT) of MHRD and IQAC, Hindu College on 8th May 2020

- Dr. Renuka Bokolia attended Professional Development Program on Recent Trends in Applied Physics and Engineering (RTAPE-2020)" by Shanti Swarup Bhatnagar (SSB) Awardees" organized by Department of Applied Physics, Delhi Technological University on 10th February 2020

- Dr. Renuka Bokolia attended International Conference on Atomic, Molecular, Optical and Nano Physics with Application" organized by Department of Applied Physics, Delhi Technological University from 18th to 20th December 2019

- Dr. Renuka Bokolia attended Annual Five Days Information Literacy Workshop-"E-Resources: A Gateway for Research, 4th Edition (2019) organized by Central Library, Delhi Technological University from 2 to 6 September 2019

- Dr. Renuka Bokolia attended Residential Training Programs on "Management Development Programme for Teaching Staff" conducted by Engineering Staff College of India (ESCI) Hyderabad from 26th to 30th August 2019

- Yogendra kumar meena attended Orientation Programme organized by Ramanujan college, Delhi University from June 04 to July 01

- Dr. Richa Sharma attended Two Week Online Faculty Development Programme on Managing Online Classes and Co-

Creating MOOCs 3.0 organized by Teaching Learning Centre & Research Development and Services Cell, Ramanujan College, University of Delhi under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Human Resource Development (MHRD) from July 25th to August 10th, 2020

- Dr. Richa Sharma attended UGC (Paramarsh) Online Faculty Development Programme on "ICT in Teaching & Evaluation organized by MSP Mandal's Shri Shivaji College, Parbhani (Maharashtra) from July 13th to 18th, 2020

- Dr. Richa Sharma attended One Day National Webinar entitled "ICT Enabled Higher Education in India" Jointly organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the PMMMNMTT of MHRD and Sanatan Dharma College, Ambala Cantt (Affiliated to Kurukshetra University, Kurukshetra) from July 13th, 2020

- Dr. Richa Sharma attended National Level Webinar on "Digital Transformation: eClassrooms & LMS organized by Shri. Surprising Hirya Naik College of Education, Navapur, Dist. Nandurbar (A Grade By NAAC in 2nd Cycle) in partnership with DigitalEdu IT Solutions Pvt. Ltd on July 7th, 2020

- Dr. Richa Sharma attended One Day National Webinar entitled "Technology-Empowered Higher Education in India" jointly organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under PMMMNMTT of MHRD and Sangamner Nagarpalika Arts, D. J. Malpani Commerce & B. N. Sarda Science College, Sagamner-422605 on July 6th, 2020

- Dr. Richa Sharma attended Online "GSuite for Education Training with Techno@Team" organized by Delhi Technological University on July 4th and 6th, 2020

- Dr. Richa Sharma attended One Day National Webinar entitled "Science, Environment and Human Health" organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under PMMMNMTT of MHRD in collaboration with Yashwantrao Chavan College of Science, Karad (IQAC & Department of Botany) on July 2nd, 2020

- Dr. Richa Sharma attended "Online Induction Training / Orientation Programme for Faculty in Universities / Colleges / Institutes of Higher Education" organized by Teaching Learning Centre & Research Development and Services Cell, Ramanujan College, University of Delhi from June 4th to July 1st, 2020

- Dr. Richa Sharma attended Faculty Development Programme National Webinar entitled "Women in Higher Education: Issues and Challenges during Corona Pandemic" organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under PMMMNMTT of MHRD on May 27th, 2020

- Dr. Richa Sharma attended One Day National Seminar on "Recent Trends in Applied Physics and Engineering (RTAPE-2020)" by Shanti Swarup Bhatnagar (SSB) Awardees organized by Department of Applied Physics, Delhi Technological University form February 10th, 2020

- Dr. Richa Sharma attended "International Conference on Atomic, Molecular, Optical and Nano Physics with Application" organized by Department

of Applied Physics, Delhi Technological University from December 18th to 20th, 2019

- Dr. Richa Sharma attended Residential Training Programs on "Self Development, Organisational Image viz a viz Customer centric approach conducted by National Institute of HRD and Advancement (NIHA), Delhi from 10th to 13th October, 2019

- Dr. Richa Sharma attended Annual Five Days Information Literacy Workshop -"E-Resources: A Gateway for Research, 4th Edition (2019)" organized by Central Library, Delhi Technological University from 2nd to 6th September, 2019

Faculty Visits to Other Institutions for Other Academic Works

Dr. Mohan Singh Mehata

- Invited talk on Excited Electronic State Dynamics of QLEDs and OLEDs materials at Department of Electronics and commutation Engg, SKIT, Jaipur on Jan 17-18, 2020

- Visited National Chiao Tung University, Hsinchu, Taiwan as a Visiting Professor to talk on Synthesized and photoexcitation dynamics of nanoparticles on September 22, 2019 to October 20, 2019

Dr. Yogita Kalra

- Delivered a Webinar on Optical Science: A New Paradigm at Swami Keshvanand Institute of Technology , Management and Gramothan, Jaipur on 3rd July, 2020

Dr. Vinod Singh

- Delivered Lecture on "Gas Phase Synthesis of Pd and Pd-C Nanoparticles" in 2nd National Conference on "New Trends in Nanotechnology and Applications (NTNA-2020) in ARSD College, DU at 6th – 7th February 2020.

- "Size Selected Metal, Metal-Alloy and Metal-Carbon Nanoparticles: Gas Phase Synthesis" in National Conference on Advances in Material Science and Technology 2020 (NCAMST-2020) at Department of Physics, University of Rajasthan, Jaipur on 29th February - 1st March, 2020

- Delivered lecture on "Gas Phase Synthesis of Nanoparticles" As Resource Person in 17th Refresher Course in Physical Sciences & Nano Sciences at UGC-HRDC, Jawaharlal Nehru University, Delhi form November 18th to 30th 2019,

Dr. Rishu Chaujar

- Invited as Distinguished Speaker on topic Technology Computer Aided Design: Simulation for VLSI Devices, Circuits and Systems at Jaypee Institute of Information Technology, NOIDA on July 24, 2020

- Invited on 7th IEEE International Conference as Session Chair on Microelectronics, Circuits and Systems at DTU on July 26, 2020

- Invited as Co-Chair in 7th IEEE International Conference on Microelectronics, Circuits and Systems at DTU at December 2nd, 2019

Dr. Amrish K. Panwar

- Expert lecture delivered in one week short term course on: "Advanced Nanomaterials for Energy Storage Devices" (ANESD-2019) organized by the Department of Physics, National Institute of Technology Kurukshetra (HR) during October 19-23, 2019

- Invited talk in International Conference on Atomic, Molecular, Optical and Nano Physics with Applications (CAMNP-2019) held on December, 18-20, 2019 at DTU.

Important Professional Affiliations

- Dr. Sarita Baghel is a permanent member of Solar Energy Society of India

- Prof. Suresh C Sharma is a member of Institute of Electrical and Electronics Engineers (IEEE), USA, International Association of Engineers (IAENG), Hong Kong, Indian Science Congress Association (ISCA), Indian Society for Technical Education (ISTE), New Delhi, Asia Pacific Physical Societies-Division of Plasma Physics (AAPPS-DPP)American Physical Society (APS), USA

- Dr. RIshu Chaujar is a member of EITE, IEEE, ISTE, IWSA, SSI, MRSI, ISCA, NASI, International Association of Engineers, Hong Kong, IEEE Electron Device Society.

- Dr. Bharti Singh is a life member of Materials Research Society of India (MRSI), Indian Association of Physics Teachers (IAPT), Electron Microscope Society of India (EMSI), Indian Science Congress Association (ISCA).

- Dr. Renuka Bokolia is a member of Materials Research Society of India (MRSI), Indian Association of Physics Teachers (IAPT), Electron Microscope Society of India (EMSI), The Indian Science Congress Association (ISCA).

- Dr. Ajeet Kumar is a member of Optical Society of America, Optical Society of India, Indian Laser Association, The Indian Society for Technical Education and The Indian Science Congress Association

- Dr. Vinod Singh is a member of Materials Research Society of India (MRSI), The Indian Science Congress Association (ISCA), Electron, Microscope Society of India (EMSI), Indian Association of Physics Teachers (IAPT).

- Dr. Mohan Singh Mehata is a member of American Chemical Society (ACS), Indian Science Congress Association (ISCA), Optical Society of India (OSI),

National Laser Association, Centre for advance technology , Vagyanic, Hindi Vegan Shahitya Prishad, Bhabha atomic research centre (BARC) Bombay, "Indian Society for the Radiation and Photochemical Sciences, India, "Laser and Spectroscopy Society of India (LASSI), BHU, Varanasi, Indian JSPS Alumni Association (IJAA).

- M. Jayasimhadri is a member of Vijnana Bharati (VIBHA),Indian Laser Association, The Optical Society of India, Andhra Pradesh Academy of Sciences, The Indian Science Congress Association, The Indian Society for Technical Education, International Society for Research and Development, Luminescence Society of India, Materials Research Society of India, National Environmental Science Academy

- Dr. Yogita Kalra is a member of Optical Society of America, Optical Society of India, SPIE, The Indian Science Congress Association

- Dr. Mukhtiyar Singh is a life member of Indian Association of Physics Teachers (IAPT).

- Dr. Richa Sharma is a life member of Materials Research Society of India (MRSI), Indian Association of Physics Teachers (IAPT), Electron Microscope Society of India (EMSI), The Indian Science Congress Association (ISCA).

Teachers Receiving awards from Govt. Recognised Bodies

- **Dr. Mohan Singh Mehata** won visiting Professor of NCTU, Taiwan in 2019

- **Dr. Vinod Singh** won Convener of International Conference CAMNP-2019

- **Dr. Vinod Singh** worked as Member, committee for the Project evaluation of AICTE's proposal under TEQIP-III Collaborative Research Scheme

- **Dr. Vinod Singh** Reviewer, Journal of Nanoscience and Nanotechnology

Teachers Receiving Grants from Govt. Recognised Bodies for research

- Dr. Richa Sharma received a grant of ₹2,88,000 for 2 Years from Delhi Technological University (DTU)

- Dr. Renuka Bokolia received a grant of ₹4,83,000 for 2 Years from Delhi Technological University (DTU)

- Dr. Vinod Singh received a grant of ₹4,85,000 for 2 Years from Delhi Technological University (DTU)

- Dr. Bharti Singh received a grant of ₹7,00,000 from DST for 5 years

- Dr. Amrish K. Panwar received a grant of ₹4,50,000 from DTU for 2 years

- Dr. Rishu Chaujar received a grant of ₹4,05,000 from DTU for 2 years.

Students provided with financial support to attend Conferences / Seminars /Symposia /Workshops/ Short Term Course/Guest Lecture

- Mr. Mukesh Kumar Sahu received ₹79,404 to attend 8th International workshop on Photoluminescence in Rare Earths: Photonic Materials and Devices (PRE) by Institut de Physique de Nice from 4th – 6th Spetember 2019.

- Mr. Deepali received ₹10,500 to attend National Conference on Luminescence and its Applications (NCLA 2020) by NIT Warangal from 10th – 12th February 2020

- Mr. Vikas received ₹10,500 to attend National Conference on Luminescence and its Applications (NCLA 2020) by NIT Warangal from 10th – 12th February 2020

Programmes where Revision was carried out

A major revision was carried out in M. Tech. Programme in 2019

Collaborative Activity for Research, Faculty and Student Exchange

- Dr. Mohan Singh Mehata participated in a 2 year research collaborative activity with Russian Academy of Science, Russia financed by DST from 2017-2019

Linkages with Institutions and Industries

- A research project with Department of Science & Technology (DST), Govt of India, under SERB Scheme commenced in 2018 for a period of 3 years in which Prof. Suresh C. Sharma was appointed as Principal Investigator.

Students pursuing Higher Education

- Mr. Ayush Paliwal is pursuing MS from University of GÖttingen (Germany)

- Mr. Jorawar Dham is pursuing MS from McGill University (Canada)

- Ms. Anushka Nagpal is pursuing MS from Texas A & M (USA)

- Mr. Alankrit Tomar is pursuing Ph.D. from University of Texas, Austin (USA)

Students' Achievements

- Ms. Pooja Chauhan received SPIE Officer Travel Grant (2200$)

- Mr. Alankrit Tomar received Mitacs Globalink Scholarship for summer internship

- Mr. Rishi Aneja received MitacsGlobalink Scholarship for summer internship

- Mr. Mrityunjay Kumar Singh Received Research fellowship of National Chiao Tung University, Taiwan

- Ms. Reena received Travel grant to attend Siegmann School on Lasers

Teachers receiving seed Money for Research

- Prof. A. S. Rao as Principal Investigator received ₹23,93,794/- from Department of Science & Technology (DST), Govt. of India, New Delhi, under SERB Scheme

- Dr. Bharti Singh received ₹8,00,000/- from UGC Startup

- Dr. Vinod Singh received ₹4,85,000/- from Delhi Technological University

- Dr. Mohan Singh Mehata received ₹62,17,000/- from SERB, DST

- Dr. Mohan Singh Mehata received ₹19,75,000/- from DST-RFBR

Teachers awarded International Fellowship

- Dr. Mohan Singh Mehata was appointed as visiting Professor in National Chiao Tung University, Taiwan

Programs where syllabus revision was carried out during the current year

- Major revision of Nanoscience and Technology in M.Tech. NST

- Minor Revision of Physics-1 in AP 101

- Minor revision of NST in M.Tech. NST

Achievements of the Department

- Department of Applied Physics organized **"International Conference on Atomic, Molecular, Optical and Nano Physics with Applications (CAMNP-2019)"** during December 18th-20th, 2019 at DTU.

- Department of Applied Physics in the year 2019 has introduced a new course, Masters of **Science (M.Sc. Physics) with an intake strength of 33**.

- New Computer Systems were procured in Computational Lab for B.Tech. (EP) with latest configurations. **Computer-Student ratio in the department is now achieved at 1:1.**

- Department of Applied Physics has planned to develop a **Centre of Excellence in the area of Space and Atmospheric Sciences.**

- Department has procured two major equipments to develop a **Centre of Excellence in the area of Space and Atmospheric Sciences** and in addition, procurement of three equipments is under process through TEQIP project.

- One Day National Seminar on "Recent Trends in Applied Physics and Engineering (RTAPE-2020)" by Shanti Swarup Bhatnagar (SSB) Awardees was organised by the department on 10th February 2020.

- Department of Applied Physics has signed **MoU with CSIO- Chandigarh on 11th February 2020.**

- Department has **one published patent (2019) in the name of Dr. M.S. Mehata** on the title "Light emitting metal and dual metal doped zinc selenide quantum dots and method thereof."

Details of Patents filed/published/awarded during the current year

- Light emitting metal and dual metal doped zinc selenide quantum dots and method thereof by **Mehata, M.S**., Sharma, V., Tandon, A filed by DTU

Grants for research projects sponsored by non-government sources

- Dr. Mohan Singh Mehata received amount fund of ₹62.17134 lakhs form SERB-DST

- Dr. Mohan Singh Mehata received amount fund of ₹19.752 lakhs from DST-RFBR

- Dr. Vinod Singh received amount fund of ₹14.08 lakhs from All India Council for Technical Education

- Dr. Vinod Singh received fund of ₹4.85 lakhs from DTU

- Dr. Renuka Bokolia received fund of ₹4.83 lakhs from DTU.

Awards of Innovation won by department/ teachers/ research scholars/ students

- Dr. Rishu Chaujar received Commendable Research Excellence Award from DTU

- Dr. Rishu Chaujar received Recognition for Excellence in Teaching Award from DTU

- Dr. Jayasimhadri received Research Excellence award from DTU

- Prof. S. C. Sharma received Research Excellence award from DTU

- Dr. Mohan Singh Mehata received Research Excellence award from DTU

- Prof. Rinku Sharma received Research Excellence award from DTU

- Prof. A. S. Rao received Research Excellence award from DTU

- Dr. Ajeet Kumar received Research Excellence award from DTU

- Dr. Yogita Kalra received Research Excellence award from DTU

- Dr. Nitin K. Puri received Research Excellence award from DTU

Collaborative activities for research, faculty exchange and student exchange

- Dr. Mohan Singh Mehta participated in Joint research project under Indo-Russian (DST-RFBR) scheme with Russian Academy of Science, Russia with financial Support from DST.

- Dr. Mohan Singh Mehta participated in Collaborative Research with National Chiao Tung University, Taiwan with financial Support from Natinal Chiao Tung University

Linkages with institution/ industries

- Dr. Vinod Singh received fund of ₹4.85 lakhs from DTU

- Mr. Ardaman Kaur (Research Scholar), Supervisor: Dr. Rishu Chaujar Jt. Supervisor: Dr. Vijay participated in Joint Ph.D. Guidance between INMAS, DRDO and DTU

- Dr. Mohan Singh Mehata participated in Joint research project under Indo-Russian (DST-RFBR) scheme between Russian Academy of Science and DTU

- Dr. Mohan Singh Mehata participated in Collaborative research work between National Chiao Tung University (NCTU) and DTU

Students progression to higher Education

- **Mr. Abhishek Seth joined** QUEEN'S University Belfast to pursue Master of Science in Materials Science and Engineering with Professional Internship

- **Mr. Arjun Monga joined** KTH Royal Institute of Technology, Stockholm, Sweden to pursue Masters in Electromagnetics, Fusion, and Space Engineering

- **Ms. Sonakshi Saini joined** Georgia Institute of Technology to pursue Master of Science (MS) in Materials Science and Engineering

- **Mr. Piyush Raj joined** Indian Institute of Technology, Delhi to pursue M. Tech Optoelectronics and Optical Communication

- **Mr. Rohan Sharma joined** Vrije Universiteit Brussel, Belgium to pursue European Master of Science in Photonics

- **Ms. Sakshi Sharma joined** Brown University to pursue Master's Physics

Professional Development/ Conference/ Seminars/ Symposia/ Workshop

- Dr. Vinod Singh convened International Conference on Atomic, Molecular, Optical and Nano Physics With Applications sponsored by AICTE, Ministry of Environment, Forest &Climate Change, SERB, DRDO, CSIR, TEQIP-III, DTU

- Prof. Suresh C. Sharma convened One Day National Seminar on "Recent Trends in Applied Physics and Engineering (RTAPE-2020)" by Shanti Swarup Bhatnagar (SSB) Awardees sponsored by DTU

- Mr. Mrityunjay Kumar Singh Received Research fellowship of National Chiao Tung University, Taiwan

- Mr. Mukesh Sahu grant received to attend 8th International workshop on Photoluminescence in Rare Earths: Photonic Materials and Devices (PRE'19)

- Ms. Deepali grant received to attend National Conference on Luminescence and its Applications (NCLA 2020)

- Mr. Vikas Grant received to attend National Conference on Luminescence and its Applications [NCLA- 2020]

- Arjun Monga cleared GRE in 2020

- Chandan Kumar cleared GATE in 2020

- Lakshay Gera cleared CAT in 2020

- M Aditya cleared GRE in 2020

- Sonakshi Saini cleared GRE in 2020

- Piyush Raj cleared Gate in 2020

- Rohan Sharma cleared TOEFL in 2020

- Yengkhom Abhishek Singh cleared GATE in 2020

Functional MOUs

- DTU signed MOU with CSIO Chandigarh

4.4 Department of Biotechnology

54 Journal Publications

19 Conference Publications

21 Book Chapters

Faculty 13

ACADEMIC PROGRAMMES

- B.Tech. (Biotechnology)
  Intake: 68
  Students Admitted: 67

- M.Sc. (Biotechnology)
  Intake: 35
  Students Admitted: 35

- M.Tech. (Bioinformatics)
  Intake: 22+5
  Students Admitted: 6

- M.Tech. (Industrial Biotechnology)
  Intake: 21+5
  Students Admitted: 5

- M.Tech. (Biomedical Engineering)
  Intake: 20+5
  Students Admitted: 6

- Ph.D. Research Scholars: 18

SALIENT FEATURES

The main objective of the Department is to provide academic training and conduct research in the interdisciplinary areas of biotechnology with particular emphasis on extending the knowledge generated from these studies towards the development of technologies of commercial significance. Research interests of the department include Nano bioelectronics, neurobiology, genome informatics, immunotherapeutic, plant molecular biology and environmental biotechnology.

LABORATORIES

The department has ten state-of-the-art laboratories, viz. Nano bioelectronics Laboratory, Stem Cell Biology Laboratory, Functional Genomics and Molecular Nanoscience Laboratory, Environmental Biotechnology Laboratory, Plant Molecular Biology Laboratory, Computational Biology Laboratory, Biochemistry Laboratory, Immunotherapeutic Laboratory and Genome Informatics Laboratory.

ACADEMIC STAFF

Professors: 03

- **Prof. Jai Gopal Sharma** (HOD), Ph.D., Post Doc., Areas of Interest are Aquaculture, Industrial Biotechnology, Bioenergy, Environment biotechnology, Amino Acids, Fatty Acids, Bio fuel and Medicinal Chemistry of Plants, Amino Acids, Fatty Acids, Bio fuel and Medicinal Chemistry of Plants

- **Prof. Pravir Kumar**, Former Dean (Alumni affairs) Ph.D., Postdoctoral research associate and Faculty/Adjunct Faculty, Tufts University School of Medicine (2007-2016) Areas of Interest are Neuroscience, Molecular Medicine, Physiology, Functional genomics, Proteomics, Vascular biology, Medical Biotechnology and Drug screening.

- **Dr. Bansi D. Malhotra** SERB Distinguished fellow, Ex-Professor (Reemployed), Ph.D., Postdoc, Areas of Interest are Nanobiotechnology, biosensors, flexible electronics, Biofuel cells, Self-powered devices

Associate Professors: 02

- **Dr. Yasha Hasija**, Ph.D., Areas of Interest are Genome Informatics, Human Disease Genomics, and Interactomics, Genome Annotation, Integration of genome-scale data for Systems Biology and Personalized Genomics

- **Dr. Nirala Ramchiary**, Ph.D., Areas of Interest are Plant Genetics and Metabolomics

Assistant Professors: 08

- **Dr. Asmita Das**, Ph.D., Postdoc, Areas of Interest are Cancer Immunotherapeutic, Cellular, and Molecular Immunology and Immunoinformatics

- **Dr. Navneeta Bharadwaj**, Ph.D., Areas of Interest are Medicinal Plant Biotechnology, Phyto-remediation, Algal Biofuels

- **Dr. Smita Rastogi Verma**, Ph.D., Areas of Interest are Molecular Biology and Genetic Engineering

- **Dr. Prakash Chandra**, Ph.D., Areas of Interest are Nanobiotechnology, Tissue engineering, Nano Toxicology, BioMicrofluidics

- **Dr. Saurabh C. Saxena**, Ph.D., Postdoc, Areas of Interest are Functional Genomics, Abiotic stress in plants, Genetic Engg., Biochemistry, Enzymology

- **Dr. Kriti Bhandari**, Ph.D., M.Sc., Areas of Interest are Biochemical Engineering

- **Dr. Rashmi Kataria**, (Ramalingaswami re-entry fellow), Ph.D., Postdoc, Areas of Interest are Biorefinery, Bioenergy Bioprocess & fermentation technology, Microbial & industrial Biotechnology

- **Dr. Simran Bhullar**, (Ramalingaswami re-entry fellow), Ph.D., Postdoc, Areas of Interest are Gene Regulation and Programmed Genome Rearrangements

Achievements of the Department

The Department of Biotechnology has been continuously engaged in a research oriented approach towards concept development. Our courses have been regularly modified in order to develop new skill development and translational courses for better employability. We are engaged in undertaking several projects sponsored by extramural as well as intramural funding. Our department has published more than 40 papers in the current year in several high impact factor journals. Our students have presented their work in several international conferences and have been awarded Best Poster awards as well. Faculty of our department have been invited to deliver plenary lectures in several national and international forums. Our students have successfully graduated and taken up positions in several Ivy League colleges and prestigious institutions for higher education. Students have achieved prestigious international awards like MIT and international fellowships like DAAD etc. Sports and extracurricular activities are also taken very seriously and many students have achieved national level awards in sports as well.

Participation in Professional Development Programmes by our Faculties

- Dr. Yasha Hasija Completed GSuite for Education Training organized by Techno@Team on July 04,2020.

- Dr. Yasha Hasija participated Recent Trends in AI and Machine Learning organized by Department of Information Technology, Delhi Technological University from July 29–August 02, 2019.

- Dr. Asmita Das completed Coursera Course on Understanding Cancer Matastasis by Johns Hopkins University, USA.

- Dr. Asmita Das completed Coursera Course on Introduction to Psychology by Yale University, USA.

- Dr. Asmita Das participated in E-FDP cum Workshop on Waste to Bioenergy, organized by Dept of Life Sciences, Sharda University, UP and Dept. of Agricultural Engineering, Maharashtra Institute of Technology, Aurangabad from 28th June-4th July 2020.

- Dr. Asmita Das participated in Trends and prospects in Biorefinery, organized by NIT Jalandhar from 10th-14th July 2020.

- Dr. Navneeta Bharadwaj participated in TEQIP III sponsored online STP on 'Trends and Prospects in Biorefinery' organized by Department of Biotechnology, NIT Jalandhar from 6th-10th July 2020

- Dr. Navneeta Bharadwaj participated in E-FDP cum Workshop on Waste to Bioenergy, organized by Dept of Life Sciences, Sharda University, UP and Dept. of Agricultural Engineering, Maharashtra Institute of Technology, Aurangabad from 28th June-4th July 2020

- Dr. Navneeta Bharadwaj participated in One week E-FDP-cum Training Workshop on Environment, Water and Disaster Risk Reduction organized by Sharda University and National Institute of Disaster Management, Ministry of Home Affairs,New Delhi from 13th-17th July 2020

- Dr. Kriti Bhandari participated in Training Program on Effective Lecture Presentation through PPT, organized by Human Resource Development Centre, Delhi Technological University, Delhi on August 3, 2019.

- Dr. Kriti Bhandari participated in E-FDP cum Workshop on Waste to Bioenergy, organized by Dept of Life Sciences, Sharda University, UP and Dept. of Agricultural Engineering, Maharashtra Institute of Technology, Aurangabad from 28th June-4th July 2020

- Dr. Kriti Bhandari participated in e TEQIP-III Sponsored online Short Term Course on "Trends and Prospects in Biorefinery" organized by Department of Biotechnology, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab, India from 10th-14th June, 2020.

- Dr. Kriti Bhandari participated in National Online Webinar on "Grassland Ecosystem – its significance, conservation and management, organized by Zoological Society of Assam unit of D.K.College and IQAC of D.K.college, Mirza on 18th July 2020

- Dr. Kriti Bhandari participated in Training program on "Online Teaching Classes", organized by Human Resource Development Centre, Delhi Technological University, Delhi from 3rd-4th July 2020.

- Dr. Smita Rastogi Verma participated in e TEQIP-III Sponsored online Short Term Course on "Trends and Prospects in Biorefinery" organized by Department of Biotechnology, Dr. B. R. Ambedkar National Institute of Technology Jalandhar, Punjab, India from 10th-14th June, 2020.

- Dr. Smita Rastogi Verma participated in Recent Trends in AI and Machine Learning organized by Department of Information Technology at Delhi Technological University from 29th July-2nd August 2019.

- Dr. Prakash Chandra participated in One week E-FDP-cum Training Workshop on Environment, Water and Disaster Risk Reduction organized by Sharda University and National Institute of Disaster Management, Ministry of Home Affairs,New Delhi from 13th-17th July 2020

- Dr. Prakash Chandra participated in TEQIP-III sponsored webinar on ' Stress Management and Building Immunity" organized by NIT Kalandhar, India on 9th July 2020.

- Dr. Prakash Chandra participated in E-FDP cum Workshop on Waste to Bioenergy, organized by Dept of Life Sciences, Sharda University, UP and Dept. of Agricultural Engineering, Maharashtra Institute of Technology, Aurangabad from 28th June - 2nd July 2020

- Dr. Prakash Chandra participated in Webinar on "Indo-German Bilateral Funding Programmes for Advanced Industrial research", organized by NIT Jalandhar, India on 26th June 2020

- Dr. Prakash Chandra participated in FDP on "Outcome based Education and Accredition", organized by IILM College of Engineering & Technology from 25th-29th May 2020

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Prof. Jai Gopal Sharma Served as Convener in "World Environment Summit 2020" organized by Environment and Social Development Association, Delhi at Vallabhbhai Patel Chest Institute University of Delhi, Delhi, India from 18th-19th January 2020.

- Prof. Jai Gopal Sharma Attended and participated Aqua excel 2020 Training course: "Fish Nutrition and Feeding" held at Institute National de la Recherche Agronomique (INRA) NUMEA, France from 18th-22nd November 2019.

- Prof. Jai Gopal Sharma Attended and presented project report in the Wrap up Meeting of the International collaborative project of Department Of Biotechnology (DBT), India & BBSRC, UK held at University of Stirling, Stirling, Scotland, United Kingdom from 25th-27th August 2019.

- Prof. Pravir Kumar was invited for Presentation on Physiological stressors and pharmacological intervention in neurodegenerative disorders from 7th-9th November 2019.

- Prof. Pravir Kumar was invited as conference speaker and session chair on Ubiquitination mechanism in Alzheimer's and other neurodegenerative disorders from 10th-13th October 2019.

- Dr. Yasha Hasija was invited as speaker in Short term summer course for UG students of University of Delhi on "Bioinformatics: An Introduction for Beginners" by Miranda House, University of Delhi for the Topic Machine Learning: A plethora of Applications on July 22, 2020

- Dr. Yasha Hasija was invited as speaker in Short term summer course for UG students of University of Delhi on "Bioinformatics: An Introduction for Beginners" by Miranda House, University of Delhi for the Topic Sequence Alignment on July 6, 2020

- Dr. Yasha Hasija was invited as speaker for Webinar on Artificial Intelligence in Healthcare by GGSIPU, Delhi on June 2, 2020

- Dr. Yasha Hasija was invited as speaker in World Congress on Biotechnology-2019 for the Topic of Current Research & Innovations in Biotechnology from 28th-29th August, 2019

- Dr. Yasha Hasija was invited as speaker in International Conference on Smart Technology, Artificial Intelligence and Computer Engineering (ICSTAICE) for the Topic of Artificial Intelligence in Healthcare: Opportunities and Challenges on 8th August, 2019

- Dr. Asmita Das was invited to give lecture on NK Cell and Tumor Cell Interactions: Understanding New Paradigms at AIIMS Symposium: Emerging Trends in Translational Oncology from 14th-15th February 2020.

Important Professional Affiliations

- Prof. Jai Gopal Sharma, Life Member (Aquaculture), The Society of Aquaculture Professionals (SAP)

- Prof. Jai Gopal Sharma, Life Member (Biotechnology), Biotechnology Society of India

- Prof. Jai Gopal Sharma, Life Member (Fisheries), Asian Fisheries Society, Philippines

- Prof. Jai Gopal Sharma, Life Member (Life Sciences), Indian Science Congress Association, India

- Prof. Jai Gopal Sharma, Life Member (Aquaculture), Association of Aqua culturists, CIFA, India

- Prof. Jai Gopal Sharma, Life Member (Aquaculture), Indian Fisheries Association, CIFE, India

- Prof. Jai Gopal Sharma, Life Member (Marine Botechnology), Marine Biological Association of India, CMFRI

- Prof. Jai Gopal Sharma, Life Member (Biotechnology), Electron Microscope Society of India

- Prof. Jai Gopal Sharma, Life Member (Nutrition), Nutrition Society of India

- Prof. Jai Gopal Sharma, Life Member (Biotechnology), Indian Society of Remote Sensing (ISRS)

- Prof. Jai Gopal Sharma, Life Member (Biotechnology), Indian Immunology Society

- Prof. Jai Gopal Sharma, Life Member (Biology), Indian Society for Radiation Biology

- Prof. Jai Gopal Sharma, Life Member, Indian Red Cross Society

- Prof. Jai Gopal Sharma, Life Member (Aquaculture), Coldwater Fisheries Society of India

- Prof. Jai Gopal Sharma, Life Member (Biogas), Biogas Forum India

- Prof. Pravir Kumar, Society for Neuroscience, Washington, USA

- Prof. Pravir Kumar, Alzheimer Forum, USA

- Prof. Pravir Kumar, Life Member (Biotechnology), Indian Academy of Neurosciences, India – LK92

- Prof. Pravir Kumar Life Member (Biotechnology), Society for Biotechnologist, India – L494

- Prof. Pravir Kumar Life Member (Biotechnology), Society for Neurochemistry, India – LM-I 265

- Prof. Pravir Kumar, Biotechnology, Asia Pacific Society for Neuroscience (APSN), 10-4-043-022.

- Prof. Pravir Kumar, Biotechnology, International Society for Neurochemistry (ISN)

- Prof. Pravir Kumar, Biotechnology, American Society of Neurochemistry (ASN)

- Dr. Bansi D. Malhotra, Biotechnology, Fellow National Academy (FNA), Indian National Science Academy

- Dr. Bansi D. Malhotra, Biotechnology, Fellow National Academy of Sciences (FNASc), Indian National Science Academy

- Dr. Bansi D. Malhotra, Academician, Biotechnology, Asia Pacific Academy of Materials (APAM)

- Dr. Yasha Hasija, Life Member (Human Genomics), Indian Society of Human Genetics (ISHG)

- Dr. Yasha Hasija, Life Member (Biotechnology), Society of Biological Chemists (SBC)

- Dr. Yasha Hasija, Life Member, Biotechnology, The Indian Science Congress Association

- Dr. Yasha Hasija, Member, Biotrechnology, International Association of Engineering (IAENG)

- Dr. Yasha Hasija, Member, Biotechnology, National Network for Mathematical and Computational Biology (NNMCB)

- Dr. Asmita Das, Life Member, Biotechnology, Indian Immunology Society

- Dr. Asmita Das, Life Member, Biotechnology, Indian Science Congress

Programs where Syllabus Revision was carried out

- A Major revision in the course of M.Tech. in Bioinformatics was carried out in which 60% of course content was updated.

- A Major revision in the course of M.Tech. in Industrial Biotechnology was carried

out in which 60% of course content was updated.

- A Major revision in the course of M.Tech. in Biomedical Engineering was carried out in which 60% of course content was updated.

Students pursuing Higher Education

- Mr. Karanpreet Singh Bhatia, an alumnus of B.Tech., Biotechnology is pursuing Ph.D. in Pharmacy from National University of Singapore.

- Ms. Bhumika, an alumnus of B.Tech., Biotechnology is pursuing M.S. in Pharmacy from University of Minnesota.

- Ms. Stuti Mittal, an alumnus of B.Tech., Biotechnology is pursuing M.S. in Biotechnology and Entrepreneurship from New York University (NYU).

Students' Achievements

- Mr. Karanpreet Singh Bhatia qualified GATE, GRE and TOEFL examinations.

- Ms. Bhumika qualified GRE.

- Ms. Stuti Mittal qualified GRE.

- Ms. Gunjan Sachdeva won a National level Cultural Award in English Poem Category.

- Ms. Kirti won a National level Sports Award in AAHVAAN 2020.

- Mr. Kartikey Mishra won National level Cultural Award in IIT Delhi Rendezvous 2019.

- Mr. Krishan Kumar Rao won National level Sports Award in AAHVAAN 2020.

- Ms. Aparna Chauhan won National level Sports Award in ARENA 2020.

- Ms. Manisha won National level Sports Award in Arena 2020.

- Mr. Prince Yadav won a National level Sports Award in AAHVAAN 2020.

- Ms. Vidushi Aggarwal won a National level Sports Award in AAHVAAN 2020.

- Mr. Govind Kumar Jha won a National level Cultural Award in DU Circuit.

- Mr. Vipin won a National level Sports Award in AAHVAAN 2020.

- Ms. Aparna Chauhan received DAAD Scholarship.

- Ms. Simran Kaur received Third Prize in Oral Presentation on "Digital holographic microscope: A new edge to cervical cancer detection" at the International Conference of Biotechnology and Applied Microbiology (ICBAM) 2020.

- Ms. Simran Kaur's "Biosensor mask" idea shortlisted in top 30 ideas in Zeal Institute Hackathon 2020 (Group project).

- Ms. Simran Kaur's Paper accepted in Springer nature on the topic - Role of computational intelligence in COVID-19.

- Mr. Sumit Kumar is National Cadet Corp from Senior Wing from 4 DBN.

- Mr. Sumit Kumar has working exp in GROZ TOOL LTD as a JE engg.

- Mr. Sumit Kumar scored 1003 rank in Delhi Polytechnic CET Exam.

Teachers Receiving awards from Govt. Recognised Bodies

- Prof. Jai Gopal Sharma was awarded with Excellence in Research Award by Delhi Technological University in 2020.

- Prof. Pravir Kumar was awarded with Excellence in Research Award by Delhi Technological University in 2020.

- Dr. Bansi D. Malhotra was awarded with ₹84 Lakhs for 5 years by HEI in 2019.

- Dr. Yasha Hasija was awarded with Excellence in Research Award by Delhi Technological University in 2020.

- Dr. Nirala Ramchiary was awarded with Excellence in Research Award by Delhi Technological University in 2020.

- Dr. Navneeta Bharadwaj was awarded with Excellence in Research Award by Delhi Technological University in 2020.

- Dr. Asmita Das was awarded with Excellence in Research Award by Delhi Technological University in 2020.

Details of Awards for Innovation won by the Department

- Dr. Rashmi Ambasta and Prof. Pravir Kumar received Excellence in Research Award for the work on "Can luteolin be a therapeutic molecule for both colon cancer and diabetes?" by Delhi Technological University in 2020.

- Prof. Pravir Kumar received Excellence in Research Award for the work on "An In-Silico Investigation of Key Lysine Residues and Their Selection for Clearing off A and Holo-A PP Through Ubiquitination" by Delhi Technological University in 2020.

- Prof. Pravir Kumar received Excellence in Research Award for the work on "A , Tau, and -Synuclein aggregation and integrated role of PARK2 in the regulation and clearance of toxic peptides" by Delhi Technological University in 2020.

- Dr. Pooja Srivastava and Prof. Pravir Kumar received Excellence in Research Award for the work on "Modified benzoxazolone (ABO-AA) based SPECT probes for 18 kDa TSPO Article" by Delhi Technological University in 2020.

- Ms. Saanya Yadav was the MIT Covid19 Hackathon: India Turning the Tide Winner organized by MIT in 2020.

- Mr. Udiptya Saha was the MIT Covid19 Hackathon: India Turning the Tide Winner organized by MIT in 2020.

- Mr. Rajkumar Chakraborty received award for the work on Drug repurposing against Covid-19 by SAMHAR-COVID19 Hackathon: Centre for Development of Advanced Computing (C-DAC) under the aegis of the National Supercomputing Mission (NSM), a Ministry of Electronics & Information Technology (MeitY) and Department of Science & Technology (DST) initiative, in association with NVIDIA &Open ACC in 2020.

Linkages with institutions/industries for internship, on-thejob training, project work, sharing of research facilities etc.

- An internship linkage for Major Project-II by Mr. Ashutosh Nath Jha (M.Tech. IBT) was done with Jubilant Food Works Limited 5th Floor Tower D, Plot No.5, Logix Techno Park, Sector 127, Noida-201304 UP India Phone: 0120-4090500 from January 2020 to June 2020.

- An internship linkage for Major Project-II by Ms. Lovely Singh (M.Tech. IBT) was done with Sphaera Pharma Pvt.Ltd. Plot No.-32 Sector % IMT Manesar Gurugram Haryana -122052 Contact No.0124-4187500 from January 2020 to June 2020.

- An internship linkage for Major Project-II by Ms. Ankita Chakravarty was done with AMUL Sagar, Dudhman Sagar, Manesar, Haryana from January 2020 to March 2020.

- A Ph.D. Work linkage by Ms. Neha Tiwary was done with SAIF-AIIMS, New Delhi from January 2020 to June 2020.

- A Ph.D. Work linkage by Ms. Neha Tiwary was done with AIRF-AIIMS, New Delhi from January 2020 to June 2020.

Students provided with financial support to attend Conferences, Seminars, etc.

- Mr. Saksham Garg was provided with financial support for Poster Presentation at International Conference on Advances in Bioscience and Biotechnology 2020 organized by JIT, Noida.

- Mr. Shakib Akram Khan was provided with financial support for attending International Conference ABIS (Applications of Biotechnology in Industry And Society)-2019, organized by NIT Jalandhar, and International Conference ICES (International Conference on Environment And Society)-2019 organized by HBTU Kanpur.

- Ms. Simran Kaur was provided with financial support for attending International Conference of Advances in Biosciences and biotechnology (ICABB) 2020.

- Ms. Shreya was provided with financial support for attending Biosafety, Bioethics and IPR one week program by Ram Lal Anand College, The community tracing collaborative by Harvard Medical school, and Cardiovascular complications of Covid-19 by Harvard medical school.

- Ms. Ritika Luthra was provided with financial support for attending conference at ICABB2020 and presented on Biofertilizers (poster presentation). The abstract has been published on their journal organized by DBT, Government of India.

Staff Training

- Mr. Chhail Bihari, and Mr. Jitendra Singh participated in the Lab Awareness & Internal Auditing organized by Engineering Staff College of India.

New Courses Introduced

- A new program and its courses on M.Sc. Biotechnology (MSBT) were I traduced from 2019.

Teachers Receiving Seed Money for Research

- Dr. Asmita Das received ₹3 lakhs in 2019 for 3 years for DTU Project.

4.5 Department of Civil Engineering

25 Journal Publications

12 Conference Publications

2 Book Chapters

Faculty 26

ACADEMIC PROGRAMMES

- B. Tech. (Civil Engineering)
  Intake: 134
  Students Admitted: 133
- B. Tech. (Continue Education)
  (Civil Engineering)
  Intake: 60
  Students Admitted: 9
- M. Tech. (Structural Engineering)
  Intake: 22+5
  Students Admitted: 23
- M. Tech. (Geotechnical Engineering)
  Intake: 22+5
  Students Admitted: 24
- M. Tech. (Hydraulic & Water Resources)
  Intake: 21+5
  Students Admitted: 19
- M.Tech. (Geo Informatics)
  Intake: 18
  Students Admitted: 03
- Ph.D. Research Scholars: 19

LABORATORIES

The Department is well equipped with laboratories related to Structure, Concrete testing, Soil Mechanics, Highway Engineering, Experimental Stress Analysis, Computational Mechanics, Education Technology, Photogrammetric and GIS facilities, Environmental Engineering and Hydraulics Laboratories.

SALIENT FEATURES

Traditionally Civil Engineering has played an important role in improving the civic life of society by harmonizing the natural resources available on earth. Some of the major areas in the field of Civil Engineering are design and construction of various structures like bridges, buildings, roads, tunnels and dams, developing new construction technologies, Design and development of Foundation systems, Geotechnical Engineering, Transportation and Traffic Engineering, Municipal and Sanitary services, surveying, GIS and Remote Sensing, and Hydraulics and Water Resources Engineering. Besides the basic and engineering sciences the curriculum in Civil Engineering covers various professional subjects on structures, foundations, construction, works management and cost, transportation engineering, irrigation engineering, hydraulics, environmental engineering and earthquake technology, etc.

ACADEMIC STAFF

Professors: 14

- **Prof. Nirendra Dev** (HOD), B.Tech., M.Sc. (Engg.), Ph.D. Structural Engineering. Areas of interests are Structural Engg., Structural Dynamics, Finite Element Method, Disaster Management, High Strength Nano Composites, Concrete Technology.

- **Prof. Anil Kumar Sahu**, B.E., M.E., Ph.D. Area of Interest is Geotechnical Engineering.

- **Prof. V.K. Minocha** B.E., M.Tech., Ph.D. Water Resources. Area of Interest is Environmental Engineering.

- **Prof. Ashutosh Trivedi**, B.Sc. (Engg.), M.Tech., Ph.D. Geotechnical Engineering. Areas of Interest are Civil Engineering, Geotechnical Engineering, Rock Mechanics, Soil Dynamics.

- **Prof. Ashok Kumar Gupta**, B.Sc. (Rohilkhand Univ.), B.Tech.(Hons) (Avadh Univ., KNIT Sultanpur), M.Tech. (Kurukshetra Univ., REC Kurukshetra),

Ph.D. (IIT Bombay). Areas of Interests are Geoenvironmental Engineering, Ground Improvement Techniques, Stability of Tunnels, Settlement of Foundations.

- **Prof. K.C. Tiwari** (Retd. Col), M.E. (CAD), Ph.D. Microwave/Optical Remote Sensing, GIS, Expert Systems, Image Processing. Areas of Interests are Geoinformatics and its applications in Civil Engineering, Disaster management, Optical and Microwave remote sensing, GIS, Hyperspectral and SAR data processing, Camouflaged Target detection, Super resolution mapping, Satellite Image Processing Artificial intelligence.

- **Prof. Amit Kumar Shrivastava**, B.E. (Civil), M.E. (Civil), Ph.D. (Civil). Areas of Interests are Geotechnical Engineering, Rock Mechanics, Pile Foundation, Geo Environmental Engineering.

- **Prof. Rakesh Kumar**, M.Tech., Ph.D. Fluid Mechanics. Areas of Interests are Hydraulics and Water Resources: Model studies through CFD softwares.

- **Prof. Alok Verma**, M.Tech. Structural Engineering, Ph.D., Areas of Interests are Earthquake technology and use of fuzzy logic and neural networking in the area of durability studies.

- **Prof. Awadhesh Kumar**, M.E. (CAD) [UoR;R (1993)], Ph.D.[IIT;R (2001). Areas of Interests are Cementitious Products, Tall Buildings and Non-Linear Analysis using Finite Element Method.

- **Prof. Naresh Kumar**, M.Tech, (NIT, Kurukshetra); Ph.D. (University of Delhi). Areas of Interests are Deep Foundations; Experimental testing on load carrying capacity of Innovative Piles; IPR Laws.

- **Dr. S. Anbu Kumar**, B.E. (Civil), M.Tech. (IIT Madras), Ph.D. (DTU), Areas of Interests are Fluid Mechanics, Hydraulics and Water Resource Engineering.

- **Dr. Raju Sarkar**, B.E., M.E., Ph.D. Soil Mechanics. Areas of Interests are Geotechnics for Natural Disaster Mitigation, Soil-Structure Interaction, Environmental Geotechnology, Pavement Geoteachnology, Ground Improvement technique, Numerical Modeling.

- **Dr. Munendra Kumar**, M.E., Ph.D. Fluid Mechanics. Areas of Interests are Fluid Mechanics, and Hydraulics.

Scientist C: 01

- **Prof. Anubha Mandal**, B.Tech. (Regional Engineering College, Durgapur, Univ. of Burdwan), Ph.D-Integrated (I.I.T.,Delhi). Areas of Interests are Air Pollution, Indoor Air Pollution & Health, Solid Waste Management & Health.

Associate Professors: 07

- **Mr. G.P. Awadhiya**, M.Tech. Structures, Area of Interest is Structural Engineering.

- **Mr. Narad Muni Prasad**, M.Sc. Civil (Transportation), Area of Interest is Pavement Engineering.

- **Mr. Susheel Kumar**, B.Tech., M.Tech. Area of Interest is Traffic and Transportation Engineering.

- **Dr. T. Vijay Kumar**, B.E., M.E., Ph.D., Areas of Interests are Environmental Engineering, Fluid Mechanics & Hydraulics.

- **Mr. A.R. Kongan**, B.E., M.E. Soil Mechanics & Foundation Engg. Areas of Interests are Structural Engineering and Transportation Engineering/Prestressed Concrete, High Rise Buildings, Collapsible and Expansible soils.

- **Dr. Shilpa Pal**, B.E., M.E., Ph.D. Area of Interest are Seismic Analysis of Dam and Slope Stability Studies, Disaster Risk Reduction Studies, Biofortified Concrete, Green Material in Construction.

- **Dr. Pradeep K. Goyal**, B.E., M.E., Ph.D. Area of Interest are Cyclone Disaster Mitigation, Microzonation, Hazard analysis and risk assessment, reliability analysis, soft computing techniques, materials, rural housing.

Assistant Professors: 04

- **Mr. B.R.G. Robert**, B.E. Civil Engineering. Areas of Interest are Geology, Surveying, Building Materials & Construction.

- **Dr. Bharat Jhamnani**, B.E., M.E. Ph.D. Area of Interest is Hydraulics Engineering.

- **Dr. Ritu Raj, Ph.D.**, Areas of Interest are Structural Engineering, Wind Engineering.

- **Mr. Hrishikesh Dubey**, B.E., M.Tech. Areas of Interest are Structure Engineering, Earthquake Engineering.

Teachers provided with financial support to attend Conferences, Seminars, etc.

- Dr. Shilpa Pal attended 8th International Symposium on Fusion of Science and Technology, organized by YMCA Faridabad from January 6th - 19th, 2020.

Participation in Professional Development Programmes by our Faculties

- Dr. Shilpa Pal attended Disaster Risk, Vulnerability Assessment and Management, organized by National Institute of Disaster Management, Delhi, and Department of Civil Engineering, Delhi Technological University, Delhi from June 29th to July 3rd, 2020.

- Dr. Shilpa Pal attended Applications of Techniques/Tools in Engineering, organized by Department of Mathematics and Electrical Engineering, Gautam Buddha University, Greater Noida from July 20th-24th 2020.

- Dr. P. K. Goyal attended FDP on Universal Human Values Organized by Delhi Technological University from October October 21st -23rd, 2019

- Dr. P. K. Goyal attended Training Program on Geo-Meteorological Hazards Risk Management organized by Delhi Technological University and National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India, Delhi from February 10th – 14th, 2020.

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Dr. Shilpa Pal delivered a lecture on Ensure Your Safety Against Earthquake: Dos and Don'ts at National Webinar organized by Centre for Extension and Field Outreach, DTU participating institute of Unnat Bharat Abhiyan on June 25th 2020.

- Dr. Shilpa Pal delivered a lecture on Ensure Your Safety Against Earthquake: Dos and Don'ts at One day National Webinar on Safety against Earthquake organized by School of Engineering and Technology Indira Gandhi National Open University, New Delhi on May 31st 2020.

- Dr. Shilpa Pal delivered a lecture on Development of Self Healing concrete for Concrete Healing at Two day online workshop on Behaviour of Smart Materials and Concrete Structures organized by Deptt. of Civil Engineering, Aligarh Muslim University, Aligarh on May 13th 2020.

- Dr. Shilpa Pal delivered a lecture on Landslides Hazard Vulnerability and Risk Assessment at Geo-Meteorological Hazards Risk Management (at Department of Civil Engineering, Delhi Technological University, Delhi) Organized by NIDM (Ministry of Home Affairs, New Delhi) & Department of Civil Engineering, DTU, New Delhi on February 13th, 2020.

- Dr. Shilpa Pal delivered a lecture on Modeling Dams and Landslides – A route to Mitigate Disaster at one week FDP on Disaster Mitigation and Management organized by Deptt. of Civil Engineering, DTU from 25th-29th November 2019.

- Dr. Shilpa Pal delivered a lecture on Importance of Earthquake Resistant Structures for Smart Cities in the Two Week Faculty Development Programme on Smart Cities: Challenges and Opportunities organized by Deptt. of Civil Engineering, Aligarh Muslim University, Aligarh on 17th December 2019.

- Dr. P. K. Goyal delivered a lecture on Basics of Mechanics of Solids in Govt. Engineering College Bharatpur, Rajasthan on February 4th, 2020

- Dr. P. K. Goyal delivered a lecture on Geohazards risk reduction initiative in south and south east Asia in International Workshop organized by Delhi Technological University on November 22nd, 2019

- Dr. P. K. Goyal delivered a lecture on Computational Trends and applications in International Weinar, Civil Engineering organized by JSS Academy of Technical Educational, Noida on June 9th, 2020

Important Professional Affiliations

- Dr. P.K. Goyal, Life Member, ISTE, New Delhi

- Dr. Shilpa Pal is Life Member of ISET, ISCMS, ICI, SCRS, ISC, IASTRUCTE and Associate member of Institute of Engineers.

Programmes where Syllabus Revision was carried out

- A major revision in the curriculum of M.Tech. (Structural Engineering) was done in the year 2019.

- A major revision in the curriculum of M.Tech. (Geotechnical Engineering) was done in the year 2019.

- A major revision in the curriculum of M.Tech. (Hydraulics & Water Resource Engineering) was done in the year 2019.

Professional Development Programmes, Conferences, Seminars, Workshop, etc organized by the Department

- A professional development program on Geohazards Risk Reduction Initiatives in South East Asia was organized by Dr. Raju Sarkar and Prof. A K Sahu sponsored by TEQIP-III from 21st to 22nd November 2019 attended by 92 participants.

- A professional development program on Disaster Mitigation and Management was organized by Dr. P K Goyal, Dr. Shilpa Pal and Dr. Ritu Raj Ahirwar sponsored by TEQIP-III from 25th to 29th November 2019.

- A professional development program on Geo-Meteorological Hazards Risk Management was organized by Dr. Shilpa Pal and Dr. Raju Sarkar sponsored by NIDM (Ministry of Home Affairs, New Delhi) from 10th to 14th February 2020.

- A National Training Program on Disaster Risk, vulnerability assessment and management was organized by Dr. P. K. Goyal sponsored by NIDM (Ministry of Home Affairs, New Delhi) from June 29th to July 3rd 2020.

Revenue generated from consultancy

S. No.	Name of P.I	Name of Consultancy	Consulting Agency	Date	Revenue Generated (₹)
1	Prof. Nirendra Dev	Construction of 600 Two BHK, 250 Three BHK and 320 EWS Houses (Design and Built Model) Earmarked in Pocket-9 Sector-A-1 to A-4, Narela, Delhi	DDA, Delhi	13.08.2019	1,46,03,863/-
2	Dr. Ritu Raj	G.B.T./R.T.T. Tower Foundation Design/Drawings proof Checking/vetting	VAS Design	16.08.2019	3,33,350/-
3	Dr. Ritu Raj	Proof Checking of Solar PV Power Plant Module Mounting Structure	CPWD	16.08.2019	1,18,000/-
4	Dr. Ritu Raj	Construction of Left-Out Building Works, for Lady Hardinge Medical College & Associated Hospitals, New Delhi	HSCC India Ltd	16.08.2019	59,000/-
5	Dr. Ritu Raj	Checking & Vetting of Estimates of (1). Constrcution of 16632 MT's Capacity Godowns including arch shaped galvalume sheet roofing, office block, etc Works at SWH, Hisar, (2). Construction of 18480 MT's capacity godowns including arch shaped galalume sheet etc. works at SWH, Nayabans, Rohtak	HSWC	16.08.2019	88200
6	Dr. Ritu Raj	Up-Gradation and Maintenance of OKHLA Industrial Estate Ph-III. C/o of RCC Boundary Wall Sump Well and RMC Roads etc.	DSIIDC	28.08.2019	1,12,000/-
7	Dr. Ritu Raj	Proof Checking/Vetting of Tower Foundation Design (GBT/R.T.T)	Sheltara Consultants	28.08.2019	3,54,000/-

S. No.	Name of P.I	Name of Consultancy	Consulting Agency	Date	Revenue Generated (₹)
8	Mr. Hrishikesh Dubey	Next Generataion IP-MPLS Network for Indian Navy of NFS Project on turnkey basis at Delhi Cantt regarding IGNTU Campus	Sterlite Ltd	28.08.2019	88,500/-
9	Mr. Hrishikesh Dubey	Vetting of Structural Drawings of Work Insisde IGNTU Campus	CPWD	28.08.2019	2,53,700/-
10	Mr. Hrishikesh Dubey	Vetting of Design of Structures & Foundation for Roof Top/ Ground based MW towers	Unique Designers	26.09.2019	59,000/-
11	Dr. Ritu Raj	Vetting of Structure Design/ Drawing for Proposed Jacking and Receiving RCC Shaft for micro tunneling for project of providin and laying 280 mm-900 mm nominal dia. Sewer line in Vikash Puri	Raj Conbuild Ltd.	26.09.2019	59,000/-
12	Dr. Ritu Raj	C/o Stage-I of Phase-II, DTU at Bawana road, Delhi, 12 C/o Academic Block, AB-3 & Ab-4, Boys Hostel & Girls Hostel and all external and internal services including external landscapping and allied civil and E7M Works	SAM India	16.10.2019	2,08,860/-
13	Dr. Ritu Raj	Proof Checking & Approval of Design and Drawing of Surkanda Devi Rope Way, Chamba Mussorie-Road, Kaddukhal, U.K.	SRP	16.10.2019	1,18,000/-
14	Dr. Raju Sarkar	Geotechnical consultation for grouting work	Bimla Palia	29.11.2019	3,54,000
15	Dr. Ritu Raj	Proof Checking of Structural Design/Drawing for the work of Remodelling of Govt. Dispeneries to Polyclinic	ACC	10.12.2019	59,000/-

4. ACADEMIC DEPARTMENTS

S. No.	Name of P.I	Name of Consultancy	Consulting Agency	Date	Revenue Generated (₹)
16	Dr. Ritu Raj	C/o Stage-I of Phase-II, DTU at Bawana road, Delhi, 12 C/o Academic Block, AB-3 & Ab-4, Boys Hostel & Girls Hostel and all external and internal services including external landscapping and allied civil and E7M Works	SMA	10.12.2019	3,68,160/-
17	Dr. Ritu Raj	Proof Checking of Structural Design/Drawing for the work of Remodelling of Govt. Dispeneries to Polyclinic	MIA	10.12.2019	59,000/-
18	Dr. Raju Sarkar	TPQA towards construction of propose New buildings B+G+6 floors-270 beds for expansion of Rao tula ram govt. hospital at Jaffarpur, Delhi	PWD, DELHI	25.01.2020	14,17,109/-
19	Dr. Raju Sarkar	Construction of propose new buildings B+G+9 Floors-472 beds, doctor's hostel and dormitory for expansion of Guru govind singh hospital at Raghubir Nagar, Delhi	PWD, DELHI	25.01.2020	30,94,869/-
20	Dr. Shilpa Pal	TPQA of work of expansion/remodelling work at Acharya Shree Bikshu Govt. Hospital at Moti Nagar, Delhi	PWD	28.1.2020	17,72,837
21	Mr. Hrishikesh Dubey	TPQA DDA,	DDA, Delhi	28.01.2020	32,90,748/-
22	Dr. Ritu Raj	TPQA of DDA RPD-8, Rohini, Delhi-110085	DDA	28.1.2020	32,90,748/-
23	Dr. Ritu Raj	Proof Checking/vetting of tower foundation design (GBT/R.T.T)	Sheltera consultants Pvt. Ltd.	19.3.2020	2000/- per tower
24	Dr. Ritu Raj	TPQA, TMPED Delhi	CPWD	2.3.2020	36,00,000/-

4.6 Department of Computer Science and Engineering

84 Journal Publications

130 Conference Publications

7 Book Chapters

Faculty 22

ACADEMIC PROGRAMMES

- B. Tech. (Computer Engineering)
  Intake: 398
  Students Admitted: 397

- B. Tech. (Software Engineering)
  Intake: 134
  Students Admitted: 133

- M. Tech. (Computer Science and Engineering)
  Intake: 22+5
  Students Admitted: 26

- M. Tech. (Software Engineering)
  Intake: 22+5
  Students Admitted: 21

- Ph.D. Research Scholars: 19

LABORATORIES

Department has developed state-of-the-art laboratories in the various fields of Computer Engineering- Computer Architecture Lab, Computation and programming Lab, Artificial Intelligence Lab, Linux Android Network Systems Lab, upcoming Samsung Digital Research Academy Lab and many others.

SALIENT FEATURES

The Department of Computer Science and Engineering endeavours to provide the thrill of a corporate R&D environment with a planned focus on industrially relevant projects and technology incubation. The curriculum defined, lays greater emphasis on design principles and development of system software for operating systems, Database management systems, data mining, computer graphics and networks. Currently the department offers Doctorate, post-graduate & under-graduate courses in fields of Computer Engineering and Software Engineering & Technology. The department also has an active student chapter of Computer Society of India (CSI) and Society of Software Engineering which contribute significantly in professional activities undertaken by IEEE and IET student's chapters. The B. Tech (CSE) program has an NBA accreditation.

ACADEMIC STAFF

Professors: 01

- **Prof. Rajni Jindal** (HOD), M.C.A., M.E., Ph.D., Areas of Interest are Database Systems, Data Mining and Operating Systems

Emeritiuous/Adjunct Faculty: 01

- **Prof. Daya Gupta**, M.Sc., Post M.Sc. Diploma (Computer Sc.), Ph.D., Areas of Interest are Software Engineering, Artificial Intelligence, Data Mining and Security

Associate Professors: 07

- **Dr. Vinod Kumar**, B.E., M.Tech., Ph.D., Area of Interest is Computer Network

- **Dr. Manoj Kumar**, B.Tech., M.Tech., Ph.D., Area of Interest is Information Security

- **Dr. Ruchika Malhotra**, Ph.D., Post Doc (Indiana University Purdue University, USA), Areas of Interest are Machine Learning and Predictive Modelling, Software Testing and Quality, Empirical Software Engineering, Search-based Software Engineering

- **Dr. Anil Singh Parihar**, B.Tech., M.E., Ph.D., Areas of Interest are Pattern Recognition, Computer Vision, Soft Computing, Image Processing, Evolutionary Computing, Biometric Systems, Artificial Intelligence

- **Dr. Rahul Katarya**, B.Tech., M.Tech., Ph.D., Areas of Interest are Big Data Analytics, Social Networks Analysis, Human Behaviour, Multimedia Systems, Internet Technologies, Web Mining, Data Mining

- **Dr. Shailendar Kumar**, B.E., M.Tech., Ph.D., Areas of Interest are Database Systems, Datamining, Big Data Analytics, Machine Learning, Information Security, Compiler Construction, Computer Network

- **Dr. Aruna Bhat**, B.Tech., M.Tech., Ph.D., Areas of Interest are Machine Learning and Pattern Recognition, Campus Incubators

Assistant Professors: 12

- **Dr. Akshi Kumar**, B.E., M.Tech., Ph.D., Areas of Interest are Web Technologies, Text Mining, Sentiment Analysis, Recommender Systems, Social & Semantic Web, User-generated Big-Data, Internet-of-Everything

- **Dr. Rajesh Kumar Yadav**, B.E., M.Tech., Ph.D., Areas of Interests are Mobile Computing, Wireless Sensor Network, Computer Networks, Theory of Computation, PCA

- **Dr. Divyashikha Sethia**, B.Tech., M.Tech., Ph.D., Areas of Interests are Distributed Systems, Computer Networks, Algorithms, Mobile Computing, mHealth, Cryptography

- **Ms. Abhilasha Sharma**, B.Tech., M.Tech., Ph.D., Areas of Interests are Software Engineering, Software Testing, DBMS, Web Technology, Web Security

- **Mr. Rohit Beniwal**, B.Tech., M.Tech., Pursuing Ph.D., Areas of Interest are Social Web, Semantic Web, Software Engineering, Machine Learning

- **Ms. Minni Jain**, B.Tech., M.Tech., Pursuing Ph.D., Areas of Interest are Natural Language Processing, Sentiment Analysis, Information Security

- **Mr. Nipun Bansal**, B.Tech., M.Tech., Pursuing Ph.D., Areas of Interest are Information Security, Biometric Security, Network Security

- **Mr. Sanjay Kumar**, B.Tech., M.Tech., Pursuing Ph.D., Areas of Interest are Social Network Analysis, Database Systems, Data Science, Information Security and Algorithms

- **Mr. Sanjay Patidar**, B.E., M.E., Pursuing Ph.D., Areas of Interest are IOT data mining, security, Stream Data mining, Machine Learning, IOT Smart Application, Data science, Theory of Computation

- **Ms. Sonika Dahiya**, B.E., M.Tech., Pursuing Ph.D., Areas of Interest are Algorithms and Data Mining, Data Structures, Theory of Computation

- **Mr. Prashant Giridhar Shambharkar**, B.E., M.Tech., Pursuing Ph.D., Areas of Interest are Data Mining, Real Time Systems, Programming Fundamentals, Mobile Health Monitoring

- **Mr. Rahul**, B.Tech., M.Tech., Pursuing Ph.D., Areas of Interest are Database, Data Mining, Machine Learning, Social Networks

Programmer: 01

- **Mr. Manoj Sethi**, M.Sc. (OR), M.E. (CTA), LMCSI, Pursuing Ph.D., Area of Interest is Database Management Systems

Achievements of the Department

- MOU between Media and Data Science Research Lab, Adobe Inc. (principal place California USA) and DTU (Machine Learning Research Lab, Dept. CSE, Faculty Incharge Dr. Anil Singh Parihar). It will provide an excellent opportunity for the students of DTU to work on the industry-relevant problems in the area of computer vision, NLP, and Deep Learning under joint mentorship

Teachers provided with financial support to attend Conferences, Seminars, etc.

- Mr. Rahul received ₹33,875/- for attending IEEE 3rd International Conference on I-SMAC by SCAD Institute of Technology.

- Mr. Prashant Giridhar Shambharkar received ₹8500/- for attending International Conference on Evolutionary Computing and Mobile Sustainable Networks by Sir M. Visvesvaraya Institute Of Technology.

- Mr. Sanjay Patidar received ₹42504/- for attending International conference on "Frontiers of intelligent computing: Theory and application",(FICTA 2020) by NIT Suratkal.

- Sanjay Patidar received ₹57820/- for attending National workshop on NBA and NAAC Accreditation by ESCI, Hyderabad.

- Ms. Minni Jain received ₹23,000/- for attending Residential Training Program on "Interpersonal Effectiveness & Team building" in Goa.

- Ms. Sonika Dahiya received ₹23,359/- for attending Residential Training Program on "Interpersonal Effectiveness & Team building" in Goa.

- Ms. Sonika Dahiya received ₹42,504/- for attending International conference

on "Frontiers of intelligent computing: Theory and application",(FICTA 2020) by NIT Suratkal.

Participation in Professional Development Programmes by our Faculties

- Mr. Rahul Attended one-week TEQIP-III sponsored Short-Term Training Program on "RECENT TRENDS IN SECURITY AND CRYPTOGRAPHY organized by Department of Applied Mathematics, DTU.

- Mr. Rahul Attended one-week TEQIP-III sponsored Short-Term Training Program on "GRAPH THEORY AND ITS APPLICATIONS organized by Department of Applied Mathematics, DTU.

- Mr. Rahul Attended one-week Workshop on "E-Resources: A Gateway for Research (2019) organized by Central Library, DTU

- Mr. Rahul Successfully completed a 4-Week Online Induction/ Orientation Programme for "Faculty in Universities/ Colleges/ Institutes of Higher Education with grade "A+" organized by TLC, Ramanujan College, University of Delhi under the aegis of MHRD, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching

- Mr. Rahul attended Webinar/Online training/Lecture on "PREDICTIVE MODELING USING MACHINE LEARNING TECHNIQUES" organized by Centre for Extension and Field Outreach, DTU

- Mr. Rahul attended Webinar/Online training/Lecture on "LANDSLIDE MITIGATION USING FLEXIBLE SOLUTIONS IN HIMALAYAN TERRAIN" organized by Centre for Extension and Field Outreach, DTU

- Mr. Rahul attended Webinar/Online training/Lecture on "PROSPECTS

OF NANO-MATERIALS MODIFIED CONDUCTING PAPER-BASED BIOSENSORS FOR CANCER DETECTION" organized by Centre for Extension and Field Outreach, DTU

- Mr. Rahul participated in 2 days HRDC training program on "GSuite for Education Training" organized by HRDC.

- Dr. Anil Singh Parihar Completed Neural online course "Networks and Deep Learning" with Grade "O" authorized by deeplearning.ai and offered through Coursera

- Dr. Anil Singh Completed Neural online course Structuring Machine Learning Projects" with Grade "O" authorized by deeplearning.ai and offered through Coursera.

- Dr. Anil Singh Parihar completed Neural online course "Improving Deep Neural Networks: Hyper-parameter tuning, Regularization and Optimization" with Grade "O" authorized by deeplearning. ai and offered through Coursera

- Dr. Anil Singh Parihar participated in TEQIP-III Sponsored STTP on Recent Trends in AI and Machine Learning organized by Dept. of IT, DTU

- Dr. Anil Singh Parihar participated in AICTE Training and Learning (ATAL) Academy one week FDP on "Data Science" organized by Punjab Engineering College.

- Dr. Anil Singh Parihar participated in AICTE Recognized One Week Faculty Development Program (FDP) on "Neural Networks and CNN" Organized by Curriculum Development Centre Department NITTTR, Chandigarh.

- Dr.Rajesh Kumar Yadav attended TEQIP-III sponsored one week Faculty Development Programme(FDP) on

"Recent Research directions and key concepts in electrical engineering organized by Department of Electrical engineering, DTU, Delhi

- Dr. Rajesh Kumar Yadav attended the TEQIP-III sponsored one week Short Term Training Program(STTP) program on "Recent Trends in security and cryptography" organized by Department of Applied Mathematics, DTU, Delhi

- Dr. Rajesh Kumar Yadav attended TEQIP-III sponsored one week Short Term Training Program(STTP) program on "Recent Trends in AI and Machine Learning" organized by Department of Information Technology, DTU, Delhi

- Dr. Rajesh Kumar Yadav participated in In-House Training Programme on "ISO/ IEC 17025:2017 Lab Awareness & Internal Auditing as per NABL Requirements conducted by ESCI Hyderabad at DTU

- Dr. Shailender Kumar attended two-weeks online Industrial Training on "Artificial Intelligence and Machine Learning- A Project based Learning Approach organized jointly by NITTTR, Chandigarh and Xtrans Solutions Pvt. Ltd., Bangalore

- Dr. Shailender Kumar attended one-week AICTE Training and Learning (ATAL) Academy Online Faculty Development Program on "Internet of Things (IoT)" organized by NITTTR, Chandigarh

- Dr. Shailender Kumar attended one-week TEQIP-III sponsored Short Term Training Program on "Recent Trends in Security and Cryptography" organized by Department of Applied Mathematics, Delhi Technological University

- Mr. Prashant Giridhar Shambharkar attended Online Induction/ Orientation Programme for "Faculty in Universities/

Colleges/ Institutes of Higher Education organized by TLC, Ramanujan College, University of Delhi under the aegis of MHRD, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching

- Mr. Prashant Giridhar Shambharkar Training program on "Online Teaching Classes" HRDC, DTU

- Mr. Prashant Giridhar Shambharkar International Online Symposium on "Recent Technologies in Computer Science" (Big Data Analytics, Cloud Computing, Internet of Things and AI) Department of Computer Science, Jamia Millia Islamia, New Delhi

- Mr. Prashant Giridhar Shambharkar completed Online Training on "Prospects of Nano-Materials Modified Conducting Paper-Based Biosensors for Cancer Detection" organized by Centre for Extension and Field Outreach, Delhi Technological University, Delhi

- Mr. Prashant Giridhar Shambharkar attended International Web Conference on "Impact of COVID-19 on Education System" organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, India

- Mr. Prashant Giridhar Shambharkar TEQIP-III sponsored One week Faculty Development Programme on "Disaster Mitigation and Management" organized by Delhi Technological University, Delhi

- Dr. Sanjay patidar completed a 4-Week Online Induction/ Orientation Programme for "Faculty in Universities/ Colleges/ Institutes of Higher Education organized by TLC, Ramanujan College, University of Delhi under the aegis of MHRD, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching

- Dr. Sanjay patidar attended TEQIP-III sponsored one week FDP on "Recent developments in renewable energy system" organized by Dept of Mechanical Engg. DTU.

- Sanjay patidar participated in two days HRDC training program on "GSuite for Education Training" organized by HRDC

- Dr. Rahul Katarya two Weeks Faculty Development Programme on "ADVANCED CONCEPTS FOR DEVELOPING MOOCS" organized by Teaching Learning Centre, Ramanujan College, University of Delhi & sponsored by Government of India, Ministry of Human Resource Development, Pandit Madan Mohan Malaviya, National Mission on Teachers & Teaching

- Dr. Rahul Katarya attended Faculty Development Programme (online live instructor-led) on "Deep Learning & Applications" conducted by Electronics and ICT Academy, IIT Roorkee from 22th - 30th June 2020.

- Dr. Rahul Katarya participated in two days HRDC training program on "GSuite for Education Training" July 1-2, 2020 organized by HRDC

- Dr. Rahul Katarya participated in the one week online workshop on "Recent Trends in Domination in Graphs: Algorithms, Complexity and Applications (WRTDG 2020)" organized by the Department of Computer Science and Engineering in association with Centre for Continuing Education, National Institute of Technology Warangal from 15th - 19th June, 2020

- Dr. Rahul Katarya participated in the one week online AICTE recognized Faculty Development Programme on "Waste Managment" organized by Ministry of Human Resource Development,

Government of India, Mechanical Engineering Department, National Institute of Techincal Teachers Training and Research (NITTTR) Chandigarh, from June 8 to June 12, 2020

- Dr. Rahul Katarya participated in the one week online AICTE recognized Faculty Development Programme on "Outcome Based Curriculum Design" organized by Ministry of Human Resource Development, Government of India, Mechanical Engineering Department, National Institute of Techincal Teachers Training and Research (NITTTR)

- Dr. Rahul Katarya participated in the one week online AICTE recognized Faculty Development Programme on "Understanding Project Management Basics" organized by Ministry of Human Resource Development, Government of India, Mechanical Engineering Department, National Institute of Techincal Teachers Training and Research (NITTTR)

- Dr. Rahul Katarya participated in Online Training / Lecture on "Landslide Mitigation using Flexible Solutions in Himalayan Terrain" by Dr. Ratnakar R. Mahajan, Regional Technical Manager, Maccaferri Environmental Solutions Pvt. Ltd, Gurugram, on 30th May 2020, organized by Centre for Extension and Field Outreach, Delhi Technological University

- Dr. Rahul Katarya participated in Online Training / Lecture on "Low Global Warming Potential – Eco Friendly Future Refrigerants" By Prof. R.S. Mishra, DTU, Delhi on 26th May 2020 organized by Centre for Extension and Field Outreach, Delhi Technological University

- Dr. Rahul Katarya participated in Online Training / Lecture on "Sustainable Energy Sources for the Transportation Applications" by Prof. Amit Pal, DTU, Delhi on 14th May 2020 organized by Centre for Extension and Field Outreach, Delhi Technological University

- Dr. Rahul Katarya Attended a one Day workshop on "Blockchain Essentials for Educators" conducted by Grant Thornton India LLP and OXFORD University Press

- Dr. Rahul Katarya Attended a TEQIP III sponsored One Week Faculty Development Programme on "Recent Research Directions and Key Concepts in Electrical Engineering" organized by Department of Electrical Engineering Delhi Technological University, Delhi with Twinning partner MITS Gwalior

- Dr. Rahul Katarya Attended a TEQIP III sponsored One Week Short Term Training Programme on "Graph Theory and its Applications" organized by Department of Applied Mathematics, Delhi Technological University

- Dr. Rahul Katarya Participated in one-week Short Term Training Program (STTP) on "Recent Trends in Security and Cryptography" organized by Department of Applied Mathematics, Delhi Technological University

- Dr. Rahul Katarya participated and attended a one- week workshop on "E-Resources: A Gateway for Research organized by Central Library, Delhi Technological University.

- Dr. Rahul Katarya participated and attended in TEQIP-III sponsored one-week Short Term Training Programme (STTP) on "Recent Trends in AI and Machine Learning" during 29th July - 2nd August 2019 organized by Department of Information Technology, Delhi Technological University.

- Dr. Ruchika Malhotra attended Faculty Development Program on "Power Quality and Reactive Power Management", Delhi Technological University

- Dr. Ruchika Malhotra attended Short term training program on "Recent Trends in Security and Cryptography" at DTU

- Minni Jain participated and attended in TEQIP-III sponsored one-week Short Term Training Programme (STTP) on "Recent Trends in AI and Machine Learning" during 29th July - 2nd August 2019 organized by Department of Information Technology, Delhi Technological University.

- Minni Jain participated in two days HRDC training program on "GSuite for Education Training" July 1-2, 2020 organized by HRDC

- Minni Jain completed a 4-Week Online Induction/ Orientation Programme for "Faculty in Universities/Colleges/ Institutes of Higher Education organized by TLC, Ramanujan College, University of Delhi under the aegis of MHRD, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching

- Minni Jain attended Industrial Training of Two Weeks on "Artificial Intelligence and Machine Learning - A Project based Learning Approach" organized jointly by National Institute of Technical Teachers Training & Research Chandigarh and Xtrans Solutions Pvt. Ltd., Bangalore

- Minni Jain attended Industrial Training of Two Weeks on "Internet of Things-A Project Based Learning using Virtual IoT Lab" organized jointly by National Institute of Technical Teachers Training & Research Chandigarh and Xtrans Solutions Pvt. Ltd., Bangalore

- Sonika Dahiya participated in TEQIP-III nominated for Training Programme on "Interpersonal Effectiveness & Team Building", organised by Rajasthan State Productivity Council

- Sonika Dahiya participated in TEQIP-III Sponsored One Week Short Term Training Programme (STTP) on "Recent Trends in AI and Machine Learning" organised by Department of Information Technology, Delhi Technological University,

- Sanjay Kumar participated in TEQIP-III Sponsored One Week Short Term Training Programme (STTP) on "Recent Trends in AI and Machine Learning" organised by Department of Information Technology, Delhi Technological University,

- Sanjay Kumar participated in two days HRDC training program on "GSuite for Education Training" organized by HRDC

- Sanjay Kumar successfully completed a 4-Week Online Induction/ Orientation Programme for "Faculty in Universities/ Colleges/ Institutes of Higher Education with grade "A+" organized by TLC, Ramanujan College, University of Delhi under the aegis of MHRD, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Dr. Akshi Kumar visited Deenbandhu Chhotu Ram University of Science & Technology, Murthal to deliver a lecture of 'Social Data Mining', AICTE-sponsored two weeks Faculty Development Programme on Multi-criteria Decision Making: Methods and Applications,

- Dr. Akshi Kumar visited Kalindi College, University of Delhi to deliver lecture on 'Social Media Mining of Sentiments',

UGC sponsored National Conference on Emerging Trends in Information Technology

- Dr. Rahul Katarya delivered an expert talk on "Opportunities and Future Research Collaborations: Indo-Japan Perspective" and represented India and Delhi Technological University (DTU) in the 2nd Exchange Meeting of Japan-India Universities at JST Tokyo Headquarters, 7 Gonbancho, Chiyoda, Tokyo, Japan

- Dr. Rahul Katarya visited as Keynote Speaker for "Impact of Social Networks in Human Behavioral Analytics" in 4th IEEE International Conference on Information Systems and Computer Networks (ISCON)" organized by Department of Computer Engineering & Applications, GLA University

- Dr. Rahul Katarya delivered a talk on "Role of Artificial Intelligence to Detoxify Social Media Contents" as an invited speaker at the 66th IETE Foundation Day on the theme "Role of Artificial Intelligence and Machine Learning in the Development of Society"

- Dr. Rahul Katarya delivered a Guest Lecture on "AI in Healthcare Analytics" on August 27, 2019, in Department of Computer Engineering & Applications, GLA University.

- Dr. Rahul Katarya delivered a lecture titled on "Importance of Big Data analytics & intellectual property rights in E-learning & E-Governance" on August 26, 2019, in the 2nd Refresher Course in E-Learning & E-Governance at the UGC-Human Resource Development Centre, Jawaharlal Nehru University

- Dr. Ruchika Malhotra delivered a session on "Predictive Modeling using Machine Learning Techniques", Delhi Technological University

- Dr. Ruchika Malhotra delivered Webinar session on "Opportunities and Resources for online Teaching and Learning", Dr. B R Ambedkar University Delhi

- Dr. Ruchika Malhotra delivered Faculty Development Programme (FDP) on Emerging Trends on Machine Learning Technologies

- Dr. Ruchika Malhotra visited DIT University to deliver lecture on Machine Learning and Predictive modeling at International Conference on "Applied Mathematics and Computational Sciences (ICAMCS-2019)'

- Dr. Shailender Kumar delivered an Invited talk on "Fake News Detection" in the Third International Conference on Computational Intelligence (CICT 2020) organized by BMIET

- Dr. Shailender Kumar delivered an Invited talk in the International Conference on Computational Methods and Data Engineering (ICMDE-2020) held on January 30-31 2020 at SRM University,

Important Professional Affliations

- Dr. Divyashikha Sethia , Life Member, IEEE
- Dr. Divyashikha Sethia , Life Member, ACM
- Dr. Akshi Kumar, Member, IEEE
- Dr. Akshi Kumar, Member, ACM
- Dr. Akshi Kumar, Life Member, CSI
- Dr. Akshi Kumar, Member, ISTE
- Dr. Akshi Kumar, Member, IAENG
- Dr. Akshi Kumar, Member, IACSIT
- Mr. Rohit Beniwal, Member, ACM
- Mr. Rohit Beniwal, Member, IAENG
- Mr. Rohit Beniwal, Life Member, CSI
- Mr. Rohit Beniwal, Member, IETE
- Mr. Rohit Beniwal, Life Member, ISTE

- Dr. Shailender Kumar, Life Member, IEEE
- Dr. Shailender Kumar, Life Member, ISTE
- Mr. Prashant Giridhar Shambharkar, Member, ACMMr Prashant Giridhar Shambharkar, Life Member, CSI
- Mr. Prashant Giridhar Shambharkar, Member, IAENG
- Dr. Rajesh Kumar Yadav, Member, IEEE
- Dr. Rajesh Kumar Yadav, Life Member, ISTE
- Dr. Rajesh Kumar Yadav, Member, IAENG
- Dr. Anil Singh Parihar, member, IEEE
- Dr. Anil Singh Parihar, member, ACM
- Prof. Rajni Jindal, Life Member, CSI
- Prof. Rajni Jindal, Life Member, ISTE
- Dr. Rahul Katarya, Life Member, CSI
- Dr. Rahul Katarya, Senior Member, IEEE
- Mr. Manoj Sethi, Life Member, CSI
- Dr. Ruchika Malhotra, member, International Association of Engineer
- Dr. Ruchika Malhotra, member, ACM

Teachers receiving awards, recognition and fellowships from Government bodies

Commendable Research Award was awarded to:

- Dr. Akshi Kumar
- Dr. Rahul Katarya
- Dr. Ruchika Malhotra

Students provided with financial support to attend Conference, Seminars, etc.

- Vasundhara Raj received ₹6340/- to attend IEEE International Conference on Computing, Communication and Intelligent Systems organized by Sharda University, Greater Noida, Uttar Pradesh

Grants for research sponsored by non-government organization

- Dr. Ruchika Malhotra received amount of ₹4.5Lakh approx. by DTU.
- Dr. Rajni Jindal, Dr. Divyashkha Sethia received finds for Lab Infrastructure by Samsung Research India.

Functional MoUs with Institutions of National, International Importance, Other Universities, etc.

- MoU was signed between DTU and Samsung in 2019 for a period of 3 years

Linkages with Institutions/ Industries for Internship, On-the-Job Training, Project Work, Sharing of Research Facilities

- MoU with Samsung Research India from 2019 for a period of 2 years for Lab Setup. Dr. Rajni Jindal, Dr. Divyashikha Sethia, Ms. Minni Jain participated in the linkage.
- MoU for M.Tech. for Samsung Employees was signed with Samsung. Dr. Rajni Jindal, Dr. Ruchika Malhotra participated in the linkage.

Detail of Patents filed/published/ awarded during the current year

- Delhi Technological University applied for a patent with title Smart Autonomous Weed Detector and Removal which is invented by Sanjay Patidar, Prof. Rajni Jindal, Neetesh Kumar and Sumit Kumar
- Akshi Kumar applied for a patent with title Sentiment Analysis System invented by A. Kumar and G. Garg
- Akshi Kumar applied for a patent with title IoT Based Sentiment Analysis Systeminvented by A. Kumar and G. Garg

4.7 Department of Design

10 Journal Publications

11 Conference Publications

1 Book Chapters

Faculty 8

ACADEMIC PROGRAMMES

- Bachelor of Design (B.Des.)
  Intake: 66+9
  Students Admitted: 66
- Ph.D. Research Scholar: 5

LABORATORIES

Apart from the existing studios and laboratories, the following labs have been proposed for the Department of Design:

- Prototyping Labs
- Physical Ergonomics Labs
- User study and Experience Facility
- Video and Sound Design Lab
- State of the Art Computer Lab/ iMac Lab
- Printing Facility for Visual Communication
- Advanced Design Studio (Centre for design excellence)

SALIENT FEATURES

Strategic role of design through innovation in enhancing national and industrial competitiveness is universally recognized and underpins the national policy of Govt. of India. The strategy to achieve this vision seeks spot light on strengthening quality design education and usages of design in different sectors.

In furtherance of this national design vision, Delhi Technological University had decided to provide facilities for excellent design education, research and training to suit the needs of the society.

Department of Design is envisioned to pursue excellence in design thinking, design scholarship and design practice for the betterment of society in a holistic manner.

Design is viewed as a driver of innovation and is recognized as key differentiator for providing competitive edge to products and services. It involves an integrated humanistic approach to design products, it involves an integrated humanistic approach to design products, services and systems. It seeks to delve deeper in understanding of technological, Commercial and societal context in conception,

Developments and delivery of innovative products and services as well as tools, techniques and methods required in the practice of design suitable to environment.

ACADEMIC STAFF

Professors: 03

- **Prof. Ranganath M. Singari** (Head), BE, ME, DMS, Ph.D. Areas of Interests are CAD/CAM, Production Design, Industrial Engineering, Innovative Design.
- **Prof. Lalit Kumar Das**, (Honorary Distinguished Faculty), MA (Industrial Design), M.Tech., B.Tech. Areas of Interest are Industrial Design Education, Product Design, CAD, Sustainability, etc.
- **Prof. S.G. Ranjan**, (Design Educator), Post Graduate in Print Making. Areas of Interests are Art and Design.

Assistant Professors: 05

- **Dr. Ravindra Singh**, B.Tech., M.Des., Ph.D. Areas of Interests are Universal Design, Product Design, Human Centric Design, etc.
- **Mr. Neeraj Rathee**, BFA, MFA. Areas of Interests are Visual Communication, Graphic Design, Animation.
- **Mr. Partha Pratim Das**, B.Tech., M.Tech., M.Des, Ph.D. (Pursuing). Areas of Interests are UI/UX, Design Thinking, Ethnographic Research, etc.
- **Mr. Varun Singh**, B.Arch, M.Arch. Area of Interest is Visual Design.

- **Ms. Taruna Singh**, B.Des., M.Des. Areas of Interests are Accessory Design, Product Design & Development, Craft Innovation & Design, Design Research

Achievements of the Department

- Successfully conducted 4 Week Internship Program 2020 (4WIP-2020) on Animation and Game Design during June 01-27, 2020. 40 candidates and 10 volunteers attended this programme. Participants gained hands-on experience in Art, Storytelling, 2D 3D Animation, Comics, Game Design process and types along with minor projects.
- The Department of Design organized Experts talks on Animation and Interaction Design in Lockdown during April-May 2020.

- 2-days Form Exploration Workshop 2020, from January 27-28, 2020 was organized.
- 1-Week workshop on Typography was organized.
- Dr. Ravindra Singh was invited as Speaker to deliver talk on universal Design Principles and Practices at EMPOWER 019 in partnership with Microsoft - An Assistive Technology, Conference, October 17, 2020.
- Dr. Ravindra Singh and Mr. Partha Pratim Das were invited as Guest Editor of Design for all Institute of India Newsletter October, 2019.

Participation in Professional Development Programmes by our Faculties

- Dr. Ravindra Singh attended Faculty Development Program organized by Amity University from June 29- July 03, 2020.

- Dr. Ravindra Singh attended National Webinar On Innovation, Incubation & Entrepreneurship organized by Engineering Staff College of India on June 26, 2020.

- Dr. Ravindra Singh Attended Webinar on Insights To Industry 4.0 organized by Department of Mechanical Engineering, SA Engineering College, Chennai on May 29, 2020.

- Dr. Ravindra Singh attended Workshop on Awareness on Industrial Safety During COVID-19 organized by Department of Mechanical Engineering, SA Engineering College, Chennai on May 23, 2020.

- Dr. Ravindra Singh attended Two Days Online Workshop on Patent Drafting And Processing with Importance of Trademark and Copyrights organized by Journal of Advanced Engineering Research Powered by Hexacube India from May 6-7, 2020.

- Mr. Partha Pratim Das attended TEQIP III Programme on Entrepreneurship, Innovation and Design organized by IIT Delhi, Sonipat Campus from December 6-10, 2019.

- Dr. Ravindra Singh, Mr. Neeraj Rathee, Mr. Partha Pratim Das, and Ms. Taruna Singh attended GSuite For Educational Training Program organized by Human Resource Development Centre, Delhi Technological University on July 7, 2020.

- Dr. Ravindra Singh, and Mr. Partha Pratim Das attended Advance Pedagogy, IPR Sponsored Research and Entrepreneurship organized by Delhi Technological University from July 16-20, 2020.

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Prof. Ranganath M. Singari wasChief Guest, in DITE Delhi on October 24, 2019.

- Prof. Ranganath M. Singari was External Expert, NIT Delhi for SRC of Ph.D. Student in September 2019.

- Prof. Ranganath M. Singari was Chief Guest in St. Johns Public School, Delhi in 71st Republic Day Celebration on January 26, 2019.

- Prof. Ranganath M. Singari was Member in Advisory Board, Delhi Kannada School, Delhi on October 24, 2019.

- Mr. Partha Pratim Das was Jury Member, at IIT Delhi for End Semester Presentations of RDL730 Course on October 22 and 29, 2019.

- Dr. Ravindra Singh was Invited Speaker in An Assistive Technology Conference on the topic Universal Design Principles and Practices on October 17, 2019.

Important Professional Affiliations

- Prof. Ranganath M. Singari is Life Member at ISTE, NAFEN and CSI.

- Dr. Ravindra Singh is Editorial Board Member for Newsletter in Design for All Institute of India.

- Dr. Ravindra Singh is an Invited BoS Member to Evaluate B.Des. and M.Des. Curriculum in UPID Institute of Design, Noida.

- Mr. Varun Singh is Member of Council of Architecture.

Details of Professional Development, Conferences, Seminars, etc. organized by the Department

- A Webinar on UX and Service Design was organized on June 29, 2020 with 10+ participants (Chairperson: Prof. Ranganath Singari, Coordinator: Partha Pratim Das), sponsored by DTU.

- An Expert Lecture Series (3 Lectures) was organized on April 11, 18 and May 2, 2020 with 57 participants (Coordinator: Ravindra Singh), sponsored by DTU.

- An Expert Lecture Series (3 Lectures) was organized on April 3, 4, and 11, 2020 with 63 participants (Coordinator: Neeraj Rathee), sponsored by DTU.

- International Conference (ICAPIE'19) was organized from 20-21 December, 2019 with nearly 500 participants (Chairperson: Prof. Rnaganath Singari), sponsored by CAPIER-DTU.

Students' Achievements

- Mr. Akash K Seth: Secured 1st Position in Deewar – Rendezvous'19. Placed in Top 10 in Design 360 – Esya'19. Stood 2nd in Designothon.

- Mr. Prashant Singh: Got to the Final Round in FOQS at ESYA IITD, participated in Through the Lens at Rendezvous at IIT Delhi.

- Mr. Anirudh Kundu: Finalist (Best in Academia) in UMO Design X Social Global Innovation Challenge 2020. Winner Open Category (Phase 2) in D'Source Corona Design Challenge at IIT Bombay. Featured in James Dyson Award, participated in UXplorer Awards 2020. Semi-Finalist in 3M CII Young Innovators Challenge 2020. Got Special Mention (Product Innovation Category) in UPID NOIDA All India Design Hackathon.

- Mr. Aditya Bansal: Finalist in IIITD Design 360, Winner of Hack the new Team

- Mr. Aditya: Finalist in Hack COVID-19.

- Ms. Akshita Mishra: Winning Entry in D'source Corona Design Challenge (Communication Design).

- Mr. Sahil R.: First Position in Mood Indigo – Cursor Strokes (Mascot Designing Competition). Participated in Freepublikan Awards 2020.

- Mr. Vibhor Agarwal: Participated in Post Pandemic Performances – Project Platypus. Winning Entry in D'source Corona Design Challenge (Visual Identity). Official Selection in Life OFF Sessions 2020.

- Mr. Raghav Byala: Animated Short Film emerged as an Official Selection in Essex Dox Fest, Lift-Off Sessions in June 2020.

- Mr. Arnav: Bronze Winner in UXplorer Awards 2020. Featured on Website in James Dyson Award.

- Mr. Naman: Winning Entry in D'Source Corona Design Challenge (Communication Design). Official Selection in D'Source Corona Design Challenge (Game Design).

Extension and Outreach Activities

- Prof. Ranganth M. Singari organized International Conference at DITE, Delhi, attended by nearly 500 participants from 20th to 21st December, 2019.

- Mr. Partha Pratim Das, motivated 12th Class Students and provided Career Guidance based on Design, Entrepreneurship, Agriculture, etc. attended by 10-15 participants in Bulandsahar, Uttar Pradesh, from 14th to 15th March, 2019.

- Dr. Ravindra Singh, organized an online Lecture on Logo Design, attended by 10 Participants.

4.8 Delhi School of Management

14 Journal Publications

2 Conference Publications

2 Book Chapters

Faculty **15**

ACADEMIC PROGRAMMES

- MBA
  Intake: 150
  Students Admitted: 125
- MBA (Executive)
  Intake: 75
  Students Admitted: 49
- Ph.D. Research Scholar: 8

LABORATORIES

Delhi School of Management has access to a wide array of world class facilities that include fully equipped Computer Centre, a chain of scientifically advanced Research Laboratories, Smart Classrooms with State of the Art audio and video support, a fully Centralized Library with a plethora of available volumes, an Auditorium with a capacity of over a thousand, an Open Air Theatre, and a fully developed Sports Centre.

SALIENT FEATURES

Delhi School of Management (DSM) was established in 2009 with Delhi College of Engineering (DCE) acquiring a University status, being officially renamed as Delhi Technological University (DTU) through a legislature passed by the Delhi State Assembly. DSM envisages at developing distinctive future managers, keeping up with the tradition of DCE (and now DTU) by providing excellent world class education. DSM was established with a vision of inculcating a penchant for innovation, research, and experimentation in the aspiring managers. DSM aims at extending the seven-decade long legacy of DCE by incubating and developing techno-managers, who are adept at identifying pertinent and critical business problems and apply their technical skills and competencies in solving those issues. In order to train its students to face the challenges of an information and knowledge driven work environment, DSM provides them with the Triple E: Education, Experience and Exposure. DSM strives to inculcate in its students the managerial competence through specialized knowledge and skills, while simultaneously empowering their minds through quality teaching, consultancy, and other professional services in order to fulfil its role of a vibrant and model institution capable of imparting quality education in the area of Management Studies. DSM envisions at developing a knowledge society by providing equitable access to the masses and broadening the span of their participation in the areas of higher education.

ACADEMIC STAFF

Professors: 03

- **Prof. Rajan Yadav**, HOD, DSM, Professor, MBA, Ph.D. Services Marketing, Sales and Distribution

- **Prof. P K Suri**, Professor, M.Tech, Ph.D., E-Governance, Project Management, Quantitative Methods

- **Prof. G C Maheshwari**, Professor, Ph.D., Finance, Accounting and Strategy

Assistant Professors: 12

- **Dr. Archana Singh**, Assistant Professor, MBA (Finance), Ph.D., Corporate Finance, Financial Accounting, Security Analysis

- **Dr. Shikha N Khera**, Assistant Professor, MBA, NET, Ph.D., Organizational Behaviour, Organizational Development

- **Dr. Vikas Gupta**, Assistant Professor, MBA, NET, Ph.D Knowledge Management, Innovation Management, Business Process Re-engineering, CSR

- **Dr. Meha Joshi**, Assistant Professor, MBA, NET, Ph.D Organizational Development, Customer Relationship Management, Talent Management

- **Dr. Abhinav Chaudhray** Assistant Professor BE, MBA, NET, Ph.D. Production and Operations Management, Business System Analysis and Design, International Marketing

4. ACADEMIC DEPARTMENTS

- **Dr. Sonal Thukral** Assistant Professor M.Com., MBA, NET-JRF, Ph.D, Finance, International Business

- **Ms. Deepali Malhotra**, Assistant Professor, M.Com., M. Phil, NET-JRF, pursuing Ph.D., Strategy Management, International Business, Finance

- **Dr. Deep Shree**, Assistant Professor MBA, NET-JRF, Pursuing Ph.D., Marketing, Not for Profit Marketing, Brand Management, Qualitative Research

- **Mr. Yashdeep Singh** Assistant Professor B.E., MBA, NET, Pursuing Ph.D.,

Marketing Management, Information Technology Management

- **Mr. Mohit Beniwal** Assistant Professor, B.Tech, MBA, Pursuing Ph.D General Management, Information Systems

- **Mr. Chandan Sharma**, Assistant Professor, B.Tech., PGDM, Pursuing Ph.D., Finance, Strategy

- **Mr. Dhiraj Kumar** Pal, Assistant Professor, B.E, PGDM, Pursuing Ph.D Marketing, Operations & SCM, Strategy

Achievements of Department

- The Department received research projects worth more than ₹15 lakhs from prestigious institutions such as National Institute of Electronics and Information Technology and Indian Council of Social Sciences Research.

- Events organized:

  - Homecoming'19 (Alumni Meet), 25th August, 2019

  - Brand Quiz Competition (Anveshan '19), 16th September, 2019

  - Symposium'19 (Panel discussion), 28th September, 2019

  - Industrial Visits to Mother Dairy Plant, Patparganj, Delhi (12th September, 2019) and companies in Himanchal Pradesh (3rd-6th November, 2019)

  - Mock Stock 2.0 (National Mock Trading Competition), 4th October, 2019

  - Umang Utsav '19 , 14th – 18th October, 2019

  - Research Seminar, 8th January, 2020

  - HR Conclave'20, 12th February, 2020

  - Online Panel Discussion, 6th June, 2020

Teachers provided with financial support to attend Conferences, Seminars, etc.

- Dr. Sonal Thukral was given a support of 30000 to Online FDP in Pedagogy and Research Methods 22th June - 28th July 2020

- Dr. Deep Shree was given a support of 30000 to Online FDP in Pedagogy and Research Methods 22th June - 28th July 2020

- Dhiraj Kumar Pal was given a support ₹1605 (as TA Reimbursement) to attend a workshop titled Effective Faculty for 21st Century MBA Education (10th edition of Indian Management Conclave) 2nd - 3rd August 2019

Faculty Visits to Institutions for Other Academic Work

- Prof. Rajan Yadav visited HRDC, Himachal Pradesh University, Shimla to take an Expert Lecture on 14th November 2019

- Dr. Vikas Gupta delivered an Expert Lecture at MDP organised by FMS for Indiamart during 15th February - 7th March 2020

- Dr. Vikas Gupta delivered an Expert talk at MDP organised by FMS for WAPCOS on 28 Feb 2020

- Dr. Vikas Gupta visited Digital Leadership Program, Management of the Future: Essential Leadership Skills in the Digital Era, Amity Institute of Training and Development on 11th March 2020.

- Dr. Sonal Thukral gave a Lecture at New Delhi Institute of Management on 2nd September, 2019

- Dr. Sonal Thukral delivered a E-lecture under ARPIT, MHRD on 1st December 2019

- Dr. Deep Shree visited Lal Bhadur Shastri Institute on Management as an external examiner for end-term viva on 25th February, 2020

- Dr. Deep Shree visited KJ Somaiya Institute of Management Studies and Research, Mumbai (interviews were organized in Delhi) as a panelist for MBA Admission Interviews on 28th February, 2020

Important Professional Affiliations

- Prof. Rajan Yadav, Life Member, GIFT

- Prof. P.K. Suri, Member, Governing Council, Global Institute of Flexible Systems Management

- Prof. P.K. Suri, Member, Managing Committee, Global Institute of Flexible Systems Management

- Prof. P.K. Suri, Senior Member, Indian Institution of Industrial Engineering

- Dr. Vikas Gupta, Lifetime Membership of ISRD

- Dr. Vikas Gupta, Lifetime Membership of CEGR

- Dr. Vikas Gupta, Lifetime Membership of Vibha India

- Mr. Chandan Sharma, Member, Financial Management Association

- Mr. Chandan Sharma, Member, The Econometrics Society

Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the current year (INR in Lakhs)

- Dr. Archna Singh and Dr. Vikas Gupta awarded project worth ₹6,41,920 from National Institute of Electronics and Information Technology in 2019 for a 3 month long project.

- Dr. Sonal Thukral and Dr. Deep Shree awarded project worth ₹8,75,000 for 2 years duration from Indian Council of Social Sciences Research

4.9 Department of Electronics and Communication Engineering

59 Journal Publications

59 Conference Publications

13 Book Chapters

Faculty 42

ACADEMIC PROGRAMMES

- B. Tech. (Electronics and Communication Engineering)
  Intake: 203
  Students Admitted: 202

- B. Tech. (Electronics and Communication Engineering) (Continue Education)
  Intake: 60
  Students Admitted: 6

- M. Tech. (VLSI Design and Embedded System)
  Intake: 22+5
  Students Admitted: 24

- M. Tech. (Signal Processing and Digital System Design)
  Intake: 22+5
  Students Admitted: 24

- M. Tech. (Microwave and Optical Communication Engineering*)
  Intake: 21+5
  Students Admitted: 3

- PhD.. Research Scholars: 37

LABORATORIES

Currently the Department has 11 well equipped curriculum laboratories and 4 research laboratories.

SALIENT FEATURES

The Department of Electronics and Communication Engineering has seen considerable growth since its inception in 1976. The vision of the department is to focus on the incubation of innovations in the areas of electronic design / fabrication, and communication technologies, which are needed to address the growing challenges of tomorrow. The overall aim is to harbour a sustainable, and continuously evolving scientific, technological and educational environment which is both internationally-adapted and industry-relevant.

ACADEMIC STAFF

Professors: 11

- **Prof. N. S. Raghava** (HOD), Ph.D, Areas of Interest are Antenna and Propagation, Microwave Engineering

- **Prof. Asok De**, Ph.D, Areas of Interest are Communiation System, Microwave

- **Prof. Rajiv Kapoor**, Ph.D, Areas of Interest are Machine learning, Computer Vision

- **Prof. OP Verma** (on diverted capacity as Principal , GBPEC , Govt. of NCT of Delhi), PhD, Areas of Interest are Image Processing, Signal Processing, Soft Computing, Artificial Intelligence

- **Prof. S. Indu**, Ph.D, Areas of Interest are Computer Vision, image processing

- **Prof. Rajeshwari Pandey**, Ph.D, Areas of Interest are Liner Integrated Circuits, Fiber Optical Communication

- **Prof. Neeta Pandey**, Ph.D, Areas of Interest are Analog and Digital VLSI Design, Current mode ADC Design

- **Prof. J Panda**, Ph.D, Areas of Interest are Digital Signal Processing, Computer Vision, Digital System Design

- **Prof. Dinesh Kumar**, Ph.D, Areas of Interest are Image processing, Clustering

- **Prof. Rajesh Rohilla**, Ph.D, Areas of Interest are Computer Vision, Machine Learning, Embedded Systems, Robotics

- **Prof. M. S. Choudhary**, Ph.D, Areas of Interest are Bio-Medical Signal, Image Processing

Associate Professors: 05

- **Mr. Rajesh Birok**, M.Tech, Areas of Interest are Bio-Medical Instrumentation

- **Dr. Alok Kumar Singh**, Ph.D, Areas of Interest are Analog Integrated Circuits and Signal Processing, Analog Devices

- **Dr. Priyanka Jain**, Ph.D, Areas of Interest are Microwave Engineering, Digital Signal Processing

- **Dr. Gurjit Kaur**, Ph.D., Areas of Interest are Optical Communication, Wireless Communication, IOT

- **Dr. Poornima Mital,** Ph.D., Areas of Interest are Organic Electronics, VLSI Design, Device Modeling

Assistant Professors: 26

- **Dr. Deva Nand**, Ph.D, Areas of Interest are Analog circuit Designing, Digital System Designing

- **Mr. Avinash Ratre**, BE, M.Tech., Areas of Interest are Signal, Image, Video Processing, Computer Vision, Machine Learning, Pattern Recognition, Digital Communication

- **Mr. Ajai kumar Gautam**, M.E (ECE), Areas of Interest are Image processing, Digital Design, Embedded systems.

- **Dr. N Jayanthi**, Ph.D, Areas of Interest is Image Processing

- **Dr. Sudipta Mazumdar**, Ph.D, Areas of Interest is Signal Processing

- **Dr. Malti Bansal**, Ph.D, Areas of Interest is Wireless Sensor Networks

- **Dr. Yashna Sharma**, Ph.D, Areas of Interest are Nanophotonics, Optical Communication, Sensors

- **Mr. Anurag Chauhan**, M.Tech. - VLSI design, Ph.D. (Pursuing), Areas of Interest are VLSI, Nanomaterials, spintronics

- **Mr. Piyush Tewari**, B.Tech., M.Tech., Ph.D (Pursuing), Areas of Interest are Signal Processing, Wireless Communication and Machine Learning

- **Ms. Kriti Suneja**, Ph.D. (Pursuing), M.Tech, Areas of Interest are Digital System Design, Speech Processing, VLSI, Testing of digital systems

- **Mr. Sumit Kumar Khandelwal**, B.Tech, M.Tech, Ph.D. (Pursuing), Areas of Interest are Microwave Engineering, Advanced Semiconductor Devices

- **Mr. Pankaj Dahiya**, B.Tech., M.Tech., Ph.D (Submitted), Areas of Interest is Instrumentation and Control

- **Dr. Rohit Kumar**, B. Tech., M. Tech., Ph.D, Postdoc, Areas of Interest are Wireless Communication, Reinforcement Learning for Cognitive Radio and IoT Networks, Block chain and Distributed Computing

- **Mr. Sachin Dhariwal**, B.Tech, M.Tech, Areas of Interest is Advanced Semiconductor Electronics

- **Mr. Akshay Mann**, M.Tech., Areas of Interest is Microelectronics

- **Mr. Lokesh Gautam**, B.Tech, M.Tech, Areas of Interest are Digital and Analog VLSI Design, Digital Circuits and Systems Design. Low power VLSI.

- **Mr. Rahul Thakur**, B.Tech., M.Tech., Ph.D. (Pursuing), Areas of Interest are Machine Learning, Digital Image Processing, Deep Learning, Image Forensics, Computer Vision.

- **Mr. Kaustubh Ranjan Singh**, B.Tech, M.Tech, Ph.D. (Pursuing), Areas of Interest are Cellular Communication, Digital Communication, Wireless Communication, Information Theory & Error Control Coding

- **Dr. Sachin Taran**, BE, ME, Ph.D., Postdoc, Areas of Interest are Adaptive Signal Processing, Non-Stationary Signal Analysis and Classification and Optical Imaging

4. ACADEMIC DEPARTMENTS

- **Dr. Sumit Kale**, BE, M.Tech, Ph.D., Areas of Interest are Microelectronics, VLSI Design and Novel Semiconductor Devices

- **Dr. Sonal Singh**, B.Tech, M.Tech, Ph.D, Areas of Interest are Electronics & Communication, Nanotechnology

- **Dr. Anukul Pandey**, B.Tech, M.Tech, Ph.D, Areas of Interest are Signal Processing, Biomedical Signal/Image Processing, Machine Learning

- **Ms. Lavi Tanwar,** B.Tech, M.Tech, Ph.D. (Pursuing), Areas of Interest are Signal Processing, Image Processing, Digital Watermarking

- **Dr. Chhavi Dhiman**, M.Tech., B.Tech., Ph.D., Areas of Interest are Computer Vision, Image Processing, Machine Learning, Deep Learning, Human Action Recognition in Videos

- **Dr. Sonam Rewari**, Ph.D, Areas of Interest is VLSI Design

- **Dr. Manjeet Kumar**, Ph.D, Areas of Interest are Signal processing and biomedical signal processing

4. ACADEMIC DEPARTMENTS

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

Participation in Professional Development Programmes by our Faculties

- Prof. N.S. Raghava attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Prof. S. Indu attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Prof. Rajeshwari Pandey attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Prof. Neeta Pandey attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Prof. Dinesh Kumar attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Dr. Gurjit Kaur attended TEQIP-III sponsored one week short term training program on , " Recent Trends in Machine Learning and AI organized by Department of IT, Delhi Technological University, Delhi.

- Dr. Alok Kumar Singh attended EM simulation of RF modules & Antennas using CST studio suite organized by department of Electronics and Communication Engineering, Delhi Technological University, Delhi

- Dr. Alok Kumar Singh attended Energy efficiency in Wireless senor Network organized by Department of Information Technology of Francis Xavier Engineering college Thirunelveli and Cyber security chapter of Govt of India

- Dr. Alok Kumar Singh attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Dr. Gurjit Kaur attended Workshop on "Prime Minister Fellowship Organized by Federation of Indian Chambers of Commerce & Industry (FICCI) organized by ECE Department, Delhi Technological University, Delhi

- Dr. Gurjit Kaur attended Workshop based on "Artificial Intelligence and Deep Learning Revolution" organized by ECE Department at Delhi Technological University, Delhi

- Dr. Gurjit Kaur attended One week short-term course on "Nanotechnology for Electronics and Photonic Devices (NanoDev 2020)" organized by Department of Electronics and Communication Engineering, Punjab Engineering College, (Deemed to be University), Chandigarh

- Dr. Gurjit Kaur attended Two weeks online short term training program on,"Research Methodology" organized by Department of Computer Science and Engineering, University School of Information and Communication Technology, Gautam Buddha University, Greater Noida

- Dr. Gurjit Kaur attended 5 Days Instructor Led Live Online Faculty Development Program on, "Internet of Things (IOT) Using Amazon AWS" organized by Finland Labs in association with National Social Summit, IIT Roorkee

- Dr. Gurjit Kaur attended Participated in, "G Suite for Education Training", organised by Delhi Technological University on 4th July 2020

- Dr. Gurjit Kaur attended a "One Week Online Lecture Series" organized by Cognitive Computing Study Circle, Department of Computer Science and Engineering, University School of Information and Communication Technology, Gautam Buddha University, Greater Noida

- Dr. Poornima Mittal attended Ten Days Instructor Led Live Online Faculty Development Program on Internet of Things (IOT) Using Amazon AWS organized by Finland Labs (A Unit of Revert Technology Pvt. Ltd.) in association with National Social Summit, IIT Roorkee

- Dr. Poornima Mittal attended One Week TEQIP III sponsored Short-Term Course on "Nascent Research Methodology: Challenges and Various Analytical Tools & Techniques organized by Department of Humanities and Management Science, MMMUT, Gorakhpur, Uttar Pradesh

- Dr. Poornima Mittal attended One Week Faculty Development Program on "Geo-Meteorological Hazards Risk Management organized by Department of Civil Engineering, DTU in association with NIDM, Ministry of Home Affairs, New Delhi

- Dr. Poornima Mittal attended One day GSuite for Education Training with Techno@ Team organized by HRDC, Delhi Technological University, Delhi

- Avinash Ratre, Assistant Professor, ECE, DTU attended TEQIP-III sponsored one week short term training program "Recent Trends in Security and Cryptography" organized by Department of Mathematics, DTU, Delhi

- Dr. Deva Nand attended ISO/IEC 17025 : 2017 Lab Awareness & Internal Auditing as per NABL requirements organized by DTU & ESCI

- Dr. Deva Nand attended Recent Research Directions and Key concepts in Electrical Engineering organized by EE Deptt. DTU & MITS Gwalior

- Dr. Deva Nand attended ASIC Design Flow using SCL180nm on Mentor Graphics Tools organized by CoreEL Technologies

- Dr. Deva Nand attended G-Suite for Education Training with Techno@ Team organized by HRDC, DTU

- Dr. Sudipta Mazumdar attended G-Suite for Education Training with Techno@ Team organized by HRDC, DTU

- Dr. Sudipta Mazumdar attended Coursera : AI for everyone

- Dr. Sudipta Mazumdar attended Coursera: Big Data

- Dr. N Jayanthi attended Recent Research Directions and Key Concepts in Electrical Engineering organized by Department of Electrical Engineering, Delhi Technological University, Delhi

- Dr. N Jayanthi attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Dr. N Jayanthi attended Machine Learning with MATLAB organized by Department of Electrical, Electronics and Communication Engineering, National Institute of Technical Teachers Training and Research (NITTTR),[Ministry of Education, Govt. of India].Chennai - 600 113, India

- Yashna Sharma attended One Week Short Term Training programme on Recent Trends in Security and Cryptography organized by Department of Applied Mathematics, Delhi Technological University

- Yashna Sharma attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Anurag Chauhan attended Recent Trends in AI and Machine Learning (STTP) organized by DTU

- Piyush Tewari attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Piyush Tewari attended Recent Trends in AI and Machine Learning (STTP) organized by DTU

- Piyush Tewari attended Two Weeks Online Refresher Course in "Engineering, Physical Sciences and Management" organized by Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi.

- Piyush Tewari attended Graph Theory and its applications (STTP) organized by DTU

- Piyush Tewari attended Two Weeks Industrial Training on Artificial Intelligence and Machine Learning - A Project based Learning Approach organized by Organized jointly by National Institute of Technical Teachers Training & Research Chandigarh and Xtrans Solutions Pvt. Ltd., Bangalore

- Piyush Tewari attended Faculty Development Program for Student Induction (FDP-SI) organized by All India Council for Technical Education(AICTE)

- Piyush Tewari attended Graph Theory and its applications (STTP) organized by DTU

- Piyush Tewari attended TEQIP-III One week FDP on Recent Research Directions and Key Concepts in Electrical Engineering organized by DTU

- Anurag Chauhan attended Graph Theory and its applications (STTP) organized by DTU

- Anurag Chauhan attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Anurag Chauhan attended Refresher Course in Data Science and Machine Learning organized by UGC-HRDC, University of Mumbai.

- Anurag Chauhan attended 4 Weeks Orientation/ Induction Programme for Faculty in Universities of Higher Education organized by Teaching Learning Centre, Ramanujam College, University of Delhi

- Anurag Chauhan attended 2 weeks online industrial training on "Internet of Things- A Project based Learning using Virtual IoT Lab organized by National Institute of Technical Teachers Training and Reasearch Chandigarh and Xtrans Solutions Pvt. Ltd., Bangalore

- Anurag Chauhan attended 2 weeks online industrial training on Artificial Intelligence and Machine Learning- A Project based Learning Approach organized by National Institute of Teachnical Teachers Training and Reasearch Chandigarh and Xtrans Solutions Pvt. Ltd., Bangalore

- Kriti Suneja attended Faculty Development Program for Student Induction (FDP-SI) organized by All India Council for Technical Education(AICTE)

- Kriti Suneja attended One Week Short Term Training programme on Recent Trends in Security and Cryptography organized by Department of Applied Mathematics, Delhi Technological University

- Kriti Suneja attended Workshop on "Prime Minister Fellowship Organized and attended of which is being conducted by Federation of Indian Chambers of Commerce & Industry (FICCI) organized by ECE Department, Delhi Technological University, Delhi

- Kriti Suneja attended One Week Short Term Training programme on Recent Trends in Security and Cryptography organized by Department of Applied Mathematics, Delhi Technological University

- Kriti Suneja attended AICTE ATAL FDP on Artificial Intelligence: Algorithm to Architecture organized by IIIT Delhi.

- Kriti Suneja attended GSuite for Education Training with Techno@ Team organized by HRDC, DTU

- Kriti Suneja attended Diabetes – the Essential Facts, an online non-credit course authorized by University of Copenhagen and offered through Coursera. organized by Coursera

- Kriti Suneja attended AI For Everyone, an online non-credit course authorized by deeplearning.ai and offered through Coursera

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Dr. S Indu delivered lecture on Energy efficiency in Wireless senor Network in Webinar, In collaboration with Francis Xavier Engineering college Thirunelveli and Cyber security chapter of Govt of India

- Dr. Gurjit Kaur delivered an expert lecture on Research Trends in the field of Optical Communication in Two weeks Online Expert Lecture Series on Research Trends in ICT organised by Gautam Buddha University, Greater Noida, India

- Dr. Poornima Mittal delivered an expert lecture on Research Aspects for Flexible Organic Electronic Devices in TEQIP-III Sponsored Faculty Development Programme on Emerging Trends in Organic Electronics (ETOE-2020) Organised By Rajasthan Technical University, Kota, Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

- Dr. Poornima Mittal took a session Chair

on Nano/Micro-Electronics, and VLSI at IEEE 6th Students' Conference on Engineering and Systems (SCES-2020), MNNIT, Allahabad, India, July 10-12, 2020

- Dr. N Jayanti delivered a guest lecture on Image Decolorization and its Applications in a Technical webinar series' organized by Department of ECE, Mount Zion College of Engineering and Technology, Thirumayam Tk, Pudukkotai, Tamilnadu. Affiliated to anna university, Tamilnadu.

Important Professional Affliations

- Prof. NS Raghava, IETE, Life Member
- S Indu, IEEE, Senior Member
- S Indu, ISTE, Life Member
- S Indu, IETE, Life Member
- S Indu, IUPRAI, Life Member
- Rajeshwari Pandey, IEEE, Member
- Rajeshwari Pandey, ISTE, Life Member
- Rajeshwari Pandey, IETE, Life Member
- Neeta Pandey, IEEE, Senior Member
- Neeta Pandey, IEEE WIE, Member
- Neeta Pandey, ISTE, Life Member
- Prof. Dinesh Kumar, CSI, ISTE, Life Member
- Dr. Gurjit Kaur, IETE, Life Time
- Dr. Gurjit Kaur, Indian Society for Technical Education, Life Time
- Dr. Gurjit Kaur, IEEE, Member
- Dr. Gurjit Kaur, OSA, Member
- Dr. Gurjit Kaur, SPIE, Member
- Dr. Poornima Mittal, IEEE, Member
- Dr. Poornima Mittal, IEEE, Member
- Dr. Poornima, Mittal ,IEEE Young Professionals, IEEE Biometrics Council, IEEE Council on EDA, Member
- Dr. Poornima Mittal, ISTE, Life Member
- Dr. Poornima Mittal, IEI, Life Member

- Dr. Poornima Mittal, IAENG, Life Member
- Dr. N Jayanti, IUPRAI, Life Member
- Dr. N Jayanti, IEEE, Member
- Dr. Sudipta Mazumdar, IEEE, Member
- Alok Kumar Singh, IEEE, Professional Member
- Dr. Deva Nand, IEEE, Member
- Dr. Deva Nand, ISTE, Member
- Dr. Deva Nand, IAENG, Member
- Mr. Avinash Ratre, IETE, Life Member

Teachers receiving awards, recognition and fellowships from Government bodies

- S Indu received Commendable research award
- Prof. Rajeshwari Pandey received Recognition for excellence in teaching
- Dr. Gurjit Kaur received Best Professor in teaching optical communication, Dewang Mehta National Education Award
- Dr. Gurjit Kaur received Commendable Research Award
- Dr. Priyanka Jain received Commendable Research Award
- Dr. Poornima Mittal received Commendable research award
- Prof. Neeta Pandey received Commendable research award
- Dr. Sudipta Mazumdar received Commendable research award
- Prof. Rajeshwari Pandey received Commendable research award
- Prof. Rajiv Kapoor received Commendable research award

Recognition by Government Agencies

- Design of Ultrasonic Pattern Generator and 3-D View generation using Fusion

for RCT, sponsored Research Project in collaboration with Maulana Azad Institute of Dental Sciences sponsored by DST
- Development of frame work for imaging, restoring and archiving inscription and manuscript, Sponsored Research Project by DST
- Development & deployment of Motor Controller for Low to Medium Power Electric Vehicle, Sponsored Research Project by MeitY
- Development of Flexible and efficient optical fiber Network for smart cities, sponsored by Delhi Technological University, Delhi
- Green EARTH: Green Energy Aware Radio Technology for Cognitive Network with Heterogeneity" under the WOS-A Scheme of DST, Sponsored Research Project by DST

Students provided with financial support to attend Conference, Seminars, etc.

- Akhilesh Verma received amount of ₹10494 to attend 2nd Indian Conference on Antennas & Propagation (InCAP 2019) organized by IEEE AP/MTT Joint Chapter, Gujarat Section and Space Applications Centre, ISRO
- Anurag received amount of ₹24000 to attend International conference on computing and network communications organized by Indian Institute of Information Technology and Management-Kerala (IIITM-K), Trivandrum in association with ACM Trivandrum Professional Chapter

Grants for research sponsored by non-government organization

- Dr. N.Jayanthi received ₹26 Lakhs from DST

Students qualifying in state/ national/ international level examinations during the current year

- Vidyut Pratap Singh cleared GRE
- Anuj Agrawal cleared GRE
- Rahul Singh cleared GRE
- Kshitij Chhabra cleared GRE
- Shaleen Jain cleared CDS
- Aman Agarwal cleared GATE
- Mukul Yadav cleared GATE
- Lakshmi Nair cleared GATE
- Vikas Chaudhary cleared GATE
- Vicky Anand cleared GATE
- Parth Batra cleared GATE
- Rahul Saini cleared GATE
- Anshul Dagar cleared GATE
- Karan cleared GATE
- Sayantan Ghosh cleared GATE
- Soumya Tabitha Bara cleared CAT

Detail of student progression to higher education (previous graduating batch) (the current year)

- Vidyut Pratap Singh joined Carnegie Mellon University for MS in Electrical and Computer Engineering
- Utkarsh Singh joined University of Michigan, Ann Arbor for MS in ECE
- Anuj Agrawal joined University of California Los Angeles (UCLA) for M.S. Electrical and Computing
- Aniudh Goyal joined IIM Calcutta for MBA
- Owais Choudhary joined IIM Ahmedabad and IIM Banglore for MBA

- Asmita joined IIM Kozhikode for MBA
- Kshitij joined IIM Indore for MBA
- Arnav joined IIM Udaipur for MBA

Details of capability enhancement and development schemes organised by department

- Expert Lecture on Reconfigurable Antenna and Metamaterial based Antenna Design by Dr. Yashna Sharma and Prof. NS Raghava.
- International Heritage Symposium and Exhibition at National Museum, New Delhi by Prof. S. Indu.
- Guest Lecture On Artificial Intelligence And Deep Learning by Prof. Guy Brown, Hod Cse Dept. University Of Sheffield, Uk By Prof. S. Indu, Dr. Poornima Mittal, Dr. Gurjit Kaur.
- Awareness Workshop On Prime Minister's Fellowship For Doctoral Research Scheme by Prof. Ns Raghava, Dr. Gurjit Kaur, Ms. Kriti Suneja.

Students' Achievements

- Milind Sahay, Rahul Singh, Mohammed Mohsin Hussain Came Runner Up In Infineon India Campus Hackathon, Bangalore India.
- Anurag Singh, Anuj Agrawal won Gold Medal for Formation Flying Challenge, DRONE Olympics at Aero India 2019 organized by the Ministry of Defence, Ministry of Defence, Department of Defence Production 130-E South Block, New Delhi-110011.
- Vartul Bhardwaj , Arushi Sharma / FitGit1.0 won Smart India Hackathon 2019.

4.10 Department of Electrical Engineering

46 Journal Publications

48 Conference Publications

3 Book Chapters

Faculty 52

ACADEMIC PROGRAMMES

- B. Tech. (Electrical Engineering)
  Intake: 266
  Students Admitted: 265
- B. Tech. (Electrical Engineering)
  (Continue Education)
  Intake: 60
  Students Admitted: 24
- M. Tech. (Control & Instrumentation)
  Intake: 22+5
  Students Admitted: 20
- M. Tech. (Power System)
  Intake: 22+5
  Students Admitted: 26
- Ph.D. Research Scholar: 24

LABORATORIES

The department has 15 Well-Equipped laboratories which include Basic Electrical Engineering Lab, Electrical Workshop, Junior Machines Lab, Senior Machines Lab, Measurements Lab, Instrumentation Lab, Electrical Utilisation Lab, Power Electronics Lab, Control System Lab, Power System Lab, Drives SCADA-Project Lab, Power Quality Lab, Power Electronic Drives-Simulation Lab, Micro grid lab, and Advanced Control System Lab.

SALIENT FEATURES

The Department of Electrical Engineering of Delhi Technological University is one among the first major departments to be established in 1941. The year 2020 marks the 79th year of Excellence (Platinum Jubilee) for both the University and the department in academics, research and innovation. The overall goal of the department is to provide quality education at undergraduate and postgraduate levels and undertake cutting edge research in several new areas of Electrical Engineering.

Faculty members of the department have been regularly contributing towards International and National Journals of repute like IEEE Transactions and IEEE Proceedings, IET, Journals in Electrical Engineering from Elsevier, etc. along with Proceedings of National and International Conferences.

The department has the distinction of organizing eight MHRD sponsored GIAN courses with International faculty and experts from Virginia Tech, USA; University of Victoria, Canada; Texas A&M University, Texas, USA; Technical University of Crete, Greece; BC Hydro Canada; College of Engineering, Michigan State University, USA. The students are motivated for technical and creative activities besides classroom teaching and laboratory exercise through technical fests like TROIKA; RENAISSANCE organized under the IEEE student chapter and IET student chapter.

ACADEMIC STAFF

Professors: 19

- **Prof. Uma Nangia**, B.E., M.E., Ph.D, Power Systems

- **Prof. Madhusudan Singh**, B.Sc(Engg.), ME(Hons), PhD, Control & Instrumentation

- **Prof. Narendra Kumar (I)**, B.Sc(Engg.) M.Sc(Engg.), PhD, Power Systems and Drives

- **Prof. Narendra Kumar (II)**, BE, ME, Phd, Instrumentation , Control & Power Electronics Applications

- **Prof. Pragati Kumar**, M.Tech, Ph.D., Control & Instrumentation

- **Prof. Vishal Verma**, M.Tech, PhD, Power Electronics

- **Prof. Bharat Bhushan**, B.E.,M.E.,Ph.D, Control & Instrumentation

- **Prof. Rachna Garg**, M.Tech, PhD, Power system operation and control, renewable energy systems, artificial intelligent techniques, smart grid

- **Prof. Suman Bhowmick**, BEE (Hons.) MEE , Ph.D, Power Systems, FACTS, VSC-HVDC

- **Prof. S.T Nagarajan**, B.E,M.E, Ph.D, High Voltage Engineering & Power System

- **Prof. Alka Singh**, BE, M.Tech, Ph.D. Power Systems

- **Prof. Dheeraj Joshi**, BE, ME, PhD, Power Electronics, Electric Drives, Renewable Energy Systems

- **Prof. Mukhtiar Singh**, B.Tech. , M.Tech, Ph.D., Power Electronics and Drives

- **Prof. M.M. Tripathi**, B. Tech, M.Tech, PhD, Restructuring power systems, Artificial Intelligence (AI) application to load & price forecasting, Integration of renewable energy sources in electricity markets, Cyber Security of Smart Grid, Embedded Systems

- **Prof. J.N. Rai** M.Tech. PhD, Power Systems

- **Prof. Priya Mahajan**, ME, PhD, Railway Electric Traction System, Power System, Electrical Machines

- **Prof. D.R. Bhaskar**, B.Tech, M.Tech, Ph.D, Bipolar and MOS Analog Intergrated Circuits

- **Prof. Sudarshan K Valluru**, B.Tech(E&EE), M.Tech(CAID), Ph.D, Artificial Intelligence, Bio-Inspired Algorithms, Control of Dynamical systems, Bifurcation Analysis, Electrical Machines

- **Prof. Mini Sreejith**, M.E. Ph.D, Electrical Machines

Emeritus Professors: 02

- **Prof. N.K. Jain**, B.Sc(Engg.), M.Sc(Engg), PhD, Power Systems

- **Prof. R.S. Saha**, B.E, M.E, Ph.D, HVDC & Power System

Associate Professors: 06

- **Sh. N.K Bhagat**, B.Sc(Engg.), M.Tech, Control Systems

- **Sh. Ram Bhagat**, B.Tech, M.E, Control & Instrumentation

- **Sh. D.C. Meena**, B.Tech, M.Tech, Power Systems

- **Dr. M. Rizwan**, B.Tech, M.Tech, PhD, Power System

- **Dr. Vinod Kumar Yadav**, B.Tech, M.Tech, Ph.D, Power Systems

- **Sh. R L Meena**, BE., M.Tech, Power Quality

Assistant Professors: 25

- **Mr. A. B. Bhattacharya**, M. Tech., Power System

- **Dr. Bhavnesh Jaint**, B.E, ME, Electrical Engg

- **Mr. Prem Prakash**, B.E, M.Tech, Engg Systems

- **Sh. A.R. Kulkarni**, B.E.,M.E, Control System Intelligent Transportation Systems, Microcontrollers & Embedded Systems, Robotics

- **Mrs. Garima**, BE,M.Tech, Analog, VLSI

- **Sh. Sikandar Ali Khan**, B.Tech., M. Tech. Electrical Machines, Electrical Drives, Power System

- **Sh. Kuldeep Singh**, B.Tech, M.Tech. Power Systems

- **Ms. Ankita Arora**, B.Tech. , M.Tech., Renewable Energy Sources, Power Electronics, Electrical Machines, Artificial Intelligence Techniques, Control Systems

- **Dr. Anup Kumar** Mandpura, B.Tech, M.Tech, Ph.D, Cooperative Communication Systems

- **Sh. Himanshu Singh**, B.E., M.Tech, Power Electronics, Electrical Machines, Electrical Drives, Control System

- **Sh. Saurabh Mishra**, B.E , M.Tech., Electrical Drives

- **Mrs. Shatakshi**, B.E., M.Tech, Renewable Energy Systems, Power systems

- **Dr. Prakash Chittora**, B.Tech, M.Tech, Ph.D., Power System, Power Quality, Power Electronics

- **Mr. Shreyansh Upadhyaya**, B.Tech, M.Tech, Power Electronics, Control systems

- **Mr. Abhishek Chaudhary**, B.E., M.Tech., Control System Engineering

- **Dr. (Ms.) Rinchin Wangziom Mosobi** B.E., M.Tech, Ph.D Power Quality, Renewable Energy Sources

- **Dr. Mayank Kumar**, B.Tech., M.Tech., Ph.D., PWM of Power Converters, Modeling and Control of Power Electronics Converters, Solar Power Conversion

- **Dr. Chaudhry Indra Kumar**, B.E., M.Tech, Ph.D., Digital VLSI Circuit Design, Radiation Hardened IC Design, Energy Efficient Circuit Design And Radiation Hardened Layout Design Techniques

- **Mr. Gaurav Kaushik**, B.Tech., M.Tech., Power Electronics, Control systems

- **Ms. Anupama**, B.E., M.Tech., VLSI, Analog Electronics, Digital Electronics

- **Mr. Krishna Dutt** B.Tech, M.Tech., Power Electronics, Advance Power Electronics, Power Converters, Control of Power Electronics Converters, Custom Power Devices, FACTs, Machine

- **Mr. Rohan Pilla**i B.Tech, M.Tech. Microelectronics,

- **Dr. Vanjari Venkata** Ramana B.Tech., M.Tech., Ph.D., Power Electronics

- **Dr. Avirup Maulik** B.Tech., M.Tech., Ph.D., Power Systems

- **Dr. Rajesh Kumar**, B.Tech., M.Tech., Ph.D., Control Systems and Instrumentation, Soft Computing

4. ACADEMIC DEPARTMENTS

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

Achievements of the Department

- Serving the nation since the last 79 years through education.

- Highly placed alumni in various reputed organizations and institutions across the world.

- The Department is accredited by National Board of Accreditation (NBA).

- The Department has been identified as a Quality Improvement Program Research Centre.

- The department currently has 17 laboratories and 12 dedicated research areas equipped with state-of-the-art facilities with the latest versions of software platforms. The laboratories are equipped with sophisticated equipments, test setups, FPGA based data acquisition systems, embedded controllers, Digital Signal Processors, Medium power Inverter-converters, various Electric Drives, PLCs, Power analyzers, spectrum analyzers, OPAL-RT, Phasor Measurement Units (PMUs), 300kV Impulse generator, 100 kV transformer etc. to name a few.

- The department is involved in carrying out several sponsored R & D projects funded by national agencies like AICTE, DST, SERB, NPIU and MeitY. Currently, sponsored projects from the DST and the AICTE amounting to more than ₹14.65 crores are presently underway in the department. The department is also engaged in consultancies in various fields of Electrical Engineering

Participation in Professional Development Programmes by our Faculties

- Prof. J. N. Rai attended One Week Online Faculty Development Program on "Power Quality and Reactive Power Management" organized by Department of Electrical Engineering, Delhi Technological University in association with Clariant Power System Ltd., Pune between 06th -10th July 2020

- Prof. J. N. Rai attended International webinar on "Research Methodology: Paper Writing &Online tools, organized by Dept. of Electrical Engineering., SOBHASARIA Group of Institutions, Sikar, Rajasthan on 24th July 2020

- Prof. J. N. Rai Attended National level Webinar on "Ancient Indian Science and Technology" organized by NITTTR along and SPIU, Uttar Pradesh under guidance of Chairman, AICTE on 13th July 2020

- Prof. J. N. Rai Attended webinar on Outcome Based Education & Accreditation Post COVID organized by ASM Group of Institutes on 1st July 2020

- Dr. Priya Mahajan attended workshop on Recent Research Directions and Key Concepts in Electrical Engineering, by EED, DTU between 2-6 December 2019

- Dr. M.M. Tripathi attended a programme on Advanced Pedagogy, IPR, sponsored Research and Entrepreneurship between 16-20 July 2019

- Dr. M.M. Tripathi attended IEEE TENCON 2019 between 17th-20th October 2019

- Dr. M.M. Tripathi attended International Conference on Energy Systems, Drives and Automation during 28-29 December 2019

- Dr. Sudarshan K Valluru attended International Conference on Engineering Technologies and Applied Sciences during 20-21 December 2019

- Dr. Sudarshan K Valluru attended Conference on Computing and Network Communications organised by IIITM-K on 3rd August 2019

- Sh. Neeraj Kumar Bhagat attended workshop on Effective Lecture Presentation Through PPT, organised by HRDC, DTU on 3rd August 2019

- Sh. Neeraj Kumar Bhagat attended Recent Research Directions and Key Concepts in Electrical Engineering, EED, DTU during 2-6 December, 2019

- Dr. Vinod Kumar Yadav organised one Week TEQIP-III Sponsored Faculty Development Programme on "Recent Research Directions and Key Concepts in Electrical Engineering" by Department of Electrical Engineering, DTU, Delhi from 2-6 December 2019

- Mr. A.B. Bhattacharya attended a workshop on Mathematics Tools in Wireless Communication and Networks 13th to 17th September 2019

- Ms. Bhavesh Jaint attended workshop recent Trends in AI and Machine Learning during 29 July to 2 August

- Mr. Prem Prakash attended workshop on Geohazards Risk Reduction Initiatives in South and South East Asia during 21-22 November 2019

- Mr. Prem Prakash attended a workshop on Recent trends in Applied Physics and Engineering, organised by Applied Physics Department, DTU during February 10, 2020

- Mr. Prem Prakash attended a workshop on E-Resources: A Gateway for Research DTU during 2-6 September 2020

- Mr. Himanshu Singh attended workshop on Recent Research Directions and Key Concepts in Electrical Engineering, organised by DTU during 2-6 December 2019

- Dr. Anup Kumar Mandpura attended workshop on Advanced Pedagogy, IPR, Sponsored Research and Entrepreneurship, DTU during 16-20 July 2019

- Dr. Anup Kumar Mandpura attended One-week Online Faculty Development on "Power Quality and Reactive Power Management", organized by the Department of Electrical Engineering, Delhi Technological University, in association with Clariant Power System Ltd., Pune during 6-10th July 2020

- Mr. Kuldeep Singh attended One-week Online Faculty Development on "Power Quality and Reactive Power Management", organized by the Department of Electrical Engineering, Delhi Technological University, in association with Clariant Power System Ltd., Pune during 6-10th July 2020

- Mr. Kuldeep Singh attended One-week Faculty Development Programme, EED DTU sponsored by TEQIP III Programme on "Recent Research Directions and Key Concepts in Electrical Engineering" during 2-6th December 2019.

- Mr. Kuldeep Singh attended one-week Faculty Development Programme on "Recent Development in Renewable Energy Systems" sponsored by TEQIP III, organised by Department of Mechanical, Automobile and Production & Industrial Engineering DTU during 25-29 November 2019

- Mr. Kuldeep Singh attended TEQIP-III sponsored International Workshop on Geohazards Risk Reduction Initiatives in South and South East Asia (GeoRiskSEA-2019) during 21-22 November 2020

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Prof. Sudarshan Valluru delivered an expert talk on "Design of Controllers

for an Electromechanical Systems" on 28/08/2020 02:30 PM - 4:00 PM during AICTE sponsored one week Online Short Time Training Program on "MICRO ELECTRO MECHANICAL SYSTEMS (MEMS), MECHATRONICS AND THEIR APPLICATIONS FOR FUTURE CHALLENGES" from 24 -29 August 2020 at Department of Mechanical Engineering (Mechatronics) Mahatma Gandhi Institute of Technology Hyderabad-500075.

- Dr. Vinod Kumar Yadav delivered an expert lecture: On Recent Research Trends in Electrical Engineering 14-18 July 2020, School of Engineering, Gautam Buddha University, Greater Noida.

- Dr. Vinod Kumar Yadav delivered an expert lecture: on "Role of Energy Management in Smart City" June 16th, 2020. Sharda University, Greater Noida.

- Dr. Vinod Kumar Yadav delivered an expert lecture: on "Recent Trends in Renewable Energy Systems and Their Control (RESC-2020)," TEQIP-III Sponsored Online Short Term Course (September 14-18, 2020), Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab (India).

- Dr. Vinod Kumar Yadav delivered an expert lecture: on "Stability Analysis, Protection and Control of Microgrid," TEQIP-III Sponsored Online Short Term Course (September 25-29, 2020), Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab (India).

- Dr. Vinod Kumar Yadav delivered an expert lecture: on "Human Values and Ethics" on July 7th , 2020, Sharda University, Greater Noida.

Important Professional Affiliations

- Prof. Uma Nangia is a Member of Institute of Electrical and Electronics Engineers

- Prof. Madhusudan Singh is a Member of Institute of Electrical and Electronics Engineers

- Prof. Narendra Kumar (I) is a Member of Institute of Electrical and Electronics Engineers and Indian Society for Technical Education

- Prof. N.K. Jain is a Member of Institute of Electrical and Electronics Engineers

- Prof. Vishal Verma is a Member of Institute of Electrical and Electronics Engineers, Power and Energy Society and Power Electronics Society

- Prof. Pragati Kumar is a Member of Institute of Electrical and Electronics Engineers

- Prof. Narendra Kumar (II) is a Member of Institute of Electrical and Electronics Engineers

- Prof. S.T Nagarajan is a Member of Institute of Electrical and Electronics Engineers

- Prof. Alka Singh is a Member of Institute of Electrical and Electronics Engineers

- Prof. Dheeraj Joshi is a Member of Institute of Electrical and Electronics Engineers

- Prof. Mukhtiar Singh is a Member of Institute of Electrical and Electronics Engineers

- Prof. M.M. Tripathi is a Member of Institute of Electrical and Electronics Engineers

- Prof. J.N. Rai is a Member of Institute of Electrical and Electronics Engineers

- Prof. Priya Mahajan is a Member of Institute of Electrical and Electronics Engineers

- Prof. R.S. Saha is a Member of Institute of Electrical and Electronics Engineers

- Prof. D.R. Bhaskar is a Member of Institute of Electrical and Electronics Engineers

- Sh. N.K Bhagat is a Member of Institute of Electrical and Electronics Engineers
- Dr. Sudarshan K Valluru is a Member of Institute of Electrical and Electronics Engineers
- Sh. Ram Bhagat is a Member of Institute of Electrical and Electronics Engineers
- Dr. Mini Sreejith is a Member of Institute of Electrical and Electronics Engineers
- Prof. Bharat Bhushan is a Member of Institute of Electrical and Electronics Engineers
- Prof. Rachna Garg is a Member of Institute of Electrical and Electronics Engineers
- Prof. Suman Bhowmick is a Member of Institute of Electrical and Electronics Engineers
- Sh. D.C. Meena is a Member of Institute of Electrical and Electronics Engineers
- Dr. M. Rizwan is a Member of Institute of Electrical and Electronics Engineers
- Dr. Vinod Kumar Yadav is a Member of Institute of Electrical and Electronics Engineers
- Sh. R L Meena is a Member of Institute of Electrical and Electronics Engineers
- Sh. A.B.K. Bhattacharya is a Member of Institute of Electrical and Electronics Engineers
- Sh. Prem Prakash is a Member of Institute of Electrical and Electronics Engineers
- Mrs. Bhavnesh Jaint is a Member of Institute of Electrical and Electronics Engineers
- Sh. A.R. Kulkarni is a Member of Institute of Electrical and Electronics Engineers
- Mrs. Garima is a Member of Institute of Electrical and Electronics Engineers
- Sh. Sikandar Ali Khan is a Member of Institute of Electrical and Electronics Engineers

- Ms. Ankita Arora is a Member of Institute of Electrical and Electronics Engineers
- Dr. Anup Kumar Mandpura is a Member of Institute of Electrical and Electronics Engineers

Teachers/Staff/Students receiving awards, recognition from Government recognised bodies

- Dr. Mukhtiar Singh, Professor, received Research Excellence Award, 2020
- Dr. Alka Singh, Professor, received Research Excellence Award, 2020
- Dr.Vishal Verma, Professor, received Research Excellence Award, 2020
- Dr. Vinod Kumar Yadav, Associate Professor, received Research Excellence Award, 2020
- Dr. Anup Kumar Mandpura, Assistant Professor, received Research Excellence Award, 2020
- Dr. Ankita Arora Assistant Professor, received Research Excellence Award, 2020
- Mr. Imran Ahmad Quadri Ph.D. Scholar, received Research Excellence Award.
- Dr. Ajay Kumar P.hD scholar received research excellence award.

Grants for Research Projects sponsored by Govt. Sources

- Dr. Alka Singh received ₹68,00,000/- for Design, Development and Testing of Control and Synchronization of Power Electronics based Converters with Renewable Energy sources by SERB, DST, on 07-04-2017 for a period of 3 years
- PI-Dr. Hitesh Dutt Mathur, Co PI- Dr. Dheeraj Joshi, received ₹16,83,100/- for IOT Based Energy Mangement System of Microgrid with Vehicle to Grid Feature by DST on 26-02-2019

- PI- Dr. M. Rizwan received ₹31,06,455 for Smart Dynamic energy management for built environment with integrated renewable energy by SERB, DST on 27-03-2019 for a period of 3 years

- Prof. V. Verma received ₹22,53,600/- for Demonstration of grid supportive EV charger and charging infrastructure at LT level (D-EVCI) by DST on 12-06-2018 for a period of 3 years

- Prof. V. Verma received ₹1,63,00,000/- for Design and Demonstration of off-grid self-healing and sustainable DC community energy solutions by DST for a period of 3 years

- Prof. V. Verma received ₹36,63,000/- for Design and development of Bio-mass Solar Electricity and cooling soultions for

rural India by DST on 12-07-2018 for a period of 2 years

Professional Development Programmes organized by the Department

- One Week TEQIP-III Sponsored Faculty Development Programme on "Recent Research Directions and Key Concepts in Electrical Engineering" by Department of Electrical Engineering, DTU, Delhi from 2-6 December 2019

- One-week Online Faculty Development on "Power Quality and Reactive Power Management", in association with Clariant Power System Ltd., Pune during 6-10th July 2020

- Two days IEEE workshop and Exposition during 17-18 December 2020

Revenue generated from consultancy

S. No.	Title	Funding Agency	Grant	Date of Start of Project	Name of Principal Investigator
1	CCTV throughout in School	PWD	15,40,000	2019-20	ABK Bhattacharya
2	Construction of additional classroom priority I & II (electrical)	PWD	15,00,000 approx	2018-20	ABK Bhattacharya
3	TPQA for various AIIMS project from HSCC	AIIMS	10,79,000	2019-20	ABK Bhattacharya
4	BSES underground Cable laying work in Delhi	BSES	10,00,000	2019-20	ABK Bhattacharya

4.11 Department of Environmental Engineering

17 Journal Publications

5 Conference Publications

3 Book Chapters

Faculty 6

ACADEMIC PROGRAMMES

- B. Tech. (Environmental Engineering)
  Intake: 68
  Students Admitted: 67
- M. Tech. (Environmental Engineering)
  Intake: 22+5
  Students Admitted: 22
- Ph.D. Research Scholars: 11

LABORATORIES

Department is actively involved in Consultancy, Research and Development and has well-established laboratories in all the areas of Environmental Engineering. It provides technical support to national agencies such as CPCB, NMCG, DPCC, CPWD, and many more.

SALIENT FEATURES

The Department of Environmental Engineering was created in February-2012. B.Tech, M.Tech. and Ph.D. programs are being offered. The Department provides an opportunity to working engineers for academic up-gradation by offering part-time post-graduate courses. The department envisions to produce technologically relevant Environmental Engineering graduates, post-graduates, and researchers through innovative applications of science, engineering & technology with globally acceptable curriculum and teaching-learning environment; and to create engineering leaders who can work in multi-disciplinary groups to anticipate and address evolving challenges sustainably for the betterment of human society.

ACADEMIC STAFF

Professors: 01

- **Prof. S. K. Singh** (HOD), B.E., M. Tech., Ph. D., FIE, FICS, FIEE. FIWRS, FIGS, FIAH, FIIBE, FIGV, FIOD, Area of Interest are Solid waste processing, Wastewater treatment designs, Water treatment designs, Water quality modeling, Solar detoxification, EIA & Auditing

Associate Professors: 01

- **Dr. Anil Kumar Haritash**, M.Sc., M. Tech., Ph.D., Area of Interest are PAHs, Water Quality Assessment, Environmental Microbiology, Bioremediation, Constructed Wetlands

Assistant Professors: 04

- **Dr. Geeta Singh**, B. Tech., M. Tech., Ph.D, Area of Interest are Water and Wastewater Engineering, Hydrology, Water Resources, Groundwater Engg,

- **Mrs. Lovleen Gupta**, B.E., M.S., Ph.D (Pursuing from IIT Delhi), Area of Interest are Source apportionment of air pollutants, Human Health Risk Assessment, Climate Change, GHG emission calculations, Environmental Impact Assessment, Environmental Site Assessment.

- **Dr. Rajeev Kumar Mishra**, M.Sc., M. Tech., Ph.D., Area of Interest are Environmental implications of urban transport systems, Urban air pollution analysis & modelling, Traffic noise pollution modelling, Acoustics & barrier designing

- **Sh. Gour Anunay Ashokkumar**, B.E., M.E., Ph.D. (Pursuing), AMIE, Area of Interest are Environmental Engineering, Water & Wastewater Engineering, Air Pollution, Industrial Waste Management, Environmental Impact Assessment, System Simulation & Modelling

Achievements of Department

- The department is actively engaged in providing technical support to NGT for cleaning River Yamuna, NMCG for Cleaning river Ganga, CPWD, DJB, and many more institutions.

- The department has inspected inter-mixing and trapping of drains joining river Yamuna.

- It also provides technical support to various institutions such as The Institution of Engineers (India), International Development Centre Foundation (IDC Foundation), Green Institute for Research and Development (GIRD).

- Ministry of Jal Shakti, Govt. of India has approved a proposal worth ₹416.29 Crores to protect river Godavari in June 2020 based on the department's recommendations.

- Department undertakes and have completed performance audits of New, upcoming and existing STPs setup by DJB in Delhi.

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Mrs. Lovleen Gupta delivered a lecture on Sources of Air Pollutants – Delhi & Beyond, on 28th July, 2020.

Important Professional Affiliations

- Prof. S.K. Singh, Fellow, Institution of Engineers (India), Kolkata with Area of Support as Environmental Engineering.

- Prof. S.K. Singh, Fellow, Institution of Environmental Engineers (India), New Delhi with Area of Support as Environmental Engineering.

- Prof. S.K. Singh, Fellow, Geological Society of India, Bangalore with Area of Support as Engineering Geology.

- Prof. S.K. Singh, Fellow, Indian Chemical Society, Calcutta with Area of Support as Chemical Engineering.

- Prof. S.K. Singh, Fellow, Indian Institute of Bridge Engineers, Mumbai with Area of Support as Civil Engineering.

- Prof. S.K. Singh, Fellow, Indian Water Resources Society, Roorkee with Area of Support as Civil Engineering.

- Prof. S.K. Singh, Fellow, United Writers Association, Chennai with Area of Support as Technical Writing.

- Prof. S.K. Singh, Fellow, Indian Association of Hydrologists, Roorkee with Area of Support as Hydrological Sciences.

- Dr. Geeta Singh, Life Member, The Institution of Engineers (India) with Area of Support as Civil Engineering.

- Dr. Geeta Singh, Life Member, Indian Association for Air Pollution Control with Area of Support as Air Quality.

- Mrs Lovleen Gupta, Member, American Association of Environmental Engineering and Science Professors (AEESP) with Area of Support as Environmental Engineering.

- Mrs Lovleen Gupta, Member, American Association of Aerosol Research (AAAR) with Area of Support as Air Quality.

- Mrs Lovleen Gupta, Member, Institution of Engineers (India) with Area of Support as Environmental Engineering.

- Sh. Gour Anunay Ashokkumar, Associate Member, Institution of Engineers (India) with Area of Support as Environmental Engineering.

Teachers provided with financial support to attend Conferences Seminars, etc.

- Dr. A.K. Haritash received ₹93,500/- for attending 3rd Water and Health Congress

organized by Ministry of Health, Turkey, from 12-15 November, 2019.

Students provided with financial support to attend Conferences Seminars, etc.

- Mr. Abhishek Sharma received ₹56,000/- for attending 6th Go Green Summit & Conference on Climate Change organized by Techno Frate Group on 16th March 2020.

Awards and Recognition at State, National, or International level from Government, recognised bodies

- Prof. S.K. Singh was awarded with Certificate of Honour in appreciation & recognition of valuable contribution towards COVID -19 disaster response at First International Congress.

- Dr. Rajeev Kumar Mishra was awarded with Research Excellence Award by Delhi Technological University.

Revenue Generated from Consultancy

- Prof. S.K. Singh and Sh. Gour Anunay Ashokkumar provided consultancy on Preliminary Project Report on Rehabilitation of Trunk Drain-2 and Trunk Drain-5, Dwarka, Delhi in 2019 which was sponsored by Tata Projects and the amount of revenue generated was ₹4,86,000/-.

Linkages with institutions/ industries for internship, on-the-job training, project work, sharing of research facilities etc.

- The linkage for Student Internship was established with Central Pollution Control Board (CPCB) from 2019 till date for B.Tech. and M.Tech. Students

- The linkage for Student Internship was established with Delhi Pollution Control Committee (DPCC) from 2019 till date for B.Tech. and M.Tech. Students

Participation in Professional Development Programmes by our Faculties

- Dr. Geeta Singh attended TEQIP-III Sponsored FDP of One-week duration in "Disaster Mitigation and Management" organized by Department of Civil Engineering, Delhi Technological University, from 25-29 November, 2019.

- Dr. Rajeev Kumar Mishra attended TEQIP-III Sponsored FDP of One-week duration in "Disaster Mitigation and Management" organized by Department of Civil Engineering, Delhi Technological University, from 25-29 November, 2019.

- Mrs. Lovleen Gupta attended TEQIP-III sponsored Machine Learning and Deep Learning Applications in Engineering & Science, organized by Government College of Engineering, Karad, from 16-20 May, 2020.

Students pursuing Higher Education

- Ms. Mansi Shrivastava, a student of B.Tech. in Environmental Engineering is pursuing M.S. in Environmental and Resource Management from Arizona State University.

Student's Achievements

- Mr. Abhishek Sharma was awarded with Hind Gaurav Award, a National level award given by Hon'ble Lt. Governor of Delhi for carrying out activities as a Social & Environmental Activist.

- Mr. Mohit Singhwas awarded with Hind Gaurav Award, a National level award

given by Hon'ble Lt. Governor of Delhi for carrying out activities as a Social & Environmental Activist.

- Mr. Siddharth Saini was awarded with the Best Actor in Hansraj College Fest (Bolbala).

- Mr. Harshit Sharma received Letter of Appreciation by CRIS, Ministry of Indian railways for finding and solving bugs in their flagship portal ICMS.

- Ms. Anoushka Raj received 3rd Prize at Poetry Event, IIITD.

- Mr. Harshit Sharma received Silver play button by YouTube for surpassing 100,000 subscribers.

- Ms. Anoushka Raj received 1st Prize at Structural Analysis and Methodology quiz at CBP GEC.

- Ms. Anoushka Raj received 1st Prize at Poetry Event, IIT Goa.

- Ms. Anoushka Raj received 1st Prize at Quarantine Writing Event, IIT Goa.

- Ms. Rashmi Kumari received National scholarship of INR 40,000 by Prof. S.K.Garg on book launch for being DR 1.

Professional Development Programmes, Conferences, Seminars, Workshop, etc organized by the Department

- National Conference held in association with GIRD on Strategy for Water Sustainability for Human and Development needs with 60 participants in February 2020 was organised by Department of Environmental Engineering.

Extension & Outreach Activities

- In October 2019, Students of the Environmental Engineering department (Society for Civil & Environmental Engineers), were a part of activity with 9 participants on Imparting free education to unprivileged kids. Created a complete schedule and time table of all subject classes and collectively visited centres to teach students daily from Monday to Saturday. The teaching also included board exam preparations of senior students and preparations of NTSE & National Olympiads which was held in Shahbad Daulatpur village and Shubhakshika Orphanage society in Sardar Colony, Rohini.

4.12 Department of Humanities

25 Journal Publications	**13** Conference Publications	**1** Book Chapters	Faculty **5**

ACADEMIC PROGRAMMES

- Ph.D. Research Scholars (English): 3
- Ph.D. Research Scholars (Economics): 3

SALIENT FEATURES

The department of Humanities was established in the year 1941 with a view to impart necessary soft skills to the graduating engineering students. Initially courses in English, Economics and Accountancy were taught to the students. With the growing impetus on new courses like Econometrics, Gender and Technology and timely revision of syllabi of subjects like Engineering Economics and Communication Skills, a crossover between technical and non-technical aspects of learning is facilitated. The main objective is to give the students a comprehensive idea of the competition and the emerging work cultures to make them confident and market ready. To sensitize students towards technological need of poor and deprived for inclusive growth, B.Tech. students of all the branches are compulsorily asked to visit slum and prepare an assignment on the problems of slum and how knowledge of their branch of engineering can be used to improve life at slum.

In the current scenario we need engineers who can develop technologies that are sustainable, user friendly, effective and adaptable with respect to changing social and cultural realities. The humanities department is therefore actively engaged in the process of research work, courses and finishing lectures which are organized throughout the year for the benefit of students and teacher alike.

ACADEMIC STAFF

Professors: 02

- **Dr. Nand Kumar (HOD)**, Ph.D., Area of interest is Economics
- **Dr. Seema Singh**, Ph.D., Area of Interest is Economics

Associate Professors: 02

- **Ms. Saroj Bala**, M.A., M.Phil., Area of interest is English
- **Dr. Rajiv Ranjan Dwivedi**, Ph.D., Area of Interest is English

Assistant Professors: 01

- **Ms. Parinita Sinha**, M.A., M.Phil., Area of interest is English

Achievements of the department

- Organised One Week Workshop on "Panel Data Analysis", August 17-22, 2020.

Faculties attending Professional Development Programmes

- Dr. Nand Kumar (General Chair), Prof. Seema Singh (Coordinator), Ms. Saroj Bala (Coordinator) and Dr. Rajiv Ranjan Dwivedi (Coordinator) Attended workshop on Panel Data Analysis organised by Department of Humanities.

- Dr. Rajiv Ranjan Dwivedi attended One Week Faculty Development Programme on "Language in the Times of COVID-19" organised by Guru Gobind Singh Indraprastha University, Delhi from 25th to 30th June, 2020

- Dr. Rajiv Ranjan Dwivedi attended Three Days FDP for for Student Induction on "Universal Human Values" organised by

Human Resource Development Centre & Centre for Value Based Education, Delhi Technological University, Delhi from 21st -23rd October , 2019

- Saroj Bala attended Six-day Faculty Development Program on 'Introspection & Gearing up for New Age Teaching Delivery-Post Covid 19' organised by Dr. K.V. Subba Reddy Institute of Technology, Andhra Pradesh from 28th May to 2nd June, 2020

- Saroj Bala One week Online Faculty Developmental Programme on 'I.C.T. Tools for Effective Teaching Learning' organised by Internal Quality Assurance Cell and Faculty of Humanities, Chintamani Mahavidhyalaya, Ghugus from 1st June to 6th June, 2020

- Saroj Bala attended a 10 Day Online Faculty Improvement Programme on 'Developing Teachers' Overall Personality' organised by Prerna College of Commerce, Nagpur from 11th May to 20th May 2020

- Saroj Bala attended One week Online Multi-Disciplinary Faculty Developmental Programme on "Moocs, E-Content Development and OCR" organised by Government First Grade College, Hungund, Karnataka from 28th May to 3rd June 2020

- Rajiv Ranjan Dwivedi attended GSUITE for Education Training (Online Teaching Classes) by HRDC on 6th July, 2020

Faculty visit to other institutions for taking Expert's lecture or other Academic works

- Rajiv Ranjan Dwivedi was a resource person at Heritage Society, Patna for "Dinkar Jayanti per Visehsh Samvad" held on Sept. 23, 2020

- Rajiv Ranjan Dwivedi   was a Resource person at Heritage Society, Patna for "Hindi Diwasper Visehsh Samvad" on Sept. 14, 2020

- Rajiv Ranjan Dwivedi delivered a guest Lecture at International Institute of Research and Studies on the topic Research Methodology: Major Conceptual Concerns on August 29, 2020

- Rajiv Ranjan Dwivedi delivered a guest Lecture at University School of Education, GGS IP University, Delhi on Language and Personality: An Observation dated May 27, 2020

- Rajiv Ranjan Dwivedi was a panel Discussant at 12th ASIAD Literature Festival 2020 organized by Bharat Nirman at India International Centre, Delhi for the topic Poetry as a Literary Genre on Feb. 23, 2020

- Saroj Bala went as an Expert for Interview at WIT Dehradun on Sept. 6, 2019

- Saroj Balawent as an Expert for Viva at ABIT(Aryabhatt Institute of Technology), Delhi on November 17, 2019 & January 1, 2020

- Saroj Bala visited Parshuram Instt. Of Technology   on November 29, 2019

- Saroj Bala was the Co-ordinator for Indonesian delegation's visit September 25, 2019

Important Professional Affiations

- Ms. Saroj Bala Lifetime member, TEFL Asia

- Ms. Saroj Bala, Annual Member of Heritage Society

- Dr. Rajiv Ranjan Dwivedi, Annual Member, PEN America

- Dr. Rajiv Ranjan Dwivedi, Annual Member of Heritage Society

- Dr. Rajiv Ranjan Dwivedi, Life Member Comparative Literature Association of India (CLAI)

- Dr. Rajiv Ranjan Dwivedi, Life Member, The Association for English Studies of India (AESI)

Grants for Research Projects sponsored by Non Govt Sources

- Saroj Bala (Co-Investigator) worked on the TEQIP Collaborative Research Scheme, National Project Implementation Unit from June 2019 to September 2020

Collaborative Activities for Research, Faculty Exchage, Students Exchange, etc

- 'Building Research Collaboration with India and Kyrgyzstan to explore the role of universities in developing skills for smart cities' in collaboration with faculties of Glasgow university, UK, International Univ. of Kyrgyzstan & the American Univ. of Central Asia, Bishkek, Kyrgyzstan was started in 2018, financially supported by Glasgow University. Dr. Seema Singh was a participant in the activity.

Professional Development Programmes, Conferences, Seminars, etc organized by the Department

- A Workshop on Panel Data Analysis was organized from 17th August- 22nd August,

2020 by Department of Humanities sponsored by DTU which had 150 participants.

Extension and Outreach Activities

- Prof. Rajiv Ranjan Dwivedi had organised a visit to Virasat Kavi Sammelan on 30 November 2019 with 20 participants

Awarded International Fellowship for Advanced Studies/Research

- Dr. Rajiv Ranjan Dwivedi was facilitated with the Literary Excellence Award, 12th ASIAD Literature Festival 2020

- Dr. Rajiv Ranjan Dwivedi was awarded with the Certificate of Appreciation for outstanding service as a Member of Editorial Board of SHE Journal, Universitas PGRI Madiun, Indonesia

- Saroj Bala Awarded as a Speaker at International Conference on "Rama in Art, Tradition and Literature", organized by Sachidanand Sinha College, Aurangabad and Intangible Cultural Heritage Department, Heritage Society, Patna

4.13 Department of Information Technology

16
Journal
Publications

53
Conference
Publications

Faculty
7

ACADEMIC PROGRAMMES

- B. Tech. (Information Technology)
  Intake: 134
  Students Admitted: 133
- M. Tech. (Information System)
  Intake: 22+5
  Students Admitted: 20
- Ph.D. Research Scholars: 4

LABORATORIES

Department has developed state-of-the-art laboratories in the various fields of Information Technology-Computer Networks Lab, Web Engineering Lab, Programming Lab, Information and Security Lab, Biometric Research Lab and many others.

SALIENT FEATURES

The Department of Information Technology endeavours to provide the thrill of a corporate R&D environment with a planned focus on industrially relevant projects and technology incubation. The curriculum defined, lays greater emphasis on design principles and development of system software for Operating Systems, Database Management Systems, Malware Analysis, Artificial Intelligence, Data Mining, Computer Vision and Networks. Department has developed state-of-the-art laboratories in the various fields of Information Technology-Computer Networks Lab, Web Engineering Lab, Programming Lab, Information and Security Lab, Malware Analysis lab and Biometric Research Lab. Currently the department offers Doctorate, post-graduate & under-graduate courses. The department also has an active student chapter of Computer Society of India (CSI) and contributes significantly in professional activities undertaken by IEEE and IET student chapters.

ACADEMIC STAFF

Professors: 01

- **Prof. Kapil Sharma** (HOD), B.E., M.Tech., Ph.D., Areas of Interest are Software Engineering, Optimization, Soft Computing Techniques

Associate Professors: 02

- **Dr. Dinesh Vishwakarma**, B.Tech, M.Tech., Ph.D., Areas of Interest are Computer Vision, Human-Computer Interaction, Human Pose and Gesture Analysis, Machine Learning, Image Quality Improvement, Artificial Intelligence

- **Dr. Seba Susan**, B.Tech., M.Tech., Ph.D., Areas of Interest are Computer Vision, Machine Learning, Data Mining, Pattern Recognition, Image Processing, Fuzzy-Neural Networks, Soft Computing

Assistant Professors: 04

- **Ms. Ritu Agarwal**, B.Tech., M.Tech., Areas of Interest Information Security, Digital Forensics

- **Ms. Anamika Chauhan**, B.Tech., M.Tech., Areas of Interest are Sensor Networks, Mobile and Vehicular Ad-hoc Networks

- **Ms. Priyanka Meel**, B.Tech., M.Tech., Areas of Interests are Artificial Intelligence, Robotics, Optimization Algorithms, Graph Theory

- **Mr. Jasraj Meena**, B.Tech., M.Tech., Areas of Interests are Parallel and Distributed Computing, Cloud Computing, Workflow Scheduling

Achievements of the Department

- Prof. Kapil Sharma received DTU Research Excellence award -2020 for his patent and SCI papers.
- Dr. Dinesh Kumar Vishwakarma, Associate Professor received DTU Commendable Research Excellence Award – 2020 for 8 SCI papers.
- Dr. Seba Susan, Associate Professor received DTU Research Excellence Award – 2020 for SCI papers.
- Sukriti Rampal, Sparsh Gupta, Shubhang Verma and Dr. Dinesh Kumar Vishwakarma got the best paper award in the international conference RCICD 2020 held at SRM University in May 2020.
- Simra Shahid: 2nd runner up at Singapore India Hackathon 2019 organized at IIT Madras by AICTE, MHRD and NTU (photo enclosed)
- Anil Sahasrabudhe, Chairman of AICTE and Deirdre Kent, Deputy High Commission of Canada to India felicitated Simar Shahid (B.Tech. IT final year) with "Innovation Ambassador" badge for being one of the five students across India to find innovative products ready for the market. Received an award and cash prize worth 6000 Singaporean Dollars from the Prime Minister of India, Narendra Modi and Minister of Singapore, Ohn Ye Kung for introducing a profitable color-changing syringe which will reduce the reuse of syringes
- Aman Jha (B.Tech. IT 2nd year) has been shortlisted for the Indian Achiever Award by Indian Achiever's Forum In Recognition of Outstanding Professional Achievement & Contribution in Nation Building. He is founder and CEO of startups Xero Tech and InCampus Pvt. Ltd.

Patents filed/published/awarded

- Department of Information Technology was granted the patent on Method and device for peforming beam forming on 2 June 2020. The inventors were Sachin Kumar Agrawal, Kapil Sharma

Teachers Provided with financial support to attend Conferences, Seminars, etc.

- Ritu Agarwal was provided a support of ₹9000 to attend a conference at GL Bajaj Institute of Technology and Management, Greater Noida during 21-22 December 2019.
- Ms. Priyanka Meel was provided a support of ₹9000 to attend 7th International Conference on Signal Processing & Integrated Networks (SPIN 2020) at Amity University, Noida during 27-28 February 2020.

Participation in Professional Development Programmes by our Faculties

- Dr. Seba Susan participated in STTP on Recent trends in Security and Cryptography organised by Department of Mathematics, DTU during 18th – 22nd Nov 2019
- Dr. Seba Susan participated in STTP on Graph theory and its applications organised by Department of Mathematics, DTU during 18th – 22nd Nov 2019
- Dr. Seba Susanattended One day workshop on Arduino organised by Teaching learning centre, ICT, IIT Bombay on 8th Feb 2020
- Dr. Seba Susan attended IEEE blended learning online course: Embedded Linux for IOT systems organised by IEEE

Blended Learning Program (BLP) from 20th June 2020 to 20th July 2020

- Dr. Seba Susan attended Gsuite for Education toolss organised by HRDC, DTU during July 1-2, 2020

- Dr. Dinesh Kumar Vishwakarma attended a two-day training on Gsuite usage for hosting online classes orgsnised by HRDC, DTU during July 1-2, 2020

- Dr. Dinesh Kumar Vishwakarma attended an online course on "Basics of Python" by Coursera during June 2020

- Dr. Dinesh Kumar Vishwakarma attended an online course of Coursera on "Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning" during June 2020

- Dr. Dinesh Kumar Vishwakarma attended one week STTP on "Recent Trends in Security and Cryptography" organized by Applied Mathematics Department, DTU during November 18-22, 2019.

- Ritu Agarwal attended TEQIP-III sponsored one week Short Term Training Program (STTP) on "Recent Trends in AI and Machine learning", organized by Department of Information Technology, DTU during 29 July- 02 August, 2019

- Ritu Agarwal attended Short Term Training Program(STTP) on "Recent Trends in Security and Cryptography" organised by Department of Applied Mathematics, DTU, Delhi during 18-22 Nov 2019

- Ritu Agarwal attended One week Short Term Training Program(STTP) on "Graph Theory and Its Applications" organised by Department of Applied Mathematics, DTU, Delhi during 25-29 Nov 2019

- Ritu Agarwal attended an Online course on "Python Programming" Sona College of Technology, IT Deptt and Spoken Tutorial on 22 may 2020

- Ritu Agarwal completed a four week online course on 7th June, 2020 on "Introduction to applied machine learning" by Alberta Machine Intelligence Institute on 7th June, 2020

- Ritu Agarwal attended National Awareness Program on CYBERSECURITY and DATA SOVEREIGNTY with resource person Shri. Vinit Goenka organised by Skillslate and powered by Zovy studios, Pune on 11th July, 2020

- Ms. Priyanka Meel attended Two weeks FDP on "Emerging Research Trends in Computer Science and IT" organised by BVICAM, Delhi from 8th to 19th June 2020

- Ms. Priyanka Meel attended Two weeks Refresher Course in "Engineering, Physical Sciences and Management" organised by BVICAM, Delhi during 22nd June - 4th July 2020

- Jasraj Meena attended 4-Week Induction/Orientation Programme for "Faculty in Universities/Colleges/ Institutes of Higher Education" (2020) organised by Teaching Learning Centre, Ramanujan College University of Delhi during June 26-July 24, 2020

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Dr. Dinesh Vishwakarma conducted an online workshop on "Data Science: Techniques & Tools" for MITS Gwalior on June 20, 2020

- Dr. Dinesh Vishwakarma conducted a webinar/Online Guest Lecture-on

"Information Pollutions on Web Portals and Social Media: A perspective 5view" for GLA University Mathura/IET UP Section. on July 28, 2020

- Dr. Dinesh Vishwakarma delivered an expert Webinar on "Classification of objects using Deep Networks" for ITS College of Engineering, Greater Noida, U.P on Monday, May 18, 2020

- Dr. Dinesh Vishwakarma chaired a session in an international conference on "Artificial Intelligence and Applications" (ICAIA 2020) at MSIT, New Delhi during 6th & 7th Feb. 2020

- Dr. Dinesh Vishwakarma delivered an Expert Talk on "Effect of Fine Tuning in Convolution Neural Network" in two weeks Faculty Development Programme at Department of Computer Science in Ramanujan College (University of Delhi), Delhi during 17-28th January, 2020

- Dr. Dinesh Vishwakarma delivered an Expert Talk on "Deep Neural Network" in a week STC on "Deep Learning Algorithms for Image Processing" at IGDTU, Delhi during 20th Jan to 24th Jan, 2020

- Dr. Dinesh Vishwakarma chaired a session on Application of Image Processing and Computer Networking in an International Conference on "Power Electronics, Control, & Automation (ICPECA-2019) " organized by EED, Jamia Millia Islamia (A Central University), New Delhi during November 16-17, 2019

- Dr. Dinesh Vishwakarma chaired a session in an International Conference on "Artificial Intelligence and Speech Technology (AIST-2019)" organized by Indira Gandhi Technical University (IGDTU), Delhi during November 14-15, 2019

- Dr. Dinesh Vishwakarma D e l i v e r e d an expert talk on "Computer Vision based intelligent solutions" in a AICTE sponsored Faculty Development Programme on "Robotics Mechatronics" at IIMT, G. Noida, U.P. on 26th June 2019

Important Professional Affiliations

- Dr. Seba Susan, Annual Member, IEEE

- Dr. Seba Susan, Life Member, CSI

- Dr. Dinesh Vishwakarma, Annual Member, IEEE

- Dr. Dinesh Vishwakarma, Life Member, ISTE

- Ms. Priyanka Meel, Member, IEEE

Details of Awards for Innovation won by the Department

Commendable Research Awards were Awarded to:

- Dr. Kapil Sharma

- Dr. Dinesh Vishwakarma

- Dr. Seba Susan

Collaborative activities for research, faculty exchange, student exchange

- Prof. Kapil Sharma is doing collaborative research with **Defence Research and Development Organisation (DRDO)** & jointly supervising a Ph.D candidate.

- Prof. Kapil Sharma is doing collaborative research with **Delhi University** jointly supervising a Ph.D candidate.

- Prof. Kapil Sharma is doing collaborative research with **Round Glass & Samsung India Electronics Pvt. Ltd.** & jointly supervising a Ph.D candidate.

- Dr. Dinesh Kumar Vishwakarma is doing collaborative research with **Central

Research Laboratory, BEL & jointly supervising a Ph.D candidate.

- Dr. Seba Susan is doing collaborative research with **Central Research Laboratory, BEL** & jointly supervising a Ph.D candidate.

Teachers who Received Awards & Recognition

- Prof. Kapil Sharma got research excellence award for his patent and SCI papers.

- Dr. Dinesh Kumar Vishwakarma, Associate Professor received DTU Commendable Research Excellence Award – 2020 for 8 SCI papers.

- Dr. Seba Susan, Associate Professor received DTU Commendable Research Excellence Award – 2020.

- Dr. Dinesh Kumar Vishwakarma, received best paper presentation award in a conference organized by SRM university Chennai.

Students provided with financial support to attend Conferences, Seminars, etc

- Ms. Kriti Arora received ₹6,200/- as TEQIP support to International Conference on "Innovations in Computer Science and Engineering (ICICSE 2020) at Shaheed Sukhdev College of Business Studies, University of Delhi

- Mr. Mainak Ghosh received ₹9,500 to attend International Conferences on Sentimental Analysis and Deep Learning (ICSADL 2020) organized by KGISL Institute of Technology, Coimbatore, Tamil Nadu, India from 2nd to 3rd April 2020

- Mr. Aman Garg received a grant of . ₹9,500 from DTU to attend International

Conferences on Computer Networks Inventive Communication Technologies (ICCNCT 2020) organised by RVS Technical Campus, Coimbatore Tamil Nadu, India during 23rd July 2020 to 24th July 2020

- Mr. Satyajeet Singh received a grant of ₹5000 to attend International Conference in Data Mining and Information Security IEMIS 2020 organised by Institute of Engineering and Management, Kolkata, India during 02nd-04th July 2020

- Mr. Prabhat was given a grant of ₹7000 to attend the International Conferences on Intelligent Computing and Control Systems (ICICCS 2020) held at Vaigai College of Engineering, Madurai, India during 13-15 May 2020

- Mr. Jatin Malhotra was granted ₹20,111 from TEQIP-III project to attend International Conferences on Computational Intelligent and Networks (CINE-2020) organised by Indian Statistical Institute, Kolkata from 27-29 February 2020.

- Rujhan Singla was granted ₹8000 to attend International Conferences on IEMIS 2020 organised by Jain College of Engineering, Hunchyanatti Cross, Tippusultan Nagar, Machhe, Belgaum, Karnataka 590014, India during 05th to 07th June 2020

- Mr. Anish Singh was given a grant of ₹9500 to attend International Conferences on Computer Networks Inventive Communication held at RVS Technical Campus during 23-24 July 2020

- Mr. Akhil Kathuria was given a grant of ₹7000 to attend International Conference on Intelligent Computing and Control Systems (ICICCS-2020) organised by Vaigai College Engineering

(VCE), Madurai, India during 13th-15th May, 2020

- Ms. Saloni Gupta was given a grant of ₹9500 to attend International Conferences on Computer Networks Inventive Communication Technologies (ICCNCT 2020) organised by Gnanamani College of Technology, Namakkal, India from 28th to 29th May 2020

- Mr. Vibhor Vimal was given a grant of ₹6000 to attend the International Conference on Recent Trends in Computing (ICRTC-2020) organised by the SRM Institute of Science and Technology, Delhi-NCR Campus, Ghaziabad-201204 from 03-04 July, 2020

- Mr. Naman Saini was given a grant of ₹7000 to attend International Conference on Intelligent Computing and Control Systems (ICICCS-2020) organised by Vaigai College Engineering (VCE), Madurai, India during 13th-15th May 2020

- Mr. Rajat Singh was given a grant of ₹6200 to attend the International Conference on Recent Trends in Computing (ICRTC-2020) organised by the SRM Institute of Science and Technology, Delhi-NCR Campus, Ghaziabad-201204 from 03-04 July, 2020

- Mr. Saif Haque was given a grant of ₹7400 to attend the International Conference on Recent Trends in Computing (ICRTC-2020) organised by the SRM Institute of Science and Technology, Delhi-NCR Campus, Ghaziabad-201204 from 03-04 July, 2020

Students' Achievements

- Simra Shahid was the 2nd runner up at Singapore India Hackathon 2019 organized at IIT Madras by AICTE, MHRD and NTU. Received an award and cash prize worth 6000 Singaporean Dollars from the Prime Minister of India, Narendra Modi and Minister of Singapore, Ohn Ye Kung for introducing market-ready innovation.

- Tanmay Singh held the Fifth position at Singapore India Hackathon 2019 organized at IIT Madras by AICTE, MHRD and NTU

- Tanmay Singh won the DTU Fidelity Charitable scholarship (2018-19)

- Aditya Sharma won the Pramod Jain merit scholarship (2018-19)

- Sukriti Rampal, Sparsh Gupta, Shubhang Verma won the Best paper award in the international conference RCICD 2020 held at SRM University

- Anil Sahasrabudhe, Chairman of AICTE and Deirdre Kent, Deputy High Commission of Canada to India felicitated Simra Shahid with "Innovation Ambassador" badge for being one of the five students across India to find innovative products ready for the market. She was granted a scholarship by the Government of India to learn

entrepreneurship skills and about the international market from the Sprott School of Business, Carleton University, Canada.

- Aman Jha won the Indian Achiever's Award 2020 awarded by Indian Achiever's Forum in Recognition of Outstanding Professional Achievement & Contribution in Nation Building.

- Aman Jha Founder and CEO of startups Xero Technologies and InCampus Pvt. Ltd.

4. ACADEMIC DEPARTMENTS

4.14 Department of Mechanical Engineering

147 Journal Publications

6 Conference Publications

Faculty 43

ACADEMIC PROGRAMMES

- B.Tech. (Mechanical Engineering)
  Intake: 266
  Students Admitted: 265
- B.Tech. (Mechanical Engineering) (Continue Education)
  Intake: 60
  Students Admitted: 11
- B.Tech. (Production and Industrial Engineering)
  Intake: 68
  Students Admitted: 67
- B.Tech. (Automotive Engineering)
  Intake: 68
  Students Admitted: 67
- M.Tech. (Production Engineering)
  Intake: 22+5
  Students Admitted: 14
- M.Tech. (Thermal Engineering)
- Intake: 22+5
  Students Admitted: 22
- Ph.D. Research Scholars: 32

SALIENT FEATURES

The Department of Mechanical Engineering and Production & Industrial Engineering has seen considerable growth since its inception in 1941 with the intake rising from 30 to 328 (186 for Mechanical, 48 for production & Industrial Engineering, and 94 for Automobile Engineering).The department of Mechanical engineering also offers Post Graduate courses with specialization in Thermal Engineering, Production Engineering, Computational Design and Renewable Energy Technology. Ph.D. Programs in all fields of Mechanical Engineering are also offered. In addition, the department also offers four years' B. Tech. Programme for working Diploma Engineers. The department has developed eco-friendly technology using alternate refrigerants in the RAC lab for re-directing global warming and Ozone depletion.

LABORATORIES

The department possesses modern laboratories equipped with latest experimental set-ups and research facilities for instrumentation, experimental stress analysis, strength of materials, fluid mechanics, tic, engines, automotive engineering, robotics, heat transfer, solar energy, flexible manufacturing system, computational fluid dynamics supported by Software like view-flex, CAD-CAM and I.e. engine design. CAD lab has Softwares like NX-LAD, NXCAM, AUTOCAD Inventor, Catia, Techomatix, Abacus, ladino, NX-Nastran, Hyper mesh, hyper works, MDADAMS, Dynaform etc. In addition, microprocessors, micro controllers, PIC, spectrum analyzer and logic analyzer are available for project work.

ACADEMIC STAFF

Professors: 21

- **Dr. Vipin** (HOD, MED), Ph.D., Production Engineering

- **Dr. Sagar Maji** (On diverted capacity to DITE), Ph.D., Thermal Engineering, IC Engine

- **Dr. S.K. Garg**, Ph.D., Statistical Analysis, Quantitative Methods, and Supply Chain Management

- **Dr. R.S Mishra**, Ph.D., Thermal Engg., Solar Energy

- **Dr. Naveen Kumar**, Ph.D., Thermal Engineering

- **Dr. D.S. Nagesh**, Ph.D., Automation, Robotics, CAD/CAM, Application of ANN & GA

- **Dr. Samsher**, Ph.D., Power Plant, Turbo Machinery

- **Dr. Reeta Wattal**, Ph.D., Production Engineering

- **Dr. Bharat Bhushan Arora**, Ph.D., Thermal Engineering, Turbo Machine, Refrigeration and Air Conditioning, CFD,

- **Dr. Vikas Rastogi**, Ph.D., Machine Design

- **Dr. Ashok Kumar Madan**, Ph.D., CAM/ Automation

- **Dr. Raj Kumar Singh**, Ph.D., Applied Mechanics

- **Dr. Amit Pal**, Ph.D., Automobile Engineering

- **Dr. Ramesh Chander Singh**, Ph.D., Production Engineering

- **Dr. Rajesh Kumar**, Ph.D., Thermal engineering and Refrigeration,

- **Dr. Ranganath M.S.**, Ph.D., Production Engineering

- **Dr. Ravinderjit Singh Walia** (On lien), Ph.D., Advanced Manufacturing Processes, Human Factor Engg, FEM & Industrial Engg,

4. ACADEMIC DEPARTMENTS

- **Dr. Qasim Murtaza**, (On Lien), Ph.D. Production Engg, Materials, Metal Coating Advance machining,
- **Dr. Rajiv Chaudhry**, Ph.D., Mechanical Engineering,
- **Dr. Atul Kumar Agrawal**, Ph.D.
- **Dr. Vijay Gautam**, Ph.D., Manufacturing

Associate Professors: 10

- **Mr. Vishva Kamal**, M.Tech., Design Engineering
- **Mr. P.V. Ram Kumar**, ME, Thermal Engineering,
- **Mr. P. K. Jain**, ME, Production Engineering,
- **Dr. Pushpendra**, Ph.D.
- **Dr. Akhilesh Arora**, Ph.D., Thermal Engineering, Refrigeration and Air conditioning,
- **Dr. Girish Kumar**, Ph.D.
- **Dr. Pravin Kumar**, Ph.D., Industrial Management.
- **Dr. Mahendra Singh Niranjan**, Ph.D.

- **Dr. Anil Kumar**, Ph.D.,Post Doc., Thermal Engineering, Email: dranilk76@gmail.com
- **Dr. Janardan Prasad Kesri**, Ph.D.

Assistant Professors: 12

- **Dr. N. Yuvraj**, Ph.D., Production Engineering,
- **Dr. Manjunath K** (on lien), Ph.D., Thermal Engineering
- **Mr. Krovvidi Srinivas**, ME, Design & Production
- **Mr. Roop Lal**, ME, Machine Design.
- **Mr. Sanjay Kumar**, ME, Machine Design.
- **Dr. Naushad Ahmad Ansari**, Ph.D., Thermal Engineering.
- **Dr. Mohammad Zunaid**, Ph.D., Thermal Engineering.
- **Dr. Paras Kumar**, Ph.D., Machine Design.
- **Dr. Saurav Agarwal,** Ph.D. Industrial Engineering
- **Dr. Raghvendra Gautam,** PH.D. Thermal Engineering
- **Dr. Navitri Gupta,** Ph.D. Design
- **Dr. Sushila Rani,** Ph.D. Design

Faculty visit to other institutions for taking Experts' Lectures and other academic works

Dr. Qasim Murtaza

- Delivered a talk on Hybrid Manufacturing Processes: Opportunities and Challenges at HMPOC-20 during 06 - 10 July, 2020 at NIT Jalandhar

- Delivered a talk on Precision Manufacturing at Faculty of Engineering and Technology, SGT University, Gurugram

- Participated in International Conference as Guest of Honour and delivered key note lecture on eco-friendly refrigeration technologies for sustainable development at the institution of Engineers in 20th Jan-2019 Delhi State Centre, Institution of Engineers (India)

Important Professional Affiliations:

Prof. R.S. Mishra

- Life Fellow The Institution of Engineers (India) . Calcutta Geological Society of India, Bangalore Indian Institution of Environmental Engineers, Delhi Indian Water Resources Society, Roorkee Indian Institute of Disaster management Delhi National foundation of Indian Engineers, Delhi

- Life member of (i) Solar Energy Society of India, Delhi .(ii) Bio Energy Society of India. (iii) Indian Society of Bio-Technology, & Bio Chemistry, Delhi, (iv) Indian Society of Soil Sciences, IARI, Delhi (v) Indian Institute of Chemical Engineers, Calcutta, (vi) Indian Society of Water Management, Delhi (vii) Indian Society of Agricultural Engineers Delhi, , (viii) Indian Society of Soil Conservation (ix) Indian Society of Information technology and Statics (x) Systems Society of India, (xi)Association of Food Scientists & Technologists (India) Bangalore (xii) Association of Soil and water Conservationist (India) Dehradun, (xiii) Indian Society for Technical Education (ISTE), (ixv) Indian Society of Mechanical Engineers Delhi, (xv) Indian Society of Dry Land agriculture Hyderabad

Prof. Vipin

- Life Member: Indian Society of Mechanical Engineers, Indian Society of Technical Education ISTE,

Dr. Akhilesh Arora

- Life Member: Indian Society of Technical Education

- Member The American Society of Heating, Refrigerating and Air Conditioning Engineers, Indian Society of Heating, Refrigerating and Air-Conditioning Engineers ISHRAE

Sh. Roop Lal

- Life member of The Institution of Engineers, Calcutta

Dr. Paras Kumar

- Life Member Indian Society for Technical Education (LMISTE)

- Life Member: Tribology Society of India

- Life Member: International Association of Engineers (IAENG)

Dr. M. Zunaid

- Life Time Member: Indian Society of heat and mass transfer (ISHMT)

- Life Time Member: Indian Society for Technical Education (ISTE)

- Life Time Member: Solar Energy Society of India

- The Institution of Engineers (India),

- Life Time Member: Society for Fusion of Science and Technology

Dr. Vikas Rastogi

- Member SAE in Vehicle Design

Completed Sponsored Research Projects Teachers/staff/ students who received awards, recognition, fellowships at State, National, International level from Government recognised bodies

- Dr. Paras Kumar won the Commendable Research Award. (Add more Details*)

- Dr. Sushila Rani won the Research Excellence Award for publication in Journal of Mechanical Science and Technology – Springer. "Vibration analysis for detecting failure mode and crack location in first stage gas turbine blade" MED, DTU

Extension & outreach activities

- Dr. R.S. Mishra organised an online lecture on 26th May 2020 On-line lecture of Eco-friendly future refrigerants reaching 450 participants

Teachers provided with financial support to attend Conferences / Seminars /Symposia /Workshops/ Short Term Course/Guest Lecture/ GIAN/TEQIP etc.

- N. Yuvaraj was given support to attend One-week Residential Training programme on "Resource Management Monitoring and Evaluation organized by National Productivity council, Delhi held from 9-13 December 2019

- Dr. Roop Lal was given a support of ₹10,000 to attend ISFT – 2020 organized at YMCA, JC Bose, Faridabad in Jan 2020

Students provided with financial support to attend Conferences / Seminars /Symposia /Workshops/ Short Term Course/Guest Lecture

- Vipul Garg was given support to attend 4th International and 19th National Conference on Machines and Mechanisms held at IIT Mandi on 4 December 2019

4.15 University School of Management and Entrepreneurship

10 Journal Publications

4 Conference Publications

Faculty 19

ACADEMIC PROGRAMMES

- B.A. (H) (Economics)
  Intake: 132+18 (FN)
  Students Admitted: 128
- BBA
  Intake: 132+18 (FN)
  Students Admitted: 133
- MBA
  Intake: 75
  Students Admitted: 26
- MBA-Business Analytics
  Intake: 38
  Students Admitted: 21
- MBA-Family Business & Entrepreneurship
  Intake: 40
  Students Admitted: 11
- MBA-IEV
  Intake: 40
  Students Admitted: 16
- Ph.D. Research Scholars: 2

LABORATORIES

The department currently has one computer laboratory equipped with the latest version of different software platforms. The newly formed department has added 16 faculty during this short.

There has been active involvement of students and faculty in the various professional activities and student events. The department has around 16 student clubs built around professional, cultural, social and sports related interests.

SALIENT FEATURES

The East Delhi campus endeavours to provide quality education, research and innovation in the emerging areas of management relevant to industry and society. The University School of Management and Entrepreneurship was initiated with the view to fulfil this mission and the able leadership of the PVC II, Prof. Anu Singh Lather, as the head of East Campus, has helped create a multidisciplinary approach towards entrepreneurship, embedded in a management school, which would be able to leverage the rich and esteemed heritage of the DTU in the world of technology and best practices in higher education. The prime focus of the USME was on the introduction of new UG and PG programs in the emerging areas of management such as business analytics, entrepreneurship and family business, public policy and financial Markets etc. along with traditional undergraduate and postgraduate management programs. It aims to foster the educational ethos in its programs, of employability through industry relevant programs, on focussed domains of knowledge creation and innovation, through research and development. It looks to harness and leverage Techno - entrepreneurship and knowledge enterprise development through the centres of Entrepreneurship Development and Organizational Development.

The school has designed management programs to develop the capability amongst students for managing complex situations and relationships. Amongst the various skills of management courses, some of them focus on strengthening management principles, presentation, problem solving, team building, decision-making and marketing. Hence, management programs running in the school will help the country in producing talented and skilled workforce.

ACADEMIC STAFF

Professors: 03

- **Prof. Amit Mookerjee** (HOD), BA (Economics, Psychology), MBA, Ph.D., Areas of Interest are CRM, Customer Experience, CRM metrics and analytics, Customer Research and Insight, Building Customer Profitability and Loyalty

- **Prof. K.V. Bhanu Murthy**, Ph.D in economics, Areas of Interest are Banking and Finance, Environmental Economics, Corporate Governance in banks, International Business, Social responsibility and Business Ethics

- **Prof. S.S. Khanka**, Ph.D.

Associate Professors (Management): 01

- **Dr. Anshu Gupta**, M.Phil., M.Sc. (Operational Research), Ph.D., Areas of Interest are Operation Management, Supply Chain Management, Quality Management, Mathematical Modelling and Optimization, Multi Criteria Decision Making Problems

Assistant Professors (Management): 10

- **Dr. Jagvinder Singh**, M.Sc. (Operational Research), Ph.D. (Operations Research), Areas of Interest are Quantitative Techniques, Operations Research, Statistics

- **Mr. Anurag Chaturvedi**, B.Tech. (E&C), MBA, Areas of Interest are Decision Sciences and Information Systems, Financial Markets and Derivatives

- **Ms. Harleen Kaur**, B.E. (I.T.), PGDM, Areas of Interests are Marketing, Brand Management, Consumer Behaviour

- **Ms. Priya Malhotra**, B.Com (H), MBA, Areas of Interests are Financial Management, Investment Analysis and Portfolio Management, Financial Markets, Foreign Exchange Management

- **Ms. Varsha Sehgal**, B.Tech. (CSE), MBA, Areas of Interests are Strategy, Business Analytics, Information Technology

- **Ms. Pallavi Kalra**, B.Com. (H), M.Com, M.Phil. (Accounting), Areas of Interests are Finance and Accounting

- **Dr. Naval Garg**, B.Sc., M.Com., MBA, Ph.D., Areas of Interests are Human Resource Management and Organizational Behavior

- **Dr. Deepti Aggarwal**, B.Tech., MBA, Ph.D., Areas of Interests are Decision Science, Operations Analytics, Business Statistics, Innovation Diffusion Modelling in Marketing

- **Dr. Gaganmeet Kaur Awal**, B.Tech. (CS), M.Tech.(CS), Ph.D., Areas of Interests are Machine Learning, Data Mining and DBMS, Web Analytics

- **Ms. Kusum Lata**, B.Tech. (CSE), M.E. (CT and Applications), Pursuing Ph.D. (CSE)

Assistant Professors (Economics): 05

- **Ms. Aakanksha Kaushik**, B.A. (H), M.A., M.Phil. (Economics), Areas of Interests are Public Finance, Microeconomics, Econometrics

- **Mr. Virender Kumar**, B.A. (H), M.A., M.Phil. (Economics), Areas of Interests are Macroeconomics, Econometrics, Time Series Analysis

- **Mr. Puneet Arora**, B.A. (H), M.A. (Economics), Areas of Interests are Development Economics, Mathematical Methods for Economics, International Trade

- **Dr. Rajesh Sharma**, B.Sc., M.A. (Economics, Ph.D., Areas of Interests are Development Economics, Financial Economics

- **Ms. Ratnam Mishra**, B.A., M.A., M.Phil. (Economics), Areas of Interests are Rural Development, Microeconomics, Macroeconomics

Teachers provided with financial support to attend Conferences, Seminars, etc.

- Sh. Puneet Kr. Arora received ₹23,600/- to attend Online course on Economic and Financial Crises in India: Food, Fuel, Forex and Flu, organized by Ashoka University.

- Sh. Puneet Kr. Arora received ₹22,500/- To present paper titled "Impact of Financial Development on India's Trade performance" for presentation at the Consortium of Management Research (COSMAR), organized by IISc Bangalore.

- Sh. Anurag Chaturvedi received ₹3,000/- for Poster presentation in the 7th PAN-IIM World Management Conference, organized by IIM Rohtak.

- Dr. Naval Garg received ₹22,500/- for Presenting papers entitled "Exploring Sufficiency and Necessity of workplace spirituality for psychological Capital" in the 5th Conference on Human Resource Management, organized by IBS Hyderabad.

- Dr. Naval Garg received ₹3,000/- for Presenting papers in 7th AICC 2020 organized by Department of Commerce, Delhi School of Economics, Delhi University

- Ms. Kusum Lata received ₹8,200/- for Presenting papers titled "Using

Hybridized techniques for Prediction of Software Maintainability using Imbalanced data" co-authorized with Dr. Ruchika Malhotra in IEEE 10th International Conference on Cloud Computing, Data Science & Engineering, organized by Amity University, Noida.

Participation in Professional Development Programmes by our Faculties

- Dr. Naval Garg attended Orientation Program, organized by HRDC, JNU, New Delhi from 24 February to 16 March, 2020.

- Dr. Rajesh Sharma attended Orientation Program, organized by HRDC, JNU, New Delhi from 24 February to 16 March, 2020.

- Dr. Ratnam Mishra attended Orientation Program, organized by HRDC, JNU, New Delhi from 24 February to 16 March, 2020.

- Ms. Kusum Lata attended Short Term Training Program, organized by Department of Applied Mathematics, Delhi Technological University from 18 November 2019 to 22 November 2019.

- Sh. Anurag Chaturvedi attended Poster Pretation, organized by IIM Rohtak from 12 December 2019 to 14 December 2019.

- Dr. Gaganmeet Kaur Awal attended FDP on Data Sciences, organized by CTE, Udaipur from 22 June 2020 to 26 June 2020.

- Dr. Gaganmeet Kaur Awal attended FDP on Artificial Intelligence, organized by IIIT Delhi from 18 June 2020 to 12 June 2020.

- Sh. Puneet Kr. Arora attended Online Course on Economic and Financial Crises in India: Food, Fuel, Forex and Flu,

organized by Ashoka University from 30 June 2020 to 21 July 2020.

- Sh. Anurag Chaturvedi attended RBCDSAI's International Summit on Data Science and AI, organized by IIT Madras from 18 June 2020 to 20 June 2020.

- Ms. Priya Malhotra attended 115th Orientation Program organized by HRDC, JNU from 18 November 2019 to 6 December 2019.

Faculty visit to other institutions for taking Experts' Lectures and other academic works

- Dr. Naval Garg delivered a lecture on Exploring Sufficiency and Necessity of workplace spirituality for psychological Capital, at IBS, Hyderabad from 19 March 2020 to 20 March 2020.

- Dr. Naval Garg visited Delhi School of Economics, University of Delhi from 17 January 2020 to 18 January 2020.

- Ms. Kusum Lata delivered a lecture on Using Hybridized techniques for prediction of Software Maintainability using Imbalanced data, at Amity University, Noida from 29 Januray 2020 to 31 January 2020.

- Dr. Ratnam Mishra visited NIEPA, New Delhi for Finalization of teaching Learning Resources for Science & Social Science Teachers in Higher Education from 15 to 16 January 2020.

- Dr. S.S. Kankha visited Ch. Ranvir Singh University, Jind (Haryana) To Conduct Workshop on "Empowerment of Entrepreneurship and Skill Development on 27 February 2020.

- Dr. S.S. Kankha visited Assam University, Silchar For assessment seminar of JRF on 7 February 2020.

- Dr. S.S. Kankha visited JNU, New Delhi For Selection Committee meeting for the Post of Assistant Professor on 6 November 2019.

- Dr. S.S. Kankha visited Mahatma Gandhi Central University, Motihari Bihar as Keynote speaker of Inaugural Ceremony.

- Dr. S.S. Kankha visited University of Delhi to conduct M.Phil Viva Voce on 30 September 2019.

- Dr. S.S. Kankha visited Doon University, Dehradun as expert in Advisory Committee on 22 August 2019.

- Prof. K.V. Bhanumurthy visited Shyama Prasad mukherji College for Women for Inaugural & Valedictory Session on 28 February 2020.

- Prof. K.V. Bhanumurthy visited BHU for Selection Committee for Assistant Professor on 27 November 2019.

- Prof. K.V. Bhanumurthy visited Bundelkhand University, Jhansi for delivering a lecture on Challenges and Strategies for Making India a 5 Trillion Dollar Economy from 15 November 2019 to 17 November 2019.

- Prof. Amit Mookerjee visited IIM, Amritsar for CRM and faculty selection process from 26-27 December 2019, and 18-19 January 2020.

- Prof. Amit Mookerjee visited NSIT for Review of MBA (IEV) on 30 October 2019.

- Prof. Amit Mookerjee visited JKLU Jaipur for BoS Meeting on5 October 2019.

- Prof. Amit Mookerjee visited JKLU, JA.S. University Campus, Sohna, Haryanaas External expert for Ph.D Viva on 24 October 2019.

- Prof. Amit Mookerjee visited IIM Sirmour as Expert in Faculty Selection from 21-22 October 2019.

- Prof. Amit Mookerjee visited IIM Gaya as Expert in Faculty Selection on 28 August 2019.

- Sh. Puneet Kumar Arora visited IISc Bangalore for delivering a lecture on Impact of Financial Development on India's Trade Performance from 28-29 November 2019.

Important Professional Affiliations

- Dr. Deepti Aggrawal, Lifetime Member Society for Reliability Engineering, Quality and Operations Management (SREQOM).

- Ms. Priya Malhotra, Annual Member, India Finance Association, IIM Calcutta.

Programmes where syllabus revision was carried out

- All Courses of BA Economics are revised and updated as per new credit structure.

- New Foundation Electives are added for Computer Programming Fundamentals, Programming using Python, Econometric Analysis.

Students Pursuing Higher Education

- Mr. Sarthak Mahajan is pursuing Post Graduate DIploma in Management from Fore School of Management, Delhi.

- Ms. Arushi is pursuing M.A Economics from IIFT, Kolkata.

- Ms. Komal Malhotra is pursuing PGDM (Finance) from Institute of Management Technology, Ghaziabad.

- Mr. Anuj Verma is pursuing Integrated program in business analytics (Executive Program) from IIM, Indore.

- Ms. Neha Mahajan is studying from IIM, Shillong.

- Mr. Aakrisht Gupta is pursuing MBA from IIM Ranchi.

- Mr. Satyam Bansal is pursuing PGDM from BI M.Tech.h.

- Ms. Sannya Aggarwal is pursuing MBA from IBS, Hyderabad.

Students' Achievements

- Mr. Sarthak Mahajan qualified CAT.

- Ms. Saanya Aggarwal qualified NMAT.

- Mr. Akkrisht Gupta qualified CAT.

- Mr. Satyam Bansal qualified CAT.

- Ms. Shriyaa Kaur Dheeran Won Best Logo Award in an online logo designing competition organised by a page called "my contest bazaar" on Instagram.

- Mr. Suhans Bansal got International Photography Award in Top 35 – Delhi Photographers as 5th 35 Awards, International Photography Award.

- Mr. Garavandala Uday Sai completed various courses and got certificate of Appreciations from DTU and IIM Udaipur for his work.

- Mr. Siddhant Malik Secured 1st position in Quizentine Environment quiz organised by University Business School, Punjab University on May 16, 2020.

- Ms. Aditi Agarwal was Winner in Call for Articles, MAY 2020. Emerged as the winner in national level research article competition organized by KJ Somaiya Institute of Management Studies and Research, Mumbai.

- Mr. Rhythm Nagpal got 1st position in Jewellery designing competition organised by Enactus, SGTB Khalsa College, Delhi University

- Mr. Rhythm Nagpal got 2nd position in Cryptic Hunt event organised by the commerce society of Motilal Nehru College, Delhi University

- Mr. Anirudh Aggarwal Won TRIQUETRA 2019 (CRICKET).

- Mr. Shivam Talwar reached Final round of Jaipuria quiz league held at Jaipuria Institute of Management Studies.

- Ms. Isha Aggarwal Got 2nd position in Shri Ram Management Aptitude Olympiad in category College Students organised by The Marketing Society, Shri Ram College of Commerce on 26th January 2020

- Mr. Madhav Chauhan Secured 1st position in Group Discussion competition hosted by STANALYSIS- The strategy society.

Staff Training

- Sh. Mritunjay Barua, Junior Office Assistant attended training program on File Tracking Module in ERP System on 5 February 2020, organized by Computer Centre, DTU.

Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc.

- An MoU for Lifetime was signed with All India Management Association (AIMA) in 2018.

- An MoU for Lifetime was signed with Delhi Management Association (DMA) in 2018.

5 Centres and Other Units

5.1 DTU Innovation and Incubation Foundation (DTU IIF)

DTU Innovation and Incubation Foundation (DTU IIF) [Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 and rule 8 the Companies (Incorporation) Rules, 2014] (License Number 107658, CIN of the company is U74999DL2016NPL305531) promoted by DELHI TECHNOLOGICAL UNIVERSITY (Estd. by Govt. of NCT of Delhi vide Act 6 of 2009) was established as per the policy guidelines of Govt. of NCT of Delhi on summary recommendations for setting Incubators in Higher Education Institutions in Delhi by a working group established by the Government of National Capital Territory of Delhi, under order No.F.75(73)/2015-16/Incubation/ADPL/321-330 dated 5/6/15 to pursue the following core objectives as given in the guidelines by the Government of NCT of Delhi:

- To create a culture of entrepreneurship, Start-ups, and, and Intellectual Property Creation that can to value creation, jobs and employment and do social and economic good.
- To facilitate creation of incubation centres that offer incubation infrastructure-space, computing resources, connectivity, common tools; and environment for co-working, collaboration and innovation.
- Create entrepreneurship challenges based upon existing problems to foster Innovation.

DTU INNOVATION AND INCUBATION FOUNDATION (DTU IIF) is promoted and established by Delhi Technological University under Section 8, (License Number 107658, CIN of the company

is U74999DL2016NPL305531), as per Companies Act of Govt. of India, as Incubation Centre i.e., Technology Business Incubator (TBI) of Delhi Technological University (DTU). The Vision and Mission of DTU-IIF:

VISION

To create the Entrepreneurial Ecosystem by Innovation to provide enhanced value propositions to the customers and create wealth and employment for everyone.

MISSION

Our mission is to provide incubation and business support services to Start-ups/ Companies of DTU IIF so that they can grow and prosper.

Details of Currently Incubating Startup Companies at DTU-IIF

1. **FAUCET LABS PVT. LTD. (CIN: U72900DL2019PTC347110):**

   Cypherock provides security storage solutions for blockchain based digital assets and private keys. It is developing a universally designed hardware wallet to enable seamless and secure mobile blockchain transactions. The first product is a hardware wallet portable to the mobile case or a plug & play case in order to mitigate both PC & mobile software wallets' security risks. It will have a touchscreen, serve dual purpose (both desktop & mobile), be portable to other devices, secured by biometric and user set PIN, support diversity of digital assets and be a cold storage.

2. **ZEFI LABS PVT. LTD. (CIN: U74999DL2017PTC323170)**

   Maximum water coming out of the tap bounces off without coming in contact

with surface. Hence, we came with Dropp, an atomizer faucet designed to fit with any domestic tap which converts water coming out of the tap into millions of tiny droplets, creating a heavy mist, shooting out of the tap. This increases the surface area of water drastically and makes the efficient use of water while washing. But sometimes, higher flow rate is required, for that we have normal flow mode also. Normal flow mode also saves up to 75% water. Dropp serves to the places with high water consumption and water scarcity.

3. **AMPEREPLUS PVT. LTD.**
(CIN: U74999DL2016PTC301297)

Ampere provides turnkey EPC/INC solution for Solar Power Plants for industrial and commercial market. We also provide data-based monitoring and energy saving technology to monitor devices like street lights, Solar Powered internet routers with motion sensors, etc.

4. **TRENTION TECHNOLOGIES PVT. LTD.**
(CIN: U74999BR2017PTC036114)

This plan is based on analysis of data collected from the MVP of EazyPG run actively in 3 months of July-Sept. last year. The features/products, value proposition, revenue model, go-to-market strategies, etc are factually based on perspectives/feedbacks and insights we gained from 3000 users we interacted and delivered the services personally. We looked for problems they faced, their experiences/feedback to our solutions, their perspective and approach to it and also any pattern & preferences behind their use of our products.

5. **IOTERACTION TECHNOLOGIES SERVICES PVT. LTD.**
(CIN: U72200DL2017PTC327289)

Interaction Technologies Services Private Limited is involved in Software publishing, consultancy and supply. Software publishing includes production, supply and documentation of ready-made (non-customized) software, operating systems software, business & other applications software, computer games software for all platforms. Custom software also includes made-to-order software based on orders from specific users. It is also involved in the development of media based IoT products. It assists companies in interactive advertising and marketing. Lastly, it develops data analytics software and provides consulting based on collected data points and also an ERP solution for Indian logistics and supply chain industry.

6. **PROXIMA ADVERTISING SOLUTION PRIVATE LIMITED (CIN: U74999DL2018PTC330601)**

We describe our company as an advertising agency which is trying to cut down on the cost of advertising for small businesses. Websites have been a popular channel of advertising since the internet, but we are trying to convert the entire internet as a channel for advertising. By providing free Wi-Fi to users we want to make internet a human right that's why we keep it free and, in the process, bring down the cost of advertising to ₹2 per ad view.

7. **SUPREME TESTING LAB & FORENSIC EVIDENCE PROTECTION TECHNOLOGY PRIVATE LIMITED (CIN: U74999DL2018PTC329803)**

Study various types of crime Exhibit their shape and size and design containers,

accordingly to the shape of various types of exhibit Including, Computer Forensics, Charred Documents and properly Maintenance of Chain of Custody. Study of properties of material to be used for making containers for Solids, Liquid, and Gases. Commercialization of the Design and production of the various type of Containers and Sealing Devices.

8. **PROJEXEL TECHNOLOGIES PVTT. LTD. (CIN: U72900HR2019PTC080008)**

Our product uses emerging technologies in terms of cell chemistry, IC's, RF transmitter, receivers and other electronics components. Which are in the middle of S curve of development and will see step improvements in future. This will help us provide better products as we proceed.

9. **LEGASCI CREATIONS PVT. LTD. (CIN: U72900DL2019PTC350187)**

We have built our start-up to revolutionize the way people live their daily lives. Our goal is to make the houses we live in intelligent, and more connected to us. The more intelligent our houses are, the less monotonous tasks we have to perform. People wouldn't have to wonder whether they left their iron switches on before leaving the house. People don't have to wake up at 5 a.m. in the mornings to switch on their water pumps. Neither would they have to wait for their rooms to cool down reaching home after a busy day of work, because now, it will be done before they reach. This is what our startup is about, to make our houses a part of us, just like our limbs and muscles, over which, we have complete control.

10. **OBLIVION TECHNOLOGIES PVT. LTD. (CIN: U72900HR2019PTC081511)**

Modern technology has made our life easier in many aspects. We too have utilized this new technology in the service of the students. We have developed a complete marketplace dedicated specifically to the needs of the students. The current education industry is worth crores of rupees. This industry can be efficiently scaled into an online marketplace. Every transaction inside a campus can be completed without the need of shopkeepers who prey on the money of students. We have done this by being efficient and cost-effective at the same time with the use of latest technology.

11. **JXR TECHNOLOGIES PVT. LTD. (CIN: U74999DL2019PTC344603)**

The plan is to launch the 2 versions of water pump controller into to market which are superior in terms of technology and lower in cost. Two versions are for Submersible & Municipal Corporation water lines. Water pump controller is a device that stops the overflowing water from tanks or fill the tank automatically at residential places.

12. **HANUSHA NETWORKS PVT. LTD. (CIN: U74999UP2018PTC101537)**

SportsApp is a Sports Professionals Network including sports academies and sponsors, in this athlete can connect with other athletes, coaches, sports academies, and sponsors and they will get regular updates of "Event s, Job & Admission, Scholarships & Sponsorship opportunities". The vision is to aid the talented athletes with all the facilities & visibility required to them to succeed in future.

13. **ZALVIT ENTERPRISES PVT. LTD. (CIN: U74994DL2019PTC350402)**

Today the youth of this country frequently use social media like Instagram, however it is of no general productivity.

5. CENTRES AND OTHER UNITS

The plan is to post advertisements from the accounts of common users. When hundreds of users will post the content, it will gain more reach than any other corporate ad. The Brands will get a reach for their marketing while the users will get paid for it. Advertisement industry is rapidly growing and will soon cover all the social media. Currently no big advertisements or marketing is done on Instagram. We are developing the portal for this interaction.

14. **WAARIS GREEN LABS PVT. LTD. (CIN: U37200DL2019PTC350610)**

We are a waste management and waste education start-up, currently working on paper waste management. We help to micro manage the waste produced and trying to improve the collection frequency (as close as 1 month). Against the paper waste collected we provide our services which include recycled paper stationery, educational workshops, tree plantation and sharing drives. As of now, we have been permitted to work with 130 + government schools of Delhi by department of education.

15. **ROADUST ENTERPRISES PVT. LTD. (CIN: U72900DL2019PTC351002)**

Dhannoo Bicycle Sharing is the most innovative bicycle sharing system. It is designed with the vision to become the most customer focus transportation service by feasible pricing and best in class service. It is a dock less bicycle sharing system where people can unlock a bicycle from their mobile phones & enjoy their rides. We have come up with strategies& operational plans to maximize the efficiency of the system. The increasing pollution and road congestion make it a necessity to have an environment friendly alternative

to transportation. Hence, we propose to be incubated in the DTU Innovation & Incubation Foundation. It will help us to speed up our Pilot stage & reach our eco-friendly dream to its earliest.

16. **DSWM LABS PVT. LTD. (CIN: U74999DL2019PTC349234)**

We are developing a decentralized waste segregator capable of source segregation biodegradable and non-biodegradable waste. It segregates any kind of mixed waste with 95% of efficiency. The segregators are incorporated in mobile waste collectors. With our mechanical segregator integrated right into the waste collector we will be able to segregate the waste in large amounts during the process of collecting the waste. The idea incorporates a blend on mechanical components such as Mixed waste shredder, pneumatic separators, tommel Screening, Size screening, Air classifier (density separation) along with an advance application of physics to achieve segregation.

17. **SEUTUS WASTE MANAGEMENT TECHNOLOGIES PVT. LTD. (CIN: U74999DL2019PTC347363)**

Smart dustbins will be installed in the houses. These bins have two separate compartments one each for biodegradable & non-biodegradable. The Consumer just keep bin house and bin automatically senses and segregates the waste in appropriate compartment waste is also comprised to compact from every bin has a location set via GPS for collection. Once bin gets filled it automatically sends bin location for collection biodegradable is converted into 100% organic manure and sold to farmers in competitive to chemically prepared manure. Rest if the

waste in recycled. Manure is converted within 3-4 days using highly optimum condition collection of garbage us entirely free for customer.

18. **RASPIL PVT. LTD.**
(CIN: U74999HR2020PTC089802)

It is a network marketing based social commerce startup in the category of fruits and vegetables. Utilising on demand harvesting it connects farmers to end consumer via micro-entrepreneurs. Domain business area: Agriculture, E-commerce, Supply Chain. This startup has competitors like Otipy, Bigbasket, Milkbasket. It has Raised pre-seed funding of ₹1.4 Crores.

19. **ACHIEVEMENTS OF "DTU INNOVATION AND INCUBATION FOUNDATION" (DTU IIF).**

A. **DTU IIF is "Nation Incubator Partner of Ministry of Commerce and Trade, Govt. of India and supports activities related to mission of Government related to "STARTUP INDIA and "MAKE IN INDIA"**

a) DTU IIF is part of program "Mentor of Change" of NITI AAYOG, Govt. of India

b) In India, DTU IIF, Organised Three Google Funded (3 days in 24X7 mode) "Google Startup Weekend Program" for last continuously for 3 years, which is very prestigious and competitive program in the domain of Startup ecosystems for any country.

c) DTU IIF has signed an MoUs (on behalf of DTU) with NASSCOM).

d) DTU IIF had organised an internship fare where 40 companies participated and provided 96 internships to DTU students.

e) DTU is selected for implementing "National Innovation and Startup Policy (NISP)" in DTU by MHRD(GoI), DTU IIF is nominated Coordinator by DTU.

f) 3 Startups have raised external funding from Venture Capitalist and Individual Investors

g) One of DTU IIF startup company, FAUCET LABS PVT. LTD. (Under Brand Name "CYPHER ROCK", operating in business of developing a personal distributed hardware-based recovery system to store private keys for decades) got selected out of 10 startups companies in the world and received US $100,000.00 in convertible equity note from Consensys Ventures. The directors of this company, students of DTU are funded by this funding agency/ investor to attend training program of 2 weeks each in Germany and USA to gain proficiency in "BLOCK-CHAIN TECHNOLOGY"

h) One of DTU IIF startup company (RASPIL PRIVATE LIMITED) got foreign funding of Indian ₹ one crore Fourty lakhs in US $ by our alumni currently in USA.

i) All our startups companies of DTU IIF are Registered with Department of Promotion of Indian and International Trade, GoI (Start-Up India Mission), This is mandatory requirement receiving international funding and Income Tax benefits to startup companies in India.

j) DTU IIF is a member of "Task-Force" in framing the "STARTUP POLICY" of Government of NCT of Delhi.

k) Letter of Appreciation from Ministry of Economy, UAE as National Partner, India (Invest India, DPIIT, GoI)

l) DTU-T&P/DTU IIF has partnered with NASSCOM FOUNDATION for implementing a skilling and entrepreneurship opportunity for students of DTU through a Makerspace program funded by Ciena.

B. **ACTIVITIES OF "DTU INNOVATION AND INCUBATION FOUNDATION" (DTU IIF) IN PROMOTING AND CREATING ECOSYSTEM FOR INNOVATION AND ENTREPRENEURSHIP IN DELHI TECHNOLOGICAL UNIVERSITY (DTU)**

i) DTU IIF provides incubation facilities in 24 X 7 mode at DTU Main Campus and DTU East Delhi Campus in the following areas:

ii) Infrastructure and facilities-based services (Physical Space for Incubation to the Startup companies and high-speed internet access and telecom services)

iii) Business Services (Awareness about basics of Business, Marketing Assistance and E-Commerce Assistance)

iv) Shared Administrative and office services: By providing Accounting, Company Secretary and Legal services through our consortium of such service providers our Startup companies at DTU IIF

v) Financing (Through seed fund and Access to Finance through venture capitalist i.e., VCs). Seed fund is also provided from the Grant given by GNCTD to University Incubator i.e., DTU IIF), We also help in raising funds from other sources to our Startup companies.

vi) Networking and Connecting to the other Startup Ecosystems nationally and internationally by sending our Startup companies promoters/director who are DTU students to participate in activities like "Startup weekends", Lectures, Seminars, Conferences and Startup challenges. These activities we also promote at our entire University level.

vii) Education and Access to Knowledge: By arranging lectures at DTUIIF inviting experts/CEOs of Incubators/Industry Experts in the areas of our Startup companies' domain to provide comprehensive business training and imparting training in presentation skills so that our Startup companies can pitch their ideas in raising funds from Venture Capitalists (VCs) and other Institutions who provide funds for Startup Companies.

viii) Brand Building: Building the brand of our Startup companies by sending our profile of DTU IIF through email and other platforms.

ix) As DTU IIF operates on in 24X7 mode, we provide them small kitchen services like tea/coffee/ soup vending machine, microwave ovens and fridge.

x) DTU IIF organises various advocacy programs in the areas Innovation and new venture Development to Startup companies incubating at DTU IIF by Organising Startup week end programs and Town Hall for entrepreneurship and Innovation.

xi) Participating in Startup Mission of Government as:

xii) DTU IIF is "Nation Incubator Partner of Ministry of Commerce and Trade, Govt. of India and supports activities related to mission of Government related to "INVEST INDIA" "STARTUP INDIA and "MAKE IN INDIA"

xiii) DTU IIF is part of program "Mentor of Change" of NITI AAYOG, Govt. of India

xiv) DTU IIF is a member of "Task-Force" in framing the "STARTUP POLICY" of Government of NCT Of Delhi

C. CONTRIBUTIONS OF "DTU INNOVATION AND INCUBATION FOUNDATION" (DTU IIF) IN AREAS OF INNOVATION AND ENTREPRENEURSHIP IN DELHI TECHNOLOGICAL UNIVERSITY (DTU)

DTU IIF provides academic support and delivery of course to all the courses offered in the areas of Family Business, Entrepreneurship, Innovation and New Venture Development in the following degree programs offered by DTU:

- MBA (Family Business and Entrepreneurship) at USME, DTU

- MBA (Innovation, Entrepreneurship and Venture Development), USME, DTU (This degree program has compulsory component of residency of this degree aspirant in the Incubator of the University i.e., DTU IIF.

- Ph.D. (Innovation, Entrepreneurship and Venture Development) in subject domain.

- Entrepreneurial Track Electives offered to all students of B.Tech. program of DTU under FEC category i.e., Entrepreneurial Exploration and New Venture Development at Main Campus, DTU.

- Ph.D. (Innovation, Entrepreneurship and Venture Development), USME, DTU (Which requires inputs from a functioning incubator of the university)

D. DTU IIF'S VALUE CREATION FOR DELHI TECHNOLOGICAL UNIVERSITY

- DTU IIF as University's Incubator fulfil the gap of theory and practice aspect of Technology/management subject domain and adding very high value to such courses run by DTU but shall also make these course contemporary and contextual by following global trends in technical education with innovative and entrepreneurial perspectives, which are vital for university's various degree programs and to compete with other national and international best Institutes/Universities.

- DTU IIF also plays a role as "Central Facility" of DTU in NIRF, NBA and other National and International Ranking systems for our University.

E. BEST PRACTICES OF DTU IIF

1. The incubation center provides 24x7 access, 24x7 electricity & backups. (Excluding national holidays).

2. Mobile application based automated Attendance Management System.

3. Good collection of books on innovation, incubation, startups & management of new Enterprises Development.

4. Availability of high-speed Wi-Fi for all startup companies.

5. Availability of specialized labs in all the departments of DTU for Startups Companies.

6. Provisioning of seed funds to the Startup Companies as per policy mandate of Government of NCT of Delhi

5.2 Human Resource Development Centre

- In consonance with the national policy on Education (NPE),1986 of University Grants Commission, Delhi Technological University established Human Resource Development Centre under section 7(13) of the Delhi Technological University Act, 2009 with effect from 1st January 2018

- HRDC will be focused to the crucial development of quality ensured delivery of education to continuous knowledge up-gradation, capacity building and motivation of teachers for accepting challenges arising from new research and advancement in technology and recent trends of breaking barriers of subject related to science and technology.

- At present there are 66 Human Resource Development Centre (HRDC) established by UGC in different universities over a period of time since 1986.

HRDC can conduct following types of Programmes.

1. Orientation Programs

   Every new faculty member in higher education will be required to undergo a four-week Orientation / First level Programme which will be focused on some broad area of knowledge spanning a few allied disciplines with minimum of 24 working days (excluding Sundays) and 144 contact hours (six hours a day).

2. Refreshers courses

   These will be mainly focused for those faculty members who have already undergone through the Orientation/ First Level Programme in an identified broad area with minimum of 18 working days (excluding Sundays) and 108 contact hours (six hours a day).

3. Workshops

   These will be organized for shorter duration of one week (6 working days, 36 contact hours) and will be covering mainly for capacity building of academics, administrators and other stakeholders.

4. Short-term course

   3-6 days duration especially on research methodology and specialized themes of interest.

Following Trainings/Programmes were conducted during the session 2019-20.

- A training program for Newly Recruited Ministerial Staff of DTU was organised from 05-08-2019 to 30-08-2019 for 25 participants.

- A training program on effective lecture Presentation through PPT for faculty members of DTU was organised on 03-08-2019 for 50 participants.

- A two days Training program for School Principals of Delhi was organised from 27-09-2019 to 28-09-2019 for 50 participants.

- A Two days Training program on Preparation of Rosters, computing the reserved vacancies and backlog for person with disabilities was organised from 02-03-2020 to 03-03-2020 for 40 participants.

- A Training Program on "Online Teaching Classes-Phase-I" for the faculty members of DTU and NSUT was organised from 1st July, 2020 to 10th July, 2020 (two 3-hour sessions for each group) for 10 groups of 50 participants in each group (179 participants from NSUT and 321 participants from DTU).

- A Training Program on "Online Teaching Classes-Phase-II" for the faculty members of DTU was organised from 27th July, 2020 to 29th July, 2020 and from 4th August, 2020 to 6th August, 2020 (three 2-hour sessions for each group) for 4 groups of 50 participants in each group.

5.3 Solar Energy Centre

> Operation of 432 KW SPV roof top plant on resco model and 40 KW SPV plant on capex model functioning at Delhi Technological University

Delhi Technological University has installed 432 KW of Solar Photovoltaic Rooftop Plant on resco model by M/S Hero Future Energies on the terrace of the various departments. This has been further added by 40 KW SPV plant by M/S Photon Energy Systems Ltd. on capex model on the rooftop of administrative building. All together there has been 472 kW SPV plant in DTU. Both the plants have been working very satisfactorily. All 472 kW solar panels have been installed in Science block (108 kWp, having 1 Electronic solar metre), Mechanical block (150 kWp, having 2 Electronic solar metres) and Electronic block (174 kWp, having 3 Electronic solar metres). Hero Future Energies has provided the solar metre readings for the last one year from Aug 17 – Aug 18 as given in the table below.

It has been observed that the maximum solar electricity output of all the 432 kW solar panel from all the 6 electronic metres is found as 49482 kWh in the month of September 2017. This is on an average 3.81 kWh per day production from 1 kW panel.

A 40 KWp system has been also commissioned in the month of June 2015 and functioning properly. It has two inverters of 20 kW each connected to the above system. The control room has been built on the ground floor at the back of the building. The DC

power so generated by the SPV plant is converted into AC power by the SSE model inverters and fed to the 3 phase Delhi Technological grid.

The above two systems are grid connected to the TATA power Delhi Distribution Limited. (TPDDL) and are controlled in such a way that whenever solar electricity is produced it has priority to the DTU grid. It means that when DTU has zero load then only it will be exported to the TPDDL. The cost of the solar electricity comes cheaper than the cost of the electricity provided by TPDDL.

Solar electronic metre	Science Block(108 kWp)	Mechanical Block (150 KWp)			Electronics Block (174 kWp)				Grand Total All 3 blocks
	XB465434 (kWh)	XB456414 (kWh)	XB456435 (kWh)	Total (kWh)	XB456407 (kWh)	XB456441 (kWh)	XB456439 (kWh)	Total (kWh)	
Aug 17	7473	6315	9623	15938	5690	8857	2825	17372	40783
Sep 17	9620	8886	13357	22243	1467	12225	3927	17619	49482
Oct 17	6512	5541	8515	14056	1145	7304	2353	10802	31370
Nov 17	5881	4607	7422	12029	43	6094	1880	8017	25927
Dec 17	5866	4803	5256	10059	0	5750	2129	7879	23804
Jan 18	6772	5617	2934	8551	0	7378	2553	9931	25254
Feb 18	7696	6398	3296	9694	0	6298	2852	9150	26540
March 18	7199	8484	4640	13124	0	4199	3381	7580	27903
Apri18	7373	7180	5815	12995	0	4737	3411	8148	28516
May 18	9911	7620	11503	19123	5125	8760	3291	17176	46210
June 18	12218	7465	10159	17624	6961	5199	3206	15366	45208
July 18	10537	5972	8955	14927	7137	10584	3120	20841	46305

5.4 Kitchen Waste Plant

Delhi Technological University in collaboration with Bhabha Atomic Research Centre (BARC) has set-up 500 kg per day kitchen waste biogas plant in the backyard of main canteen. This is based on Nisargruna technology, developed by BARC which is a method of processing biodegradable waste. It is an environment friendly technology, which delivers two valuable products i.e., flammable methane and organic manure. The waste generated in the main canteen is fed into the installed biogas Plant. This plant was installed and commissioned in April 2014. Initially, the system started functioning with about 50 kg wastes per day and slowly it moved to more than 100 kg per day and in due course of time it will reach to its full capacity i.e., 500 kg per day. The equal amount of water is also mixed with the waste. It is mixed and grinded and then fed to the plant. The methane gas so generated by this plant is fed to the kitchen of the main canteen.

This technology is very useful to sabzimandi and Municipal Corporations to process their vegetable waste as most of biodegradable waste can be utilized as raw material for the plant.

Biogas and manure is valuable product. Nevertheless, whole technology creates various types of opportunities for different prospects. Biogas can also be used for the generation of Electricity. Waste segregation at the source is another major issue which needs proper attention. Biogas production is faster because of combination of aerobic and anaerobic digestion technology. Electricity generation from biogas is also one of the potential benefits. This technology development will save environment to greater extent. It will also provide benefits in the form of Biogas, reduction in GHG emission, health benefits, social benefits and benefits in terms of financial investments. In future there will be scope for extra benefits like subsidies and benefits like carbon credits, which will give high rate of return on total investment. Entrepreneurs will excel in their ventures by selling services and products related Technology. DTU is in contact with some other organizations to provide consultancies in this area. The DTU students have already produced some research papers. Few students are doing their B. Tech., M. Tech. and Ph.D. projects. Presently this plant is under maintenance and operation.

5.5 Centre for Advanced Studies and Research in Automotive Engineering

Centre for Advanced Studies and Research in Automotive Engineering (CASRAE) was founded in 2003 in the erstwhile Delhi College of Engineering with the objectives of developing variety of alternative fuels and engine technologies to reduce the dependence on imported crude petroleum and minimize harmful exhaust emissions. The centre has seen a radical growth in last 17 years and it is being considered as one of the key research centres not only in India but abroad also. The faculty along with the students have published research papers in large number of International Journals and have also attended international conferences abroad. The faculty and students are attending various American Society of Mechanical Engineers (ASME) and Society of Automotive Engineers (SAE) conferences and also publishing papers in Elsevier, Wiley, Springer, Taylor & Francis, SAE and ASME Journals.

The prime focus areas in the Centre include; Advancement in design of Compression Ignition and Spark Ignition Engines, Development of Micro-Turbojet Engines, Studies of Aerodynamic Characteristics of various airfoils, Design characteristics of Aircrafts, Hybrid Vehicles, CFD study of spray injection, Biofuels like biodiesel, ethanol, n-Butanol and host of other promising alternative fuels such as renewable diesel, nanofuels, Compressed Natural Gas (CNG), Hydrogen etc.

- **Multi Utility Solar Kart** (August – October 2019, CASRAE)

The Students of Centre for Advanced Studies and Research in Automotive Engineering (CASRAE) developed a Multi Utility Solar Kart from scratch by

altering the default chassis of a standard yet most widely used "E-Rickshaw". The top frame of the chassis was modified as such to accommodate four solar panels, which can be used to harness the Solar Energy that can be stored up in four lead acid batteries for power requirements. After all the cosmetic changes were done, the Solar Kart was ready to roll over roads with zero emissions. As for the performance evaluation, the Kart can be fully charged in 7 hours during peak time (overhead sun on a bright sunny day) and can achieve a top speed of 25 kmph while carrying a load up to 400 kgs. The kart can also serve the purpose of transportation and logistics.

- 8th International Symposium on Fusion of Science & Technology 2020 (ISFT-2020) January 2020, India

  8th International Symposium on Fusion of Science and Technology (ISFT 2020) was held in JC Bose University of Science and Technology, YMCA, Faridabad, India from January 6-10, 2020. The symposium provided a platform for the researchers working in the multi-disciplinary field of Engineering, Science, Technology and Management to exchange new ideas and establish relationship for the scientific growth and development. Almost all the members of CASRAE including Mentor, Prof. Naveen Kumar participated in this conference and presented various research papers and posters in different mechanical fields. Aniket Gupta and Yashaswi Raj won the 2nd and 3rd prize respectively in the poster presentation competition.

  The research papers published in **IOP Conference Series: Materials Science and Engineering** (Vol. 804, 2020) by the members of CASRAE are:

1. **Modification of 4-Stroke S.I. Engine to a Compressed Air Engine for a Light Utility Vehicle** by Vishal Yadav, Prashant Chandra Pujari and Naveen Kumar 804 (2020) 012006 doi:10.1088/1757-899X/804/1/012006 (Scopus Indexed).

2. **Impact of doping alumina nanoparticles on spray characteristics of diesel-biodiesel fuel blends** by Mukul Tomar and Naveen Kumar 804 (2020) 012007 doi: 10.1088/1757-899X/804/1/012007 (Scopus Indexed).

3. **To investigate the variation in Swirl Ratio by changing the Valve Lift of an Internal Combustion Engine** by Devang S. Nath and Naveen Kumar 804 (2020) 012018 doi:10.1088/1757-899X/804/1/012018 (Scopus Indexed).

4. **A comprehensive review on performance, combustion and emission characteristics of diesel/biodiesel/alcohols and their blends by** Dushyant Mishra, Naveen Kumar and Rajiv Chaudhary 804 (2020) 012030 doi:10.1088/1757-899X/804/1/012030 (Scopus Indexed).

5. **Investigation of wear in a 3D printed Shaft – Bearing mechanism using different Lubricants** by Devanshu Jain, Akash Jain and Prof. RC Singh 804 (2020) 012029 doi:10.1088/1757-899X/804/1/012029 (Scopus Indexed).

6. **A review on cold flow properties of biodiesel and their improvement** by Khushbu Yadav, Naveen Kumar and Rajiv Chaudhary 804

(2020) 012027 doi:10.1088/1757-899X/804/1/012027 (Scopus Indexed).

Research papers published in **ISFT 2020 Proceedings** are:

1. **Effect of higher injection pressure on biodiesel for spray formation** by Prem Shankar and Naveen Kumar.

2. **Comprehensive review on the application of CNG & biodiesel blends in IC Engine** by Hansham Dewal, Madan Mohan and Naveen Kumar.

3. **A review on performance of biodiesel fuelled diesel engine** by Aman Pundhir, Amit Kaushik and Prashant Chandra Pujari.

Other papers presented by the members of CASRAE in ISFT 2020 are:

1. "Thermoelectric Generators as Energy Source in Furnaces" by Aniket Gupta.

2. "Performance analysis of blend of Lemon seeds oil with Diesel in CI Engine" by Sheel Bhadra.

3. "A comparative study of performance and emission characteristics of a diesel engine using ternary blends containing tire pyrolysis oil" by Amit Jain.

4. "Swirl in CI Engine and effect of helical intake port on various parameters" by Abhyuday Singh Latwal.

5. "Development of Six Stroke Internal Combustion Engine: A Review" by Prashant Chandra Pujari.

6. "Optimization and analysis of design parameters for a commercial airplane wing by developing a new modern airfoil" by Ankush Brella.

7. "Study of various photosensitizer on photoelectrode in increasing the efficiency of hydrogen production by photoelectrochemical (PEC) method" by Yashaswi Raj.

5. CENTRES AND OTHER UNITS

141

8. "Application of rear diffusers to increase downforce of a Race Car" by Devang S. Nath.

- WORLD BIOFUEL DAY (August 10, 2019, Vigyan Bhawan)

Almost all members of CASRAE participated in the event organized by Ministry of Petroleum and Natural Gas on the occasion of World Biofuel Day, August 10, 2019 at Vigyan Bhawan, New Delhi. The theme of the World Biofuel Day 2019 was "Biofuels towards Atmanirbhar Bharat". Biofuels have the benefits of reduction of import dependence, cleaner environment, additional income to farmers and employment generation. Dr. Harsh Vardhan was the chief guest for the event along with many other dignitaries from Ministry of Petroleum and Natural Gas and officers/officials of oil companies like IOCL, ONGC etc. It was an overall learning experience for the students. The students also shared the significant achievement made by the DTU in this vital sector.

- ENERGY QUIZ (October 2019, CASRAE)

Centre for Advanced Studies and Research in Automotive Engineering (CASRAE) in association with Institution of Mechanical Engineers (IMechE) DTU Chapter had organized an "ENERGY QUIZ" for B.Tech, M.Tech. and Ph.D. students of all domains. The quiz had 50 questions from different fields, with the common theme of Energy. The event saw enthusiastic participation from many students of different colleges across different branches, out of which multiple students affirmed that the quiz was a great learning experience for their inquisitive minds. First 3 toppers received cash prizes of rupees 1000, 800 and 600 respectively. The organizing team was very glad to organize such an interesting event that fascinates young minds.

- Research Excellence Award

Two Ph.D scholars namely: **Ankit Sonthalia** and **Mukul Tomar** were conferred the research excellence award in a university ceremony held on 13-03-2020. The details of their papers on which they were given the award is as under**:**

1. Ankit Sonthalia, **Naveen Kumar "Hydroprocessed vegetable**

oil as a fuel for transportation sector: A review" Journal of the Energy Institute, Volume 92, Issue 1, 2019, https://www.sciencedirect.com/science/article/pii/S1743967117301526 (Publisher - Elsevier; SCI Indexed).

2. **Naveen Kumar**, Mukul Tomar **"Influence of nanoadditives on Ignition characteristics of Kusum (Schleichera oleosa) biodiesel"** International Journal of Energy Research, https://onlinelibrary.wiley.com/doi/pdf/10.1002/er.4446 (Publisher - Wiley; SCI Indexed).

- Publication by Prof. Naveen Kumar and students of CASRAE in peer reviewed journal during 2019-20:

    1. Ankit Sonthalia, **Naveen Kumar** **"Hydroprocessed vegetable oil as a fuel for transportation sector: A review"** Journal of the Energy Institute, Volume

92, Issue 1, 2019, https://www.sciencedirect.com/science/article/pii/S1743967117301526 (Publisher - Elsevier; SCI Indexed).

2. **Naveen Kumar**, Mukul Tomar **"Influence of nanoadditves on Ignition characteristics of Kusum (Schleichera oleosa) biodiesel"** International Journal of Energy Research, https://onlinelibrary.wiley.com/doi/pdf/10.1002/er.4446 (Publisher - Wiley; SCI Indexed).

3. Sunil Kumar Sinha, **Naveen Kumar "Utilization of Blends of Biodiesel and Higher Alcohols in a Small Capacity Diesel Engine"** SAE Paper No. 2019-01-0580, https://doi.org/10.4271/2019-01-0580, https://www.sae.org/publications/technical-papers/content/2019-01-0580/ (Publisher- SAE International; Scopus Indexed).

4. Ashwni Goyal, **Naveen Kumar "Some Experimental Studies on the Use of Tyre Pyrolysis Oil (TPO) in an Agricultural Diesel Engine"** SAE Paper No. 2019-01-796, https://doi.org/10.4271/2019-01-0796, https://www.sae.org/publications/technical-papers/content/2019-01-0796/ (Publisher- SAE International; Scopus Indexed).

5. Subham Mukhopadhyay, Aahan Malhotra, Mukul Tomar, Naman Choudhary, **Naveen Kumar "Experimental Investigations of Metal Oxide Nano-Additives on Working Characteristics of CI Engine"** SAE Paper No. 2019-01-794, https://doi.org/10.4271/2019-01-0794, https://www.sae.org/publications/technical-papers/content/2019-01-0794/ (Publisher- SAE International; Scopus Indexed).

6. **Naveen Kumar,** Shikhar Jain, Aakriti Bagla, Shivalika Sharma, Mukul Tomar **"Study of Performance and Emission Characteristics of Propan-2-ol and Gasoline Fuel Blends in an Unmodified Spark Ignition Engine"** SAE Paper No. 2019-01-793, https://doi.org/10.4271/2019-01-0793, https://www.sae.org/publications/technical-papers/content/2019-01-0793/ (Publisher-SAE International; Scopus Indexed).

7. Shourya Paul, Devanshu Jain, Rohan Brella, **Naveen Kumar "Design and Modelling of Single Cylinder 4 Stroke Gasoline Engine Crankshaft"** SAE Paper No. 2019-01-767, https://doi.org/10.4271/2019-01-0767, https://www.sae.org/publications/technical-papers/content/2019-01-0767/ (Publisher-SAE International; Scopus Indexed).

8. Aahan Malhotra, Mukesh Yadav, Mukul Tomar, Shikhar Jain**, Naveen Kumar "Effect of Using Exhaust Gas Recirculation (EGR) on the Emission Characteristics of the CI Engine Fuelled by Acetone-Butanol-Ethanol (ABE) Diesel Blend"** SAE Paper No. 2019-01-748, https://doi.org/10.4271/2019-01-0748, https://www.sae.org/publications/technical-papers/content/2019-01-0748/ (Publisher-SAE International; Scopus Indexed).

9. Sidharth , **Naveen Kumar, "Performance and emission studies of ternary fuel blends of diesel, biodiesel and octanol"** Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, doi:10.1080/15567036.2019.1607940,https://www.tandfonline.com/doi/full/10.1080/15567036.2019.1607940 (Publisher – Taylor & Francis; SCI Indexed).

10. Parvesh Kumar, **Naveen Kumar**, **"Process optimization for production of biodiesel from orange peel oil using response surface methodology"**, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, (Publisher – Taylor & Francis; SCI Indexed) https://www.tandfonline.com/doi/full/10.1080/15567036.2019.1631909

11. Mukul Tomar, **Naveen Kumar, "Influence of nanoadditives on the performance and emission characteristics of a CI engine fuelled with diesel, biodiesel, and blends—A review"** Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, (Publisher – Taylor & Francis; SCI Indexed) https://www.tandfonline.com/doi/full/10.1080/15567036.2019.1623347

12. Roshan Raman, **Naveen Kumar "Performance Analysis of Diesel Cycle under Efficient Power Density Condition with Variable Specific Heat of Working Fluid"** Journal of Non-Equilibrium Thermodynamics (Publisher – De Gruyter; SCI Indexed) In Press.

13. Rashi Koul, **Naveen Kumar**, R.C. Singh **"A review on the production and physico-chemical properties of renewable diesel and its comparison with biodiesel"** Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, doi: 10.1080/15567036.2019.1646355 https://www.tandfonline.com/doi/full/10.1080/15567036.2019.1646355 (Publisher – Taylor & Francis; SCI Indexed).

14. Roshan Raman, **Naveen Kumar "Experimental investigation to analyze the effect of induction length of diesel-acetylene dual fuel engine"** Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, doi: 10.1080/15567036.2019.1663314, https://www.tandfonline.com/doi/full/10.1080/15567036.2019.1663314 (Publisher – Taylor & Francis; SCI Indexed).

15. Roshan Raman, **Naveen Kumar "The utilization of n-butanol/diesel blends in Acetylene Dual Fuel Engine"** Energy Reports, Volume 5, pp 1030-1040, 2019, https://www.sciencedirect.com/science/article/pii/S2352484719302641 (Publisher – Elsevier; SCI Indexed).

16. Roshan Raman, **Naveen Kumar "Experimental studies to evaluate the combustion, performance and emission characteristics of acetylene fuelled CI engine"** International Journal of Ambient Energy, doi: 10.1080/01430750.2019.1709896, https://www.tandfonline.com/doi/abs/10.1080/01430750.2019.1709896 (Publisher – Taylor & Francis; SCI Indexed).

17. Ankit Sonthalia, **Naveen Kumar**, "**Comparison of fuel characteristics of hydrotreated waste cooking oil with its biodiesel and fossil diesel**" Environmental Science and Pollution Research, doi:10.1007/s11356-019-07110-w. https://link.springer.com/article/10.1007/s11356-019-07110-w (Publisher – Springer; SCI Indexed).

18. Ankit Sonthalia, Shivam Garg, Rishav Sharma, S. Thiyagarajan, **Naveen Kumar**, **"Effect of electrostatic precipitator on exhaust emissions in biodiesel fuelled CI engine"** Environmental Science and Pollution Research, doi:10.1007/s11356-019-07359-1. https://link.springer.com/article/10.1007/s11356-019-07359-1 (Publisher – Springer; SCI Indexed).

19. **Naveen Kumar**, Ankit Sonthalia, Mukul Tomar, Rashi Koul, "**An experimental investigation on spray, performance and emission of hydrotreated waste cooking oil blends in an agricultural engine**", doi: 10.1177/1468087420928734, International journal of Engine Research https://journals.sagepub.com/doi/abs/10.1177/1468087420928734 (Publisher – IMechE/Sage; SCI Indexed).

20. **Naveen Kumar**, Ankit Sonthalia, Rashi Koul, "**Optimization of the process parameters for hydrotreating used cooking oil by the Taguchi method and Fuzzy logic**", ASME Journal of Energy Resources Technology, doi: 10.1115/1.4047405, https://asmedigitalcollection.asme.org/energyresources/article-abstract/doi/10.1115/1.4047405/1084223/Optimization-of-the-process-parameters-for?redirectedFrom=fulltext (Publisher – ASME; SCI Indexed).

21. Mukul Tomar, Amit Jain, Prashant Chandra Pujari, Hansham Dewal, Naveen Kumar, "**Potentials of waste plastic pyrolysis oil as an**

extender fuel for diesel engine" Arabian Journal of Geosciences 13, 504 (2020). https://doi.org/10.1007/s12517-020-05574-6.

22. Chapter "Next-Generation Biofuels—Opportunities and Challenges" in the book "Innovations in Sustainable Energy and Cleaner Environment. Green Energy and Technology". Editors Gupta A., De A., Aggarwal S., Kushari A., Runchal A. Springer, Singapore. DOI:10.1007/978-981-13-9012-8_8 https://link.springer.com/ chapter/10.1007/978-981-13-9012-8_8

23. Chapter "Methanol-Based Economy: A Way Forward to Hydrogen" in the book Sustainable Development for Energy, Power, and Propulsion. Springer, Singapore, eBook ISBN: 978-981-15-5667-8 https://www.springer.com/gp/book/9789811556661#

• Invited talks by Prof. Naveen Kumar

24. **"Next-Gen Biofuels – Potential & Challenges"** International Conference on Advance Technologies in Renewable Energy for Future Sustainability, RGPV Bhopal, January 30-31, 2019.

25. **"Moving ahead from Hydrogen to Methanol Economy: Scope and Challenges"**, International Workshop on Energy, Power &

Environment (IWEPE-2019), NIT Kurukshetra, March 17-19, 2019.

26. **"Next-Gen Biofuels – Scope & Opportunities for India"** National Conference on Relationship between Chemical Sciences and Society, Shivaji College, University of Delhi, January 16-17, 2020.

27. **"Next-Gen Biofuels – Can it work for India"** 2nd National Seminar on Technologies for Smart City, ITM University, Gwalior, January 24, 2020.

28. **"Higher Alcohols as Engine Fuel – Status and Opportunities for India"** International Workshop on Energy, Environment and Multiphase Flows, IIT Kanpur, February 24-26, 2020.

• Ph.D Awarded:

29. Sidharth, Topic: **Utilization of ternary fuel blends in a compression engine- Performance, Emission and Combustion studies,** DTU, 2019.

30. Sunil Kumar Sinha, Topic: **Study on Use of Renewable Fuels in a Compression Ignition Engine,** DTU, 2020.

31. Ankit Sonthalia, Topic: **Performance, Emission and Combustion Studies of a Modified Vegetable Oil in a Compression Ignition Engine,** DTU, 2020.

5.6 Centre for Value based Education

Board of Management in its 26th meeting on 8.12.2017 has approved the establishment of Centre for Value based Education at DTU. The role of the centre is to prepare and implement innovative resource material for value education for students, encourage the students about the benefits of implementing professional ethics in their later life as professional. Also Organizing workshops and STCs to motivate the teachers to use value education, yoga and meditation as a tool in making better citizen.

AIM:

To create awareness, inspiration among the students and teachers about the need of higher dimensions of education in becoming enlightened citizens which is achieved by imparting techniques and Knowledge for promoting human values and thereby making better engineers with the better use of ethics and moral values in professional and personal lives.

OBJECTIVE:

1. Introduction of an audit course in the 1st year with appropriate credit weightage on ethics, human values, social and spiritual values.
2. To undertake research in the area of "Interaction of Science, Technology and Human Values" and to promote an understanding of its implications.
3. Organizing workshops to train teachers of various technical institutions in this field

ORGANISATIONAL STRUCTURE:

Dr. T. Vijaya Kumar (Department of Civil Engineering)	Co-ordinator
Sh. Anoop Lather, PRO	Advisor
Dr. Yasha Hasija (Department of Biotechnology)	Deputy Co-ordinator

Dr. Vikas Gupta (Delhi School of Management)	Deputy Co-ordinator

ACTIVITIES UNDERTAKEN:

1. The centre proposed various foundation courses for the undergraduate students and the course which is offered in the academic year 2019-20 is **FEC 47 Value driven leadership.**
2. The centre took initiative for the inner well being of an individual whether being a student, staff or teacher, in the form of expert lecture and periodical sessions with yoga and meditation experts. Also, weekly meditation sessions being conducted in the campus regularly.
3. MoU has been made with Heartfulness Institute for exchange of their faculty for training, research and retreat.
4. One day workshop has been organized by the centre with the assistance of TEQIP on July 26th on the theme "Professional excellence through values Meditation and Self Management".
5. In collaboration with HRDC DTU, the centre organized a talk during YUVAAN 2019 by Shri A. P. Durai, IPS (Rtd) on challenges of the today's world and how to overcome it.
6. Conducted sessions on meditation and stress management for Newly inducted first year students during august 2019 in collaboration with Heartfulness Institute
7. Organised 3 days Faculty Development Programme from 21 to 23 October 2019 on Universal Human Values as a Part of student Induction in collaboration with AICTE.
8. Foundation elective on Value driven leadership has been floated for the students
9. Organising weekly meditation session (every Monday) for the benefit of Faculty, staff and students by inviting trainers of meditation (On going)

5.7 TIFAC-CORE in Fiber Optics and Optical Communication

TIFAC CORE @ DTU

TIFAC-CORE in the area of Fiber Optics & Optical Communication has been established in Delhi Technological University (Delhi College of Engineering), Delhi for which an agreement was signed between TIFAC & DCE on July 6, 2004. The activities of this TIFAC-CORE at DCE is supported by TIFAC/DST, Govt. of NCT of Delhi and partners from industries under Mission REACH Program, Technology Vision-2020, Govt. of India.

Vision

To establish a world class knowledge centre providing education in the areas of Fibre Optics and Optical Communication System that promotes research and development leading to innovative applications of Fibre Optics, fostering institute-industry linkages and entrepreneurial culture encompassing all aspects of interaction of light and matter for the betterment of the society." To establish a world class knowledge centre providing education in the areas of Fibre Optics and Optical Communication System that promotes research and development leading to innovative applications of Fibre Optics, fostering institute- industry linkages and entrepreneurial culture encompassing all aspects of interaction of light and matter for the betterment of the society.

Student achievements

- Ritika Ranga received the travel grant to attend SPIE OPTICS PHOTONICS - 2019.
- Pooja Chauhan received the travel grant to attend FIO, 2019.
- Pooja Chauhan received the travel grant to attend SPIE PHOTONICS WEST- 2020.

Activities

- Outreach activity organized by students in School of Excellence on 11 Feb 2020, on the occasion of International day of women and girls in science.
- Invited lecture by Melanie C.W. Campbell, University of Waterloo, Waterloo, Canada on the topic "Optical Imaging of Eye: a window on the eye and brain" was organized on the occasion of National Science Day on 30 Feb 2020, in Seminar Hall, Department of Applied Physics at Delhi Technological university.
- An open online quiz competition on the theme "Light: Concepts and Applications" was organized for the students.
- The Painting and Drawing Competition for School Children was organized on the occasion of International day of light.
- A lecture session on "From antennas to integrated photonics to kilowatt lasers: how to choose your field of study" was organized for M.Sc. and research students was delivered by Mr. Jose Porez (university of Rochester, NY, USA)

Journal Publications

S. No.	Title of paper	Name of the author/s	Name of journal	Year of publication	ISSN number
1	Petal shaped nanoantenna for solar energy harvesting	Ritika Ranga, Yogita Kalra and Kamal Kishor	Journal of Optics	2020	2040-8978
2	Numerical modeling & analysis of AsSe2-As2S5 chalcogenide based step-index optical fiber for nonlinear applications	Saaransh Pandey, Raghav Bansal, Pooja Chauhan, Ajeet Kumar	Materials Today: Proceedings	2020	2214-7853

S. No.	Title of paper	Name of the author/s	Name of journal	Year of publication	ISSN number
3	Computational design & analysis of GeSe2-As2Se3-PbSe based rib waveguide for mid-infrared supercontinuum generation	Rohan Sharma, Surleen Kaur, Pooja Chauhan, Ajeet Kumar	Optik	2020	0030-4026
4	Numerical exploration of coherent supercontinuum generation in multicomponent GeSe2-As2Se3-PbSe chalcogenide based photonic crystal fiber	Pooja Chauhan, Ajeet Kumar, Yogita Kalra	Optical Fiber Technology	2020	1068-5200
5.	Improvement in short-circuited coaxial flange for evaluating microwave superconducting properties at low temperature	Yogita Kalra, Sandhya M Patel, VN Ojha, RK Sinha	Indian Journal of Pure & Applied Physics (IJPAP)	2020	0019-5596
6	Temperature-assisted broadly tunable supercontinuum generation in chalcogenide-glass-based capillary optical fiber	Satya Pratap Singh, Jasleen Kaur, Keshav Samrat Modi, Umesh Tiwari, Ravindra Kumar Sinha	JOSA B	2020	0740-3224
7	High-Q all-dielectric metasurface: super and suppressed optical absorption	Jingyi Tian, Qiang Li, Pavel A Belov, Ravindra Kumar Sinha, Weiping Qian, Min Qiu	ACS Photonics	2020	2330-4022
8	Extremely high figure of merit in all-dielectric split asymmetric arc metasurface for refractive index sensing	Keshav Samrat Modi, Jasleen Kaur, Satya Pratap Singh, Umesh Tiwari, Ravindra Kumar Sinha	Optics Communications	2020	0030-4018
9	TiO2 nanofibres decorated with green-synthesized P Au/Ag@ CQDs for the efficient photocatalytic degradation of organic dyes and pharmaceutical drugs	Anupma Thakur, Praveen Kumar, Devinder Kaur, Nagaraju Devunuri, RK Sinha, Pooja Devi	RSC Advances	2020	2046-2069
10	Green synthesized plasmonic nanostructure decorated TiO2 nanofibers for photoelectrochemical hydrogen production	Anupma Thakur, Praveen Kumar, Sudeshna Bagchi, RK Sinha, Pooja Devi	Solar Energy	2019	0038-092X

S. No.	Title of paper	Name of the author/s	Name of journal	Year of publication	ISSN number
11	Boosting photoelectrochemical performance of GaN nanowall network photoanode with bacteriorhodopsin	Pooja Devi, Anupma Thakur, Dibyendu Ghosh, E Senthil Prasad, SM Shivaprasad, RK Sinha, Praveen Kumar	International-al Journal of Hydrogen Energy	2020	0360-3199
12	Study of Sonication Assisted Synthesis of Molybdenum Disulfide (MoS2) Nanosheets	Siddharth Kaushik, Umesh K Tiwari, Ravi Kant Choubey, Kamaldeep Singh, Ravindra K Sinha	Materials Today: Proceedings	2020	2214-7853
13	High-Performance Dual Cavity-Interferometric Volatile Gas Sensor Utilizing Graphene/ PMMA Nanocomposite	Dnyandeo Pawar, Rajesh Kanawade, Ajay Kumar, Ch N Rao, Peijiang Cao, Shankar Gaware, Dattatray Late, Sangeeta N Kale, ST Navale, WJ Liu, DL Zhu, YM Lu, Ravindra K Sinha	Sensors and Actuators B: Chemical	2020	0925-4005
14	Negative axicon tip micro-cavity with a polymer incorporated optical fiber temperature sensor	Dnyandeo Pawar, Ajay Kumar, Rajesh Kanawade, Samir Mondal, Ravindra K Sinha	OSA Continuum	2019	25787519
15	Fano Resonant Cuboidal Dielectric Nanoantennas	Reena Reena, Yogita Kalra, Ajeet Kumar	Optics and Spectrosco-py	2019	0030-400X

Conference Publications

S. No.	Title of paper	Name of the Author/s	Name of Conference	Year of publication	ISSN Number
1	Dielectric ring based metamaterial perfect reflector	Nishant Shankhwar, Ritika Ranga, Yogita Kalra, Ravindra Kumar Sinha	SPIE OPTICS & PHOTONICS -2019	2019	0277-786X/18
2	Design of arrow shaped nanoantenna for electric field enhancement	Ritika Ranga, Yogita Kalra, Kamal Kishor	SPIE OPTICS & PHOTONICS -2019	2019	0277-786X/18

5. CENTRES AND OTHER UNITS

S. No.	Title of paper	Name of the Author/s	Name of Conference	Year of publication	ISSN Number
3	A multicomponent GAP-Se chalcogenide composition-based rectangular photonic crystal fiber for coherent supercontinuum generation	Pooja Chauhan, Ajeet Kumar, Yogita Kalra, Than Singh Saini	Optical Society of America, FIO-2019	2019	978-1-943580-46-0
4	Mid-Infrared Supercontinuum Generation in Highly Nonlinear AsSe2 Chalcogenide Circular Photonic Crystal Fiber	Pooja Chauhan, Ajeet Kumar, Yogita Kalra	Optical Society of America, FIO-2019	2019	978-1-943580-46-0
5	Polarimetrical optical sensing using plasmonic nanocrescent dimer based nanoantenna arrays	Rishi Aneja, Ayush Paliwal, Jorawar Singh Dham, Pooja Chauhan, Ajeet Kumar	Optical Society of America, FIO-2019	2019	978-1-943580-46-0
6	Ultra-coherent supercontinuum generation in isopropanol-silica based photonic crystal fiber at 1300nm and 1600nm wavelengths	Pooja Chauhan, Ajeet Kumar, Yogita Kalra	SPIE Photonic West-2020	2020	0277-786X
7	All-dielectric complementary-asymmetric-arcs metasurface based refractive index sensor	Keshav Samrat Modi, Jasleen Kaur, Satya Pratap Singh, Umesh Tiwari, Ravindra Kumar Sinha	Laser science, Optical Society of America - 2019	2019	978-1-943580-46-0
8	Fano-resonance based tunable all-dielectric metasurfaces	Keshav Samrat Modi, Jasleen Kaur, Satya Pratap Singh, Umesh Tiwari, Ravindra Kumar Sinha	SPIE Photonic west-2020	2020	0277-786X
9	Dielectric Metamaterial based Broadband Reflector in Visible spectrum	Baljit Singh, Yogita Kalra, Kamal Kishor	Optical Society of America, FIO-2019	2019	978-1-943580-46-0

5.8 Centre for Advanced Production and Industrial Engineering

Research

CAPIER, Centre for Advanced Production and Industrial Engineering Research, a Centre for Excellence has been established on 8 April 2015. CAPIER is known for organizing expert lectures, workshops and industry institute interactions. CAPIER invite B. Tech. & M. Tech. students for internship during summer and winter holidays.

CAPIER also organizes visit to industries for motivating the students towards advanced technology. CAPIER holds a name in the institution for supervising many good projects for B. Tech., M. Tech., and at the level of Ph. D. CAPIER also support IJAPIE, an International Journal in the Area of Production and Industrial Engineering, a peer reviewed journal with ISSN 2455 - 8419.

CAPIER initiated organising an international conference in the name of ICAPIE. The first international conference ICAPIE-2016, and was are at success. The second international conference ICAPIE '17 was arranged in partnership with many institutions and made a name of its own. The third international conference ICAPIE '18 was held during 5-6, Oct 2018 arranged at

Hotel CASPIA. The proceedings of the conferences were greatly appreciated. The fourth international conference ICAPIE '19 has been planned during 20-21, Dec 2019 to be held at DITE, Delhi.

CAPIER also support faculty development programs and staff development programs. AIM-2015 and SDTSMT-2015 were conducted successfully with sponsorship of TEQIP-II. AMOM 2017 a two weeks program was marked as best FDP by the participants. Pro-De 18 and several other one day seminar cum workshops and Internships were organized.

Industry Institution Interactions were held regularly. A talk on ROBO and practice of Robotics and Automation was organized. CAPIER at Delhi Technological University is getting good name and growing with experienced faculty and budding researchers.

VISION

To be centre for excellence in the area of production and industrial engineering, playing its role in preparing technical teachers and students for future requirements at national and global level.

MISSION

- Faculty Development
- Skill Development
- Entrepreneurship Development
- Research and Publications
- Industry- Institute Interaction

AREA OF RESEARCH

- Materials
- Design
- Production Process
- Manufacturing
- Mechatronics
- CAD/CAM/CIM
- FMS/Automation
- Lean Manufacturing
- Optimizing Techniques
- Quality Control

- Production/Operation Management
- Supply Chain Management
- Project Management
- Financial Management
- Production Economics

- Electronics in Manufacturing
- Power Skills in Manufacturing
- Software Security and Management
- Small Scale Industries Management

OUR TEAM

PRINCIPAL COORDINATOR:	Dr. Ranganath M. Singari
ADVISORY MEMBERS:	Dr. S. K. Garg Dr. R. S. Mishra Dr. Vipin Dr. R. C. Singh Dr. Rajiv Chaudhary
FACULTY COORDINATORS:	Dr. Qasim Murtaza Dr. N. Yuvraj
RESEARCH COORDINATORS:	Mr. Shadab Ahmad Mr. Ravi Butola Mr. Md Jamil Akhtar
RESEARCH CO- COORDINATORS:	Mr. Pradeep Moria Ms. Varsha Pathak Mr. Mohd Tayyab
STUDENT COORDINATORS:	Mr. Gangesh Chawla Mr. Reetik Kaushik
STUDENT CO-COORDINATORS:	Ms. Rani Medhashree Mr. Kartikeya Bector

5.9 IPR CELL

Introduction:-

Intellectual Property Right Cell was constituted on 22.06.2017 and reconstituted on 15.02.2018 under IRD. At present, it has 01 Coordinator and 03 Co-coordinators, detailed as under:-

1. Prof. M.M. Tripathi, Coordinator, IPR Cell
2. Dr. Ram Singh, Co-coordinator, IPR Cell
3. Dr. Anup Mandpura, Co-coordinator, IPR Cell
4. Dr. Asmita Das, Co-coordinator, IPR Cell

List of Patents in year 2019-2020

Year	Granted	Published	Total
2019-20	1	2	3

S. No.	Inventor Name/ No	Title	Date	Status	Dept
		Granted: 01			
1	With Samsung Electronics Co. Ltd./ Sachin Kumar Aggarwal, Kapil Sharma US 10,454,553 B2	Beam forming method for a Transmitting antenna and a device Thereof	Oct 22, 2019	Granted	IT
		Published: 02			
1	With Samsung Electronics Co. Ltd./ Sachin Kumar Aggarwal, Kapil Sharma WO2019245171A1 Int Publication Number	Apparatus and method for transmitting a signal in a wireless power transmitter	Dec 26, 2019	Published	IT
2	With Samsung Electronics Co. Ltd./ Sachin Kumar Aggarwal, Kapil Sharma WO2019235773A1 Int Publication Number	Proximity based access control in a communication network	Dec 12, 2019	Published	IT

5.10 Multidisciplinary Centre for Geoinformatics (MCG)

A Multidisciplinary Centre for Geoinformatics (MCG), was inaugurated on 5th March, 2019 by Hon'ble Vice Chancellor Prof. Yogesh Singh, DTU with the vision to be a world class multidisciplinary centre in the field of Geospatial and Geoinformatics education, research and consultancy. Geoinformatics is described as the science and technology dealing with the structure and character of spatial information, its capture, its classification and quantification, its storage, processing, portrayal and dissemination, and it also includes the infrastructure necessary to secure optimal use of this information.

Vision and Mission:

To be a world class multi-disciplinary Centre in the field of Geospatial and Geoinformatics education, research and consultancy. To establish the multi-disciplinary Centre of Geoinformatics as a global Centre of eminence in the field of Geospatial and Geoinformatics education, research and consultancy. To establish partnerships and collaborations with various national and international space agencies, institutions of eminences in the field and the associated industries. To develop the Centre as a non-profit and self-sustainable Centre.

4th Himalayan Researchers Consortium-2019

Two Himalayan JRFs (Mr. Gopinadh Rongali and Ms. Aayushi Pandey) attended the 4th Himalayan Researchers Consortium-2019 that was held during 26–27 September 2019 at Wildlife Institute of India (WII). Dehradun, Uttarakhand. Mr. Gopinadh Rongali made an Oral Presentation & Ms. Aayushi Pandey presented a Poster to the NMHS Monitoring & Evaluation Committee. Mr. Gopinadh Rongali got a "Best Presentation Award" for research approach to findings and methodologies towards addressing the critical Himalayan issues/challenges

Uttarakhand Glacial Lake Field work

MCG, DTU has been working in National Mission on Himalayan Studies project on GLOFs studies. The study under the project is focused on finding the potential glacial lakes in Alaknanda River basin, Uttarakhand and Satluj River basin, Himachal Pradesh that may be vulnerable due to GLOF. Identification of glacial lakes is being done using Landsat time series data and is known as inventorisation of lakes. Identification of potentially dangerous lakes is also simultaneously done. Recently, while making the inventory of vulnerable lakes, the two research fellows identified one of the possible highest dangerous

glacial lake of Alaknanda basin, Uttrakhand in the western Himalaya which may also be a potential vulnerable lake for GLOF. This Glacial lake is situated at an altitude of 5584 m (Lat/ Long: 30°58'33.26'' N, 79°27'33.52'' E) and is possibly one of the highest potentially dangerous lake at this
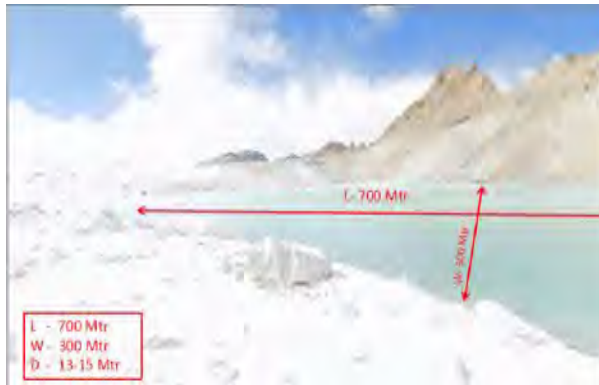
Figure: Field photograph of the Lake

Figure: Field photograph of the Lake

Figure: Field photograph of the Lake

altitude particularly because of Army and ITBP staying nearby. The maximum surface area of the lake as assessed from the satellite image, acquired on 16 September 2018, is approximately 0.21 sq.km2. In order to validate the findings and also to ascertain various other physical parameters of the lake, a massive field work was carried out from 29 September, 2019 to 11 October, 2019 ahead of Joshimath in general area Ghastoli and Raktakona, Uttrakhand. Both the JRFs along with two students of M.Tech. Geoinformatics (Mr. Vishal and Mr. Vivek) took part in the field work. Since the area fell along the Indo-China border, the mobilization not only required Inner Line Permit from the SDM Joshimath but also successive stages of acclimatization and support and permission of both the Indian Army and ITBP (Mana, Ghastoli and Raktakona). The mission was accomplished successfully, the field data has been collected in the form of lake photographs, videos and soil samples. The data is being analysed and the flood modelling carried out.

COVID-19 Dashboard work for Delhi Districts using GIS

Emergence of coronavirus disease 2019 (COVID-19) as the latest pandemic affecting humans across the world is the only prominent news today. The whole world as well as our country is grappling with it. More than half of the humanity has undergone unprecedented lockdown and everyone has been trying to somehow contribute towards the effort of containment of spread of this disease. At MCG, we created GIS maps for different districts of Delhi to provide GIS support to districts of Delhi to facilitate their planning. GIS maps was created by students who worked from home during COVID.

5. CENTRES AND OTHER UNITS
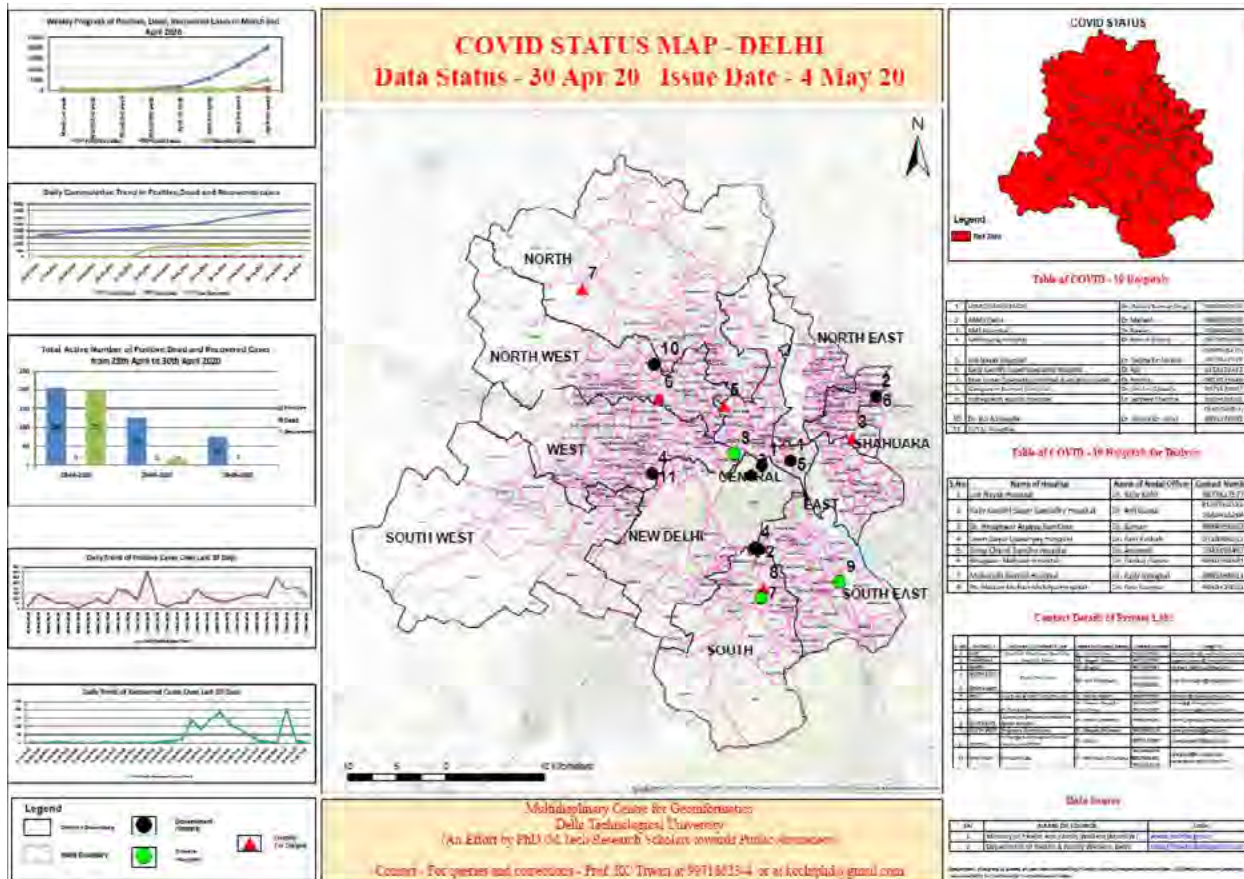
Summer Internships

MCG, DTU has been created with an aim to proliferate Geospatial/Geoinformatics education in the country. An online internship program was therefore initiated to help students who want to gain knowledge in this field. The focus of this internship program was, "Learn by Working" and in lieu of watching/attending lectures, learn by making use of online free data and software. In view of the large number of students who enrolled, the internship was run in two parts–(i) Month 1 -Introduction to fundamentals. (ii) Month 2 & 3 Advanced aspects and a project. The Fundamentals were taught in one of the following subject areas (i)

Remote Sensing Photogram-metry and Satellite Image Processing (Ms. Shalini, RA) (ii) Introduction to Geographic Information System and Web GIS (Ms. Ayushi, Guest Faculty), (iii) Surveying, Satellite Geodesy, GPS/GNSS (Mr. Dwijendra Pandey, RA), (iv) Microwave and Lidar Remote Sensing (Mr. Gopinadh Rongali, SRF) and (v) Advanced Image Processing in Geo-informatics (Ms. Rubeena, Ph.D. student). In Month 2 & 3, advanced aspects and a project of a choice of the student was completed. A total 170 students were received a e-Certifcate from Multidisciplinary Centre for Geoinformatics on successful completion of the first month of the course and the projects will conclude by October end.

Geospatial Subject Approved by AICTE for GATE and NET Examination

Students competing for the popular National Eligibility Test (NET) for Junior Research Fellowship (JRF) and lectureship in Indian universities and colleges, including IITs and NITs and Graduate Aptitude Test in Engineering (GATE) for JRF in CSIR laboratories, can now opt for Geospatial Technologies as a subject. The All India Council of Technical Education (AICTE) has approved the inclusion of Geospatial Technologies as a subject in GATE and NET examination on the recommendation of All India Board for PG Education and Research based on the the recommendations of the National Geospatial Task Force Report

2013 under the Chairmanship of former ISRO Chairman, Dr. K. Kasturirangan. Department of Science and Technology (DST) has acknowledged the efforts of Dr. KC Tiwari on their website, quote, "Dr. K. C. Tiwari (Retd. Col), Department of Science and Technology's Geospatial Chair Professor, Centre of Geoinformatics, Delhi Technological University, had made sincere efforts for inclusion of Geospatial Subject in the GATE and NET examination, and the decision was an outcome of DST's insistence and his hard work. This will benefit the increasing number of students who are taking up geospatial as a subject at different levels and help in the evolution of Geospatial Ecosystem in the country", unquote. This has been covered by the media as well.

Home >> AICTE approves inclusion of Geospatial subject in GATE and NET exam

AICTE approves inclusion of Geospatial subject in GATE and NET exam

Students competing for the popular National Eligibility Test (NET) for Junior Research Fellowship (JRF) and lectureship in Indian universities and colleges, including IITs and NITs and Graduate Aptitude Test in Engineering (**GATE**) for JRF in CSIR laboratories, can now opt for Geospatial as a subject.

The All India Council of Technical Education (AICTE) has approved for the inclusion of Geospatial subject in GATE and NET examination on the recommendation of the National Geospatial Task Force Report 2013 under the Chairmanship of former ISRO Chairman, Dr. K. Kasturirangan.

Department of Science and Technology (DST) as an organisation and many professionals have highlighted the need for Geospatial subject especially in GATE and NET examination at different forums.

Dr. K. C. Tiwari (Retd. Col), Department of Science and Technology's Geospatial Chair Professor, Centre of Geoinformatics, Delhi Technological University, had made sincere efforts for inclusion of Geospatial Subject in the GATE and NET examination, and the decision was an outcome of DST's insistence and his hard work.

PhD-Final Defence/PrePhD

- Ms. Rubeena Vohra (2K13/PhD/CE/03), thesis title – "Object Based Classification Using Multi-Resolution Image Fusion successfully Defended her Ph.D. thesis.

- Ms. Amrita Bhandari (2K13/PHD/CE/04), thesis entitled "Target detection and enhancement in hyperspectral data using Super resolution mapping" completed her pre-Ph.D. and submitted her thesis in the Department of Civil Engineering.

- Mr. Dwijendra Pandey (2K17/PHD/ECE/09), Thesis title – "Detection and Identification of Engineered Surfaces using Imaging Spectometry", completed his pre-Ph.D. and submitted his thesis in the Department of Electronics & Communication Engineering.

Papers published in International Journals

i) Pandey, D. and Tiwari, K.C., 2020. Extraction of Urban Built-up Surfaces and Its Subclasses using Existing Built-up Indices with Separability Analysis of Spectrally Mixed Classes in AVIRIS-NG Imagery. Advances in Space Research (SCI, IF- 2.177).

ii) Pandey, D. and Tiwari, K.C., 2020. Feature Identification and Extraction of Urban Built-up Surfaces and Materials in AVIRIS-NG Hyperspectral Imagery. Geocarto International, (just-accepted), pp.1-18 (SCIE, IF- 3.789).

iii) Pandey, D. and Tiwari, K.C., 2020. Performance evaluation and comparative assessment of Sentinel-2B, Landsat-8, and AVIRIS-NG sensor imageries for extraction of road and roof surfaces using different algorithms.

Journal of Applied Remote Sensing, 14(3), p.034502 (SCIE, IF- 1.36).

iv) Pandey, D. and Tiwari, K.C., 2020. New Spectral Indices for Detection of Urban Built-Up Surfaces and its Subclasses in AVIRIS-NG Hyperspectral Imagery, Geocarto International (SCIE, IF- 3.789).

v) K. C. Tiwari, Amrita Bhandari (2020). "A Euclidean Distance based Super Resolution method for Sub Pixel target detection in Hyperspectral Images", GIS Business, https://journals.Eduinde.org/index.php/gis/article/view/18901. 15(2), 104-124. (Status- Paper Published).

Papers under review in International Journals

vi) Pandey, D. and Tiwari, K.C. Spectral Library Creation and Identification of Significant Wavelengths for Urban Built-Up Surfaces and Materials using Field Spectrometry, Arabian Journal of Geosciences (SCIE, IF- 1.327) (Accepted with revision).

vii) Pandey, D. and Tiwari, K.C. Development of Spectral Index for Road Condition and Roof Deterioration Analysis using AVIRIS-NG and Field Hyperspectral Data, PFG – Journal of Photogrammetry, Remote Sensing and Geo-Information Science (SCIE, IF- 1.395) (Under Review).

Papers in International Conference

viii) Extraction of Impervious surfaces using Index based RGB and NIR band combinations in AVIRIS-NG Hyperspectral imagery, IEEE International India Geoscience and Remote Sensing Symposium 2020 (Accepted for Oral presentation)

5.11 Entrepreneurship Development Centre (EDC)

Entrepreneurship development centre a centre of excellence is providing all under one roof facilities to budding entrepreneurs of the DTU east campus. The aim of the centre is to develop institutional mechanism to create entrepreneurial culture in science and technology and to foster the entrepreneurship and knowledge enterprise development for wealth and employment creation by personals.

The aim of the centre is to guide the budding students to pursue entrepreneurship as their career. The following are the work done at EDC

1. Establishment of EDC office with full time EDC manager.

2. Incubation centre with running three incubation start-ups

3. 4 pre incubation start-ups.

4. Designing of MBA(IEV) and MBA (FBE) program

5. Started and running mentorship program with industry people

6. More than 20 workshops for budding entrepreneurs in the campus.

7. Provided marketing research facility for student entrepreneurs.

5.12 Equal Opportunity Cell

Introduction:

The Equal Opportunity Cell of DTU is set up in the year 2018 with the aim to assist and counsel the students belonging to deprived sections including the scheduled castes, scheduled tribes, women, persons with disabilities, etc. pursuing various programs of studies at the University.

Vision:

To create and sustain the environment in the university which promotes equal human values while respecting the distinct cultural identities.

Mission:

To pursue and realise social inclusion and integration of marginalized sections of Indian society including SC, ST, OBC, women and persons with disabilities (PwD) by identifying and dissuading different types of discrimination that exist in both conscious and unconscious social behaviour. It also aims to contribute for the creation of a society that

is free of discrimination and prejudice, and to promote good relations and foster a vibrant human rights culture.

The main objectives of the cell are:

1. To work out suitable programs/ schemes, including Remedial Courses, for improving the academic performance of students from SC, ST, OBC, women and persons with disabilities (whether at undergraduate, postgraduate, Ph.D. or other levels) and/ or to monitor the implementation of such programs/ schemes;

2. To coordinate with government and other funding agencies (including Public Sector Undertakings/ Public Sector Banks) with a view to mobilise financial and other resources required for educational empowerment of the students from marginalized sections.

3. To disseminate the information and act as a counselling-cum-guidance centre for students belonging to the marginalized sections, especially with regard to academic, financial and social matters;

4. To help and develop a cordial inter-personal relationship among students and between teachers and the students from marginalized sections for academic interaction and extra-curricular activities; by sensitising the teaching and other staff.

5. To promote a social and psychological environment to raise awareness on sexual harassment and gender based discrimination against women.

6. To organize or conduct seminars/ symposia/ workshops/ conferences/ exhibitions/ training program, etc. from time-to-time on issues of contemporary significance for empowering, educationally and culturally, students belonging to the marginalized sections.

The following are the office bearer's:

1. Prof. Rachana Garg, Professor (Elect. Engg Deptt.) Director

2. Prof. T. Vijay Kumar, Associate Professor (Civil Deptt.) Additional Director

3. Dr. Geeta Singh, Assistant Professor (Env. Engg Deptt.) Assistant Director

4. Ms. Minni Jain, Assistant Professor (CSE Deptt.) Assistant Director

Activities done so far:

- An Ayurvedic doctor has been called to give advice to the participants regarding common health issues of women. Also, Bone Density Test of the participants was done and accordingly iron / calcium tablets were distributed.

- Remedial classes for interested students of SC/ST/OBC/Women/differently abled persons / students of any category securing less than 30% marks in mid semester exam have been arranged.

- Organised a motivational lecture by Mr. Rishi Ranjan on 1st November 2019.

- A Self Defence Training Programme, in collaboration with Delhi Police, has been organized on 4th November 2019. The objective of training program is to empower women and their capacity enhancement.

6 Alumni Affairs

Alumni office:

Prof. Pravir Kumar, Dean Alumni Affairs

Under the esteemed leadership of Prof. Yogesh Singh, Hon'ble Vice chancellor of DTU; the main aim of alumni office is to closely in touch with alumni to understand how to engage the alumni network and job market in the benefit of our current students and at large the University and nation. Furthermore, alumni affairs office, DTU is a connecting link between alumni activities and DTU. DTU office of alumni affairs is also taking active participation in the alumni associations meet, arranging annual meet of golden and silver jubilee events, sponsorship programme for B.Tech, M.Tech. and Ph.D. students. Another work of this office is to enable alumni to understand the need of their alma mater in terms of sponsorship and infrastructure development. Furthermore, Alumni affairs office is also updating the activities of alumni portal at DTU web page. In order to strengthen the alumni and to better connect with such a diverged flag bearers of the University, we are establishing many outreach efforts, for instance, over the years we have developed many databases, alumni affairs website, Facebook, LinkedIn and WhatsApp groups. Currently, we have American, European, Singapore, Middle East groups apart from national/local chapters of Bangalore, Delhi and Hyderabad. The outcome of our alumni accomplishments routinely published in the university news bulletin "DTU times". Our DCE DTU alumni association is very strong and active in arranging yearly Silver and Golden Jubilee alumni meet. After, that overseas chapter meets, several alumni visited their alma mater and many new initiatives have been started. Further, it also encouraged many alumni to donate/contribute funds for the development of their alma mater.

Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution (INR in Lakhs)

Name of the Principal Investigator/ Co Investigator	Name of the Funding agency	Type (Government/ Non - Government)	Department of Principal Investigator/ Co Investigator	Year of Award	Funds provided (INR in lakhs)	Duration of the project
-----------	-------------	Goswami Brothers Scholarship	------------	2020 onward	---------	Forever

Alumni contribution (Amount in Rupees)

Name of the alumnus/ alumni association	AADHAR / PAN	Year of graduation	Year of contribution	Quantum of contribution (INR)
Dr. Bhuvenesh C. Goswami	------------------	1959	2020	5 Lac

Number of Alumni Association /Chapters meetings held during the last five years.

Year	Number of alumni association meetings	Dates of meetings	No. of members attended	Total no. of alumni enrolled
2018	Bangalore DTU chapter Meet	28.12.2018	20	20
2019	Homecoming meet for Golden and Diamond Jubilee batches	8.02.2019- 9.02.2019	150	150
2019	Annual DCE DTU Meet at Delhi	16.03.2019	500	500
2019	Alumni visit of 1974 batch	26.07.2019	40	40
2020	Homecoming meet for Golden Jubilee batches	10.01.2020- 11.01.2020	160	160

7   Outreach and Extension Activities

Board of Management in its 27th meeting on 23.2.2018 has approved the establishment of Center for Extension and Field Outreach at DTU. The role of the center is to extend knowledge and other institutional resources to the community and vice-versa and to gain insights from a contact between knowledge resources and socio-cultural realities with a view to reflecting these in the entire curricular system of higher education including teaching and research. It will be a two-way process between the experts and the people, an intellectual intervention in the community's living problems which need to be overcome through an educational process. It was to be that education which helped students to face life and its challenges and which created an ambience for a learning society.

AIM:

To promote a meaningful and sustained rapport between the University and the community.

OBJECTIVE:

1. To extend knowledge and other institutional resources to the community and vice-versa.
2. To gain insights from a contact between knowledge resources and socio cultural realities with a view to reflecting these in the entire curriculum system of higher education including teaching and research.
3. To provide two-way process between the experts and the people.
4. To provide an intellectual intervention in the community's live problems.
5. To promote the philosophy of extension and outreach as a part of total education program.
6. To reach out to larger section of community specially deprived groups through extension.

7. To enrich the learning process of faculty and students mainly through extension activities.
8. The interest of the students should be considered for academic credit (1 or 2) in addition to or as a part of their regular course of studies.

Broad categories of Program:

1. Services to Schools and Colleges
2. Services to the Community
3. Services in the University Campus

Participation of students in extension activities with Government / Non-Government Organisations and Programmes:

*   Educational Activities which include Teaching and Counseling of students of Delhi Govt. Schools was conducted in the year 2019 onwards where approximately 240 students participated.

Initiatives taken to engage with and contribute to local community:

*   Two days program for HOS/Principals of Govt Schools to enhance skills and knowledge of Govt school teachers towards science, engineering and technology was organized on 27.09.2019 and 28.09.2019 to address the issue of scientific awareness. The program was attended by 80 participants.
*   Open House for School Students on 17.10.2019 (St. Xavier School) was organized on 17.10.2019 (1 Day) attended by 60 students to promote Awareness amongst school students towards science, engineering and technology while giving them an opportunity to visit DTU by providing Practical knowledge of laboratories and scientific equipment installed in labs of DTU.
*   Open House for School Students on 1.11.2019 (SKV, Rajouri Garden Extension)

was organized on 01.11.2019 (1 Day) attended by 25 students to promote Awareness amongst school students towards science, engineering and technology while giving them an opportunity to visit DTU by providing Practical knowledge of laboratories and scientific equipment installed in labs of DTU.

- Open House for undergraduate Students & Faculty of SGT University Gurgaon was organized on 28.02.2020 (1 Day) attended by 35 students to promote Awareness amongst college/ University students towards science, engineering and technology while giving them an opportunity to visit DTU campus by providing In hand and practical experience of facing various equipment, laboratories and other infrastructure of an engineering institution.

- National Level Awareness Program (NLAP) was conducted in association with KVIC (Khadi Village and Industries Commission), MSME, Govt of India which included Seminar on Startups, Employment Generation and awareness of several schemes that can benefit every entrepreneur for acquiring business loans easily through central government schemes on 19.02.2020 (Half Day) with approx. 150 students. The awareness program helped disseminate information on entrepreneur-ship schemes implemented by various departments of Ministry of MSME.

- Conductance of online lecture series on science, engineering and other allied subjects on 11.04.2020 (2 hrs) on the topic Sustainable & Cost-Effective Construction Practices with approx. 220 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 08.04.2020 (2 hrs) on the topic Sustainability in Construction Engineering with approx. 260 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 24.04.2020 (1 hrs) on the topic Self Compacting Concrete & Concreting Challenges with approx. 435 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 08.05.2020 (1 hrs) on the topic Research - An insight (Geo Technical Engineering) with approx. 220 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 14.05.2020 (1 hrs) on the topic Sustainable Energy Sources for the Transportation Applications with approx. 190 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 19.05.2020 (1 hrs) on the topic Wraparound Reinforcement Technique for Shallow Foundation with approx. 220 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 26.05.2020 (1 hrs) on the topic with Low Global Warming Potential –Eco friendly Future Refrigerants approx. 160 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 29.05.2020 (1 hrs) on the topic Predictive Modeling using Machine Learning Techniques with approx. 200 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 30.05.2020 (1 hrs) on the topic Landslide mitigation using flexible solutions in Himalayan terrain with approx. 210 participants.

- Conductance of online lecture series on science, engineering and other allied subjects on 09.06.2020 (1 hrs) on the topic Atmospheric Disaster and Covid 19 with approx. 200 participants.

8   International Affairs

ANNUAL REPORT DATA – 2019-20 (1st August, 2019 – 31st July, 2020)

Admission 2019-20

In the academic year 2019-20 the Office of International Affairs, DTU has admitted foreign national students from approximately 30 countries.

Total Foreign National Student Admitted in Academic Year 2019-20

Mode	BOYS					GIRLS					Grand Total
	B.Tech	M.Tech.	MBA	PhD	Total	B.Tech	M.Tech.	MBA	PhD	Total	
ICCR	59	15	3	2	79	22	5	4	-	31	110
SII	13	1	-	1	15	3	-	1	-	4	19
DTU Portal	5	-	-	-	5	-	-	-	-	-	5
DASA	50	-	-	-		16	-	-	-	16	66
Total Foreign National Student Admissions in Academic Year 2019-20											200

Details of program organized for DTU International Students

S. No.	Program	Duration
1	Physics and Mathematics Classes for Foreign National Undergraduate Student for Academic Year 2018-19	05.08.2019 to 13.09.2019
2	Classes for bridge course on 12th standard Mathematics and Physics for foreign national students coming to DTU (for B.Tech. program) in the academic year 2019-20.	26.8.2019 - 26.10.2019
3.	Providing Financial Assistance for aspiring student for international internship	

Details of program organized by Department of International Affairs:

S. No.	Program	Details of the Program	Date
1	US Mini Education Fair	35 renowned Universities from USA participated in the event for interacting and advising students on the following: Possibilities for higher education at their respective University. Scholarships. Internships.	02.09.2019

S. No.	Program	Details of the Program	Date
2	n + i French Universities Education Fair	Interaction with students of DTU for informing them about the scholarship and internship program at their Universities	19.09.2019
3	Workshop on "Artificial Intelligence and the Deep Learning Revolution" by Prof. Guy Brown, University of Sheffield, UK.	Interaction with final year students	31.012020
4	Seminar on "India-Taiwan: Research Opportunities in Taiwan" by Education Division Taipei Economic and Cultural Center in India	Interaction with students to explore research environment and scholarship opportunities in Taiwan	24.02.2020
5	International students friendly football match	International students for a friendly football match with the students of Sharda University	29.2.2020

Visit of International Universities in DTU

S. No.	Name of the Visitor	Name of the University	Date
1	US delegates meeting with officers of DTU	35 renowned Universities from USA	02.09.2019
2	Visit of delegation from French Institute	n + i French Universities	19.09.2019
3	Visit of delegates from Indonesia	13 Indonesian Universities	25.09.2019
4	Ms. Laura Štāle, Head of International, Cooperation Unit & Ms. Zane Purlaura, Deputy Director, Foreign Students Department.	Riga Technical University, Latvia	02.12.2019
5	Prof. Yongan Zheng - Director/ Chairman of NUAA Council, Prof. Xu Zhengyang - Vice Dean of Graduate School, Mr. Cunfa Gao - Dean, College of Aerospace Engineering	Nanjing University of Aeronautics and Astronautics, China	24.12.2019
6	Prof. Delia B.Senoro, Visit of Director, Office of International Linkages for R & D	Mapua University, Philippines	27.12.2019

S. No.	Name of the Visitor	Name of the University	Date
7	Mr. Philipp von Ritter, Science Counsellor Ms. Bhumica Chugh, Adviser, Science & Technology Mr. Apoorv Mahendru, Deputy Director, German Academic Exchange Service (DAAD) Mr. Vaibhav Agarwal, Deputy Director, German Research Foundation (DFG)	Embassy of Federal Republic of Germany to India	14.01.2020
8	Associate Prof. Li-Wei Chen - Vice Dean of International Affairs & Ms. Peggy - Coordinator, International Affairs	National Formosa University, Taiwan	17.01.2020
9	Ms. Wiebke Doerfler, Managing Director- Dr. Sangeetha Parthasarathi, Director – Bangalore, India.	Bavarian-Indian Centre for Business and University Cooperation from Hof, Germany.	28.01.2020
10	Prof. Radu Barna, Director of International Affairs	IMT Mines Albi, France	28.01.2020
11	Prof. Dr. Roland Böttcher & Prof. Frohn-Schauf	Indo German Center for Higher Education, Germany	17.02.2020

Visit of DTU IA officers to International Universities

S. No.	Name of the Visitor	Name of the University	Date
1	Prof. Vishal Verma	University of the Philippines-Diliman	19.11.2019
2	Prof. Vishal Verma	Technological Institute of the Philippines, Manila, Philippines	19.11.2019
3	Prof. Vishal Verma	Mapua University, Philippines	21.11.2019
4	Prof. Vishal Verma	The Silesian Technical University, Gliwice, Poland	04.03.2020
5	Prof. Vishal Verma	Warsaw University of Technology, Warsaw, Poland	05.03.2020
6	Dr. Roli Purwar	University of Colombo, Sri Lanka	16.01.2020

International visits of Officers of International Affairs for the purpose of branding and advertising the University

S. No.	Name of the Visitor	Name of the University	Date
1	Dr. Ruchika Malhotra	World Education Expo in Indonesia	25.09.2019 – 4.10.2019
2	Dr. Roli Purwar	Study-in-INDIA, BMI Global Education Fair, Vietnam	11th - 13th October, 2019
3	Prof. Vishal Verma	QS World Grad School Tour held in Manila Philippines	15.11.2019 to 20.11.2019
4	Dr. Roli Purwar	Study in India Education fair in Colombo, Sri Lanka	17th - 19th January, 2020
5	Dr. Rahul Katarya	Sakura Science Exchange Program - Japan	26th January - 1st February 2020
6	Prof. Vishal Verma	Poland International Education Fair (33rd annual fair in 2020), organized by Perpektywy	1st March, 2020/ - 8th March, 2020

MoUs

Numbr of functional MoUs with institutions of national, international importance, other Universities, industries, corporate houses etc, during 2019-20

S. No.	Organisation with which MoU is signed	Name of the Institution/ Industry/ corporate house	Year of signing MoU	Duration	List the actual activities under each MoU year wise
1	EPF, ÈCOLE D INGÈNIEUR – E – S, France		2019	5 years	Knowledge sharing
2	Balitar Islamic University, East Java, Indonesia		2019	5 years	Knowledge sharing
3	Dr. Soetomo University, Surabaya, Indonesia		2019	5 years	Knowledge sharing
4	Mandala College of Economics, East Java, Indonesia		2019	5 years	Knowledge sharing
5	PGRI Adi Buana, East Java, Indonesia		2019	5 years	Knowledge sharing
6	STIE Wilwatikta, East Java, Indonesia		2019	5 years	Knowledge sharing
7	STIKI Malang, East Java, Indonesia		2019	5 years	Knowledge sharing

S. No.	Organisation with which MoU is signed	Name of the Institution/ Industry/ corporate house	Year of signing MoU	Duration	List the actual activities under each MoU year wise
8	STTM, East Java, Indonesia		2019	5 years	Knowledge sharing
9	Universitas Wisnuwardhana Malang, East Java, Indonesia		2019	5 years	Knowledge sharing
10	University of Kanjurahan, East Java, Indonesia		2019	5 years	Knowledge sharing
11	University of Pesantren Tinggi Darul'Ulum, Jombang Indonesia		2019	5 years	Knowledge sharing
12	Widya Kartika University, Surabaya, Indonesia		2019	5 years	Knowledge sharing
13	PGRI, Madiun		2019	5 years	Knowledge sharing
14	STT Atlas Nusantara, Malang		2019	5 years	Knowledge sharing
15	Nanjing University of Aeronautics & Astronautics, China		2019	5 years	Knowledge sharing
16	Universitas Mercu Buana, Jakarta, Indonesia		2020	5 Years	Knowledge sharing
17	La Trobe University, Victoria, Australia		2019	5 Years	Knowledge sharing
18	Technical University of Crete, Chania, Crete, Greece		2019	5 Years	Knowledge sharing
19	University of Transport Technology, Vietnam		2019	5 years	Knowledge sharing
20	National Formosa University, Taiwan		2020	5 Years	Knowledge sharing
21	Mapua University, Philippines		2019	5 Years	Knowledge sharing

9   Internal Quality Assurance Cell

The Delhi Technological University, Delhi has emerged as one the premier Technological institutions of our great country with state of the art facilities, world class education, training, research and consultancy in the arena of engineering and technology, applied science and management and has become fully networked with industries on one hand and the academic and scientific community in the world on the other. As an internal mechanism for sustenance, assurance and enhancement of the quality culture of education, Delhi Technological University (DTU) has established the Internal Quality Assurance Cell (IQAC) for maintaining the momentum of quality consciousness.

DTU-IQAC, in fact, is conceived as a mechanism to build and ensure a quality culture at the University level to meet the diverse needs of the stakeholders. The DTU-IQAC is meant for planning, guiding and monitoring Quality Assurance and Quality Enhancement activities of the University. The IQAC channelizes and systematizes the efforts and measures of the University towards academic excellence and is a facilitative and participative organ of the University.

The DTU-IQAC is a driving force for ushering in quality by working out intervention strategies to remove deficiencies and enhance qualities.

Present structure of IQAC

CHAIRPERSON

- Prof. Yogesh Singh, Hon'ble Vice Chancellor, DTU

MEMBERS

- Prof. S.K. Garg, Pro Vice Chancellor
- Prof. Anu Singh Lather, Vice Chancellor, Ambedkar University, Delhi
- Prof. Madhusudan Singh, Dean, Academic (UG)
- Prof. H.C. Taneja, Dean, Academic (PG)
- Prof. A. Trivedi, Dean (IRD)
- Prof. Nirendra Dev, HoD (Civil Engineering)
- Prof. Neeta Pandey, Department of Electronics & Communication Engineering
- Prof. V.K. Minocha, Department of Civil Engineering
- Prof. Samsher, Registrar

EXTERNAL EXPERTS

- Prof. S.G. Deshmukh, Director IIITM Gwalior
- Sh. Sanjeev Kumar Gupta, MD (Corporate Affairs), Accenture
- Sh. Arun Gupta, Alumni

MEMBER SECRETARY

- Prof. M.M. Tripathi, Director IQAC

SPECIAL INVITES

- Dr. Girish Kumar, Associate Director, IQAC
- Dr. Shilpa Pal, Associate Director, IQAC
- Dr. Nilam, Associate Director, IQAC
- Sh. Sanjay Patidar, Assistant Director, IQAC
- Sh. Kamal Pathak, Controller of Examination
- Sh. D.P. Dwivedi, Consultant (Finance and Planning)

Activities under IQAC

Major Works accomplished by Internal Quality Assurance Cell (IQAC) can be summarized as:

1. uring the session of 2019-20, Delhi Technological University has achieved NAAC Accreditation of A Grade (CGPA 3.22 out of 4.0).

2. The NBA Accreditation of 5 departments, viz., Department of Mechanical Engineering, Department of Civil Engineering, Department of Biotechnology, Department of Electrical Engineering, and Department of Electronics and Communication Engineering has been successfully completed.

3. 3. The International Summit in Quality Indices in Higher Education (ISQIHE) was proposed to be organized in the month of March, 2019. But due to spread of COVID-19, and the restrictions imposed by the authorities, it had to be postponed indefinitely.

Preparation and Revision of Quality Manual

Preparation and Revision of Standard Operating Procedure (SOPs)

Preparation of Annual Report

Automation of Attendance, Examination system, Result section etc.

Trainings leading to Quality Improvement

ISO 9001:2015 certification

Academic and Administrative Audit, Green Audit and Safety Audits etc.

NBA, NAAC Accreditation

Standardization of question papers and audit

Feedback of stakeholders, analysis and guidelines for improvements

Decisions of regular IQAC meetings

- **Benchmark of classes to be engaged**
- **Benchmark of Test/Quiz/Assignments etc**
- **Feedback forms**
- **Student Data Base**
- **Annual Report/Annual Quality Assurance Report (AQAR)**
- **IQAC Workshop**
- **Departmental Co-ordinator for IQAC**
- **Website of IQAC (www.iqacdtu.in)**

Trainings Organized by IQAC

- Training for preparation of SOPs by IIQM Jaipur.
- Training for internal auditors for academic and administrative audits by IIQM, Jaipur.
- Training on NAAC and NBA by ESCI Hyderabad.
- Training on Intellectual Property Rights by RGNIIPM, Nagpur.
- Training on Patent Filling by Indian Patent Office.

Feedback Collection and Analysis

- Feedback is collected from Students before End Semester Examination in each Semester.
- Feedback is collected from Teachers, Alumni and parents Yearly.
- Student Satisfaction Survey is Conducted Regularly.
- Collected Feedback/Survey is analyzed and action is taken.

IQAC is committed to accomplish University's Strategic Plan 2019-30

- Participation of University in QS Asia and NIRF Ranking.
- Safety Audit, Green Audit, IT Audit, ERP Audit.
- Collection of Online Monthly Report from Departments/Sections/Divisions.
- Creation of Centralized Database.
- NBA Accreditation of 10 Departments.
- NABL Accreditation of Laboratories.

- Content Development for ICT Enabled Learning.
- Training of Faculty on Communication and Behavioral Skills, e-learning, Best Teaching Practices, Research Project Writing and e-Waste Management.
- Organizing Workshop on Outcome Based Education, Ranking Systems, Green Practices.

10 TEQIP-III Project

Brief Introduction and Objective

1. Delhi Technological University has been selected as Mentor Institute for the TEQIP-III Project for Mentee Institute is Madhav Institute of Technology and Science, Gwalior is w.e.f. April 1, 2017 and shall conclude by March 31st, 2020.

2. The institute is covered under Sub-component 1.3: Twinning Arrangements to Build Capacity and Improve Performance.

Appointment:

Prof. Neeta Pandey, Professor, ECE Deptt. has been assigned the responsibility for execution of TEQIP-III Project as Coordinator in place of Prof. Vikas Rastogi, MED.

Finance Details:

Indicative Category-wise Funding for Key Activities under Sub-component 1.3 under TEQIP-III Project.

S. No.	Activities	Category of Expenditure (Head of expenditure)	Percentage (%)	Cost (In ₹)
1.	Procurement of Goods (equipment, furniture, books LRs, software and minor items) and minor civil works for improvement in teaching, training and learning facilities	Procurement	Upto 50%	2,83,50,000/-
2.	Improvement in Teaching, Learning and Research competence' Improve student learning Student employability Increasing faculty productivity and motivation Establishing a twinning system Twining arrangements with institutions under Sub-component 1.1 to build capacity and improved performance Individual institutional mentors	Academic	At least 40%	2,26,80,000/-
3.	Incremental Operating Cost	IOC	Upto 10%	56,70,000/-
Total			100%	5,67,00,000/-

International Conferences within India

The following International Conferences within India have been attended & presented research papers by the faculty members with financial support from TEQIP-III Project:

1. Prof. M.M. Tripathi, Professor, EED has presented the paper in International Conference on TENCON 2019 during October 17-20, 2019 at Kochi, Kerala.

2. Dr. Raju Sarkar, Associate Professor, Civil Engineering Department has presented the paper in International Workshop on "Advanced Seismology, Seismic Hazards and Earthquake Engineering during December 12 – 17, 2019 at National Institute of Technology, Agartala, Tripura.

3. Prof. Amit Kumar Srivastava, Professor, Civil Engineering Deptt. has presented the paper in Indian Geotechnical Conference on "Geotechnics for Infrastructure Development & Urbanication" (IBC-2019) during December 19-21, 2019 at SVNIT Surat.

4. Prof. Vishal Verma, Professor (EED) & Dean Intl Affairs has presented the paper in "IEEE International Conference on "Power Electronics, Smart Grid and Renewable Energy" (PESGRE-2020) at Cochin, Kerala, India during January 02 to 04, 2020

5. Mr. Sanjay Patidar, Assistant Professor, CSE Deptt. has presented the paper in 8th International Conference on "Frontiers of Intelligent Computing: Theory and Applications" (FICTA-2020) during January 04 – 05, 2020 at National Institute of Technology, Suratkal.

6. Prof. Naveen Kumar, Professor, MED has presented the paper in 8th International Symposium on "Fusion of Science and Technology" (ISFT-2020) during January 06 to 10, 2020 at Faridabad, India.

7. Prof. R.C. Singh, Professor, MED has presented the paper in 8th International Symposium on "Fusion of Science and Technology" (ISFT-2020) during January 06 to 10, 2020 at Faridabad, India.

8. Mr. Sanjay Kumar, Assistant Professor, Computer Science Engineering Department has presented the paper in International Conference on "Sustainable Computing in Science, Technology & Management" (SUSCOM-2020) during January 20 – 22, 2020 at Amity University Rajasthan, Jaipur.

9. Ms. Sonika Dahiya, Assistant Professor, CSE Deptt. has presented paper in 8th International Conference on "Frontiers of Intelligent Computing: Theory and Applications" (FICTA-2020) during January 04 – 05, 2020 at National Institute of Technology, Suratkal.

Equity Actions: Conferences within India for students

The following Workshops & International Conferences within India have been attended & presented research paper by the students with financial support from TEQIP-III Project:

1. Mr. Rajkumar Chakraborty, Ph.D research scholar, BT Deptt. has presented the paper in BIOSPECTRUM 2019, 3rd International Conference on "Biotechnology and biological Sciences University of Engineering and Management" during August 8-10, 2019.

2. Ms. Srishti Vashishtha, Ph.D research scholar, IT Deptt. has presented the paper in International Conference on "Computational Intelligence and Data Science" (ICCIDS 2019) during September 6-7, 2019 at the North Cap University, Gurugram.

3. Mr. Tushar Rana, B.Tech. student, Civil Engineering Department has attended the 2nd International Conference on "Intelligent Communication and Computational Techniques" (ICCT-19) during September 28-29, 2019 at Manipal University, Jaipur.

4. Ms. Roohani, B.Tech. student, IT Deptt. has attended the 2nd International Conference on "Intelligent Communication and Computational Techniques" (ICCT-2019) during September 28-29, 2019 at Manipal University, Jaipur.

5. Mr. Rajul Kumar, B.Tech. student, EED has presented the paper in IEEE International Conference on "Recent Developments in control, Automation & Power Engineering" (RDCAPE-19) during October 10-11, 2019 at Amity University, Noida.

6. Ms. Neha Kumar, Ph.D research scholar, BT Deptt. has presented the paper in International Conference on "Computing, Power and Communication Technologies" during September 27-29, 2019 at Greater Noida.

7. Ms. Sonia, Ph.D research scholar, IT Deptt. has presented the paper in International Conference on "Computing, Communications, and Cyber - Security" (IC4S-19) during October 12-13, 2019 at Chandigarh.

8. Ms. Vasundhara Raj, M.Tech. student, CSE Deptt. has presented the paper in IEEE International Conference on "Computing, Communication and Intelligent Systems" (ICCCIS 2019) during October 18 - 19, 2019 at Sharda University, Greater Noida, Uttar Pradesh.

9. Mr. Rahul Kumar, B.Tech. student, EED has presented the paper in (ICPECA-2019) IEEE Conference on "Power Electronics, Control & Automation" during November 16-17, 2019 at Jamia Millia Islamia University, New Delhi.

10. Mr. Akhilesh Verma, Ph.D research scholar, ECE Deptt. has presented the paper in 2nd Indian Conference on "Antennas & Propagation" (InCAP-2019) during December 19 – 22, 2019 at Ahmedabad.

11. Ms. Pooja Chauhan, Ph.D research scholar, AP Deptt. has presented the paper in International Conference on "Optics & Electro-Optics" (ICOL-2019) during October 19-22, 2019 at Dehradun.

12. Mr. Sushrut, B.Tech. student, MED has presented the paper in GT India ASME 2019 Gas Turbine India Conference during December 05-06, 2019 at IIT Madras, Chennai.

13. Mr. Vipul Garg, B.Tech. student, MED has presented the paper in 4th International and 19th National Conference on "Machines and Mechanisms" (iNaCoMM-2019) during December 5 – 7, 2019 at IIT Mandi.

14. Mr. Suresh Kumar Nagar, Ph.D research scholar, CE Deptt. has attended the "Advanced Course on Wind Loads and Effects on Structures" (WiLES-2019) during December 18 – 20, 2019 at CSIR-Structural Engineering Research Centre, Taramani, Chennai.

15. Ms. Reshma S. Kumar, B.Tech. student, ECE Deptt. has presented the paper in XXth International Workshop on "Physics of Semiconductor Devices" (IWPSD-19) during December 17 – 20, 2019 at Kolkata, India

16. Mr. Anurag Singh, B.Tech. student, ECE Deptt. has presented the paper in 7th Symposium on "Control, Automation, Industrial Informatics and Smart Grid (ICAIS'19) & Co-affiliated with 3rd International Conference on Computing and Network Communications (CoCoNet'19) during December 18 – 21, 2019 at IIITM-K, Trivandrum, Kerala, India.

17. Mr. Neeraj Bhat, B.Tech. student, CSE Deptt. has presented the paper in 3rd International Conference on "Computing and Network Communications" (CoCoNet'19) in 4th Symposium on "Advances in Applied Informatics" (SAI'19) during December 18 – 21, 2019 at IIITM-K, Trivandrum, Kerala, India.

18. Ms. Muskan Goel, B.Tech. student, CSE Deptt. has presented the paper in 3rd International Conference on "Computing and Network Communications" (CoCoNet'19) in 4th Symposium on "Advances in Applied Informatics" (SAI'19) during December 18 – 21, 2019 at IIITM-K, Trivandrum, Kerala, India.

19. Mr. Tanmay Singh, B.Tech. student, IT Deptt. has presented the paper in 2nd International Conference on "Computer Networks, Big Data and IOT (ICCBI-2019) during December 19 – 20, 2019 at Vaigai College of Engineering, Madurai.

20. Ms. Monika, Ph.D research scholar, CSE Deptt. has presented the paper in IEEE 3rd International Conference on I-SMAC (IOT in Social, Mobile, Analytics and Cloud 2019) during December 12 – 14, 2019 at SCAD Institute of Technology, Palladam, Tamil Nadu, India.

21. Ms. Suman Dahiya, Ph.D research scholar, Applied Physics Deptt. has presented the paper in Workshop on Recent Advances in Photonics (WRAP-2019) during December 13 – 14, 2019 at IIT Guwahati, India.

22. Ms. Shruti Sharma, Ph.D research scholar, Applied Physics Deptt. has presented the paper in 12th International Conference on "Plasma Science & Applications" (ICPSA-2019) during November 11 – 14, 2019 at Lucknow, Uttar Pradesh, India.

23. Mr. Sagar Khanna, Ph.D research scholar, Applied Physics Deptt. has presented the paper in 12th International Conference on "Plasma Science & Applications" (ICPSA-2019) during November 11 – 14, 2019 at Lucknow, Uttar Pradesh, India.

24. Seven students team of DTU ALTAIR namely; Mr. Akash Jain, Mr. Anmol Prabhakar, Mr. Aman Dadheech, Mr. Naman Goyal, Mr. Nischit Poojari, Mr. Rishabh Raj Singh and Mr. Pranjal Bajpai have taken part in various robotic competitions in KSHITIJ-2019 during January 18 – 20, 2019 at IIT Kharagpur.

25. Mr. Harsh Agrawal, Ms. Shreshtha Aggarwal, Ms. Mansi Agrawal, and Mr. Archit Goyal of B.Tech. students, IT Department have presented paper in International Conference on Intelligent Computing and Smart Communication (ICSC 2019) during April 19-21, 2019 at THDC IHET, Tehri, Uttarakhand.

26. Mr. Manish Kumar, M.Tech. student, MED has presented the paper in 4th

International Conference on "Advanced Production and Industrial Engineering" (ICAPIE'19) during December 20-21, 2019 at DITE Okhla, New Delhi.

27. Mr. Varun Kumar Singh, M.Tech. student, MED has presented the paper in 4th International Conference on "Advanced Production and Industrial Engineering" (ICAPIE'19) during December 20-21, 2019 at DITE Okhla, New Delh.

28. Mr. Phool Singh, Senior Mechanic & Ph.D. scholar, MED has presented the paper in 4th International Conference on "Advanced Production and Industrial Engineering" (ICAPIE'19) during December 20-21, 2019 at DITE Okhla, New Delhi.

29. Mr. Prateek Sharma & Mr. Mrityunjay Kr. Singh (both Ph.D. students), AP Deptt, have presented the paper in 15th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020) during January 05 – 09, 2020 at DAE Convention Centre, Bhabha Atomic Research Centre, Mumbai

30. Mr. Dushyant Mishra (PhD), Mr. Mukul Tomer (PhD), Mr. Sandeep Kumar Barnwal (M.Tech.) student, MED have presented the paper in 8th International Symposium on "Fusion of Science and Technology" (ISFT-2020) during January 6 – 10, 2020 at J.C. Bose University, Faridabad.

31. Mr. Tushar Malik, B.Tech. student, CSE Deptt. has presented the paper in International Conference on "Sustainable Computing in Science, Technology & Management" (SUSCOM-2020) during January 20 – 22, 2020 at Amity University Rajasthan, Jaipur.

32. Mr. Subrat Sarangi, B.Tech. Student, MED has presented the paper in International Conference on "Sustainable Computing in Science, Technology & Management" (SUSCOM-2020) during January 20 – 22, 2020 at Amity University Rajasthan, Jaipur.

33. Ms. Aastha Maheshwari, Ph.D. student, CSE Deptt. has presented the paper in 10th International Conference on "Cloud Computing, Data Science & Engineering" (CONFLUENCE-2020) during January 29 – 31, 2020 at Amity University Noida, Uttar Pradesh.

34. Mr. Vikas, Ph.D. student, AP Deptt. has presented the paper in National Conference on Luminescence & its Applications (NCLA-2020) during February 10 – 12, 2020 at NIT Warangal.

35. Ms. Kriti Arora, B.Tech. student, IT Deptt. has presented the paper in 3rd International Conference on "Innovative Computing and Communication" (ICICC-2020) during February 21 – 23, 2020 at Shaheed Sukhdev College of Business Studies, University of Delhi, New Delhi.

Faculty Development Programme

The following Faculty Development Programmes have been organized under TEQIP-III Project:

1. One week FDP on "Disaster Mitigation and Management" during November 25-29, 2019 by Civil Engineering Department.

2. One week FDP on "Recent Development in Renewable Energy System" during November 25-29, 2019 by Mechanical Engineering Department.

3. One week FDP on "Recent Research Directions and Key Concepts in Electrical Engineering" during December 2-6, 2019 by Electrical Engineering Department.

Short Term Training Program

The following Short Term Training Programs haa been organized under TEQIP-III Project:

1. One week STTP on "Graph Theory and Its Applications" during November 25 - 29, 2019 by Applied Mathematics Department.

Workshop

The following workshop has been organized under TEQIP-III Project:

1. Two days workshop on "Recent Trends in Welding Technology during August 22-23, 2019 by Mechanical Engineering Department.

International Workshop

The following One (1) International workshop (in-house) has been organized under TEQIP-III Project:

1. Two days International Workshop on "Geohazards Risk Reduction Initiatives in South-East Asia" during November 21-22, 2019 by Civil Engineering Department.

International Conference

The following International Conferences (in-house) has been organized under TEQIP-III Project:

1. Three days International Conference on "Atomic, Molecular, Optical and Nano Physics with applications" (CAMNP-2019) during December 18-20, 2019 by Applied Physics Department (for partial funding).

Induction Training Program:

1. Six days Induction Training program has been conducted for all B.Tech. first year students of 2019-20 session during August 1-6, 2019 at DTU.

Remedial Classes/lectures and other various activities for students:

1. Remedial classes for weaker students have been organized in the subject "Applied Mathematics" by Dr. Vivek Kumar Aggarwal, Asstt. Prof. & "Modern Algebra" by Dr. Dinesh Udar, Asstt. Prof., Applied Mathematics Deptt. during the period from 15th to 22nd November, 2019.

2. An expert Lecture has been organized on "Recent Advances in Thermal Engineering" by Dr. SS Kachhwaha, Professor, PDPU Gandhi Nagar during 1st November, 2019.

3. One (01) student of B.Tech, Mechanical Engg. Department has purchased Raw materials & fabrication for doing their project work.

4. Seven (7) Ph.D scholars from various departments have purchased consumable items, chemicals etc. for doing their research project.

5. An online Diagnostic Assessment Test for (2nd, 3rd & 4th year UG students of CS/IT only) has been successfully conducted by '**652'** students on 18.07.2020 conducted by NASSCOM.

Research Assistantship:

The Hon'ble Vice Chancellor, DTU has approved to give research fellowship to the Ph.D. candidates' in each academic department (imparting Engg./Tech. degree program) on semester basis who shall admit from the session of July, 2018 through TEQIP-III Project fund.

The following students have been taken fellowship is as under:

10. TEQIP-III PROJECT

S. No.	Application No.	Name of the applicant	Category	Name of the Department
1.	1820227	Ms. Garima Singh	OBC	Electronics & Communication Engg. Deptt.
2.	1821736	Mr. Sunil Kumar	Gen	Biotechnology Department
3.	1821220	Mr. Ajeet	Gen	Civil Engineering Department
4.	1820476	Ms. Chitrakshi	ST	Environmental Engineering Department
5.	1821913	Ms. Vidushi	Gen	Computer Science & Engineering Department
6.	1820454	Ms. Radha Sachan	Gen	Information Technology Department

Trainings and Development

1. Dr. Renuka Bokolia Asstt. Professor (Applied Physics Deptt.) Prof. Rajan Yadav (Professor) DSM have attended training program on Management Development Programme for Teaching Staff during August 26-30, 2019 at Coorg, Karnataka.

2. Prof. V.K. Minocha (Professor) Civil Engg. Deptt. & Prof. A. S. Rao (Professor) Applied Physics Deptt. have attended Training Program on "Organizational Productivity through Digital Transformation" during August 26 – 30, 2019 at Kodaikanal.

3. Mr. Brahmendra Thakur (Sr. Mechanic) Applied Physics Deptt. has attended training program on Management Capacity Building Training for Non-Teaching, Administrative & Finance Staff, Lab technicians during August 27-31, 2019 at Coorg, Karnataka.

4. Prof. H.C. Taneja (Professor) Applied Mathematics Deptt., Mr. Yogendra Meena (Asstt. Prof.) Applied Physics Deptt. & Dr. Pravin Kumar (Associate Prof.) MED have attended Training Program on "Modern Office Management focus: Digital India & RTI" during September 14-18, 2019 at Udaipur.

5. Dr. Nand Kumar (Associate Professor) Humanities Deptt. & Dr. Amrish K. Panwar (Assistant Professor) Applied Physics Deptt. have attended training program on "Conflict Resolution & Financial Management" from September 23-27, 2019 at Gangtok, Sikkim.

6. Dr. Mukhtiyar Singh (Assistant Professor) Applied Physics Deptt. has attended Training Program on "Preventive Vigilance & e-Procurement, Key to Good Governance" from September 23-27, 2019 at Puri, Odisha.

7. Dr. Richa Sharma (Asstt. Prof.) Applied Physics Deptt. has attended training program on "Self Development, Organisational Image viz a viz customer centric approach" during October 10 - 13, 2019 at Goa.

8. Mr. Virender Singh (AAO) Accounts branch has attended training program on "Discipline, Vigilance & RTI viz a viz Good Governance" during October 10 - 13, 2019 at Goa.

9. Ms. Sonika Dahiya (Asstt. Prof.) CSE Deptt., Ms. Minni Jain (Asstt. Prof.) CSE

Deptt. & Dr. Bharti Singh (Asstt. Prof.) Applied Physics Deptt. have attended Training Program on "Interpersonal Effectiveness & Team Building" during October 12-16, 2019 at Goa.

10. Prof. A.K. Madan, Professor, MED has attended the Workshop "Computer Integrated Manufacturing/Flexible Manufacturing System (MTAB) during 30.10.2019 to 06.11.2019 at Mumbai.

11. Mr. Sunil Chhikara, SO/PIO, Estt. Branch has attended Training Program on "Discipline, Vigilance & RTI viz a viz Good Governance" during November 27 – 30, 2019 at Manali.

12. Dr. S. Anbu Kumar, Associate Professor, Civil Engg. Deptt. has attended Training Programme on "Advance Course on Secretarial Effectiveness: Capacity Building Programme" from December 09-13, 2019 at Jaisalmer.

13. Dr. N. Yuvaraj, Assistant Professor (MED), Dr. Mohammad Zunaid, Assistant Professor (MED) & Mr. Prem Prakash, Assistant Professor (EED) have attended Training Program on "Resource Management, Monitoring and Evaluation" during December 09-13, 2019 at Goa.

14. Dr. Anil Kumar, Associate Professor, MED has attended the Workshop on "Photovoltaic Technology: From Devices towards Systems" during December 16 – 18, 2019 at IIT Indore.

15. Mr. Sanjay Patidar, Assistant Professor (CSE deptt.) & Dr. Manish Jain, Assistant Professor (AC Deptt.) have attended workshop on "National Workshop on NBA and NAAC Accreditation" from January 27-31, 2020 at Daman-Diu.

16. Prof. Kapil Sharma, Professor (IT Deptt.) has attended Awareness-cum-Proposal Development Workshop & Meeting for submission of your willingness for Center of Excellence on "Cyber Security" at Kottivakkam, Chennai on January 28, 2020.

17. Mr. Nipun Bansal, Assistant Professor (CSE Deptt.) has attended faculty training on future skills for "Train the Trainer" on the subject "Internet of Things (IoT)" at IIT Bombay during February 24-28, 2020 conducted by NASSCOM SSC, NPIU.

18. Mr. Shreyansh Upadhyaya, Assistant Professor (EED) has attended faculty training on future skills for "Train the Trainer" on the subject "Robotics & Automation" during March 2-14, 2020 at IIT Delhi conducted by NASSCOM SSC, NPIU.

Procurement Activity:

1. An equipment "DATA ACQUISITION SYSTEM (9015)" has been purchased in Civil Engineering Department.

2. An equipment "Portable Environmental Particulate Monitor" has been purchased in Applied Physics Department.

3. An equipment "32-Channel Vibration Analyzer" has been purchases in Mechanical Engineering Department.

4. An equipment "Mech-Shearing Machine" has been purchases in Mechanical Engineering Department.

5. An equipment "Polishing and Lapping M/C and Pile Integrity" has been purchases in Civil Engineering Department.

6. An equipment "Molecular Workstation" has been purchases in Biotechnology Department.

7. An equipment "Workstation Desktop" has been purchases in Information Technology Department.

8. An equipment "Real Time Simulator for Micro Grid with Power Emulator" has been purchases in Electrical Engineering Department.

9. A software "Geo Studio Professional" has been purchases in Civil Engineering Department.

10. An equipment "Nitrogen Analyser" has been purchases in Biotechnology Department.

11. A software "Palxis 2D Suite" has been purchases in Civil Engineering Department.

12. An equipment "Micro Hardness Testing Machine" has been purchases in Mechanical Engineering Department.

Twinning Activity:

1. A two days' workshop on "Recent Trends in Welding Technology" during August 22 – 23, 2019 shall be conducted by the Mechanical Engg. Deptt. at DTU with Twinning Partner MITS Gwalior.

2. Prof. Amit K. Shrivastava, CE Deptt. has delivered an expert lecture in One Day National Workshop on "Recent Advances in Geotechnical Engineering–From Theory to Practices on October 19, 2019 at MITS Gwalior, MP.

3. Dr. Mukhtiar Singh, EED, DTU has delivered an expert lecture during International Conference on "Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology" (ICSISCET-2019) on 2 – 3 November, 2019 at MITS, Gwalior.

4. Second BOS meeting attended by (Dr. Mukhtiar singh) & (Dr. D.K. Vishwakarma) on 23.11.2019 at MITS Gwalior.

5. A team of six members of Mentee Institute (MITS, Gwalior) namely, Dr. Laxmi Srivastava, Dr. M.K. Trivedi, Dr. M.K. Sagar, Dr. S. Wadhwani, Mr. V. Chaturvedi & Mr. A. Agarwal (MITS Gwalior team) has attended SAR review process & NBA Accreditation preparation for three under-graduate programs on 25.11.2019 at DTU.

6. Dr. Pushpendra Singh (Twinning coordinator) has attended follow-up meeting for twinning activities on December 11-12, 2019 at MITS Gwalior.

Reports Submission and Participation

1. Action Plan has been submitted to NPIU for the F.Y. 2019-20 (2nd, 3rd & 4th Quarter).and F.Y. 2020-21 (1st, 2nd & 3rd Quarter).

2. Financial Management Indicators for the (01.07.2019 to 30.09.2019), (01.10.2019 to 31.12.2019), (01.01.2020 to 31.03.2020) & (01.04.2020 to 30.06.2020) have been successfully submitted.

3. Internal Audit for the F.Y. 2019-20 has been successfully completed, however, Statutory Audit is under process.

11 Sponsored Research, Consultancy and Projects

Sponsored Projects

S. No.	Name of the Project	Name of the P.I	Sponsoring Agency		Department	Date	Year	Amount
1	Fabrication of colon targeted coagen-bioglass corona through oral delivery for bone regeneration	Ms. Manjot Kaur,P.I and Dr. Deena Santhiya Mentor	DST-KIRAN	Govt.	Applied Chemistry	23.9.2019	2019-20	₹ 27,45,160
2	Valorisation of potato peel waste for bioplastic production and extraction of suberin components	Dr. Rashmi Kataria	DBT	Govt.	Biotechnology	9.8.2019	2019	₹ 1,13,60,000
3	Development and Deployment of motor controller for low to medium power electric vehicles	Dr. Mini Sreejeth	MeitY		Electrical Engineering	13.8.2019	2019	₹ 39,84,000
4	Design and Development of novel instrument retrieval equipment for removal of separated instruments during endodontic therapy	Prof. Rajeev Kapoor	DST-MAIDS-DTU		Electronics	14.10.2019	2019	₹ 29,36,800
5	Energy efficiency and renewable energy management centre	Prof. Priya Mahajan	Deptt. of Power NCT of Delhi		Electrical	31.10.2019	2019	₹ 5,60,000
6	Residual Effects on soil and groundwater quality at different soil strata	Dr. Raju Sarkar	Pollution Control Board Assam		Civil Engineering	20.2.2020	2020	₹ 7,62,000
7	Impact of climate change, land use land cover and socio-economic dynamics on landslides in south and east Asia	Dr. Raju Sarkar	International Science Council		Civil Engineering	14.8.2019	2019	$15000 USD
8	SERB Project Nanomaterials based Biomolecular Electronic Devices	Prof. B.D Malhotra	SERB	Govt.	Biotechnology	05.08.2019	2019	₹ 84,60,000
9	Proposal for setting up research centre of excellence in the field of Terrain Imaging for locomotive drivers.	Prof. Rajeev Kapoor	M&M Logicsoft private limited	Non-Govt.	Electronics	29.2.2020 (VC approval) mentioned by agency 1.10.2019	2019	₹ 80,00,000

S. No.	Name of the Project	Name of the P.I	Sponsoring Agency		Department	Date	Year	Amount
10	Proposal for setting up research centre of excellence in the field of Foreign Object Detection-Civil Aviation Surveillance.	Prof. Rajeev Kapoor	M&M Logicsoft private limited	Non-Govt.	Electronics	29.2.2020 (VC approval) mentioned by agency 1.10.2019	2019	₹ 1 Crore

Consultancy Projects

S. No.	Name of P.I	Name of Consultancy	Consulting Agency	Date	Year	Revenue Generated
1	Prof. Nirendra Dev	Construction of 600 Two BHK, 250 Three BHK and 320 EWS Houses (Design and Built Model) Earmarked in Pocket-9 Sector-A-1 to A-4, Narela, Delhi.	DDA, Delhi	13.08.2019	2019	₹ 1,46,03,863/-
2	Dr. Ritu Raj	G.B.T./R.T.T. Tower Foundation Design/Drawings proof Checking/vetting.	VAS Design	16.08.2019	2019-20	₹ 3,33,350/-
3	Dr. Ritu Raj	Proof Checking of Solar PV Power Plant Module Mounting Structure.	CPWD	16.08.2019	2019-20	₹ 1,18,000/-
4	Dr. Ritu Raj	Construction of Left-Out Building Works, for Lady Hardinge Medical College & Associated Hospitals, New Delhi.	HSCC India Ltd	16.08.2019	2019-20	₹ 59,000/-
5	Dr. Ritu Raj	Checking & Vetting of Estimates of (1). Construction of 16632 MT's Capacity Godowns including arch shaped galvalume sheet roofing, office block, etc Works at SWH, Hisar, (2). Construction of 18480 MT's capacity godowns including arch shaped galalume sheet etc. works at SWH, Nayabans, Rohtak.	HSWC	16.08.2019	2019-20	₹ 88,200/-
6	Dr. Ritu Raj	Up-Gradation and Maintenance of OKHLA Industrial Estate Ph-III. C/o of RCC Boundary Wall Sump Well and RMC Roads etc.	DSIIDC	28.08.2019	2019-20	₹ 1,12,000/-
7	Dr. Ritu Raj	Proof Checking/Vetting of Tower Foundation Design (GBT/R.T.T).	Sheltara Consultants	28.08.2019	2019-20	₹ 3,54,000/-
8	Mr. Hrishikesh Dubey	Next Generation IP-MPLS Network for Indian Navy of NFS Project on turnkey basis at Delhi Cantt regarding IGNTU Campus.	Sterlite Ltd	28.08.2019	2019	₹ 88,500/-
9	Mr. Hrishikesh Dubey	Vetting of Structural Drawings of Work Inside IGNTU Campus.	CPWD	28.08.2019	2019	₹ 2,53,700/-

S. No.	Name of P.I	Name of Consultancy	Consulting Agency	Date	Year	Revenue Generated
10	Mr. Hrishikesh Dubey	Vetting of Design of Structures & Foundation for Roof Top/ Ground based MW towers.	Unique Designers	26.09.2019	2019	₹ 59,000/-
11	Dr. Ritu Raj	Vetting of Structure Design/ Drawing for Proposed Jacking and Receiving RCC Shaft for micro tunnelling for project of providing and laying 280 mm-900 mm nominal dia. Sewer line in Vikash Puri.	Raj Conbuild Ltd.	26.09.2019	2019-20	₹ 59,000/-
12	Dr. Ritu Raj	C/o Stage-I of Phase-II, DTU at Bawana road, Delhi, 12 C/o Academic Block, AB-3 & AB-4, Boys Hostel & Girls Hostel and all external and internal services including external landscaping and allied civil and E7M Works.	SAM India	16.10.2019	2019-20	₹ 2,08,860/-
13	Dr. Ritu Raj	Proof Checking & Approval of Design and Drawing of Surkanda Devi Rope Way, Chamba Mussorie-Road, Kaddukhal, U.K.	SRP	16.10.2019	2019-20	₹ 1,18,000/-
14	Dr. Raju Sarkar	Geotechnical consultation for grouting work.	Bimala Palia	29.11.2019	2019	₹ 3,54,000
15	Dr. Raju Sarkar	TPQC towards demolition and construction of Chaupal at village Singhalpur in Shalimar Bagh assembly constituency 1, Delhi and providing and fixing steel gates in Badli extension village in Badli constituency 05 and renovation of Kabristan at Village Mangolpur Khurd Delhi.		2.12.2019	2019	₹ 1,36,676
16	Dr. Ritu Raj	Proof Checking of Structural Design/Drawing for the work of Remodelling of Govt. Dispensaries to Polyclinic.	ACC	10.12.2019	2019-20	₹ 59,000/-
17	Dr. Ritu Raj	C/o Stage-I of Phase-II, DTU at Bawana road, Delhi, 12 C/o Academic Block, AB-3 & AB-4, Boys Hostel & Girls Hostel and all external and internal services including external landscaping and allied civil and E7M Works.	SMA	10.12.2019	2019-20	₹ 3,68,160/-

11. SPONSORED RESEARCH, CONSULTANCY AND PROJECTS

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Name of P.I	Name of Consultancy	Consulting Agency	Date	Year	Revenue Generated
18	Dr. Ritu Raj	Proof Checking of Structural Design/Drawing for the work of Remodelling of Govt. Dispensaries to Polyclinic.	MIA	10.12.2019	2019-20	₹ 59,000/-
19	Dr. Raju Sarkar	TPQA towards construction of propose New buildings B+G+6 floors-270 beds for expansion of Rao Tula ram govt. hospital at Jaffarpur, Delhi.	PWD, DELHI	25.01.2020	2020	₹ 14,17,109/-
20	Dr. Raju Sarkar	Construction of propose new buildings B+G+9 Floors-472 beds, doctor's hostel and dormitory for expansion of Guru Govind Singh hospital at Raghubir Nagar, Delhi.	PWD, DELHI	25.01.2020	2020	₹ 30,94,869/-
21	Dr. Shilpa Pal	TPQA of work of expansion/remodelling work at Acharya Shree Bikshu Govt. Hospital at Moti Nagar, Delhi.	PWD	28.1.2020	2020	₹ 17,72,837
22	Mr. Hrishikesh Dubey	TPQA DDA.	DDA, Delhi	28.01.2020	2019	₹ 32,90,748/-
23	Dr. Ritu Raj	TPQA of DDA RPD-8, Rohini, Delhi-110085.	DDA	28.1.2020	2020	₹ 32,90,748/-
24	Dr. Ritu Raj	Proof checking/vetting of structural design/drawings for the work of SITC of flag mast at GGSIPU Dwarka campus.	University work division, GGSIPU	29.1.2020	2020	₹ 59,000/-
25	Dr. Raju Sarkar	TPQA towards of 66 feet Libaspur Gurudwara Road including providing street light fittings.	PWD, DELHI	4.02.2020	2020	₹ 7,47,287/-
26	Prof. Raju Sarkar	Consultancy work Regarding Investigation of Existing base and sub base coarse and recommendation for the corrective provisions.	SDMC, Delhi	29.02.2020	2020	₹ 1,20,000/-
27	Dr. Ritu Raj	Submission of hydraulic design and drawings of Rishal garden for approval.	KRA-KIPL JV	19.3.2020	2020	₹ 59,000/-
28	Dr. Ritu Raj	Proof Checking/vetting of tower foundation design (GBT/R.T.T).	Sheltera consultants Pvt. Ltd.	19.3.2020	2020	₹ 2000/- per tower
29	Dr. Ritu Raj	TPQA, TMPED Delhi.	CPWD	2.3.2020	2020	₹ 36,00,000/-
30	Prof. A. Trivedi	Proposal for Vetting of Structural Drawing.	CPWD	July, 2020	2020	₹ 1,12,100/-

12 Student Societies

12.1 Entrepreneurship Cell

Techstars Startup Weekend powered by Google for Startups

The Entrepreneurship Cell of Delhi Technological University organized its annual 'Techstars Startup Weekend' powered by Google for Startups from 6th to 8th September 2020. Startup Weekend provides a platform that allows the early stage Startups to take giant leaps in the business world and lay the foundation of their dreams with like-minded people. The participants are expected to turn their idea into reality in 54 hours.

Startup Weekend resuscitates with the participants full of vigor and their exciting new ideas, ready to lay a foundation to their dreams – to build their own company and that too within 54 hours! Young entrepreneurs pitch their ideas, and the best make it to the top 12 resonating with the vibe of "No Talk, All Action."

Mentors carefully analyze the ideas and provide the teams with a 'Success Mantra' and insights on how to deal with the business competition and reach on top of their game. The vibe completely transforms as the hustle begins.

With an esteemed panel of judges including - Mr.Amit Gupta (VP MasterCard), Mr. Gaurav Malhotra (Famous Angel Investor), Mr.Sunil Solanki (Country Head SAP), Mr.Neeraj Singh (Director KPMG), and Mr. Rajeev Sikka (CEO IndianOil - Adani Gas Pvt. Ltd.). The top startup ideas are awarded incubation support, AWS Credits, certified hampers, and goodies, along with investment and incubation opportunities to kickstart their entrepreneurial journey.

Participants create working startups during the event and are able to collaborate with like-minded individuals outside of their daily networks. All teams hear talks by industry leaders and receive valuable feedback from local entrepreneurs. The weekend is centered around action, innovation, and education.

Whether participants are looking for feedback on an idea, a co-founder, specific skill sets, or a team to help you execute, Techstars Startup Weekend is the perfect environment to test one's idea and take

the first steps towards launching an own startup.

Startup Weekend is a great place to connect with passionate people driven to build something new. There is no better place to meet new friends, colleagues, mentors, cofounders, and investors. Knowing you're not alone makes all the difference. Startup Weekend provides participants many opportunities to engage and connect with like-minded individuals — and truly start something amazing.

Startup weekend enables all the participants to learn what it really takes to innovate, disrupt, and start a company from people who've been there. Startup Weekend features deep experiential learning guided by an experienced hand. Sometimes the participants really need more skills and knowledge to go to the next level. Startup

Weekend also goes deep on specific topics or skill sets. Just what you need to progress quickly.

Even though there is only one winning team but every individual gains a sense of pride in their mind for they have experienced something which is rare- the power of teamwork, creative thinking, pressure handling, and most importantly the essence of creating their own company from scratch within 54 hours.

DTU Connect

The comprehensive idea behind DTU Connect is to provide highly pertinent mentorship from people proficient in their respective fields and to guide the students that have an entrepreneurial idea but don't have the required

means to reach out. With this app, students have an opportunity to submit their required ideas which can potentially be converted into a product. This ensures the fabrication of tonnes of exceptional innovations and ideas.

An initiative of E-Cell DTU, DTU CONNECT, brings together youth and experience in perfect synergy. It provides an exclusive mentorship session for DTU students who are working on their research idea, major project, or startup idea with a prolific and

versatile DCE alumni base consisting of delegates like Mr. Vinod Dham (Father of Pentium chip), Mr. Vijay Shekhar Sharma (Founder of Paytm) and many more.

A platform that enables the students of DTU to connect with any of our esteemed DTU alumni, to cut short the waiting time and save their nerves from the torment of impatience and letting their imagination go waste due to lack of support, E-Cell DTU in collaboration with IIF DTU, IPR Cell DTU, DTU Alumni Relation Cell, and TnP Cell launched DTU Connect!

The DTU Connect launch event witnessed the honorable presence of our Respected Vice-Chancellor, Prof. Yogesh Singh, and three prominent and highly experienced professionals, Mr. Rahul Sood(MD & Director at Industrial Processors and Metallizers Pvt. Ltd. and Alumni of DCE), Mr. Pradeep Chhabra(Author and Alumni of DCE), and Mr. Sunil Solanki(Country Head Cloud Computing at SAP) at Dr. B.R. Auditorium, DTU.

Highlighting the importance of guidance and mentorship in the lives of young entrepreneurs, the passionate speakers

envisioned how DTU Connect will provide a golden opportunity for students to get one on one mentorship from industry experts and the extraordinary alumni of DTU. The emphasis on the importance of the past and present working together in collaboration to build a bright future fueled the passion and zest amongst the crowd of young minds.

DTU Connect serves as an excellent platform to expand students' network and aids them to explore new horizons.

The Intellectual Property Rights Cell of DTU is the major stakeholder in the creation of DTU Connect. Every single idea will remain safe and secure with the IPR Cell of DTU, and will not be revealed to anyone without the consent of the student. In addition, The Ministry of IT & Electronics aids us out in a novelty/patentability search of students' respective ideas. So that there is no room for plagiarism, and students get a realistic idea about the originality of their idea.

Entrepreneurship Summit 2020

E-Summit by E-Cell DTU is the largest entrepreneurship promoting event in Northern India. The event has served as host to some of the most well-known personalities of the industry over the years. It continues to cultivate and nurture numerous ideas every year, and provide an extraordinary platform putting forward the

youth to exchange their ideas with their corporate idols, giving them insights and lessons about the world of business.

We have hosted Vijay Shekhar Sharma (Founder & CEO, Paytm), Rahul Bose (Actor, Social Activist) Vinod Dham 'Father of the Pentium Chip', Didier Rappaport (CEO & Co-Founder, Happn) Kiran Bedi (Lt. Gov. of Puducherry, First Woman to join Indian Police Services) in the past for the event.

Day 1 began with the leadership and disruption series wherein speakers, entrepreneurs, leaders, and all those who made an impact with glorious achievements in their spectrum of work share their career journey to inspire the attendees. E-Summit 2020 witnessed a stellar panel of industrialists and innovators from all across the country - Mr. Adarsh Nair (CEO of Wynk), Mr. Vikas Tomar (CTO of PixelGalaxies), Mr. Sanjay Modi (CEO and Founder of Glasscout.com), Mr. Rajesh Sawhney (Founder, Innerchief) and many more.

We have had the pleasure of hosting various content creators such as Harsh Beniwal Amit Badhana, Slay point, RJ Abhinav - The FAAD magician, Nazarbattu for this event.

The event concluded with a comedy night wherein Kenny Sebastian mesmerized the crowd with his wits and humor.

UDAAN Startupthon: The B-Plan Competition

Day 2 marked the beginning of the most ideal showcase event that provides an avenue to thousands of startup enthusiasts to exhibit their business acumen, creativity, and innovation - The UDAAN Startupthon. One of the flagship events of E-Cell DTU, it aims to promote the spirit of Entrepreneurship.

Esteemed speakers from various fields, unicorn startup founders, venture capitalists, and top-notch industrialists presented their perspective on the 'ingredients it takes to make unicorns'. The panel discussion encompassed esteemed speakers and their views on redefining leadership in the disruptive era.

Day 3 began with a revolutionary session of Student-HR interaction. Students got a chance to interact with the HRs of Big Companies. They received expert advice, information about Resume building, and group discussions are held to prepare the students for real-world corporate interviews through an interactive session.

In the afternoon Startup Internship and Job Fair - an annual internship caricature was organized by E-Cell in close collaboration with various startups of our country. Startups get a chance to interact and hire students through speed interviews. It was a great opportunity for startups to hire students from almost all backgrounds (Technical, Non-Technical, Management, etc).

The day is finally concluded with a band night performed by the Lagori Band to end the event on a fun note.

E-Cell hosts some of the most articulate and accomplished personnel of our country and abroad to make sure that the attendees are able to leave with a plethora of knowledge as well as some experience to deal with real-life problems.

12. STUDENT SOCIETIES

Our Startup Internship and Job Fair provides opportunities for quick internship interviews as well as job placements to all attendees. With more than 700 internship and job profiles. The fair acts as the first step for numerous careers every year.

E-Summit along with its highly exhaustive and informative entrepreneurship sessions which include top speakers from various walks of life and professional communities also organizes various fun informal events such as standup sessions, improv sessions, YouTubers meet and greet as well as band nights. This all in one confluence would not only provide you with valuable knowledge and experience but can also act as a retreat from your professional life.

ECELLDTU.IN (Official website of E-Cell DTU)

E-Cell DTU proudly relaunched its official website. The revamped website very well displays the year-round events, our legacy, and our aspirations. The website acts as a portal to connect team E-Cell DTU with the huge group of aspiring entrepreneurs.
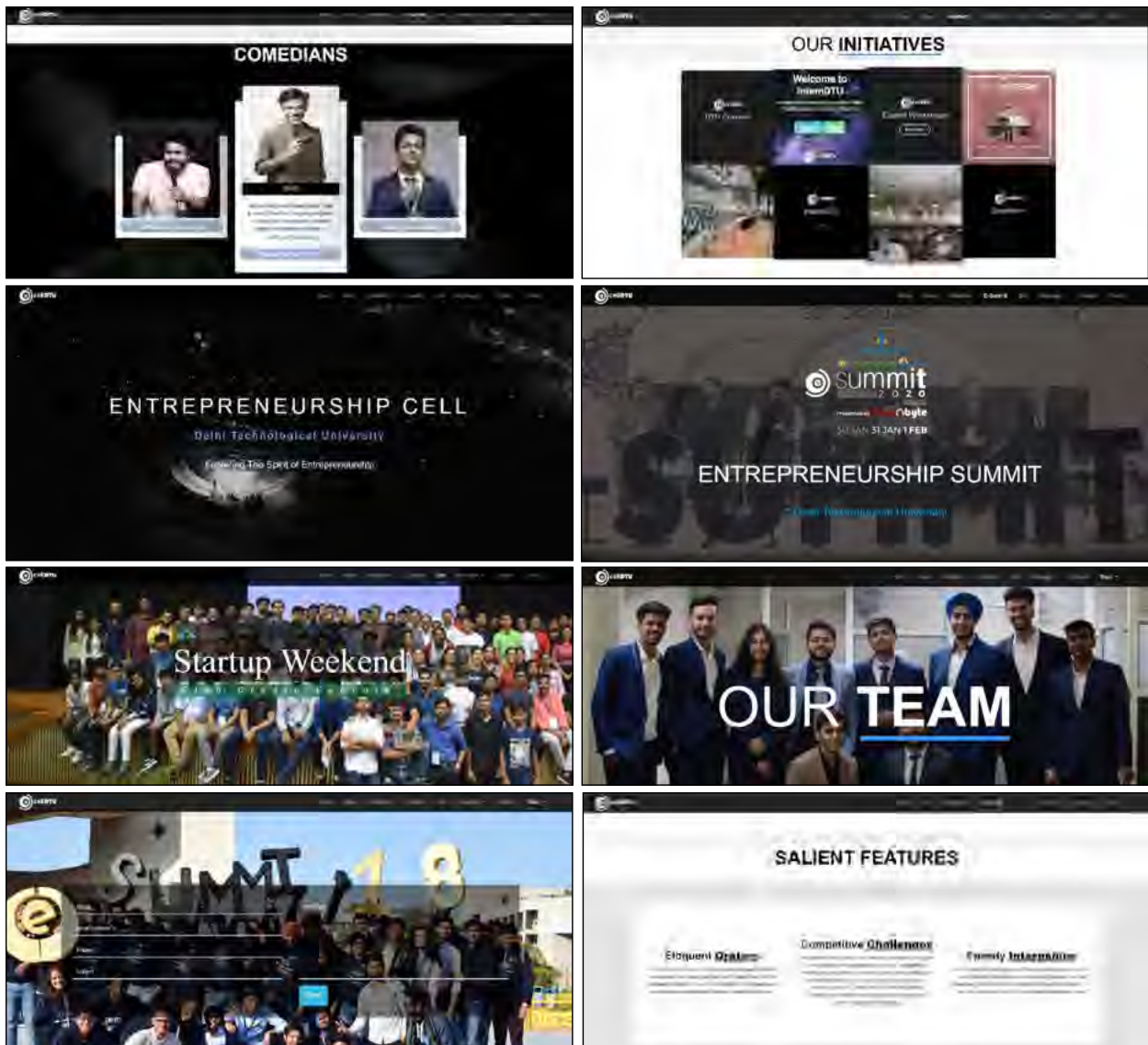
ELEVATE 2019 (Official Annual Magazine of E-Cell DTU; 2019 edition)

A story has no beginning nor end, one just arbitrarily chooses that moment of experience from which to look back or from which to look ahead. The annual magazine of E-Cell DTU gives an exhaustive report about the events that were hosted by us. Articles of appreciation for all our associates and partners for various events act as a token of appreciation for all their love and support. Informative and engaging chapters on various aspects of entrepreneurship surely help us promote the spirit of entrepreneurship amongst the masses.
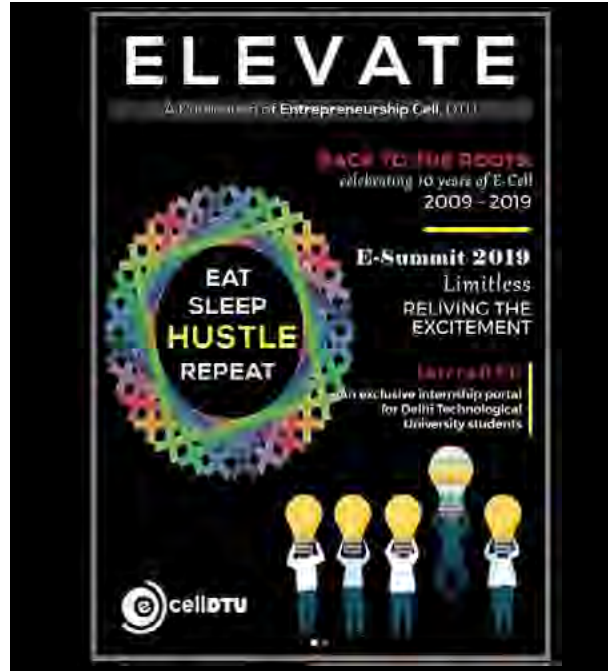
QuarINTERN

QuarINTERN by E-Cell DTU is an initiative to provide work from home internships at India's top startups to students dedicated to making the best of this Quarantine. With stipends as high as 30k and assured certificates and LOR, students could not miss out on this amazing opportunity to convert their time into an experience of a lifetime.

QuarINTERN is a golden opportunity for the students to grow their professional network and leverage their career essential skills. What can be better than an internship opportunity while sitting at home!

Career Workshop

E-Cell DTU actively organizes various workshops to provide an exceptional platform for the students to expand their skills and confidence in a professional environment. These workshops also provide opportunities for students to indulge themselves in self-assessment as well as critical thinking. Speakers from all across the country who have done exceptionally well in their respective fields provide valuable insights to the students and help them to clarify their career path and career-related dilemmas. One of the eminent speakers was Mr. Tarun Dokania. He has a score of 760 in GMAT and runs his own institution "Floating GMAT" to assist aspirants to reach greater heights.

12.2 Sports Council

INTRODUCTION

Physical education & sports play vital role in achieving the aims and objectives of Education. The students of DTU are provided with excellent facilities and encouraged to take part in the tournaments held in and around N.C.R. Delhi, , particulars, engineering institutions.

DTU is having 450 m. track, ground for Football, Hockey, Cricket, two courts for Volely ball, two courts for basketball, three courts for Tennis land five courts for Badminton, Table Tennis rooms, Chess Rooms, Carrom Rooms and Gyms are also available in the each hostel of the college campus.

With the view to recognize upcoming talented sportsman and sports woman in the college, the Sports Council organizes sports festival ARENA. The festival witnesses the large participation of boys and girls which included atheletics, badminston, table tennis, basketball, carrom, chess, cricket, tennis and volleyball. Prizes and certificates were awarded to the winners.

The sports year also involves the organization of the Inter Hostel Tournaments in various games i.e. badminton, basket ball, carrom, chess, cricket, football, table tennis, volleyball and tennis. Foundation Elective Course (FEC) - Sports course first time started in the university in the academic session 2018-19 for the students of DTU with two credits for each semester.

FEC - Sports DTU provides various games i.e. Athletics, Badminton, Basketball, Cricket, Football, Handball, Kabaddi, Table Tennis, Lawn Tennis, Volleyball, coaching/ training facilities alongwith the curriculum of sports activities for the students. There were 486 students enrolled for sports FEC course during Odd sememter of 2018-19 and for the Even semester, 481 enrolled for the said course.

FIT INDIA RUN-2019

Date of event 29th August 2019 on the occasion of Sports Day Name of Event-FIT INDIA RUN-2019 Fit India Run organized by Sports Council DTU on 29th August 2019 on the occasion of Sports Day. Approximately 800 students participated in the event flag off was given by hon'ble Vice Chancellor.

Run For Unity 2019 The 'Run For Unity' was organized by DTU Sports Council on the occasion of the birth anniversary of Sardar Vallabhbhai Patel on 31st October

2019 (National Unity Day) at DTU Sports Complex. More than 600 students of DTU participated in this event. All the students ran around the sports complex symbolizing the motive of Run for Unity. Hon'ble Pro Vice Chancellor, Prof. S.K. Garg sir flagged off the event. Other faculties present in the

event were Registrar DTU- Prof. Samsher, Chairman Sports Council – Prof. R.C. Singh, Director of Physical Education and Sports – Dr. A.K. Srivastva, Vice Chairman Sports Council – Prof. Rajiv Chaudhary, and other faculty members. All the participants of the

Run for Unity were offered participation certificates along with the refreshments. 'Run for Unity' is a marathon dedicated to Sardar Vallabhbhai Patel. It encourages India to run together. On Sardar Patel's 144th birth anniversary, Pro Vice Chancellor, Prof. S.K. Garg flagged off 'Run for Unity' in the DTU Sports Complex, more than 600 students took part in the marathon. This included students from Sports FEC, various DTU Sports teams and transit students as well. October 31 is observed as National Unity Day or Rashtriya Ekta Diwas every

12. STUDENT SOCIETIES

year to coincide with the birth anniversary of Sardar Patel. The 'Run for Unity' was inaugurated by Prime Minister Narendra Modi as a tribute to the national leader.This day imparts the message to protect the unity, integrity and security of our country.

SPARDHA-2019, IIT BHU

Delhi Technological University sports teams attended the annual sports fest SPARDHA organized by IIT BHU . It was attended by 179 students and 5 coaches of various games. The sports fest was held from 18th to 20th October, 2019. The contingent left from DTU campus on 15thOctober . The various sports teams participated in Spardha are – Cricket (M), Football (M), Basketball (M/W), Powerlifting (M), Badminton (M), Table Tennis (M/W), Chess, Volleyball (M/W), Kabaddi (M/W) and Lawn Tennis (M/W), Athletics (M/W), Squash, Handball. All the top teams in every sport from India took

part in this year's event.The teams from DTU gave a brilliant performance by an engineering college standards.

The following teams won a medal in this tour:- Athletics: 1. Taekwondo-GOLD, 2. Lawn Tennis (M)-BRONZE, 3. Power lifting-BRONZE, 4. Table Tennis-SILVER 1. 400m men- SILVER 2. 4x100m relay, SILVER 3. 4x400m relay, BRONZE 4. 100m Women, BRONZE

Triquetra'19

Delhi Technological University sports teams attended the annual sports fest Triquetra'19.The sports fest was held from 1st October 2019 to 3rd October 2019. The various sports teams that participated were Cricket (M), Football (M), Basketball (M/W), Badminton (M/W), Table Tennis (M/W), Chess, Volleyball (M/W),Athletics(M/W) and Lawn Tennis (M). The teams from DTU gave a brilliant performance.

The following teams and players brought laurels to the college:-

- DTU Cricket Team won the final by 9 wickets.
- DTU Badminton Girls won Silver Medal.
- DTU Badminton Boys won Silver Medal.
- DTU Basketball Boys won GOLD.
- DTU Basketball Girls won SILVER.
- DTU Football Boys won the final.
- Chess won silver.
- Volleyball Boys Gold.
- Table tennis girls won silver.
- DTU Tennis Boys SILVER.
- Best Athlete Women: Akansha from DTU.

12. STUDENT SOCIETIES

Amit Pal (Guinness World Records Holder) Amit Pal of Delhi Technological University secured 2nd Position in All India Inter University Rope Skipping Men & Women Championship 2019 which was held from 27th December to 29th December 2019 at Adikavi Nannaya University, Andhra Pradesh and he has also achieved the Title of Guinness World Records Holder in Rope Skipping in following Events1) Highest number of skips in 30 seconds with one foot -142. 2) Highest number of rope crossovers (criss cross) while skipping on one leg in 1 minute-94.

ARENA 2020

Inter-departmental Sports Fest ARENA 2019-20 organised by the Sports Council of DTU for the students of all the departments including M.Tech, BBA & DTU East Campus. Following sports were played in the sports ARENA, Athletics, Badminton, Basketball, Chess, Cricket, Football, Handball, Kabaddi, Lawn Tennis, Table Tennis, and Volleyball. A very tough competition was seen in Football from all branches. In athletics; new records were made. All other event were also competitive and there was also a great crowd in sports competition all through the sports fest. DTU also hosted a plethora of

sports activities to inculcate the culture of physical fitness among the young minds. The University formulated the unique concept of a week-long inter-departmental sports fest, "ARENA 2020". The fest involved more than just playing and enjoying sports; it became a medium of bringing together the youth by giving them the opportunity to showcase their Sporting Skills.

Student-Faculty Sports matches Student-Faculty Sports matches were organized by DTU Sports Council on the occasion of 71st Republic Day of India – 26th January,2020 at DTU sports complex. Hon'ble Vice Chancellor, Prof. Yogesh Singh flagged off the event. A cricket match was organized between faculty and students, wherein everybody relished moments of camaraderie during the afternoon. The event also promotes the importance of Physical Education and Wellness in an individual's life. The sporting events have its own importance in DTU to inculcate the good understanding among the students and employees apart from residents. Republic Day is celebrated all over India with great pride and zeal. It's a day to

honour the Constitution of independent India. National flag hoisting in schools and colleges are common. Cultural events championing India's struggle for freedom is held nationwide. Being active and playing sports helps people be healthy at any age. Some of the health benefits of playing

sports include the efficient functioning of the heart, controlled diabetes, lower cholesterol levels, improved blood circulation, lower hypertension, and lower stress levels. In addition, sports help in weight management, by toning our muscles and strengthening our bones.

AAHVAAN 2020

Aahvaan the annual sports tournament of Delhi Technological University was organised from 21st to 23rd February 2020. It was organised for students of all colleges from Delhi and outside Delhi. The vision is to provide a competitive platform to college students to showcase their sporting talent. The mission is to capitalize the power of the resources of the University to provide a competitive sporting platform to students from all over the India.

Following sports were played in the same:

- Cricket (men)
- Football (men)
- Badminton (men/women)
- Chess (men)
- Table Tennis (men/women)
- Lawn Tennis (men/women)
- Athletics (men/women)
- Volleyball (men/women)
- Basketball (men/women)
- Kabaddi (men/women)

The opening ceremony was held in the Sports Complex, DTU on 21nd February, 2020. Our Hon'ble Vice Chancellor Prof. Yogesh Singh motivated the players to compete with true sportsmanship and expected to be a healthy competition.

After the opening ceremony, the matches started scheduled for that day, players were provided with refreshments in each and every match. Officials were provided with refreshments as well as lunch. Outstation players staying in our campus were provided with breakfast, lunch and dinner in the sports complex. The closing ceremony was held at the sports complex on the third day i.e. 23th February in the evening. The winners were given medals, trophies, certificates and cash prizes. Many talented and hardworking players excelled in their sports. The sports fest was organised by the Sports Council of DTU. Because of their efforts and hard work the sports fest was an overall success.s.

12.3 CULTURAL COUNCIL

Freshers' Week:

Freshers' Week 2019 was a 4-day extravaganza organized by the Cultural Council from 9th to 13th September 2019. It was a perfect start for the journey of the new batch of students as it consisted of a plethora of events and activities for them.

9th September

(Band Night): The first night was a captivating band performance by 'Awaan band' at the OAT. The venue was fully packed with students who sang along with the mesmerizing performers.

11th September

(Ethnic Night): The ethnic night was one of the most awaited nights and saw all students dressed up in traditional attire. This cultural confluence began at 6.30pm at the OAT and was brimful of thrill and excitement as the students danced their hearts out to the tunes of DJ 'Aadi'.

12th September

(Informal events): Blind Maze, Tug of War, Flip the bottle and a lot more exciting games kept the freshers tied at Amul for an entire day. The event commenced at 10 A.M.

(Cultural Train): It comprised of a theatrical performance by Pratibimb, melodious tunes sung by Madhurima, a vibrant dance performance by Vibe, a symphonic display of classical dance by Nrityangana and an eclectic photographic reveal by Parchhayi. The event began at 3 PM at Amul.

(A Poetry Event): The poets hypnotized the audience with their soulful writings which everyone could truly relate to. The event was in association with 'Days of Our Lives' and was titled Ae Dil hai Mushqil.

(Movie Screening): This event was a perfect opportunity for the students to watch the movie of their own choice, along with their peers. Screening began at 6:30 PM at B.R. Auditorium.

13th September

(Freshers' Night): It was the perfect culmination of the zestful week that the whole student community participated in. The night saw some splendid performances by our prolific societies followed by the initiation of the final round of Mr. and Ms. Fresher. The revelation of Engifest 2019 after-movie left the whole crowd awe-struck. Finally, the Cultural Council hosted a dinner for all attendees.

Dandiya Night:

DTU Cultural Council organized a Dandiya Night on 4th October 2019 at the Aryabhatta ground. The event saw a riot of colors and an eclectic mix of music as the students displayed their dancing skills dressed up in perfect traditional attires. Traditional dandiya music along with some peppy Bollywood numbers kept the crowd glued to the dance floor all through the evening.

Not just this, the students were provided with dandiya sticks and had a wide variety of food joints to choose from.

Theme Release of Engifest 2020:

The occasion of theme launch of Engifest 2020 was graced by the renowned actress Krystle D' Souza who was greeted by the cheers of an ecstatic crowd as the DTU CC hosted a star meet with the cast of an upcoming Alt Balaji web series. The theme 'A Utopian Escapade' reflects vibrant visuals on the lines of psychedelic art. The event commenced at 4 P.M at B.R Auditorium and was a great success.

Engifest 2020 Report

With the aim of reaching unfathomed heights, preparations for Engifest 2020 commenced early with the announcement of the incumbent Cultural Council.

Partnering with brands like Resso, Nestle, Studds, Delhi Capitals, Hero Motocorp, Pepsi, ONGC, NHPC, Times Internet, the Indian Oil Corporation, and several other big names from various sectors of the industry, all of whom were enraptured with the branding, promotion, and the humble business of Team Engifest.

Day 0 - 13th February

The inaugural ceremony of Engifest 2020 commenced with the auspicious lighting of lamp by a group of dignitaries of our esteemed University - Prof. Yogesh Singh (Hon'ble Vice Chancellor, DTU), Prof. S.Indu (Chairperson, Cultural Council), Mr. Ranjit Kapoor (Chief Guest), Prof. Anoop Lather

(Consultant, Youth and Cultural Affairs, DTU), Prof. Ram Singh (Associate, Dean Student Welfare), Dr. Jayasimhadri (Vice Chairman, Cultural Council), Mr. Sanchit Gupta (Cultural Secretary, Cultural Council, DTU), Mr. Pulkit Pal (President, Student Association, DTU).

Prof. S. Indu formally welcomed all the dignitaries present on the dais and participants from various parts of the country students. She mentioned the significance of Cultural Activities and events and fests as a medium that aims to provide a platform to showcase and bring forward unique and young talents from all across the country with a significant participation from our own state. This was followed by the address of all the other dignitaries on the dias.

The program ended by a blissful and mesmerizing Kavali performance, which saw an applause from round the corners of B.R. Auditorium. The stage and mood was now all set and ready for the next 3 days.

Day 1 - 14th February

The kick-off day to the biggest fest in North India's mega-extravaganza and coincidentally the day of love - also known as Valentine's day witnessed an enthralling footfall of over a lakh millennials.

Diverse cut-throat competitions like Outrounds (Debating), Spandan (Western solo dance), Mr. and Mrs. Exquisite (Solo

Fashion contest), and the piquant shoe painting competition saw a turn-out of students from all across the nation who had come to participate and showcase their talents.

The evening caught applause by the performances of Rooh Fusion Band - Indie Artist on the Nirvana Stage, Kupawa (light painting) - an international artist from Ukraine who performed at the OAT, and light-hearted meet and greet events by Screen-Patti and Hasley India Panel - Indian screenplay artists cast also at OAT.

The Fusion Nite, the first night of the fest, and also the Valentine's night was soothed with a mesmerizing live performance by the famous Bollywood singer - Papon.

The second act of the night witnessed a heart-throbbing performance by the popular Bollywood rapper - Divine along with his Gully Gang crew. The venue was jam-packed with students who harmonized along with the mesmerizing performers.

Day 2 - 15th February

The second day of the 3-day extravaganza kicked off with the stage play competition, Natya, in the BR auditorium. Other competitive events like Paridhan (Fashion Show), Engi Idol (Indian Solo Singing), Jhamela (Chaotic Quiz) and Big Canvas Painting also witnessed a record participation from all over the country.

The OAT was as engaging as ever with interactive sessions with renowned YouTubers like Baklol and Jatt Prabhjot,

Just Human Things stars Aisha Ahmed and Harsh Mayar, and the beloved DTU alum, Rajat Sood. A jam-packed OAT witnessed MTV Hustle King Rocco sway the crowd with his new releases, and performances from international stars like Borja Catanesi and Kupava were very well received.

Throughout the day, Nirvana Stage saw a plethora of musical performances as 6 bands engaged in Razzmatazz (Battle of Bands), followed by performances from French band 4AF, and Delhi-based Chizai and Udit Sehgal.

The flagship event of Engifest'20 saw the arguably most hyped and sought-after star of the year, the Punjabi sensation Sidhu Moosewala, perform his first-ever live show at a college fest and bring the second day to a sensational close.

saw talents from all over the subcontinent battle it out for the crown of being the best in the circuit, even the competitions at Engifest 2020 witnessed attendees turn up in huge numbers keeping the venues jam packed at all times.

Day 3 - 16th February

Thus came the final day of the 'Utopian Escapade', and it had everything to be crowned the grandest of showdowns.

Headlining competitions like Spandan (Group Dance), Vocalicious, Nukkad etc.

The closing day of fest welcomed renowned personalities like Half Engineer, Aarij Mirza , and the ever-so-famous cast of the show Engineering Girls for the YouTube Fiesta. International Artists like Alessandro Vasta, Mario Serrano, and Kupava with her LED show, didn't miss out on the party at the

OAT, leaving the spectators awe-struck with their performances.

While the OAT and the Auditorium remained hot spots for the attendees like in the previous editions of the festival, the new addition, the Nirvana Stage, made its own mark and saw power-packed performances by Dream Note, Twinztagram, and the glamorous singer Lekka, making this new addition a huge success.

Following standards set by the former editions, Humor Fest unfolded out to be one of the major successes in the star-studded lineup at Engifest '20. The hilarious stand up comic, Anubhav Singh Bassi, made the humongous assembly at the OAT laugh their hearts out.

The grandest of events call for the grandest of showdowns, and the 3rd day delivered just that, a night that no one wanted to end. Italian DJ Duo Vinai, DJ Mag #28, made the enormous crowd at the concert ground put their dancing shoes on, as they put up an electrifying show to bring the 'Utopian Escapade' to its culmination.

The 3-day cultural extravaganza, Engifest 2020 was an all-round success. The team successfully overcame any road-block they encountered and were able to turn any negative on its head all thanks to the quintessential support and guidance provided by the university administration. Not only financially, but also in the form of administrative permissions and infrastructure like barricading, green rooms etc. were life savers. Successful execution of the fest can also be expressed in terms of overall participation and the online reach of

The B.R. Ambedkar Auditorium, OAT and the Concert Ground recorded the highest ever participations in terms of footfall. The footfall this year was higher than any previous edition of the cultural festival as we recorded an enormous footfall of over 110,000. The footfall was so huge that the campus gates had to be shut even before 6:00 P.M. each day.

The team could foresee the increase in attendees, and thus the number of outsourced bouncers this year was increased to 55 as compared to last year's 40. They played their part with utmost diligence, and were content with the team's treatment and hospitality.

In the organizing of an event of this grandeur, we all agree there is some room for improvement. Security and frisking at the entrances, crowd handling at the concert ground, and overall exclusivity of the fest by restricting the pedestrian entry early on are some areas where the team finds room for improvement.

Team Engifest worked tirelessly over a period of 6 months to put together a festival so big. In this memorable journey, we've come to a realization that to put together a fest of such great magnitude, preparations must commence early.

The team aims to pass the legacy of this fest along with the lessons that we have learned, into the capable hands of our successors in the cultural council. Being completely aware of the current situation, the council still has the belief of seeing through another successful edition of the festival with our successors. Thus the preparations for the next edition need to start as soon as possible and the process of pitching for the association with brands needs to be started with no further ado.

the social media handles. The competitions saw more than 4000 participants, reigning in from over 700 colleges. Our Instagram handle recorded more than 3.5 million impressions and our Facebook page had an engagement of over 155k in a span of 2 months.

Engifest 2020

To boost morale among quarantined students across the subcontinent, Team Engifest and DTU Cultural Council came up with the idea of Engifest 2.0 - Quarantine Edition.

A, first of its kind, 3-day online cultural extravaganza was organized by the Cultural Council from 22 May to 24 May 2020. It was a grand renaissance to the idea of online concerts, providing the luxury and thrill of concerts and events all brought to the audience at the comfort of their homes.

The team partnered up with Dare2Compete as the official hosting partner, and 92.7 Big FM as the Official Radio Partner for the campaign. Furthermore, many other famous media partners were onboarded to boost the social media presence of all events and to gain traction.

From cultural competitions to Bollywood concerts and hilarious stand-up events, the 3-day fiesta had everything to offer.

Day 1 - 22nd May

The opening day of the revolutionary online fest commenced with the Indian classical solo singing competition Kalawant followed by western classical solo dance

competition - Reconnect Electra. With the ease of performing from home, both the events saw a huge amount of participation from all across the country, with participants of diverse age groups presenting their refined talents and experience.

Gullbo - A Swedish magician, with the opening performance for the fest left the audience in awe with his mind-boggling and pioneering magic tricks.

After the star's grand success at the Nirvana Stage of Engifest 2020, Lekka - an upcoming pop singing idol was the second performer of the Engifest 2.0 - Quarantine Edition.

The closing act of the day was by the super-talented Spanish guitarist, Borja Catanesi.

Events on the first-day captured a cumulative viewership and participation of over 5000 people across the country.

Day 2 - 23rd May

Day 2 of this 3-day online extravaganza kicked-off with Quizwiz, the online quiz competition. The first performance of the day featured the globally renowned British-Indian playback singer Nikhil Paul George.

Stand-Up comedian, Madhur Virli delivered to the viewers and raged a row of laughter with his warm and witty sense of humor.

After rocking the Nirvana Stage at Engifest'20 in February, Udit Sehgal was back with an extremely engaging session with his guitarist, Mridul Luthra. MTV Hustle Agrita 'Agsy' Dhawan and Spanish guitarist GREX, the new additions to this online version, were extremely successful. Comedian Shubham Pujari entertained the audience with his humor and corny jokes. The highlight of the day was the interactive session with former Miss India, Ruhi Dilip Singh with RJ Simran, which witnessed a viewership running into 4 digits.

Day 3 - 24th May

The day of culmination of the latest venture by DTU Cultural Council and team Engifest began with the renowned cellist Diana Gomez, producing a spectacle live from the kingdom of Spain.

A perfect opening to Day 3.

Then came the show stopper, the main event of the climactic day to Engifest 2.0,

#QUARANTUNES with the ever so famous Bollywood playback singer, Divya Kumar.

With his deep notes and soothing voice, he pulled off probably one of the most successful events of the entire festival. Requests kept flooding through the entire course of his immaculate set, with audience engagement at an all-time high.

Rooh : The Fusion Project, the stars from Nirvana Stage at Engifest 2020, made another appearance, in association with Team Engifest, to cheer up the loving audience they performed for at Engifest 2020.

Their lead singer & founder, Shrey Nautiyal, delivered a melodious performance, making the attendees sing along to the beautiful numbers.

Witty lines, hilarious punches and impromptu puns, renowned comedian Kevin Sam's live set in Engifest 2.0 had it all, making it the perfect closure to the Humourfest.

The three-day online journey was brought to its climax by the one-man Italian Orchestra, Alessandro Vasta.

Entertaining live requests and delivering superhit numbers, Vasta put up an amazing show for the last performance of Engi 2.0

Special Mentions

Mental health has been a major issue concerning the youth in these testing times. With the welfare of students as the primary motivation, the team organized a session with Yoga & Meditation Coach, Ritu Todi.

The topic of the session being, Introductory Yoga & Meditation Class for Physical & Mental Wellness, the section revolved around the mental state one often finds themselves in during such challenging times, and how to tackle them right.

Despite not being one of the bigger hits, the team counts this event as one the

highlights, for this event resonated with our cause, and was hosted for the greater good.

Then came, the two most successful shows hosted under the tag of Engifest 2.0 - Quarantine Edition.
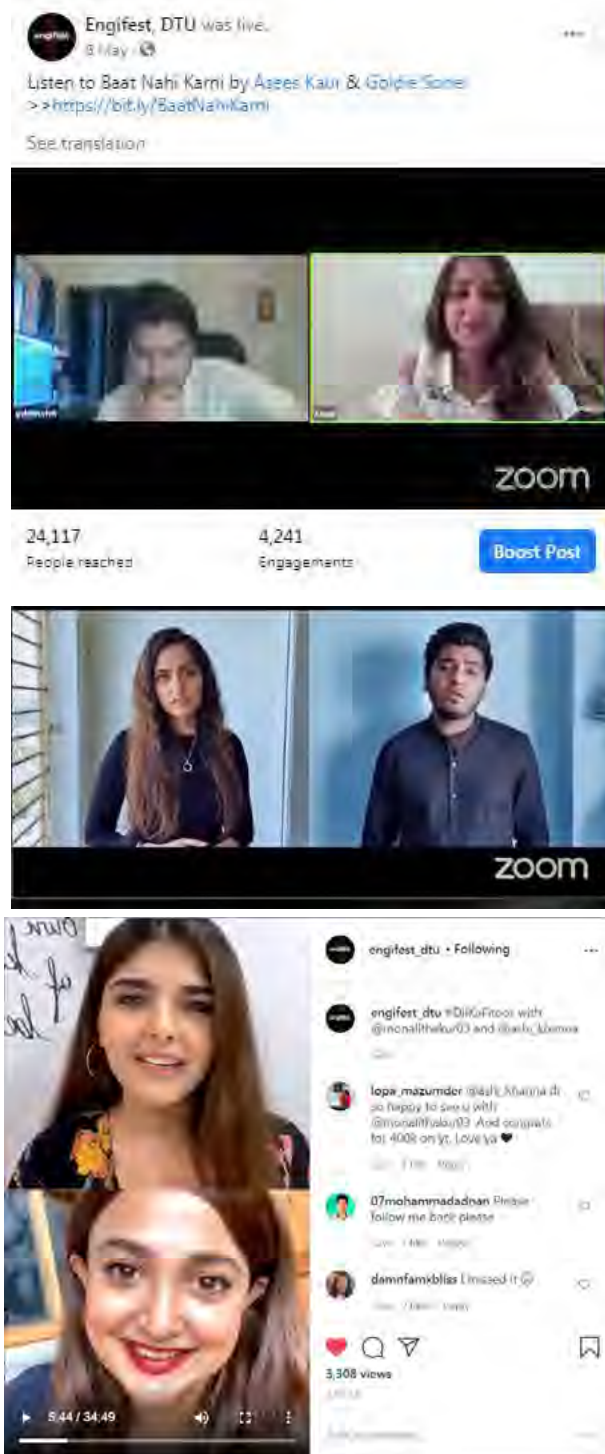
Widely celebrated Bollywood playback singer, Monali Thakur, went live from Switzerland, with renowned artist, Ashi Khanna. Promoting her new single, Dil Ka Fitoor, Monali's melodies attracted over 2.5 thousand live attendees, making this our most successful online concert hosted on our Instagram Handle.

For our most attended Facebook concert, Bollywood fame, Asees Kaur, came live with her co-artist Goldie Sohel, from their new single, Baat Nahi Karni.

Their session single-handedly reached over 24 thousand people, testifying the brand name that Engifest has been able to make through the years.

This initiative, taken up by Team Engifest proved to be a ginormous success. With no financial backing, the team was able to raise meaty cash prizes for every single competition they hosted, and all of them had more than satisfactory participation.

The events hosted under this banner were greatly successful too. Our social media handles reached the pinnacle of engagement during the entire process of planning and executing the fest. Such initiatives showcase the edge that Team Engifest, and why it is considered as one of the biggest names in India.

All artists, sponsors, and participants spoke pleasantly about their experiences with Engifest 2.0 and were highly content with what was delivered.

12.4 NSS DTU

About Us

NSS DTU is the largest student-led organization in the university working in the social sector and aims to bring about a change in society by organizing various events and campaigns pertaining to all aspects of social service. The volunteers commit themselves to the greater good and strive to achieve the best versions of themselves. Awareness regarding the surroundings, identifying social evils pertaining to a region, and formulating and implementing practical ways to tackle them constitute the role of an NSS Volunteer. Both long- and short-term programs in the fields of education, healthcare, road safety, etc., ensure the efficient functioning of NSS as a unit, encouraging teamwork and helping its volunteers grow immensely on a personal level as well.

Kartavya 2020

Social e-fest organized by NSS DTU

Kartavya is the annual social fest organized by NSS DTU. A host of activities were arranged surrounding social issues, in an attempt to raise awareness and call for action. In view of the COVID-19 pandemic and social distancing norms, this year's conclave was held virtually.

From 3rd to 15th April 2020, participants were presented with a multitude of opportunities to showcase their talents. Some of the key events included a debate competition around social issues, a poetry event, and a painting competition. Along with these, a best out of waste craft contest, a photography event with the theme of self-isolation, and a case-study competition were also hosted.

The event witnessed participation from colleges all over India, with the best performers winning e-certificates and other prizes.

Juvenile visits

NSS DTU volunteers regularly visit the Juvenile Justice Board to conduct activities and fruitful interactive sessions. One of the visits was conducted on the occasion of Diwali, wherein children decorated diyas and made greeting cards for their parents. Another such visit was conducted on the 71st Republic day. Tales of independent India were narrated along with quizzes, poem recitals, and a game of volleyball.

TRYAMBAKAM: Rural Camp'19

With a mission to promote the preservation of natural resources and indigenous practices, NSS DTU organized its annual Rural Camp from 20th to 25th December 2019, at Gopalpura, Alwar. Among other activities like learning about organic 'Shramdaan,' and many more, the volunteers interacted and learned from the 'Waterman of India', Sh. Rajendra Singh regarding various water preservation and river revival techniques.

Blood Donation & Stem Cell Registry Camp

A Blood Donation Camp in collaboration with AIIMS and a Stem Cell Donor Registry Camp in collaboration with DATRI Blood Stem Cell Registry were organized on

31st January 2020. The donated blood was used to maintain the stock in blood banks for emergencies, while the stem cell registrations helped create a database of donors for future use. With 155 units of blood donated and 100+ stem cell registrations, the event was a tremendous success.

RAKT

RAKT is an initiative to connect voluntary blood donors with recipients, wherein a database containing the relevant details of blood donors is maintained for emergencies. During the pandemic, this database was further expanded to include relevant details of COVID-19 recovered plasma donors to help patients requiring Plasma therapy. This was done to ensure speedy coordination in case of emergencies. The team managed to successfully help connect various donors with patients within the required time.

Plantation Drive

Given the increased felling of trees, a college-wide plantation drive was held

on 27th August 2019 in an attempt to contribute to a greener campus. Led by Dr. Pravin Kumar and other faculty members, over 50 saplings were planted.

Kalam ko Salaam

Kalam ko Salaam is an initiative by NSS DTU to combine the conventional modes of teaching along with extracurricular activities. Weekly visits were conducted to the Shubhakshika Open Shelter prior to quarantine. The program continued during the quarantine, where volunteers used various online methods of teaching.

Saarthi

Saarthi is the latest venture of NSS DTU to provide quality education to the underprivileged. Volunteers send recorded video lessons in computer skills and training to Parivartan, an NGO operating in Uttarakhand. Reaching over 70 students, we hope to provide valuable skills to more people across the country.

EWS Camp

Children belonging to Economically Weaker Sections (EWS) often fail to avail of the 25% reservation in admission to private schools due to a lack of awareness and understanding of the online system. An EWS admission campaign was organized from 21st to 23rd February 2020 to bridge the gap between the government's online portal and the oblivious crowd to help them reap the benefits of the scheme. Accruing to our dedicated volunteers' work, over 100 forms were filled.

13 Central Facilities

13.1 Library

1. Name of Integrated Library Management System (ILMS): KOHA

2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment

S. No	YEAR	AUTHOR	TITLE
1	1859	Zherebtson	Fundamentals of Radio
2	1900	R. Bruce, Lindsay	Physical acoustics
3	1913	J. GROSSMANN M.A.	THE ELEMENTS OF CHEMICAL ENGINEERING
4	1914	J.E. Myers & others	Elements of Practical Chemistry
5	1917	Herbert F. Moore	Textbook of the materials of engineering
6	1917	Moore & Moore	Textbook of the materials of engineering
7	1917	Herbert F. , Moore	Textbook of the materials of engineering
8	1920	North	Chemistry for Textie Students
9	1920	J. Duncan	Applied mechanics for engineers
10	1920	Hanry Jackson Burt	Steel Construction
11	1920	Ewats Andrews	An introduction applied mechanics
12	1920	Ewarts. Andrews	An introduction to applied mechanics
13	1920	J. Duncan	Applied mechanics for engineers
14	1920	Hanry Jackson Burt	Steel Construction
15	1920	Ewats Andrews	An int examples in applied mechanics
16	1920	W. E. Dur	worked examples in applied mechanics
17	1920	Ewarts. Andrews	An introduction to applied mechanics
18	1920	North	Chemistry for Textie Students
19	1922	Fredric W. Keator	Mechanical laboratory methods
20	1922	Fredric W. Keator	Mechanical laboratory methods
21	1923	A. F. Clayton	Alternating currents
22	1923	A. F. Clayton	Alternating currents
23	1924	Bailey	Course of experimental mechanics
24	1924	Bailey	Course of experimental mechanics

S. No	YEAR	AUTHOR	TITLE
25	1925	L. F. Woodroff	principles of electronic power transmission
26	1925	Sir H. Frank	Industrial research & development
27	1926	C.G. Vermon	An Introduction to Chemistry
28	1926	C.G. Vermon	An Introduction to Chemistry
29	1928	RCA Victor	Rca Victor Service Notes
30	1928	H. L. Childe	Concrete products & cast stone
31	1928	S. Timoshenko	Vibrations problems in engineering
32	1928	H. L. Childe	Concrete products & cast stone
33	1928	Baueree	Plain concrete
34	1928	E. E. Bauer	Plain concrete
35	1928	J. Newton Friend	Inorganic Chemistry (Vol.11)
36	1928	J.N. Friend	Inorganic Chemistry Vol.3
37	1928	J.N. Friend	Textbook of Inorganic Chemistry (vol.11)
38	1928	J.N. Friend	A Textbook of (Vol.9) Inorganic Chemistry
39	1929	GIBSON C.R.	ABOUT COAL AND OIL
40	1929	P.J. Lancelot Smith	Science Today
41	1929	P.J. Lancelot Smith	Science Today
42	1929	Rimbaoh R.	Beryllium and its alloys
43	1930	W. Abbott	machine drawing and design
44	1930	W. Abbott	Machine drawing and design
45	1931	R.H. Vallence & Others	T B of Inorganic Chemistry (vol.07) Part 2
46	1933	KEMPSTER B ,MILLER	TELEPHONE THEORY AND PRACTICE
47	1933	Reigeluth	Safety & economy in heavy construction
48	1933	Reigeluth	Safety & economy in heavy construction
49	1934	Eliot F. Tozer	Machine drawing
50	1934	Eliot F. Tozer	Machine drawing
51	1934	J.L. Gregg & Others	Arsenical and Argentiferous copper
52	1935	L. V. Gurjar	Elementary mechanics
53	1935	F. M. Lea	Chemistry of cement & concrete
54	1935	P. Timoshenko	elements of strength of materials

13. CENTRAL FACILITIES

S. No	YEAR	AUTHOR	TITLE
55	1935	T Dyson	Principles of machnics
56	1935	L. V. Gurjar	Elementary mechanics
57	1935	F. M. Lea	Chemistry of cement & concrete
58	1936	C. F. Caunter	small four- stroke aero engines
59	1936	A. C. Parkinson	Intermediate engineering drawing
60	1936	A. C. Parkinson	Intermediate engineering drawing
61	1936	Marston	Engineering valuation & depreciation
62	1936	C. F. Caunter	Small four- Stroke aero engines
63	1936	A King	Inorganic Chemistry Preparations
64	1937	Rider J.E	Automatic Frequency Control Systems
65	1937	Alfred T. Witts. A.M.I.E.E	Superheterod Yne Receiver
66	1937	Brown & Bryart	Engineeirng science
67	1937	Bryant & Bown	Engineering science
68	1937	Brown & Bryart	Engineeirng science
69	1937	A.E. Goddard	Textbook of Inorganic Chemistry Vol.XI Part IV
70	1937	J. Newton Friend	Textbook of Inorganic Chemistry Vol.VI Part 2
71	1938	GROGGINS,P.H.	UNIT PROCESSES IN ORGANIC SYNTHESIS
72	1938	R.E Blakey D,Sc.	The Radio and Telecommunication Engineers Design Manual
73	1938	Philip Gustave Laurson	Mechanics of material
74	1938	F. E. Wentworth	Reinforced concrete piling
75	1938	Philip Gustave Laurson	Mechanics of material
76	1938	C. Truesdell	The elements of materials
77	1938	F. E. Wentworth	Reinforced concrete piling
78	1939	HEMPEL (E.H.)	ECONOMICS OF CHEMICAL INDUSTRIES
79	1939	Paul Arthur	Lecture Demonstrations in General Chemistry
80	1939	HAROLOD SIMMONS BOOTH	INORGANIC SYNTHESIS VOL-I
81	1939	A.M. LOW	SCIENCE IN INDUSTRY
82	1939	SCHNFELD H.	Chemic Und Technology Der Fette Und Fett Productive
83	1939	Boltz C.I.	Wireless

13. CENTRAL FACILITIES

S. No	YEAR	AUTHOR	TITLE
84	1939	J.E. Taylor	Engineering design
85	1939	D. Laugharne	Mechanics applied to vibrations & balancing
86	1939	Clarence W. Dunham	The theory & pactice of reinforced concerete
87	1939	J.E. Taylor	Engineering design
88	1939	D. Laugharne	Mechanics applied to vibrations & balancing
89	1939	Clarence W. Dunham	The theory & practice of reinforced concrete
90	1939	Paul Arthur	Lecture Demonstrations in General Chemistry
91	1939	A. Spencer Whhite	Chemistry Gate
92	1940	Watson H.M	Understanding Radio
93	1940	R.V. Soutgwell	Relaxation methords in engineering science
94	1940	Tuflin	Vibration in machinery
95	1940	Thomas E. French	Mechanical drawing
96	1940	PUL	Popular mechanics what-to-make
97	1940	Henry C. Sharman	Esential of nutritions
98	1940	R.V. Soutgwell	Relaxation methords in engineering science
99	1940	Tuflin	Vibration in machinery
100	1940	Thomas E. French	Mechanical derawing
101	1940		Popular mechanics what-to- make
102	1941	Rhodes (R.T.F.)	Forensic Chemistry
103	1941	WARD C.A.	THOSE RAW MATERIAL
104	1941	BADGER & BAKER	INORGANIC CHEMICAL TECHNOLOGY
105	1941	Fckersley P.P	Power Behind The Microphone
106	1941	RUSSELL & BEACH	TEXTBOOK OF SALESMAN SHIP
107	1941	proton	cables and wires
108	1941	Goodman	Mechanics applied to engineering
109	1941	Low & Bavis	Manual of machine drawing & design
110	1941	H. H. Winstnly	Junior technical drawings
111	1941	Goodman	Mechanics applied to engineering
112	1941	Low & Bavis	Manual of machine drawing & design
113	1941	Rhodes (R.T.F.)	Forensic Chemistry

S. No	YEAR	AUTHOR	TITLE
114	1941	Jack De Ment & Others	Uranium and Atomic Power
115	1941	Farrington Daniels & Others	Experimental Physical Chemistry
116	1941	Wachtel	Chemical Warfare
117	1942	Vierte Auflage	Brilsteins Handbuch Der Organichen Chemie
118	1942	Ladner (AW)	Short wave wireless communication
119	1942	FIERCE, (D.E)	Chemical Eng. For Production Supervision
120	1942	ROBINSON,(C.S)	RECOVERY OF VAPORS
121	1942	ROGER	INDUSTRIAL CHEMISTRY
122	1942	Bevis Brunel Low	Theory of machines
123	1942	Clarence E. Bullinger	Engineering economic analysis
124	1942	C. W. Bank	applied science
125	1942	Bevis Brunel Low	Theory of machines
126	1942	Vierte Auflage	Brilsteins Handbuch Der Organichen Chemie
127	1942	Lowry, C.B.E & Others	Intermediate Chemistry
128	1942	R.M. Caven	Systematic Inorganic Chemistry
129	1943	Howard W. Post	The Chemistry of the Aliphatic Orthoesters
130	1943	L. Gattermann	Laboratory Methods of Organic Chemistry
131	1943	Olaf A. Hougen	Chemical Process Principle
132	1943	Joseph Reilly	Physico-Chemical Methods
133	1943	Turney	Intro To Electricity and Radio
134	1943	Nelson M.Cooke	Mathematics Essential to electricity and Radio
135	1943	Biswas,N.N	Principles Of Telephony
136	1943	ZIMMERMAN,(O.T.)	CHEMICAL ENG. LABORATORY EQUIPMENT
137	1943	O.T. ZIMMERMAN	Chemical Engineering Laboratory Equipment
138	1943	C. R. Freberg	Elements of mechanical vibration
139	1943	Morley	Applied mechanics
140	1943	Luzadder	Fundamentals of engineering drawing
141	1943	H. K. Sen	class note on surveying
142	1943	James F. Young	Mterials and processes
143	1943	C. R. Freberg	Elements of mechanical vibration

S. No	YEAR	AUTHOR	TITLE
144	1943	Morley	Applied mechanics
145	1943	Luzadder	Fundamentals of engineering drawing
146	1943	H. K. Sen	class note on surveying
147	1943	James F. Young	Materials and processes
148	1943	Howard W. Post	The Chemistry of the Aliphatic Orthoesters
149	1943	L. Gattermann	Laboratory Methods of Organic Chemistry

3. Does the Institute have the following:

E-journals	**Yes**
E-ShodhSindhu	**Yes**
Shodhganga membership	**Yes**
E-Books	**Yes**
Databases	**Yes**

Details of memberships/ Subscription	Name of service subscribed to	No of resources with full text access	Validity period	Usages report from the service provide. If applicable	Whether remote access provided? (Yes/ Not)	Web link of remote access
DELNET		37063	31.12.2020	Below mentioned under Electronic database	Yes	https://dtulibrary.remotexs.in/user/login

Electronic Databases:

S. No	E - Resources	No of Jrs	Usages (Full text downloads)
1	Access Engineering	-	74
2	ACM	13	2001
3	American Chemical Society	49	13485
4	American Institute of Physics	19	3193
5	American Physical Society	15	889
6	ASCE	36	4746
7	ASME	29	811
8	ASTM	5	2553
9	BIS	-	644
10	DELNET	-	-

S. No	E - Resources	No of Jrs	Usages (Full text downloads)
11	EBSCO Ultimate	6258	43128
12	Economic & Political Weekly	-	-
13	Emerald	309	6308
14	Engineering Village	1	3493
15	EPWRF	-	199
16	Grammarly	1	788
17	ICE	36	424
18	IEEE/IEL	526	37757
19	IndianJrs.com	114	802
20	Institute of Physics	85	617
21	ISID	-	-
22	IWA Publishing Journals	12	1168
23	J-Gate		1236
24	Nature	1	3415
25	Oxford University Press	262	2097
26	Prowess	1	30000
27	RemoteXs	-	380
28	Sage	117	475
29	Science Direct	705	106459
30	Springer Link	1733	18871
31	Taylor & Francis Journal	1079	7991
32	Turnitin	-	15484
33	Web of Science	1	1883
34	World e-book library	-	-
	Total =		**311371**

E-Books:

S. No	Publisher	Numbers
1	Elgar	21
2	Elsevier (10 depts)	330
3	Pearson	363
4	Videeya	338
5	Wiley	71
	Total =	1123

4. Details of annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Year of expenditure	Expenditure on the purchase of journals in (INR in lakhs)	Expenditure on the purchase of books in (INR in lakhs)	Expenditure on subscription to e-journals and other e-resources (INR in lakhs)
2019-2020	2,18,597.00	57,61,881.00	1,19,25,144.00
2018-2019	2,22,143.00	58,16,766.00	2,48,24,843.00
2017-2018	2,50,916.00	16,37,587.00	2,18,25,951.00
2016-2017	1,48,758.00	24,50,553.00	1,81,19,570.00
2015-2016	1,37,498.00	21,51,739.00	1,84,17,700.78

Central Library Staff

Librarian
Dr. Rama Kant Shukla

Assistant Librarian
Dr. (Mrs.) Lalita

Counter Assistant
Mrs. Taruna
Mrs. Rampati Nain
Mrs. Neeru Malik
Mrs. Neeru Vig
Mr. Abdul Aleem

Library Attendant
Mr. Saudan Singh

Lab Attendant
Mr. Narender Sharma

13.2 Computer Centre

DTU has a well-equipped centralized computer centre to cater to the needs of high-profile students and faculty in the University. It is housed, in a magnificent state-of-the-art building having specialized laboratories to provide variety of platforms and computing environment for UG, PG and Research students. The centre possesses HP ML370, ML570 standalone servers & DL360, Dell R630 & R720 rack servers, Dell blade servers (power edge 1000e) and about 290 desktop computer of latest configuration (Intel Core i5 processor). These are working on Windows 7/8/8.1/10, server 2008 and Linux platforms. Additionally, it provides Microsoft product license for registered Windows and MS Office to DTU faculty.

DTU Campus wide Network

The centre is networked through high-end intelligent Dax/Avaya/D-Link/Brocade manageable switch, and possesses round the clock two leased lines of 200 Mbps (Bharti Airtel) and 10Gbps link of NKN (shared bandwidth) in different pipes for the Wi-Fi connectivity in the Library, Academic, Departments, Administrative, Faculty residence and Hostel blocks of the campus, with internet facilities on all the nodes. Access for internet is given to end user after secure authentication. Network traffic is being monitored & controlled by full version of checkpoint (UTM). Presently all the 290

computers are connected through LAN in two floors of computer centre providing internet access. It is providing programming facilities to all the departments of the university. The departments/academic/library/administrative blocks, faculty residence and all the hostels of DTU are interconnected using 48 core & 6 core optical fiber cable (OFC) and Wi-Fi with 180 number of access points.

The present network setup satisfies the needs of the University's rudimentary Internet connectivity and maximum resource sharing for the connected departments. To put DTU on par with IITs and reputed NITs, it is necessary to use Information Technology as the backbone for its academic, research, consultancy and administrative ventures.

DTU Website

Computer Centre maintain DTU websites (www.dtu.ac.in), alumni portal, departments portal, library portal, IQAC portal, faculty portal, hostel portal, student portal, DTU times portal, and other related intranet/internet web services. The DTU website is updated by this centre on daily basis. The information on the website displayed after the approval of the concerned department, faculty or administrative offices.

Computer Centre provides mail services to the university teaching communities and administrative officers.

13.3 The Department of Training and Placement

The Department of Training and Placement is the nodal department for coordinating the training and placement efforts of the university. It is responsible to hone the skills of talented DTU students and train them for placements and internships at reputed multinational firms.

The placement process begins by sending invitations to companies to visit the University for Pre-Placement talks and provide their job announcements. The talks provide avenue for interaction and familiarization of students with the recruiting organizations and their work profile. Students from Bachelor of Technology (B.Tech.), Master of Technology (M.Tech.), Master of Business Administration (MBA) programs in various fields of engineering and technology, participate in the placement process.

Placements Overview:

Organizations from diverse background participate in the recruitment session every year, offering a wide variety of profiles which can be broadly classified into:

Core Engineering & Technology

The students of DTU continue to demonstrate a strong commitment to their core educational background in the choice of employment. A large number of students opt for science, engineering and technology oriented jobs, with the recruiting companies operating in various sectors of the economy. Some of the core companies are Maruti Suzuki, Bajaj, L&T, Hyundai, Samsung Engineering and R&D, Texas Instrument, CBRE, Qualcomm, Western Digital to name a few. There were 233 job offers from 61 organizations in in Core Engineering domain

Software & IT Enabled services

134 leading IT firms, including several global leaders, visited DTU for campus placements during 2019-20. These organizations work with large corporations across the world and help them resolve complex business problems. Management Consulting companies especially carry a reputation of being very selective in their choice of campuses and of having extremely high standards in their recruitment process.773 offers were made in software firms like, Google, Amazon, Microsoft IDC, Atlassian, Flipkart, Adobe, Paytm, Goldman Sachs, Expedia, Uber, SAP Labs to name a few.

Analytics and Consulting

The well-deserved reputation of superior analytical and reasoning skills of DTU graduates continues to draw recruiters from the rapidly growing field of data analytics. There were 497 job offers from 95 organizations in 2019-20 making it one of the biggest sector after information technology profile. Some companies that visit DTU are Barclays, Deloitte, Future First, ZS Associates, EXL, UHG, KPMG, Bain, BCG, Tower Watson and many more.

Teaching

DTU has continued to provide faculty to several educational institutions and universities through campus recruitments over the past several years. Many post-graduate students have been offered jobs with public and private educational institutions through campus placement. Some of the educational institutes visiting DTU are KIET, Aakash Institute.

PSU/ Government

Various PSUs and Government organisations hire from DTU, the institutions include PSUs like GAIL, IGL, BEL, BHEL, IRCON to name a few. Defence forces like Indian Air Force and Indian Navy also visit the campus to hire talented DTU graduates. This year UIDAI also hired multiple students from DTU.

Name of Course	Name Of Department	No of Offers Made	No. Of Student Placed	No. of Internships and Field Training Offers	Highest Package Offered (in LPA)
B. Tech	Automotive Engineering	58	47	13	13.6
	Bio Technology	9	8	1	8.01
	Civil Engineering	57	47	12	15
	Computer Engineering	364	301	135	107
	Electrical Engineering	96	80	33	19.5
	Electronics and Communication Engineering	162	135	33	51.75
	Engineering Physics	45	40	10	19
	Environment Engineering	21	17	12	12.57
	Information Technology	121	103	51	51.75
	Mathematics and Computing	77	65	18	43
	Mechanical Engineering	133	117	33	34.97
	Polymer Science and Chemical Technology	26	24	5	14.7
	Production and Industrial Engineering	34	28	7	12.4
	Electrical and Electronics Engineering	59	47	--	23.46
	Software Engineering	82	68	36	43
	Total	1344	1127	399	
M.Tech	Civil Engineering	7	7		6.5
	Electrical Engineering	8	8		7.51
	Mechanical Engineering	22	16	4	10
	Computer Science Engineering	32	30	4	29.16
	Electronics And Communication Engineering	17	15		29.16
	Applied Physics	1	1		2.5
	Environment Engineering	3	3		8.45
	Applied Chemistry	1	1		3.6
	Bio Technology	5	5		
	Information Technology	11	10	2	20.31
	Total	**1451**	**1223**	**409**	
MBA	MBA (All Specializations)	94	85	5	10
	Total	**1545**	**1308**	**414**	

Placement Highlights 2019-20

296+ Recruiters	1.07 CR Highest CTC
1545 Total Offers*	12.27 LPA Average CTC

DTU has always been ranked among the top IITs in terms of Placements and Higher Studies. It has been given 2nd highest scores in graduation outcomes by NIRF rankings released by the ministry of HRD.(2019-20)

COMBINED % FOR PLACEMENT, HIGHER STUDIES, AND ENTREPRENEURSHIP (GPHE) OUT OF 40 (SOURCE: NIRF)
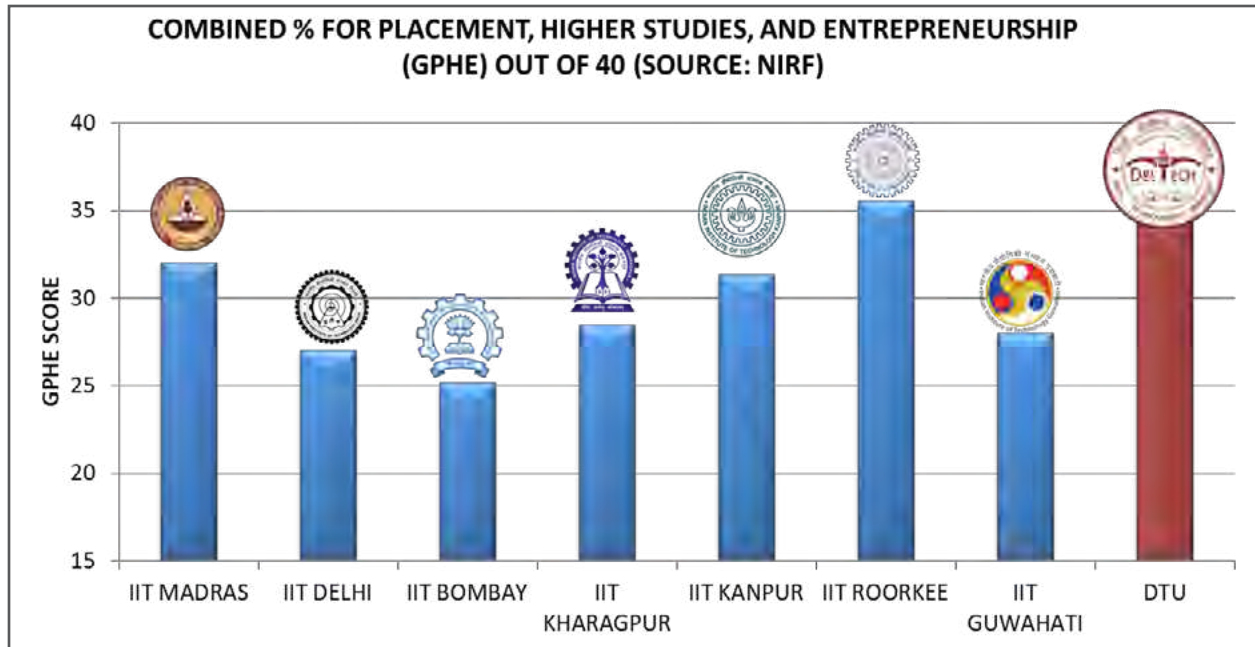
Our Top Recruiters

The CTC offered by companies to DTU students has also seen a steady increase in the past 5 years. In the year 2019-20, the number of offers above 20 LPA rose to 152 and those between 10 LPA and 20 LPA rose to 498. The average CTC offered also rose to 12.27 LPA. This is a proof of the rising demand for talented graduates of DTU.

NUMBER OF OFFERS- CTC>20 LPA

NUMBER OF OFFERS- 10 LPA < CTC < 20 LPA 498

AVERAGE CTC OFFERED IN LPA

SECTOR-WISE DISTRIBUTION OF OFFERS (2019-20)
- Software /IT
- CORE/R&D
- Consulting/Analytics
- Teaching/Others
- PSUs/Govt
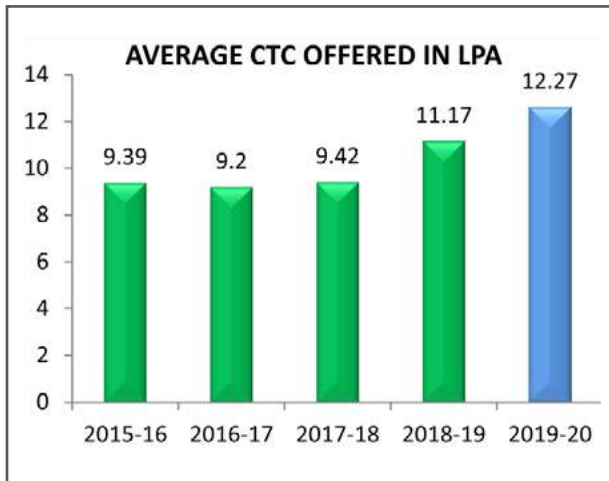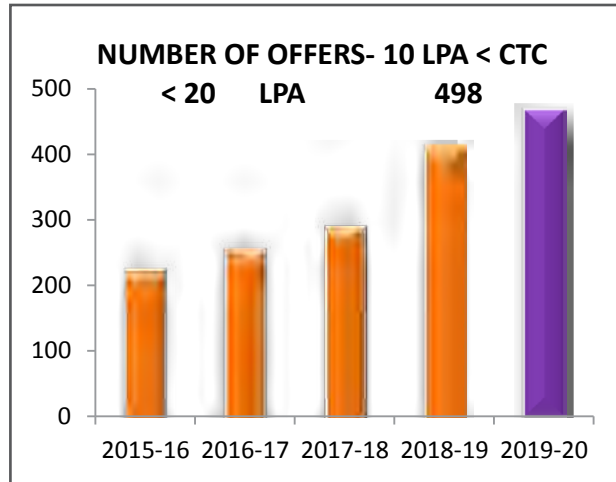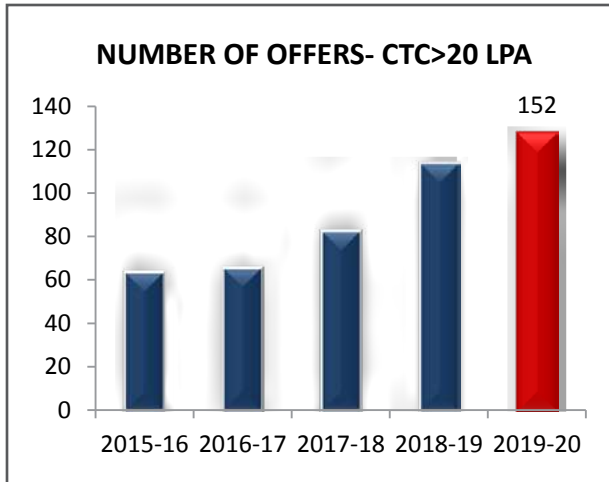
The demand for DTU students is evident from the fact that companies are not only offering high packages but are hiring in big numbers. Some companies with high packages and high number of offers are listed below:

COMPANY	CTC OFFERED	NUMBER OF OFFERS
Microsoft	43 LPA	14
amazon	28 LPA	19
oppo	21 LPA	18
Qualcomm	23 LPA	21
SAMSUNG	19.5 LPA	32

13. CENTRAL FACILITIES

228

International Offers

Several DTU students are also selected every year for international jobs, in countries like Singapore, USA, Ireland, United Kingdom,Dubai, France and Germany to name a few. These students have time and again made DTU proud by their global achievements. Provided below is a list of top international offers to DTU students in recent years.

amazon	Shivam Maini	€ 125,000/Year (INR 1.07 Crore)	2019-20
facebook			
Bloomberg	Abhishek Arya	£ 60,000 / Year (INR 60 Lakhs)	2017-18
Uber			
Google	Chetan Kakkar	$ 190,000 / Year (INR 1.27 Crores)	2015-16

Internship

Apart from the stellar placement record DTU also had a record breaking internship season 2019-20. A number of domestic/international recruiters visited the campus for the purpose of on-boarding interns. Many students were also given Pre-Placement Offers by companies based on their internship performance. The stipends went as high as 2 lakh.

400+ Offers

1.07 CR Highest CTC

100+ Offers Above Rs50000pm

128 Pre-placement offers

Listed below are some of the companies who offered more than ₹70000PM in stipend to the students:

S. No.	Company	Stipend
1	Sprinklr	200000
2	Uber	160000
3	Tower Research	100000
4	DE Shaw	100000
5	Arcesium	100000
6	Google	93000
7	Morgan Stanley	87000
8	Microsoft	80000
9	Goldman Sachs	75000
10	American Express	70000

13. CENTRAL FACILITIES

Training Programmes

Department of Training and Placement provide industry relevant and skill enhancing trainings to make the students competent for the different roles. A comprehensive training program is designed for the overall development of the students in the following broad categories:-

S. No	Category	Programs
1	Career Counseling	mentorship session named **"Career Confluence"** which enable students to gain knowledge about the various career and higher study options after graduation
2	Skill enhancement Program	Talks/expert lectures on skill enhancement by alumni working in diverse sectors to prepare for requirement of industry. workshops to enhance communications skills, interview skills and group dynamics
3	Industry relevant training programs	workshops on various domains like electronics, mechanical, robotics, software, analytics and consulting Training programs organized in collaboration with prestigious organizations like **Barclays, Bain and Company, ZS Associates, United Health Group, Texas Instruments, NXP, Fractal Analytics, Polestar, Adobe, SAP Labs** on current trends in Technology.
4	Interview preparatory sessions	To acquaint the students with the processes of different companies, mock interview sessions, specifically designed and customized as per the past process of each company are conducted.
5	Sessions for research & Higher studies	Sessions focused majorly on higher education are conducted involving experts from **Harvard University, Carnegie Mellon University, National University Singapore, Nanyang Technological University and ISB Hyderabad** to guide the DTU students about the application process and common doubts. The sessions have been effective in augmenting the career related knowledge of students.

Infrastructure

In order to conduct presentations, online tests, group discussions and interviews the department has following infrastructure:

No of Interview rooms	No of group discussion (GD) rooms	online test facility (No of computers in CC)	Presentation hall
25	5	280	01

13. CENTRAL FACILITIES

13.4 Sports and Gymnasium

Director Physical Education: **Dr. A.K Srivastava**

Facilities

The students of Delhi Technological University are provided with excellent facilities and encouraged to take part in the tournaments held in and around NCR Delhi, particularly, engineering institutions. Delhi Technological University is having 400m running track, ground for Football, Hockey, Cricket, two courts for Volley Ball, two courts for Basketball, three courts for Tennis and five courts for Badminton, Three Kabaddi courts, Indoor Games facilities are also provided i.e. Table Tennis rooms, Chess rooms, Carom rooms and Gyms are also available in each hostel of the DTU campus. Sports council of DTU has organized several tournaments during 2017-18 academic sessions. The university has well equipped gymnasium with the modern equipments. The university students, faculty and staffs utilise this facility. There are two full gymnasiums in the university, one is situated in the sports ground and yet another is situated in the faculty residential area which is generally used by girl's students also.

The Main Cricket Field and Athletics track in the Sports Complex

The Volleyball, Basketball and Tennis Courts at the Sports Complex

Main football field adjacent to director's residence

The DTU Gymnasium

13.5 Health Centre

Rajesh Birok, Officer-In charge

The DTU is having a modest Health Centre manned by well experienced Doctors and other paramedical staff. The services of two general medicine practitioners are available to the students and all other stakeholders throughout the day. The University Health Centre is also visited by specialized medical practitioners for Eye, Dental care, Orthopedic, Gynecology, Psychiatry, Physiotherapy etc. for expert advice and treatment. University is also having tie up with nearby leading hospital viz., Ishan Hospital for emergency medical assistance for students. A large number of hospitals in the vicinity of the University are also on panel such as Saroj Hospital, Mahavir Hospital, Jaipur Golden Hospital and Max Hospital etc. Moreover a state of art sports medicine-cum-physiotherapy center has been providing the necessary expert advice. The following Doctors engaged in the University Health Center.

S. No.	Name	Expertise	Days	Timing
1	Dr. Ravi Bansal	General Physician	Mon to Sat (6 days in a week)	1 PM to 5 PM
2	Dr. Rajesh Singhai	General Physician	Mon to Sat (6 days in a week)	9 AM to 12 NOON
3	Dr. Arpana Bansal	Eye Specialist	Mon, Wed and Fri (3 days in a week)	1 PM to 3 PM
4	Dr. Bharat B. Sethi	Dentist	Mon, Wed and Fri (3 days in a week)	1 PM to 3 PM
5	Dr. Subodh Mor	Sports Medicine- cum-Physiotherapist (MPT)	Mon to Sat (6 days in a week)	1 PM to 4 PM
6	Dr. Dinesh Bansal	Orthopedician	Mon, Wed and Fri (3 days in a week)	1 PM to 3 PM
7	Dr. Gaurav Gupta	Psychiatrist	Tue and Thu (2 days in a week)	1 PM to 4 PM
8	Dr. Nishi Jha	Gynecologist	Tue and Thu (2 days in a week)	1 PM to 4 PM

Appointment of new clinical psychologist is almost complete.

- New doctors to be engaged very soon in the departments of
  - ENT
  - Dermatology
  - Ayurveda
  - Homeopathy
- Three qualified new nursing staff [One Male and Two Female] deputed to provide adequate nursing facility to all the stake holders viz., students, faculty staff etc.
- Salary of doctors hiked up to another 25%.
- TI doubled from existing ₹25,000/- to ₹50,000/- to meet out the medicine and other consumables procurement expenditure.
- Generic medicines inventory improved and expanded with the intake of new medicines including rabies vaccines.

- New non-consumable items added such as
  - New Air Conditioners installed in all the departments,
  - New furniture such as tables, chairs, stools, benches & reception desk
  - RO Water purifier system.
  - Tea, coffee & soup making machine.

Recently various medical diagnostic and procedural equipment have been added to further enhance the available capacity and expertise of the University Health Centre such as

  - Auto-refractometer
  - New dental set up with latest accessories
  - Physiotherapy equipment like tread mill machine
  - Pulse-oximeter
  - Two Oxygen concentrator with six oxygen cylinders
  - Dental X-ray machine

- Renovation related to civil and electrical works carried out time to time nearly in all the departments of the health center.
- Purchase of new medical diagnostic and testing equipment is also under process.
- Sign/flex boards put at all the prominent places to display vital information related to emergency services details, depression, stress symptoms and management.
- First aid boxes procured through stores and purchase for the distribution in the departments and central utilities of the university.
- Under the University Student Internship Program [USIP] one such student was engaged to carry on routine assignments related to University Health Centre.
- Started the concepts of
  - feedback of the patients
  - monthly performance reports of doctors
  - biometric attendance of the paramedical staff.

13.6 Transport Office

Prof. Nitin Kumar Puri, Transport Officer

Sh. A.K. Chauhan, Transport Consultant

The university has established a transport office with the following vehicles which are available in the University for Official Duties time to time.

S. No.	Type Vehicle	Registration No.	Attached With	Drivers
1	Maruti Ciaz	DL-11CB-2685	Hon'ble VC	Sh. Amrender Jha (Out Source)
2	Honda City	DL-10CA-2100	Pro VC	Sh. Sukhwant Singh (Contractual)
3	Ambassador	DL-8C-NA-3902	General Pool	Sh. Updesh Saini (Contractual)
4	Scorpio	DL-4C-NB-4918	General Pool	Sh. Rishi Pal Singh (Out Source)
5	Omni Van	DL-5CD-9975	General Pool	Sh. Amit Tiwari (Out Source)
6	Ambulance	DL-1A-2507	Emergency and Trauma	Sh. Mukesh (Permanent)

The University also maintains a 35 seater CNG Bus (Swaraz Mazda, DL-1PC-3419) for the transportation of the University students and staff from nearest metro station (Badli/Rithala) to the university campus Seven times in a day the bus is also provided for various educational and industrial tours by the students in the nearby areas.

A Circular was issued vide F.No.DTU/Reg./Circular/2017-18/16 dated 07.09.2017.

13.7 Dr. B. R. Ambedkar Auditorium

The University has equipped, fully air-conditioned, state of art audio visual infrastructure for web casting in an auditorium having seating capacity of six hundred and fifty.

13. CENTRAL FACILITIES

13.8 Store and Purchase Department

The Stores section has a quality system of Inventory management, which involves updated records of all stores/equipment's received and issued to the user department, Annual Stock Verification and Disposal of obsolete/unserviceable stores/equipment.

The Purchase section has a quality procurement policy. The important Consideration in purchase of Goods or services are (a) Quality (b) Reliability (c) efficiency (d) accountability and (e) Economy – Efforts are being made to ensure placement of contract/ Purchase Order within the original validity of the bids. Specified quality and reliability of the supplier has to be taken into consideration with low cost involvement. The purchase procedure being followed in this University is based on the guidelines enumerated in the General Financial Rules 2017 and Manual of Procurement of Goods 2017.

This university has various committees of the faculties/officers for making purchases:

1. **Central Purchase Committee (CPC)**: The committee has been constituted consisting of the senior faculty members for the purpose of scrutiny/ evaluation of all the purchase proposals of all the department of the University, which are having the estimated cost of the item more than ₹50 Lacs and submits its recommendation to the Vice Chancellor, DTU.

2. **University Technical Evaluation Committee**: The University Technical Evaluation Committee (TEC) constituted for consideration, evaluation and clearance of purchase proposals of Computers, Computer Peripherals and Software's of various departments of the university.

3. **Departmental Purchase Committee (DPC)**: The committee has been constituted at the department level under the Chairmanship of respective HOD of the Departments to securitize/ evaluate technical /financial bids of all the purchase proposals pertains to their department and to submit its recommendation to the Competent Authority.

4. Other than the above mentioned committees, the following committee are also constituted:

    i) Stationery & Printing Committee and Miscellaneous Items Committee.

    ii) Liveries Committee

    iii) Chemical & Glassware Committee.

    iv) Sports Council.

The Purchase office consists of the following employees for its smooth functioning.

Officer in charge store and purchase

Section Officer

Consultant (S & P)

Chief store Keeper

Junior Office Assistant (S & P)

Assistant Store Keepers

13.9 Estate and Work

Review of Existing Infrastructure

The Delhi Technological University Campus at Bawana Road, was raised in 1997-98. While the total campus plot area is 163.87 acres (663154.03 sqm), only a part of it was constructed in the first phase of construction keeping in mind a target student population of 3,000 at that time. The approved area utilization norms followed are as under:

- Academic: 45% (73.23 Acres)
- Residential: 25% (40.68 Acres)
- Green/Open: 15% (24.41 Acres)
- Sports/Cultural: 15% (24.41 Acres)

Accordingly, the first phase of construction which was completed around 1997-98 comprised of a total built up area of 1, 58,840.41Sqm with the break-up as follows:

- Academic Area 69,146.03 Sqm.
- Hostel Area 50,607.40 Sqm.
- Residential Area 39,086.98 Sqm.

The details of administrative and academic blocks of Delhi Technological University along with its corresponding approximate ground coverage and covered area details are as given below:

Administrative and Academic Blocks

S. No.	Type of Block	Total Gr. Coverage (SqM)	Total Covered Area on all Floors (SqM)
1.	Administrative Block	1879.40	4063.66
2.	Electrical Block	9628.64	23684.49
3.	Electronics	9628.64	23684.49
4.	Civil Engineering Block	9628.64	23684.49
5.	Mechanical Engineering Block	4208.83	14291.10
6.	Workshop Block	3416.20	3416.20
7.	Science Block	2817.43	8667.78

Existing Administrative and Academic Blocks

- Administrative Block
- Electrical, Electronics and Civil Engineering Blocks
- Mechanical Engineering Block
- Workshop Block
- Science Block

The details of various central administrative and academic facilities at Delhi Technological University along with its corresponding approximate ground coverage and covered area details are as given under: -

Central Administrative and Academic Facilities

S. No.	Description of Block	Student Capacity	Total Gr. Coverage (SqM)	Total Covered area on all floors (SqM)
1.	Main Library	400	2000.00	5500.00
2.	Computer Centre	300	1500.00	3000.00

S. No.	Description of Block	Student Capacity	Total Gr. Coverage (SqM)	Total Covered area on all floors (SqM)
3.	Multipurpose Lecture Theatre cum Seminar Hall (Auditorium)	550	2500.00	3000.00
4.	Senate Hall	45	72.00	72.00
5.	Exposition Hall	45	84.00	84.00
6.	Smart Class room -I	90	144.00	144.00
7.	Smart Class room -II	90	144.00	144.00
8.	Seminar Hall (RN 307)	25	112.00	112.00
9.	Edusat Hall	40	-	-

Central Administrative and Academic Facilities

- Main Library
- Computer Centre
- Multipurpose Lecture Theatre cum Seminar Hall (Auditorium)
- Senate Hall
- Smart Class Room
- Seminar Hall

The details of existing hostel accommodation for boys and girl students including capacity of each hostel and corresponding approximate ground coverage and covered area details are as given below.

S. No.	Hostel Name	Capacity	Total Gr. Coverage (SqM)	Total Covered area on all floors (SqM)
1	VVS Boys Hostel	178	11875.02	47500.08
2	JCB Boys Hostel	178		
3	VMH Boys Hostel	178		
4	CVR Boys Hostel	178		
5	BCH Boys Hostel	178		
6	HJB Boys Hostel	166		
7	Ramanujan Boys Hostel	65		
8	Aryabhatt Boys Hostel/ Type-I	168		
9	Type – II B – 5, Boys Hostel	24		
	Total Boys :-	1313		
1	KCH Girls Hostel	45	776.83	3107.32
2	SNH Girls Hostel	99		
3	Type-III Block 1 Girls Hostel	70		
4	Type-III Block 2 Girls Hostel	48		
5	Type – II Block – 1 Girls Hostel	66		
6	Type – II Block –2,3, 4 Girls Hostel	72		
	Total Girls :-	400		
	Grand Total :-	1713		

Existing Hostels

- JCB Hostel
- VMH Hostel
- CVR Hostel
- BCH Hostel
- HJB Hostel
- Ramanujan Hostel
- Aryabhatt Hostel
- Type – II B – 5

- KCH Hostel
- SNH Hostel
- Type-III Block 1 & 2 Girls Hostel

The details of residential accommodation for faculty and staff members including numbers of different type of houses with its corresponding approximate ground coverage and covered area details are as given below.

Residences

S. No	Type	No	Total Gr. Coverage (SqM)	Total Covered area on all floors (SqM)
1.	Type VI Residence	1	200.00	250.00
2.	Type V Residence	56	2984.68	11938.72
3.	Type IV Residence	60	15650.56	6262.24
4.	Type III Residences	45	878.28	3513.12
5.	Type II Residence	105	1679.37	6717.48
6.	Type I Residence	60	803.12	3212.48
7.	Total	327		

Residential Area

- Type-I, Residence
- Type-II, Residence
- Type-III, Residence
- Type-IV, Residence
- Type-V, Residence
- Type-VI, VC Residence

The details of various central amenities provided in the campus for resident's boys and girl students including capacity of each hostel and corresponding approximate ground coverage and covered area details are as given below.

S. No.	Description of Blocks	Total Gr. Coverage (SqM)	Total Covered area on all floors (SqM)
1	Guest House (8 Double Bedded Rooms)	414.46	828.92
2	State Bank of India	2984.68	2984.68
3	Post Office	878.28	878.28
4	12 bedded hospital	782.40	1267.00
5	Nursery School (currently under occupation with PWD)	800.00	800.00
6	Main Canteen	700.00	1500.00

Central Amenities Area

- State Bank of India
- Post Office
- 12 Bedded Hospital
- Nursery School (Currently used by PWD)
- Main Canteen

Master Plan 2021: Delhi Technological University

The overall master plan envisaged for the Delhi Technological University to be constructed in different phases is summarised below: -

Permissible	Land	Area	Ground Cov.		FAR		Height
	(%)	(Sq.m.)	(Sq.m.)		(Sq.m.)		(Mts.)
Academic	45%	2 96 361	88 908	30.00%	3 55 634	120.00%	37
Residential	25%	1 64 645	54 876	33.33%	3 29 291	200.00%	NR
Community Spaces, Sports and cultural	15%	98 787	9 879	10.00%	14 818	15.00%	26
Parks and Landscaped Open Area	15%	98 787					
Total		6 58 581	1 53 663		6 99 742		
Existing	Land	Area	Ground Cov.		FAR		Height
	(%)	(Sq.M.)	(Sq.M.)		(Sq.M.)		(Mts.)
Academic	45%	2 96 361	30 673	10.35%	69 146	23.33%	16
Residential	25%	1 64 645	25 284	15.36%	89 694	54.48%	14.8
Community Spaces, Sports and cultural	15%	98 787	850	0.86%	850	0.86%	3.6
Parks and Landscaped Open Area	15%	98 787					
Total		**6 58 581**	**56 807**		**1 59 689**		

Proposed	Land	Area	Ground Cov.		FAR		Height
	(%)	(Sq.M.)	(Sq.M.)		(Sq.M.)		(Mts.)
Academic	45%	2 96 361	39 425	13.30%	2 41 069	81.34%	36.45
Residential	25%	1 64 645	29 310	17.80%	1 89 166	114.89%	41.85
Community Spaces, Sports and cultural	15%	98 787	4 060	4.11%	5 846	5.92%	15
Parks and Landscaped Open Area	15%	98 787					
Total		6 58 581	72 795		4 36 081		
Total	Land	Area	Ground Cov.		FAR		Height
	(%)	(Sq.M.)	(Sq.M.)		(Sq.M.)		(Mts.)
Academic	45%	2 96 361	70 098	23.65%	3 10 215	104.67%	36.45
Residential	25%	1 64 645	54 594	33.16%	2 78 860	169.37%	41.85
Community Spaces	15%	98 787	4 910	4.97%	6 696	6.78%	15
Ancillary Services	15%	98 787					
Total		6 58 581	1 29 602		5 95 771		

Infrastructure proposed to be constructed in Phase II (Stage 1)

A proposal for construction of various academic and hostel buildings is under active consideration of the Govt of NCT Delhi. The second phase of construction at DTU submitted to the Govt includes construction of:

Boys and Girls Hostels.

Academic Blocks for the Newly Added UG and PG programs.

Built-up space for the ongoing and future research and development centres.

Built-up space for School of Management and Centre for Innovation and Techno-entrepreneurship.

The buildings proposed in Phase - II (Stage-I) and proposed area statement is as given below: -

S. No.	Building Names	Ground Coverage (Sq.m)	Built Up Area (Sq.m.)	No. of Storey
1	Boys Hostel H5	519	5895	B+G+11
2	Girls Hostel HG5	426	5937	B+G+11
3	Girls Hostel HG6	426	5937	B+G+11
4	Academic Block AB3	1809	18436	B+G+8
5	Academic Block AB4	2285	23198	B+G+8
	Total	5465	59403	

Expansion of DTU campus Ph-II: Phase-wise Construction plan

Proposed Buildings in Phase II with Existing Buildings of Phase-I

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

East Delhi Vivek Vihar Campus

The Hon'ble Lt. Governor, Delhi has pleased to allow the use of existing Campus of Shaheed Sukhdev College of Business Studies, University of Delhi, and Vivek Vihar for running East Campus of Delhi Technological University (DTU) on temporary basis. Consequent upon this, new session for conducting various courses has been started at DTU East Delhi Campus at Vivek Vihar during the year 2017-18. Hon'ble Chief Minister of Delhi inaugurated the new Campus of DTU on 18th August, 2017. The existing plot area of DTU East Delhi Campus at Vivek Vihar is 8341 Sqm. (2.06 acre). The built up area comprising of the following buildings are as follows.

S. No.	Name of Building	Area (Sqm)	Remarks
1	Main Building	4,417.00	Four Storied
2	University School of Management and Entrepreneurship	576.68	Double Storied
3	Class Room Block-A & Canteen	382.11	Single Storey
4	Class Room Block-B	516.16	Double Storied
	Total	5,941.65	

East Delhi (ITI Mayur Vihar) Campus

A piece of land measuring 4852.8 sq.m. Has been allotted initially in ITI Mayur Vihar Campus for Establishment of East Delhi Campus/ Constituent College of Delhi Technological University by the DTTE. For development of Campus the soil investigation work has already been carried out by PWD.

Ongoing Construction of a new Building in Delhi Technological University

- The construction of a new building:
- Department of Design
- Girls Holstels
- Raj Soni Hall
- Academic Block, Classroom Near SPS 10

14 Other Facilities

14.1 DTU Studio

- The Television Studio at Delhi Technological University is an example of Innovation and Industry Academia Collaboration. The spacious television studio can handle Pre-Production, Production and Post-Production activities for various activities like Interview, Panel Discussion, short plays, lectures, etc.

- DTU Studio comprises of a multi camera setup with lighting grids and a Teleprompter, Production control room with control panels which can handle multiple video and audio sources online and offline, Graphics and special effects generators, video edit suites with a Mac equipped with Final Cut Pro Video Editing software, Motion, Live-Type, EDIUS 9.0 video editing software and Photoshop CS6, etc.

- Our experienced and competent team of professionals renders these services by making use of ultra-modern technology with quality standards in tandem with exact requirements and necessities as required. The offered services are highly demanded for their unique characteristics such as reliable solution, flexible approach, hassle-free management, promptness and professional approach.

- The students of Delhi Technological University are engaging in a whole range of In-house and Outdoor production activities. These activities are widely admired for their timely execution, promptness and hassle-free operations. In addition to this, trouble free operation and promptness of these activities is our strength and are rendered in the best possible way.

1. Infrastructure

- DTU Studio is having facility of two studios at Delhi Technological University. It has the facility of Indoor production as well as Outdoor production. One of the studios has the facility of Teleprompter, Chroma keying with virtual studio sets and all necessary equipment for video production.

- DTU Studio is equipped with sophisticated high end broadcasting quality equipment for production like Three Sony studio camera, Two Camcorder, Two Still camera, One Non-Linear Editing machine Mac Pro with Final Cut Pro Video Editing software, One Dell Precision T 7500Workstation, One 7 Dell Precision tower 7810 dual Intel Xeon Workstation, VT-5 Live switcher, Sony D-800 Live switcher, Newtek live audio and video switcher, Two Yamma O1V96 digital Audio Consol, Two lite-Puter CV12.

2. Utilization

- DTU Studio is covering all university Events, International Conferences, Departmental workshops, lab experiments, Student Fest, Alumni Meet as well as the Global Initiative of Academic Networks (GIAN) in Higher Education Programs where renowned Experts faculty, Guest Lectures from internationally and national facility lectures are recorded.

3. Services being offered

- With the support of our in-house facilities, we are busy in offering Pre production, Production and Post Production Facility for recording various programs like Interview, Panel Discussion, short plays,

lectures, etc. in the spacious television studio of the university located at the 1st floor of Civil/Environment Engineering department.

- To offer these services, we have hired skilled and innovative professionals that hold in-depth knowledge and immense experience in their respective domain. The offered services are committed for their flexibility, reliability and timely execution.

- Apart from this, we are engaged in offering an impeccable quality of Outdoor Photography and Video Production Service with respect to suit the exact preferences as required. These services are available in various customized solutions as per the requirement. These services are widely admired for

their timely execution, promptness and hassle-free operations.

YouTube Channel QR Code:

List of Videos Uploaded on the YouTube Channel in 2019-20

Video Title	Link
DTU Orientation Programme -2019 Address by Sh. Manish Sisodia Hon'ble Dy. Chief Minister & Minister of Education, Govt. of NCT of Delhi	https://youtu.be/U5uJCJ15mGs
Orientation Programme-2019 Address by Prof. Yogesh Singh Vice Chancellor, DTU	https://youtu.be/7rmYcRsRdj4
Orientation Programme-2019 Welcome Address by Prof. Madhusudan Singh, Dean Academic UG, DTU	https://youtu.be/knXDzt5gPNg
Orientation Programme -2019 Address by Sh. S.S. Gill (IAS), Director (Higher Education)	https://youtu.be/uRl1h0xONLM
Prof. Yogesh Singh VC DTU 73rd Independence Day speech at BR Ambedkar Auditorium	https://youtu.be/dH_edCw1zl0
"ROOBAROO-16" Anoop lather Interviewing Mr. K. Ganesh, Promoter Director GrowthStory	https://youtu.be/GYWNGjS9IHQ
"ROOBAROO-17" Anoop lather Interviewing Mr. Sharad Sharma, Co-founder iSPRIT Foundation	https://youtu.be/--ImkIsYmds
Samvaad -4 with Anoop Lather Interviewing Philip McKoy Chief Information Officer United Healthcare	https://youtu.be/tft8OqdaCwE
Address by The Vice Chancellor at Mini Fair US Universities 2nd September 2019	https://youtu.be/Hi397jWaiYc

14. OTHER FACILITIES

Video Title	Link
Addressing by Dr. Muktesh Chandra, IPS & Sunil Kumar Saxena, ITS at Guru Sammaan Utsav in Delhi Technological University	https://youtu.be/Q6xgJ6X6-ko
Addressing by Prof. Yogesh Singh Vice Chancellor, DTU at Guru Sammaan Utsav Delhi Technological University.	https://youtu.be/3ZKXr6Z25o8
Hasya Kavi Sammelan in Guru Sammaan Utsav Part-1	https://youtu.be/IIr-yWoU59A
Hasya Kavi Sammelan in Guru Sammaan Utsav-2019 Part-2	https://youtu.be/uUr6a_O0mr8
Hasya Kavi Sammelan in Guru Sammaan Utsav-2019 Part-3	https://youtu.be/IirPJ2Y86js
Hasya Kavi Sammelan in Guru Sammaan Utsav-2019 Part-4	https://youtu.be/NzEPryTUXtg
Addressing by Prof. Yogesh Singh Vice Chancellor, DTU at Teachers Training Programme	https://youtu.be/RENnl1m_M64
Addressing by Prof. Yogesh Singh Vice Chancellor, DTU at MOU Signing Ceremony DTU & Indonesian University	https://youtu.be/Zf4HhWUN5vc
1st NCC Orientation Programme in DTU Address by Prof. Yogesh Singh Vice Chancellor, DTU	https://youtu.be/JxYuzCvxPj0
Official page of Delhi Technological University	https://youtu.be/D5QZadbuz90
Official page of Delhi Technological University	https://youtu.be/gHX-SG7g2E4
"Golden Pride Function-2019" Welcome Speech	https://youtu.be/rciQPuJ16ZQ
"Golden Pride Function-2019" Part-2	https://youtu.be/kLeaZ6Hx96c
"Golden Pride Function-2019" Part-3	https://youtu.be/_SnwRb4ngjs
"Golden Pride Function-2019" Part-4	https://youtu.be/rmR94Indzgl
"Golden Pride Function-2019" Part-5	https://youtu.be/nMjzUUVmlQ0
"6th Convocation 2019" Part-1	https://youtu.be/I8Qtz92DJbk
DTU 6th Convocation 2019 Part-2	https://youtu.be/n64ImVxcpDY
6th Convocation 2019" Part-3	https://youtu.be/x3W9_bRcuU0
6th Convocation 2019" Part-4	https://youtu.be/RIyY0f_OMf0
6th Convocation 2019" Part-4 Vote for Thanks	https://youtu.be/dDn1vuzUznE
Education Fest of USA Universities-2019	https://youtu.be/bT86FZEGOpI
Chinese Delegation Visit "Delhi Technological University"	https://youtu.be/fDNtzdw1sOY
DTU - Indonesian University MOU Signing Ceremony	https://youtu.be/r2k9fFUIeZg
Indonesian Universities visit "Delhi Technological University"	https://youtu.be/D22HmqyxCjE
International Summit on Quality Indices in Higher Education	https://youtu.be/6Mkg-60JDuc
Vice-Chancellor Speech on Literature and Film Council-Delhi Technological University	https://youtu.be/oq3FXbta0fc
TAIWAN DELEGATION VISIT DTU ON 17THJAN 2020	https://youtu.be/VUznTdW0yJQ

14. OTHER FACILITIES

Video Title	Link
DTU Celebrating 71st Republic Day-2020 Part-2	https://youtu.be/EPO1Qhk8Zuk
DTU Celebrating 71st Republic Day-2020 Part-1	https://youtu.be/eB63y1zUo0Y
Home Coming Alumni Meet-2020 Part-1	https://youtu.be/bvY95q8TA8k
Home Coming Alumni Meet-2020 Part-2	https://youtu.be/5g7rbJ2U3ME
Home Coming Alumni Meet-2020 Part-3	https://youtu.be/Gbv1gww7SXo
Home Coming Alumni Meet-2020 Part-4	https://youtu.be/77hOG2H7v0c
Home Coming Alumni Meet-2020 Part-5	https://youtu.be/rkjvh-Et1xk
Home Coming Alumni Meet-2020 Part-6	https://youtu.be/vWa-5zUw68o
Home Coming Alumni Meet-2020 Part-7	https://youtu.be/95KFHUKH-HA
Yuvaan -2020 Filmy Talks with Yashpal Sharma Part-1	https://youtu.be/DXiTTmJg0gQ
Yuvaan -2020 Filmy Talks with Yashpal Sharma Part-2	https://youtu.be/Oy0XvpfwRn8
Yuvaan -2020 Filmy Talks with Yashpal Sharma Part-3	https://youtu.be/iMg-bEduOEU
Yuvaan -2020 Filmy Talks with Yashpal Sharma Part-4	https://youtu.be/huRSb7UQ-YI
Yuvaan -2020 Filmy Talks with Yashpal Sharma Part-5	https://youtu.be/Jm8fYlH7nIc
E Summit-2020 Part-1	https://youtu.be/gp9Wlh6T2eA
E Summit-2020 Part-2	https://youtu.be/YA0TOwnABPc
ENG Fest-2020 Inauguration Function Part-1	https://youtu.be/TzZCFtzRmYQ
Prof. Yogesh Singh Vice-Chancellor Delhi Technological University at Rashtrapati Bhavan "Banquet in Honor of the Hon'ble US President Donald Trump"	https://youtu.be/VbAgx7MDx8o
Prof. Yogesh Singh-V.C, DTU at Rashtrapati Bhavan with Hon'ble US President Donald Trump- Full Video	https://youtu.be/lxPtL6OxpcY
ENG Fest-2020 Address by Film Maker Mr. Ranjeet Kapoor	https://youtu.be/7GaoWls-R2A
ENG Fest-2020 Address by Vice Chancellor, DTU	https://youtu.be/OIk9M5rW66g
SOCH - Enactus DTU, Address by Prof. Yogesh Singh Vice Chancellor, Delhi Technological University	https://youtu.be/FEv6vKvtwfs
UVAAN Inauguration Ceremony -2020 Part-1	https://youtu.be/Hkhw46Ih-Wo
YUVAAN Inauguration Ceremony -2020 Part-2	https://youtu.be/NeBJh3-lVRo
YUVAAN Inauguration Ceremony -2020 Part-3	https://youtu.be/iq2diN3Fq1w
RIP..! Our Talented Student Sushant Singh Rajput...!	https://youtu.be/zhev9st7Btk

14.2 Guest House

- The guest house within the campus is meant for the staying purpose of individuals visiting DTU. The rooms are comfortable with all modern facilities available within. It consists of eight double bedded rooms. Prof. Rajesh Rohilla, Professor in Department of Electronics Engineering is the officer in charge.

15 University Accounts

DELHI TECHNOLOGICAL UNIVERSITY
Balance Sheet as at 31st March, 2020

	Schedule	As at 31-03-2020	As at 31-03-2019
		(Rs)	(Rs)
SOURCES OF FUNDS			
CAPITAL FUND	1	3,627,531,575.37	3,453,201,245.20
CORPUS FUND	1A	438,359,478.00	445,159,045.00
DESIGNATED/EARMARKED/ ENDOWMENT FUNDS	2	1,461,953,098.49	1,136,130,718.67
CURRENT LIABILITIES AND PROVISIONS	3	80,534,696.46	69,775,316.00
TOTAL		5,608,378,848.32	5,104,266,324.87
APPLICATION OF FUNDS			
FIXED ASSETS	4		
Tangible Assets		2,955,073,888.67	2,629,227,914.00
Intangible Assets		12,271,055.09	-
Capital Work In Progress		189,300,926.00	123,464,769.00
INVESTMENTS FROM EARMARKED FUNDS	5		
Long Term		1,766,832,959.00	1,450,602,747.00
INVESTMENTS - OTHERS	6	-	-
CURRENT ASSETS	7	628,683,969.86	833,814,609.87
LOANS,ADVANCES AND DEPOSITS	8	56,216,049.70	67,156,285.00
TOTAL		5,608,378,848.32	5,104,266,324.87
SIGNIFICANT ACCOUNTING POLICIES & NOTES TO ACCOUNTS	23		

Sd/-	Sd/-	Sd/-	Sd/-
Ajay Kumar Gupta (Partner) Chartered Accountants M.A.M. & Associates	Jaspal Singh (Sr.AO/DDO)	Nand Kishore D.R. (F&A)	Dr. Samsher (Registrar)

Place : New Delhi
Dated : 11th August, 2020

DELHI TECHNOLOGICAL UNIVERSITY
Income and Expenditure Account for the Year ended 31St March, 2020

	Schedule	2019-2020	2018-2019
		(Rs)	(Rs)
INCOME			
Academic Receipts	9	1,090,063,422.17	924,398,387.12
Grant in Aid	10	260,000,000.00	260,000,000.00
Income From Investments	11	38,199,926.00	39,804,050.00
Interest Earned	12	-	-
Other Incomes	13	64,508,881.72	140,827,547.24
Prior Period Income	14	62,216,162.00	-
TOTAL (A)		**1,514,988,391.89**	**1,365,029,984.36**
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	1,019,317,971.00	673,770,483.00
Academic Expenses	16	81,947,372.00	55,165,619.00
Administrative and General Expenses	17	286,544,369.95	267,061,802.35
Transportation Expenses	18	156,395.00	575,572.00
Repair and Maintenance	19	43,845,193.00	156,778,121.00
Finance Costs	20	178,205.08	131,796.27
Depreciation	4	158,862,022.00	141,442,607.00
Other Expenses	21	-	-
Prior Period Expenses	22	-	
TOTAL (B)		**1,590,851,528.03**	**1,294,926,000.62**
Balance being Excess of Income over Expenditure		(75,863,136.14)	70,103,983.74
Transfer To/From Designated Fund		-	
Building Fund		-	-
Others (specify)		-	-
Balance Being Surplus/(Deficit) Carried To Capital Fund		(75,863,136.14)	70,103,983.74
SIGNIFICANT ACCOUNTING POLICIES & NOTES TO ACCOUNTS	23		

Sd/-
Ajay Kumar Gupta
(Partner)
Chartered Accountants
M.A.M. & Associates

Sd/-
Jaspal Singh
(Sr.AO/DDO)

Sd/-
Nand Kishore
D.R. (F&A)

Sd/-
Dr. Samsher
(Registrar)

Place : New Delhi
Dated : 11th August, 2020

15. UNIVERSITY ACCOUNTS

DELHI TECHNOLOGICAL UNIVERSITY

Receipts and Payment Account for the Year Ended 31st March, 2020

Amount in Rupees

RECEIPTS	As at 31-03-2020	As at 31-03-2019	PAYMENTS	As at 31st March, 2020	As at 31st March, 2019
I. Opening Balance			I. Payments		
a) Cash Balance	-	-	a) Establishment Expenses	1,019,317,971.00	673,770,483.00
b) Bank Balance			b) Academic Expenses	81,947,372.00	55,165,619.00
i. In Current accounts	367,807,450.83	491,544,398.09	c) Administrative Expenses	286,544,369.95	267,061,802.35
ii. In Deposit accounts	1,821,330,759.00	-	d) Transportation Expenses	156,395.00	575,572.00
iii. Saving accounts	95,279,147.04	80,587,955.17	e) Repair and Maintenence	43,845,193.00	156,778,121.00
			f) Finance Costs	178,205.08	131,796.27
			g) Prior Period Expenses	-	-
II. Grant Received			II. Payments against Earmarked / Endowment Fund	789,367,530.06	281,763,862.95
a) From Government of India	-	-			
b) From State Government					
(i) For Capital Expenditure	7,500,000.00	30,000,000.00			
(i) For Revenue Expenditure	260,000,000.00	260,000,000.00			
c) From Other sources (details)	-	-			
(Grants for capital & revenue exp / to be shown separately if available)					
III. Academic Receipts	1,090,063,422.17	924,398,387.12	III. Payment against Sponsored Projects/ Schemes	-	-

Amount in Rupees

RECEIPTS	As at 31-03-2020	As at 31-03-2019	PAYMENTS	As at 31st March, 2020	As at 31st March, 2019
IV. Receipts against Earmarked/ Endowment Funds	864,798,979.19	634,544,184.82	IV. Expenditure Out of Corpus Fund	37,949,692.00	-
V. Receipts against Corpus Fund	101,000.00	-	V. Investment and Deposits made		
			a) Out of Earmarked / Endowment Funds	-	1,043,962,414.00
			b) Out of own funds (Investments-Others)	-	2,193,704,834.00
VI. Receipts against Sponsored Fellowships and Scholarships	-	-	VI. Term Deposits with Scheduled Banks	-	-
VII. Income on Investments from			VII. Expenditure on Fixed Assets and Capital		
a) Earmarked / Endowment funds	76,732,960.00	40,933,713.00	Works - in - Progress		
b) Other Investments	97,160,208.00	81,923,287.00	a) Fixed Assets	150,969,701.76	192,806,708.00
c) Corpus Fund			b) Capital Works - in -Progress	-	123,464,769.00
VIII. Interest Received on			VIII. Other Payments including Statutory payments	327,726,562.75	200,180,257.00
a) Bank Deposits	-	-			
b) Loan and Advances	-	-			
c) Saving Bank Accounts	4,360,604.00	2,918,161.00			
IX. Investments encashed		2,798,186,795.00	IX. Refund of Grants	-	-

Amount in Rupees

RECEIPTS	As at 31-03-2020	As at 31-03-2019	PAYMENTS	As at 31st March, 2020	As at 31st March, 2019
X. Term Deposits with Scheduled Banks encashed	-	-	X. Deposits and Advances	-	-
XI. Other Income (including Prior Period Income)	62,013,051.00	-	XI. Other Payments	-	-
XII. Deposits and Advances	-	-	XII. Closing Balance	-	-
			a) Cash in hand	-	-
			a) Bank Balance		
			In Current accounts	461,469,204.06	367,807,450.83
			In Saving accounts	144,740,408.80	95,279,147.04
			In Deposit accounts	1,789,104,205.00	-
XIII. Miscellaneous Receipts including Statutory Receipts.	386169229.23	307,415,955.24			
XIV. Any other Receipts	-	-			
Total	5,133,316,810.46	5,652,452,836.44	Total	5,133,316,810.46	5,652,452,836.44

Sd/-
Ajay Kumar Gupta
(Partner)
Chartered Accountants
M.A.M. & Associates

Place : New Delhi
Dated : 11th August, 2020

Sd/-
Jaspal Singh
(Sr.AO/DDO)

Sd/-
Nand Kishore
D.R. (F&A)

Sd/-
Dr. Samsher
(Registrar)

DELHI TECHNOLOGICAL UNIVERSITY
BALANCE SHEET AS AT 31ST MARCH, 2020

	Schedule	As at 31-03-2020 (Rs)	As at 31-03-2019 (Rs)
SOURCES OF FUNDS			
CAPITAL FUND	1	3,627,531,575.37	3,453,201,245.20
CORPUS FUND	1A	438,359,478.00	445,159,045.00
DESIGNATED/EARMARKED/ENDOWMENT FUNDS	2	1,461,953,098.49	1,136,130,718.67
CURRENT LIABILITIES AND PROVISIONS	3	80,534,696.46	69,775,316.00
TOTAL		5,608,378,848.32	5,104,266,324.87
APPLICATION OF FUNDS			
FIXED ASSETS	4		
Tangible Assets		2,955,073,888.67	2,629,227,914.00
Intangible Assets		12,271,055.09	-
Capital Work In Progress		189,300,926.00	123,464,769.00
INVESTMENTS	5		
Long Term		1,766,832,959.00	1,450,602,747.00
INVESTMENTS - OTHERS	6	-	-
CURRENT ASSETS	7	628,683,969.86	833,814,609.87
LOANS, ADVANCES AND DEPOSITS	8	56,216,049.70	67,156,285.00
TOTAL		5,608,378,848.32	5,104,266,324.87
SIGNIFICANT ACCOUNTING POLICIES & NOTES TO ACCOUNTS	23		

CA Ajay Gupta
Partner
M.No. 095390

Jaspal Singh
(Sr.AO/DDO)
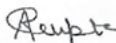
Nand Kishore
D.R (F&A)

Dr. Samsher
(Registrar)

Place : New Delhi
Dated : 11th August, 2020

	Schedule	2019-2020 (Rs)	2018-2019 (Rs)
INCOME			
Academic Receipts	9	1,090,063,422.17	924,398,387.12
Grant in Aid	10	260,000,000.00	260,000,000.00
Income From Investments	11	38,199,926.00	39,804,050.00
Interest Earned	12	-	-
Other Incomes	13	64,508,881.72	140,827,547.24
Prior Period Income	14	62,216,162.00	-
		-	
TOTAL (A)		1,514,988,391.89	1,365,029,984.36
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	1,019,317,971.00	673,770,483.00
Academic Expenses	16	81,947,372.00	55,165,619.00
Administrative and General Expenses	17	286,544,369.95	267,061,802.35
Transportation Expenses	18	156,395.00	575,572.00
Repair and Maintenance	19	43,845,193.00	156,778,121.00
Finance Costs	20	178,205.08	131,796.27
Depreciation	4	158,862,022.00	141,442,607.00
Other Expenses	21	-	-
Prior Period Expenses	22	-	
TOTAL (B)		1,590,851,528.03	1,294,926,000.62
Balance being Excess of Income over Expenditure		(75,863,136.14)	70,103,983.74
Transfer To/From Designated Fund		-	-
Building Fund		-	-
Others (specify)		-	-
Balance Being Surplus/(Deficit) Carried To Capital Fund		(75,863,136.14)	70,103,983.74
SIGNIFICANT ACCOUNTING POLICIES & NOTES TO ACCOUNTS	23		

CA Ajay Gupta
Partner
M.No. 095390

Jaspal Singh
(Sr.AO/DDO)

Nand Kishore
D.R (F&A)

Dr. Samsher
(Registrar)

Place : New Delhi
Dated : 11th August, 2020

DELHI TECHNOLOGICAL UNIVERSITY
RECEIPTS AND PAYMENT ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020

Amount in Rupees

RECEIPTS	As at 31-03-2020	As at 31-03-2019
I. Opening Balance		
a) Cash Balance	-	-
b) Bank Balance		
i. In Current accounts	367,807,450.83	491,544,398.09
ii. In Deposit accounts	1,821,330,759.00	-
iii. Saving accounts	95,279,147.04	80,587,955.17
II. Grant Received		
a) From Government of India	-	-
b) From State Government		
(i) For Capital Expenditure	7,500,000.00	30,000,000.00
(i) For Revenue Expenditure	260,000,000.00	260,000,000.00
c) From Other sources (details)	-	-
(Grants for capital & revenue exp / to be shown separately if available)		
III. Academic Receipts	1,090,063,422.17	924,398,387.12
IV. Receipts against Earmarked / Endowment Funds	864,798,979.19	634,544,184.82
V. Receipts against Corpus Fund	101,000.00	-
VI. Receipts against Sponsored Fellowships and Scholarships	-	-
VII. Income on Investments from		
a) Earmarked / Endowment funds	76,732,960.00	40,933,713.00
b) Other Investments	97,160,208.00	81,923,287.00
c) Corpus Fund	-	-

PAYMENTS	As at 31-03-2020	As at 31-03-2019
I. Payments		
a) Establishment Expenses	1,019,317,971.00	673,770,483.00
b) Academic Expenses	81,947,372.00	55,165,619.00
c) Administrative Expenses	286,544,369.95	267,061,802.35
d) Transportation Expenses	156,395.00	575,572.00
e) Repair and Maintenence	43,845,193.00	156,778,121.00
f) Finance Costs	178,205.08	131,796.27
g) Prior Period Expenses	-	-
II. Payments against Earmarked / Endowment Fund	789,367,530.06	281,763,862.95
III. Payment against Sponsored Projects/ Schemes	-	-
IV. Expenditure Out of Corpus Fund	37,949,692.00	-
V. Investment and Deposits made		
a) Out of Earmarked /Endowment Funds	-	1,043,962,414.00
b) Out of own funds (Investments-Others)	-	2,193,704,834.00
VI. Term Deposits with Scheduled Banks	-	-
VII. Expenditure on Fixed Assets and Capital Works - in - Progress		
a) Fixed Assets	150,969,701.76	192,806,708.00
b) Capital Works - in -Progress	-	123,464,769.00

Receipts			Payments		
VIII. Interest Received on			VIII. Other Payments including Statutory payments	2,918,161.00	327,726,562.75 / 200,189,???.00
a) Bank Deposits	-				
b) Loan and Advances	-				
c) Saving Bank Accounts	4,360,604.00				
IX. Investments encashed			IX. Refund of Grants	2,798,186,795.00	-
X. Term Deposits with Scheduled Banks encashed	-		X. Deposits and Advances	-	-
XI. Other Income (including Prior Period Income)	62,013,051.00		XI. Other Payments	-	-
XII. Deposits and Advances	-		XII. Closing Balance		
			a) Cash in hand	-	-
			a) Bank Balance		
			In Current accounts	461,469,204.06	367,807,450.83
			In Saving accounts	144,740,408.80	95,279,147.04
			In Deposit accounts	1,789,104,205.00	-
XIII. Miscellaneous Receipts including Statutory Receipts.	386169229.23	307,415,955.24			
XIV. Any other Receipts	-	-			
Total	5,133,316,810.46	5,652,452,836.44	Total	5,133,316,810.46	5,652,452,836.44

CA Ajay Gupta
Partner
M. No. 095390

Place : New Delhi
Dated : 11th August, 2020

Jaspal Singh
(Sr.AO/DDO)

Nand Kishore
D.R (F&A)

Dr. Samsher
(Registrar)

16 Annexure

16.1 Journal Publications

S. No.	Authors	Title	Year	Source title	DOI
1	Singh, C.P., Kumar, A.	Holographic dark energy, matter creation, and cosmic acceleration	2020	Physical Review D	10.1103/PhysRevD. 102.123537
2	Dutta, A., Kour, S., Taran, S.	Automatic drowsiness detection using electroencephalogram signal	2020	Electronics Letters	10.1049/el. 2020.2697
3	Maurya, N.K., Rastogi, V., Singh, P.	Experimental and computational analysis of mechanical properties of RGD840 material manufactured through PolyJet process	2020	Rapid Prototyping Journal	10.1108/RPJ-03-2020-0049
4	Gupta, A., Khan, R.U., Singh, V.K., Tanveer, M., Kumar, D., Chakraborti, A., Pachori, R.B.	A novel approach for classification of mental tasks using multiview ensemble learning (MEL)	2020	Neurocomputing	10.1016/j.neucom. 2020.07.050
5	Sharma, R.	Descriptive epidemiology of incidence and mortality of primary liver cancer in 185 countries: Evidence from GLOBOCAN 2018	2020	Japanese Journal of Clinical Oncology	10.1093/jjco/hyaa 130
6	Varanasi, J., Tripathi, M.M.	Market Models and Operating Mechanism for Renewable Energy Enabled Indian Electricity Market	2020	Technology and Economics of Smart Grids and Sustainable Energy	10.1007/s40866-020-00097-1
7	Malhotra, T., Gupta, A.	Group operations and isomorphic relation with the 2-tuple linguistic variables	2020	Soft Computing	10.1007/s00500-020-05367-9
8	Joshi, S., Yuvaraj, N., Singh, R.C., Chaudhary, R.	Microstructural and Wear Investigations of the Mg/B$_4$C Surface Composite Prepared Through Friction Stir Processing	2020	Transactions of the Indian Institute of Metals	10.1007/s12666-020-02102-8
9	Sharma, A., Rastogi, V., Agrawal, A.K.	Microstructural, Dynamic and Residual Stress Analysis of Metal Matrix Composite Shafts	2020	Transactions of the Indian Institute of Metals	10.1007/s12666-020-02101-9
10	Saini, M., Susan, S.	Deep transfer with minority data augmentation for imbalanced breast cancer dataset	2020	Applied Soft Computing Journal	10.1016/j.asoc. 2020.106759
11	Tomar, M., Kumar, N.	Effect of multi-walled carbon nanotubes and alumina nano-additives in a light duty diesel engine fuelled with schleichera oleosa biodiesel blends	2020	Sustainable Energy Technologies and Assessments	10.1016/j.seta. 2020.100833
12	Chamola, P., Mittal, P.	Impact of ZnTe, SbZnTe and SnZnTe absorber materials for multi-layered solar cell: Parametric extraction and layer wise internal analysis	2020	Optik	10.1016/j.ijleo. 2020.165626
13	Yadav, R.K., Anubhav	PSO-GA based hybrid with Adam Optimization for ANN training with application in Medical Diagnosis	2020	Cognitive Systems Research	10.1016/j.cogsys. 2020.08.011

S. No.	Authors	Title	Year	Source title	DOI
14	Kumar, A., Singh, C.P.	Viscous Ricci dark energy model with matter creation: Exact solution and observational tests	2020	Pramana - Journal of Physics	10.1007/s12043-020-01996-9
15	Malhotra, R., Lata, K.	An empirical study on predictability of software maintainability using imbalanced data	2020	Software Quality Journal	10.1007/s11219-020-09525-y
16	Gautam, M., Santhiya, D., Dey, N.	Zein coated calcium carbonate nanoparticles for the targeted controlled release of model antibiotic and nutrient across the intestine	2020	Materials Today Communications	10.1016/j.mtcomm.2020.101394
17	Susan, S., Ranjan, R., Taluja, U., Rai, S., Agarwal, P.	Global-best optimization of ANN trained by PSO using the non-extensive cross-entropy with Gaussian gain	2020	Soft Computing	10.1007/s00500-020-05080-7
18	Raj, A., Bhaskar, D.R., Kumar, P.	Two Quadrant Analog Voltage Divider and Square-Root Circuits Using OTA and MOSFETs	2020	Circuits, Systems, and Signal Processing	10.1007/s00034-020-01454-2
19	Sharma, A., Singh, R.C., Singari, R.M.	Optimization of machining parameters during cryogenic turning of AISI D3 steel	2020	Sadhana - Academy Proceedings in Engineering Sciences	10.1007/s12046-020-01368-4
20	Yadav, A., Vishwakarma, D.K.	A comparative study on bio-inspired algorithms for sentiment analysis	2020	Cluster Computing	10.1007/s10586-020-03062-w
21	Kapoor, R., Mishra, O., Tripathi, M.M.	Human action recognition using descriptor based on selective finite element analysis	2020	Journal of Electrical Engineering	10.2478/jee-2019-0077
22	Kumar, A., Sharma, A.	Socio-Sentic framework for sustainable agricultural governance	2020	Sustainable Computing: Informatics and Systems	10.1016/j.suscom.2018.08.006
23	Garg, S., Roy, A.	In silico analysis of selected alkaloids against main protease (M^{pro}) of SARS-CoV-2	2020	Chemico-Biological Interactions	10.1016/j.cbi.2020.109309
24	Kumar, A., Dabas, V., Hooda, P.	Text classification algorithms for mining unstructured data: a SWOT analysis	2020	International Journal of Information Technology (Singapore)	10.1007/s41870-017-0072-1
25	Singh, I., Kumar, N., K.G., S., Sharma, T., Kumar, V., Singhal, S.	Database intrusion detection using role and user behavior based risk assessment	2020	Journal of Information Security and Applications	10.1016/j.jisa.2020.102654
26	Gosain, A., Dahiya, S.	A New Robust Fuzzy Clustering Approach: DBKIFCM	2020	Neural Processing Letters	10.1007/s11063-020-10345-1
27	Swami, R., Bokolia, R., Sreenivas, K.	Effects of sintering temperature on structural, electrical and ferroelectric properties of $La_2Ti_2O_7$ ceramics	2020	Ceramics International	10.1016/j.ceramint.2020.07.154

S. No.	Authors	Title	Year	Source title	DOI
28	Kulkarni, J., Kumar, N., Singh, B.	Control and Design of Seven-Level Cascaded Multilevel Converter for Transformerless Large-Scale Photovoltaic Integration	2020	Journal of The Institution of Engineers (India): Series B	10.1007/s40031-020-00472-7
29	Katarya, R., Arora, Y.	Capsmf: a novel product recommender system using deep learning based text analysis model	2020	Multimedia Tools and Applications	10.1007/s11042-020-09199-5
30	Vohra, R., Tiwari, K.C.	Comparative Analysis of SVM and ANN Classifiers using Multilevel Fusion of Multi-Sensor Data in Urban Land Classification	2020	Sensing and Imaging	10.1007/s11220-020-00280-9
31	Vohra, R., Tiwari, K.C.	Spatial shape feature descriptors in classification of engineered objects using high spatial resolution remote sensing data	2020	Evolving Systems	10.1007/s12530-019-09275-8
32	Kaur, A., Chinnadurai, V., Chaujar, R.	Microstates-based resting frontal alpha asymmetry approach for understanding affect and approach/withdrawal behavior	2020	Scientific Reports	10.1038/s41598-020-61119-7
33	Madan, J., Pandey, R., Chaujar, R.	Conducting Polymer Based Gas Sensor Using PNIN- Gate All Around - Tunnel FET	2020	Silicon	10.1007/s12633-020-00394-5
34	Anand, A., Meena, D., Dey, K.K., Bhatnagar, M.C.	Enhanced piezoelectricity properties of reduced graphene oxide (RGO) loaded polyvinylidene fluoride (PVDF) nanocomposite films for nanogenerator application	2020	Journal of Polymer Research	10.1007/s10965-020-02323-x
35	Garg, S., Anand, A., Lamba, Y., Roy, A.	Molecular docking analysis of selected phytochemicals against SARS-CoV-2 M^{pro} receptor	2020	Vegetos	10.1007/s42535-020-00162-1
36	Kumar, N., Sonthalia, A., Koul, R.	Optimization of the process parameters for hydrotreating used cooking oil by the taguchi method and fuzzy logic	2020	Journal of Energy Resources Technology, Transactions of the ASME	10.1115/1.4047405
37	Saxena, G., Awasthi, Y.K., Jain, P.	High Isolation and High Gain Super-Wideband (0.33-10 THz) MIMO Antenna for THz Applications	2020	Optik	10.1016/j.ijleo.2020.165335
38	Tiwari, M.K., Pandey, N., Paul, S.K.	Novel realizations of digitally controlled low power current controlled current conveyor for tuning filter outputs with constant power consumption	2020	Sadhana - Academy Proceedings in Engineering Sciences	10.1007/s12046-020-01446-7
39	Singh, M., Trivedi, A., Shukla, S.K.	Fuzzy-Based Model for Predicting Strength of Geogrid-Reinforced Subgrade Soil with Optimal Depth of Geogrid Reinforcement	2020	Transportation Infrastructure Geotechnology	10.1007/s40515-020-00113-y
40	Negi, S., Mittal, P., Kumar, B.	Numerical modeling and parameters extraction of novel triple hole block layer-based organic light-emitting diode for display	2020	Journal of the Society for Information Display	10.1002/jsid.952

16. ANNEXURE

257

S. No.	Authors	Title	Year	Source title	DOI
41	Kumar, S., Chauhan, D., Renugopalakrishnan, V., Malhotra, B.D.	Biofunctionalized nanodot zirconia-based efficient biosensing platform for noninvasive oral cancer detection	2020	MRS Communications	10.1557/mrc. 2020.75
42	Misra, R., Singh, J., Jain, S.K., Faujdar, S., Agrawal, M., Mishra, A., Goyal, P.K.	Prediction of behavior of triangular solar air heater duct using V-down rib with multiple gaps and turbulence promoters as artificial roughness: A CFD analysis	2020	International Journal of Heat and Mass Transfer	10.1016/j.ijheatma sstransfer.2020. 120376
43	Venugopal, I., Muthukkumaran, K., Sriram, K.V., Anbazhagan, S., Prabu, T., Arivazhagan, S., Shukla, S.K.	Invention of Indian Moon Soil (Lunar Highland Soil Simulant) for Chandrayaan Missions	2020	International Journal of Geosynthetics and Ground Engineering	10.1007/s40891-020-00231-0
44	Awasthi, N., Jain, G., Kalva, S.K., Pramanik, M., Yalavarthy, P.K.	Deep Neural Network-Based Sinogram Super-Resolution and Bandwidth Enhancement for Limited-Data Photoacoustic Tomography	2020	IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control	10.1109/TUFFC. 2020.2977210
45	Anand, A., Meena, D., Bhatnagar, M.C.	Synthesis and characterization of flexible $PVDF/Bi_2Al_4O_9/RGO$ based piezoelectric materials for nanogenerator application	2020	Journal of Alloys and Compounds	10.1016/j.jallcom. 2020.156019
46	Verma, P., Garg, R., Mahajan, P.	Smooth LMS-based adaptive control of SPV system tied to grid for enhanced power quality	2020	IET Power Electronics	10.1049/iet-pel. 2020.0134
47	Bamola, P., Singh, B., Bhoumik, A., Sharma, M., Dwivedi, C., Singh, M., Dalapati, G.K., Sharma, H.	Mixed-Phase TiO_2 Nanotube-Nanorod Hybrid Arrays for Memory-Based Resistive Switching Devices	2020	ACS Applied Nano Materials	10.1021/acsanm. 0c01648
48	Ahluwalia, D., Kumar, A., Warkar, S.G., Deshmukh, M.M.	Effect of substitutions on the geometry and intramolecular hydrogen bond strength in meta-benziporphodimethenes: A new porphyrin analogue	2020	Journal of Molecular Structure	10.1016/j.molstruc. 2020.128773
49	Suman, S., Singh, R.	Zn(II)-selective poly (vinyl chloride) (PVC) membrane electrode based on Schiff base ligand 2-benzoylpyridine semicarbazone as an ionophore	2020	Journal of Polymer Engineering	10.1515/polyeng-2020-0053
50	Sharma, N., Panda, J.	Statistical watermarking approach for 3D mesh using local curvature estimation	2020	IET Information Security	10.1049/iet-ifs. 2019.0601
51	Gautam, R., Kumar, S.	Performance and combustion analysis of diesel and tallow biodiesel in CI engine	2020	Energy Reports	10.1016/j.egyr. 2020.09.039
52	Tandon, P., Jain, M.	Modeling and simulation of non-isothermal packed-bed membrane reactor for decomposition of hydrogen iodide	2020	Environmental Technology and Innovation	10.1016/j.eti. 2020.101162
53	Kumar, M., Rao, A.S.	Concentration-dependent reddish-orange photoluminescence studies of Sm^{3+} ions in borosilicate glasses	2020	Optical Materials	10.1016/j.optmat. 2020.110356

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
54	Chakraborty, R., Hasija, Y.	Predicting MicroRNA Sequence Using CNN and LSTM Stacked in Seq2Seq Architecture	2020	IEEE/ACM Transactions on Computational Biology and Bioinformatics	10.1109/TCBB.2019.2936186
55	Yadav, A., Vishwakarma, D.K.	A unified framework of deep networks for genre classification using movie trailer	2020	Applied Soft Computing Journal	10.1016/j.asoc.2020.106624
56	Singh, M.K., Mehata, M.S.	Enhanced photoinduced catalytic activity of transition metal ions incorporated TiO_2 nanoparticles for degradation of organic dye: Absorption and photoluminescence spectroscopy	2020	Optical Materials	10.1016/j.optmat.2020.110309
57	Sahu, M.K., Jayasimhadri, M.	Conversion of blue emitting thermally stable $Ca_3Bi(PO_4)_3$ host as a color tunable phosphor via energy transfer for luminescent devices	2020	Journal of Luminescence	10.1016/j.jlumin.2020.117570
58	Verma, M., Haritash, A.K.	Photocatalytic degradation of Amoxicillin in pharmaceutical wastewater: A potential tool to manage residual antibiotics	2020	Environmental Technology and Innovation	10.1016/j.eti.2020.101072
59	Sharma, P., Mehata, M.S.	Rapid sensing of lead metal ions in an aqueous medium by MoS_2 quantum dots fluorescence turn-off	2020	Materials Research Bulletin	10.1016/j.materresbull.2020.110978
60	Atal, D.K., Singh, M.	Arrhythmia Classification with ECG signals based on the Optimization-Enabled Deep Convolutional Neural Network	2020	Computer Methods and Programs in Biomedicine	10.1016/j.cmpb.2020.105607
61	Malhotra, R., Lata, K.	A systematic literature review on empirical studies towards prediction of software maintainability	2020	Soft Computing	10.1007/s00500-020-05005-4
62	Sharma, A., Singh, R.C., Singari, R.M., Bhandarkar, S.L.	Force and temperature analysis during distinct machining environment using an optimization approach	2020	Indian Journal of Pure and Applied Physics	
63	Krishna, V.M., Mahamuda, S., Rani, P.R., Swapna, K., Venkateswarlu, M., Rao, A.S.	Effect of samarium ions concentration on physical, optical and photoluminescence properties of Oxy-Fluoro Boro Tellurite glasses	2020	Optical Materials	10.1016/j.optmat.2020.110368
64	Verma, O.P., Hooda, H.	A novel intuitionistic fuzzy co-clustering algorithm for brain images	2020	Multimedia Tools and Applications	10.1007/s11042-020-09320-8
65	Jayanthi, N., Rajput, V., Indu, S.	Underwater haze removal using contrast boosted grayscale image	2020	Multimedia Tools and Applications	10.1007/s11042-020-09429-w
66	Jain, D.K., Kumar, A., Sharma, V.	Tweet recommender model using adaptive neuro-fuzzy inference system	2020	Future Generation Computer Systems	10.1016/j.future.2020.04.001

16. ANNEXURE

259

S. No.	Authors	Title	Year	Source title	DOI
67	Kalsi, A., Celin, S.M., Sharma, J.G.	Aerobic biodegradation of high explosive hexahydro-1,3,5- trinitro-1,3,5-triazine by Janibacter cremeus isolated from contaminated soil	2020	Biotechnology Letters	10.1007/s10529-020-02946-6
68	Sivaram, R., Gupta, K., Pandey, N.	A new realization scheme for dynamic PFSCL style	2020	Integration	10.1016/j.vlsi.2020.05.004
69	Kaur, A., Chaujar, R., Chinnadurai, V.	Effects of Neural Mechanisms of Pretask Resting EEG Alpha Information on Situational Awareness: A Functional Connectivity Approach	2020	Human Factors	10.1177/0018720819869129
70	Kumar, A., Walia, G.S., Sharma, K.	Robust object tracking based on adaptive multicue feature fusion	2020	Journal of Electronic Imaging	10.1117/1.JEI.29.6.063001
71	Kaur, H., Jayasimhadri, M., Sahu, M.K., Rao, P.K., Reddy, N.S.	Synthesis of orange emitting Sm^{3+} doped sodium calcium silicate phosphor by sol-gel method for photonic device applications	2020	Ceramics International	10.1016/j.ceramint.2020.04.224
72	Anantha Lakshmi, Y., Swapna, K., Krishna Reddy, K.S.R., Mahamuda, S., Venkateswarulu, M., Rao, A.S.	Concentration dependent photoluminescence studies of Dy^{3+} doped Bismuth Boro-Tellurite glasses for lasers and wLEDs	2020	Optical Materials	10.1016/j.optmat.2020.110328
73	Sahu, M.K., Kaur, H., Ratnam, B.V., Kumar, J.S., Jayasimhadri, M.	Structural and spectroscopic characteristics of thermally stable Eu^{3+} activated barium zinc orthophosphate phosphor for white LEDs	2020	Ceramics International	10.1016/j.ceramint.2020.07.263
74	Sharma, A., Singh, Y., Ahmad Ansari, N., Pal, A., Lalhriatpuia, S.	Experimental investigation of the behaviour of a DI diesel engine fuelled with biodiesel/diesel blends having effect of raw biogas at different operating responses	2020	Fuel	10.1016/j.fuel.2020.118460
75	Pant, M., Singari, R.M., Arora, P.K., Moona, G., Kumar, H.	Wear assessment of 3-D printed parts of PLA (polylactic acid) using Taguchi design and Artificial Neural Network (ANN) technique	2020	Materials Research Express	10.1088/2053-1591/abc8bd
76	Sandhu, S.S., Kumar, S., Augustine, S., Saha, U., Arora, K., Bayan, S., Ray, S.K., Puri, N.K., Malhotra, B.D.	Nanoengineered conductive polyaniline enabled sensor for sensitive humidity detection	2020	IEEE Sensors Journal	10.1109/JSEN.2020.3001599
77	Khan, I.A., Prasad, N., Pal, A., Yadav, A.K.	Efficient production of biodiesel from Cannabis sativa oil using intensified transesterification (hydrodynamic cavitation) method	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2019.1607946
78	Abbafati, C., at All	Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019	2020	The Lancet	10.1016/S0140-6736(20)30925-9

S. No.	Authors	Title	Year	Source title	DOI
79	Abbafati, at All	Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019	2020	The Lancet	10.1016/S0140-6736(20)30752-2
80	Abbafati, at All	Global age-sex-specific fertility, mortality, healthy life expectancy (HALE), and population estimates in 204 countries and territories, 1950–2019: a comprehensive demographic analysis for the Global Burden of Disease Study 2019	2020	The Lancet	10.1016/S0140-6736(20)30977-6
81	Pandey, D., Tiwari, K.C.	Extraction of urban built-up surfaces and its subclasses using existing built-up indices with separability analysis of spectrally mixed classes in AVIRIS-NG imagery	2020	Advances in Space Research	10.1016/j.asr.2020.06.038
82	Sumalatha, C., Doddoji, R., Venkateswarlu, M., Rani, P.R., Swapna, K., Mahamuda, S., Rao, A.S.	White light emission from Dy^{3+}-doped $ZnO + Bi_2O_3 + BaF_2 + B_2O_3 + TeO_2$ glasses: Structural and spectroscopic properties	2020	Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy	10.1016/j.saa.2020.118568
83	Chhapekar, S.S., Brahma, V., Rawoof, A., Kumar, N., Gaur, R., Jaiswal, V., Kumar, A., Yadava, S.K., Kumar, R., Sharma, V., Babu, S.S., Ramchiary, N.	Transcriptome profiling, simple sequence repeat markers development and genetic diversity analysis of potential industrial crops Capsicum chinense and C. frutescens of Northeast India	2020	Industrial Crops and Products	10.1016/j.indcrop.2020.112687
84	Duhan, M., Kaur, R.	Adsorptive removal of methyl orange with polyaniline nanofibers: an unconventional adsorbent for water treatment	2020	Environmental Technology (United Kingdom)	10.1080/09593330.2019.1593511
85	Goswami, L., Aggarwal, N., Verma, R., Bishnoi, S., Husale, S., Pandey, R., Gupta, G.	Graphene Quantum Dot-Sensitized ZnO-Nanorod/GaN-Nanotower Heterostructure-Based High-Performance UV Photodetectors	2020	ACS applied materials & interfaces	10.1021/acsami.0c14246
86	Sharma, R., Jain, M.	Variance based sensitivity analysis and statistical optimization of design and operating parameters of spiral wound pervaporation modules for thiophene removal from FCC gasoline	2020	Computers and Chemical Engineering	10.1016/j.compchemeng.2020.106987
87	Ahluwalia, D., Varshney, A., Kumar, S., Kumar, A., Warkar, S.G., Singh, N., Dubey, P.	One-pot synthesis of magnetic iron phosphide nanoparticles	2020	Inorganic and Nano-Metal Chemistry	10.1080/24701556.2020.1728551
88	Singh, S.K., Chattopadhyaya, S., Pramanik, A., Kumar, S., Basak, A.K., Pandey, S.M., Murtaza, Q., Legutko, S., Litak, G.	Tribological properties of chromium nitride on the cylinder liner under the influence of high temperature	2020	Materials	10.3390/ma13204497

S. No.	Authors	Title	Year	Source title	DOI
89	Viswanadha, K., Raghava, N.S.	Design and Analysis of a Compact Dual-Band Serpentine-Shaped Patch Antenna with Folded Stub Lines for C- and X-Band Applications	2020	Journal of Communications Technology and Electronics	10.1134/S106422692010006X
90	Kumar, M.	Enhanced Solar PV Power Generation under PSCs Using Shade Dispersion	2020	IEEE Transactions on Electron Devices	10.1109/TED.2020.3015171
91	Karthikeyan, R., Sinha, S., Patil, V.	On the resolution of the sensitivity conjecture	2020	Bulletin of the American Mathematical Society	10.1090/BULL/1697
92	Yadav, R., Purwar, R.	Tailoring of electrical and optical properties of regenerated silk fibroin films with metal oxides	2020	Journal of Materials Science: Materials in Electronics	10.1007/s10854-020-04332-4
93	Gupta, P., Purwar, R.	Electrospun pH responsive poly (acrylic acid-co- acrylamide) hydrogel nanofibrous mats for drug delivery	2020	Journal of Polymer Research	10.1007/s10965-020-02236-9
94	Rahul	Dual Tree Complex Wavelet Transform with Multiobjective Optimization Algorithm for Real-Time Power Quality Events Classification	2020	Advanced Theory and Simulations	10.1002/adts.202000141
95	Kumar, S.S., Goel, P.	Starlike functions and higher order differential subordinations	2020	Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales - Serie A: Matematicas	10.1007/s13398-020-00925-0
96	Krishnayatra, G., Tokas, S., Kumar, R.	Numerical heat transfer analysis & predicting thermal performance of fins for a novel heat exchanger using machine learning	2020	Case Studies in Thermal Engineering	10.1016/j.csite.2020.100706
97	Bisht, I., Ambasta, R.K., Kumar, P.	An integrated approach to unravel a putative crosstalk network in Alzheimer's disease and Parkinson's disease	2020	Neuropeptides	10.1016/j.npep.2020.102078
98	Agarwal, A., Kaushik, A., Kumar, S., Mishra, R.K.	Comparative study on air quality status in Indian and Chinese cities before and during the COVID-19 lockdown period	2020	Air Quality, Atmosphere and Health	10.1007/s11869-020-00881-z
99	Sharma, R., Kaur, S., Chauhan, P., Kumar, A.	Computational design & analysis of GeSe$_2$-As$_2$Se$_3$-PbSe based rib waveguide for mid-infrared supercontinuum generation	2020	Optik	10.1016/j.ijleo.2020.165032
100	Malhotra, R., Lata, K.	Using Ensembles for Class-Imbalance Problem to Predict Maintainability of Open Source Software	2020	International Journal of Reliability, Quality and Safety Engineering	10.1142/S0218539320400112
101	Sundriyal, S., Yadav, J., Walia, R.S., Vipin, Kumar, R.	Thermophysical-Based Modeling of Material Removal in Powder Mixed Near-Dry Electric Discharge Machining	2020	Journal of Materials Engineering and Performance	10.1007/s11665-020-05110-3

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
102	Nara, S., Kandpal, R., Jaiswal, V., Augustine, S., Wahie, S., Sharma, J.G., Takeuchi, R., Takenaka, S., Malhotra, B.D.	Exploring Providencia rettgeri for application to eco-friendly paper based microbial fuel cell	2020	Biosensors and Bioelectronics	10.1016/j.bios.2020.112323
103	Mittal, A., Singh, R., Chakma, S., Goel, G.	Permeable reactive barrier technology for the remediation of groundwater contaminated with nitrate and phosphate resulted from pit-toilet leachate	2020	Journal of Water Process Engineering	10.1016/j.jwpe.2020.101471
104	Kumar, A., Walia, G.S., Sharma, K.	A novel approach for multi-cue feature fusion for robust object tracking	2020	Applied Intelligence	10.1007/s10489-020-01649-9
105	Shaveta, Ahmed, H.M.M., Chaujar, R.	Rapid detection of biomolecules in a dielectric modulated GaN MOSHEMT	2020	Journal of Materials Science: Materials in Electronics	10.1007/s10854-020-04216-7
106	Tanwar, P., Singh, S., Panwar, A.K., Srivastava, A.K.	Investigation of vacuum evaporated SnTe thin films for their structural, electrical and thermoelectric properties	2020	Indian Journal of Pure and Applied Physics	
107	Arora, C., Kumar, V., Kant, S., Bhowmick, S.	A Delayed Prey–Predator System with Migration and Disease Infection	2020	International Journal of Applied and Computational Mathematics	10.1007/s40819-020-00886-3
108	Kaushik, A., Kumar, V., Sharma, M., Vashishth, A.K.	A higher order finite element method with modified graded mesh for singularly perturbed two-parameter problems	2020	Mathematical Methods in the Applied Sciences	10.1002/mma.6523
109	Vijayan, S., Arjunan, T.V., Kumar, A., Matheswaran, M.M.	Experimental and thermal performance investigations on sensible storage based solar air heater	2020	Journal of Energy Storage	10.1016/j.est.2020.101620
110	Sidharth, Kumar, N.	Performance and emission studies of ternary fuel blends of diesel, biodiesel and octanol	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2019.1607940
111	Poonam, Shivani, Anu, Kumar, A., Sahu, M.K., Rani, P.R., Deopa, N., Punia, R., Rao, A.S.	Judd-Ofelt Parameterization and Luminescence Characterization of Dy^{3+} Doped Oxyfluoride Lithium Zinc Borosilicate Glasses for Lasers and w-LEDs	2020	Journal of Non-Crystalline Solids	10.1016/j.jnoncrysol.2020.120187
112	Jain, L., Katarya, R., Sachdeva, S.	Recognition of opinion leaders coalitions in online social network using game theory	2020	Knowledge-Based Systems	10.1016/j.knosys.2020.106158
113	Ambasta, R.K., Adeshara, K., Yadav, S., Kumar, P.	VEGF/CDK2 are involved in diabetic organ regeneration	2020	Biochemical and Biophysical Research Communications	10.1016/j.bbrc.2020.07.014
114	Jafar, M.R., Nagesh, D.S.	Classification of mental tasks by using statistical process control and artificial neural networks	2020	European Journal of Molecular and Clinical Medicine	

S. No.	Authors	Title	Year	Source title	DOI
115	Susan, S., Malhotra, J.	Recognising devanagari script by deep structure learning of image quadrants	2020	DESIDOC Journal of Library and Information Technology	10.14429/djlit.40.5.16336
116	Butola, R., Singari, R.M., Murtaza, Q.	Mechanical and wear behaviour of Friction stir processed surface composite through Self-Assembled Monolayer Technique	2020	Surface Topography: Metrology and Properties	10.1088/2051-672X/abbcb8
117	Satyabrata Adhikari	Probabilistic Teleportation of a Single Qubit: Unearthing New W-Class of States	2020	Journal of Experimental and Theoretical Physics	10.1134/S1063776120090010
118	Kumar, S.	Multi-dimensional aggregation: a viable solution for interval data	2020	International Journal of Information Technology (Singapore)	10.1007/s41870-020-00462-4
119	Vashishtha, S., Susan, S.	Sentiment Cognition from Words Shortlisted by Fuzzy Entropy	2020	IEEE Transactions on Cognitive and Developmental Systems	10.1109/TCDS.2019.2937796
120	Sharma, A., Rastogi, V., Agrawal, A.K.	Multi-parametric optimisation by quantitative assessment of distribution index and area fraction of composite | Multiparametrische optimierung durch quantitative bewertung des verteilungsindex und flächenanteils eines verbundwerkstoffs	2020	Praktische Metallographie/ Practical Metallography	10.3139/147.110636
121	Rahul	A Novel Approach to Power Quality Analysis: Adaptive FEM Algorithm with Sparse Signal Decomposition	2020	Advanced Theory and Simulations	10.1002/adts.202000095
122	Kaur, H., Jayasimhadri, M.	Optimization of structural and luminescent properties with intense red emitting thermally stable Sm^{3+} doped $CaBiVO_5$ phosphors for w-LED applications	2020	Optical Materials	10.1016/j.optmat.2020.110119
123	Tayal, Y., Rao, A.S.	Orange color emitting Sm^{3+} ions doped borosilicate glasses for optoelectronic device applications	2020	Optical Materials	10.1016/j.optmat.2020.110070
124	Khurana, A., Verma, O.P.	Novel approach with nature-inspired and ensemble techniques for optimal text classification	2020	Multimedia Tools and Applications	10.1007/s11042-020-09013-2
125	Gupta, R., Ambasta, R.K., Kumar, P.	Identification of novel class I and class IIb histone deacetylase inhibitor for Alzheimer's disease therapeutics	2020	Life Sciences	10.1016/j.lfs.2020.117912
126	Gupta, R., Sharma, S.C.	Parametric Study of Plasma Characteristics and Carbon Nanofibers Growth in PECVD System: Numerical Modeling	2020	Plasma Chemistry and Plasma Processing	10.1007/s11090-020-10090-2

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
127	Sharma, R., Sharma, S.C.	Theoretical analysis for transmission of Gaussian and sine time irradiance of electromagnetic beam in collisional dusty plasmas	2020	Contributions to Plasma Physics	10.1002/ctpp. 201900175
128	Yadav, M., Gupta, D.N., Sharma, S.C.	Electron plasma wave excitation by a q-Gaussian laser beam and subsequent electron acceleration	2020	Physics of Plasmas	10.1063/5.0007998
129	Singh, R., Seniaray, S., Saxena, P.	A framework for the improvement of frugal design practices	2020	Designs	10.3390/designs 4030037
130	Barahapurkar, S., Purwar, R., Baldua, R.K.	Banana Pseudostem Sap as a Biomordant for Dyeing of Silk with Celosia Flower	2020	Fibers and Polymers	10.1007/s12221-020-9045-2
131	Tripathi, P.M., Soni, H., Chaujar, R., Kumar, A.	Numerical simulation and parametric assessment of GaN buffered trench gate MOSFET for low power applications	2020	IET Circuits, Devices and Systems	10.1049/iet-cds. 2020.0041
132	Ali, P., Walia, R.S., Murtaza, Q., Ranganath, M.S.	Modeling and analysis of developed Thermal additive Centrifugal Abrasive Flow Machining process	2020	Surface Topography: Metrology and Properties	10.1088/2051-672X/abaffe
133	Kumar, S., Panda, B.S.	Identifying influential nodes in Social Networks: Neighborhood Coreness based voting approach	2020	Physica A: Statistical Mechanics and its Applications	10.1016/j.physa. 2020.124215
134	Ahuja, B., Kaur, G.	Two-Stage Spectrum Sensing Using Fuzzy Logic for Cognitive Radio Networks	2020	Proceedings of the National Academy of Sciences India Section A - Physical Sciences	10.1007/s40010-019-00595-7
135	Dhingra, N., Saxena, G.J., Kishor, K., Sharma, E.K.	Efficient strip to slot waveguide mode converter using fast quasiadiabatic approach	2020	Engineering Research Express	10.1088/2631-8695/aba819
136	Rasethuntsa, T.R., Kaur, M., Kumar, S.	On the outage probability and BER of a DF-based multi-hop system over □-□-μ and □-□-μ-extreme fading channels	2020	AEU - International Journal of Electronics and Communications	10.1016/j.aeue. 2020.153324
137	Bhardwaj, V., Kishor, K., Sharma, A.C.	Tapered optical fiber geometries and sensing applications based on Mach-Zehnder Interferometer: A review	2020	Optical Fiber Technology	10.1016/j.yofte. 2020.102302
138	Kumar, A., Mishra, R.K., Sarma, K.	Mapping spatial distribution of traffic induced criteria pollutants and associated health risks using kriging interpolation tool in Delhi	2020	Journal of Transport and Health	10.1016/j.jth.2020. 100879
139	Verma, M.K., Mukherjee, V., Kumar Yadav, V., Ghosh, S.	Indian power distribution sector reforms: A critical review	2020	Energy Policy	10.1016/j.enpol. 2020.111672
140	Elumalai, K., Yadav, D.K., Manpura, A.K., Patney, R.K.	Stacking Seismic Data Based on Ramanujan Sums	2020	IEEE Geoscience and Remote Sensing Letters	10.1109/LGRS. 2019.2951300
141	Rashmi, Motloung, S.V., Mehata, M.S., Dwivedi, Y.	Bright red emission from doubly doped YAG:Pr/Sm nanophosphor and color modulation	2020	Optical Materials	10.1016/j.optmat. 2020.110106

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
142	Rawoof, A., Chhapekar, S.S., Jaiswal, V., Brahma, V., Kumar, N., Ramchiary, N.	Single-base cytosine methylation analysis in fruits of three Capsicum species	2020	Genomics	10.1016/j.ygeno.2020.04.031
143	Singh, V., Srinivas Prasad, M.V.V.K., Rao, A.S., Rao, J.L., Irfan, M.	On the ultraviolet B emissions of $CaLaB_7O_{13}:Gd^{3+}$ phosphor	2020	Optik	10.1016/j.ijleo.2020.164880
144	Shankar, S., Maurya, I., Raj, A., Singh, S., Thakur, O.P., Jayasimhadri, M.	Dielectric and tunable ferroelectric properties in $BiFeO_3$–$BiCoO_3$–$BaTiO_3$ ternary compound	2020	Applied Physics A: Materials Science and Processing	10.1007/s00339-020-03872-0
145	Goswami, L., Aggarwal, N., Singh, M., Verma, R., Vashishtha, P., Jain, S.K., Tawale, J., Pandey, R., Gupta, G.	GaN Nanotowers Grown on Si (111) and Functionalized with Au Nanoparticles and ZnO Nanorods for Highly Responsive UV Photodetectors	2020	ACS Applied Nano Materials	10.1021/acsanm.0c01539
146	Garg, N., Sarkar, A.	Vitality among university students: exploring the role of gratitude and resilience	2020	Journal of Organizational Effectiveness	10.1108/JOEPP-03-2020-0041
147	Bajaj, R., Gupta, M., Nagarajan, R., Rao, A.S., Prakash, G.V.	Strong structural phase sensitive rare-earth photoluminescence color flips in $KLaF_4:RE^{3+}(RE^{3+}=Eu^{3+}, Er^{3+}/Yb^{3+})$ nanocrystals	2020	Dalton Transactions	10.1039/d0dt01179g
148	Butola, R., Murtaza, Q., Singari, R.M.	An experimental and simulation validation of residual stress measurement for manufacturing of friction stir processing tool	2020	Indian Journal of Engineering and Materials Sciences	
149	Banga, S., Sivaprasad Kumar, S.	The sharp bounds of the second and third Hankel determinants for the class $^{\square}$	2020	Mathematica Slovaca	10.1515/ms-2017-0398
150	Kumar Garg, N., Pal, A.	An experimental study & analysis of effects of different parameters of microwave in production of bio-diesel	2020	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	10.1177/0954408920931688
151	Singh, R., Bhushan, B.	A novel fault classification-based fault-tolerant control for two degree of freedom helicopter systems	2020	International Journal of Adaptive Control and Signal Processing	10.1002/acs.3121
152	Yadav, A., Vishwakarma, D.K.	A deep learning architecture of RA-DLNet for visual sentiment analysis	2020	Multimedia Systems	10.1007/s00530-020-00656-7
153	Quadri, I.A., Bhowmick, S.	A hybrid technique for simultaneous network reconfiguration and optimal placement of distributed generation resources	2020	Soft Computing	10.1007/s00500-019-04597-w

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
154	Bhaskar, D.R., Raj, A., Kumar, P.	Mixed-mode universal biquad filter using OTAs	2020	Journal of Circuits, Systems and Computers	10.1142/S0218126 620501625
155	Yadav, A., Vishwakarma, D.K.	Sentiment analysis using deep learning architectures: a review	2020	Artificial Intelligence Review	10.1007/s10462-019-09794-5
156	Husain, A., Zunaid, M., Brashdi, M.A.L., Maqbali, F.A., Al-Jabri, E., Al-Mahrizi, A.	Computational investigation of solar updraft tower for power generation in sultanate of Oman	2020	Indian Journal of Engineering and Materials Sciences	
157	Bajwa, G.S., Singari, R.M., Mishra, R.S.	The natural fibre and nano talc based hybrid composite of polypropylene: Thermal performance	2020	Indian Journal of Engineering and Materials Sciences	
158	Deepak, Vipin	Investigation of surface roughness for en-31 by redm with graphite electrode	2020	Indian Journal of Engineering and Materials Sciences	
159	Shita, A., Kumar, N., Singh, S.	Productivity and welfare effects of agricultural technologies: A study of maize producing households in ethiopia using psm approach	2020	Indian Journal of Engineering and Materials Sciences	
160	Goel, K., Kumar, A., Nilam	Nonlinear dynamics of a time-delayed epidemic model with two explicit aware classes, saturated incidences, and treatment	2020	Nonlinear Dynamics	10.1007/s11071-020-05762-9
161	Shambharkar, P.G., Doja, M.N.	Movie trailer classification using deer hunting optimization based deep convolutional neural network in video sequences	2020	Multimedia Tools and Applications	10.1007/s11042-020-08922-6
162	Kumar, A., Walia, G.S., Sharma, K.	Real-time visual tracking via multi-cue based adaptive particle filter framework	2020	Multimedia Tools and Applications	10.1007/s11042-020-08655-6
163	Chaudhary, V., Ahmad, F.	Effect of moisture absorption on the wear and dynamic mechanical behavior of polymer composites	2020	Journal of Reinforced Plastics and Composites	10.1177/07316844 20921554
164	Rana, R., Murtaza, Q., Walia, R.S.	Optimization using genetic algorithm of tribological behaviour of wc tool material	2020	Indian Journal of Engineering and Materials Sciences	
165	Aggarwal, B., Arora, Y., Dhona, J.K.	Bandgap current reference using widlar current source	2020	Indian Journal of Engineering and Materials Sciences	
166	Borah, C.K., Tyagi, P.K., Kumar, S.	The prospective application of a graphene/MoS$_2$ heterostructure in Si-HIT solar cells for higher efficiency	2020	Nanoscale Advances	10.1039/d0na003 09c
167	Chilamkurti, N., Paul, A., Kumar, A.	Call for Special Issue Papers: Soft Computing Models for Big Data and Internet of Things	2020	Big data	10.1089/big.2020. 29035.cfp2
168	Bharti, R., Kataria, S., Chand, S., Kumar, R., Datta, T.S., Kar, S.	Temperature and Resistance Profile on HTS Tape during Fault and Recovery in Modular SFCL Unit	2020	IEEE Transactions on Applied Superconductivity	10.1109/TASC. 2020.2978421

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
169	Shankar, S., Thakur, O.P., Jayasimhadri, M.	Structural, multiferroic, and magnetoelectric properties of (1 − x)Bi$_{0.85}$La$_{0.15}$FeO$_3$–xBaTiO$_3$ composite ceramics	2020	Journal of Materials Science: Materials in Electronics	10.1007/s10854-020-03768-y
170	Singh Pali, H., Sharma, A., Singh, Y., Kumar, N.	Sal biodiesel production using Indian abundant forest feedstock	2020	Fuel	10.1016/j.fuel.2020.117781
171	Walia, G.S., Kumar, A., Saxena, A., Sharma, K., Singh, K.	Robust object tracking with crow search optimized multi-cue particle filter	2020	Pattern Analysis and Applications	10.1007/s10044-019-00847-7
172	Kairon, P., Thapliyal, K., Srikanth, R., Pathak, A.	Noisy three-player dilemma game: robustness of the quantum advantage	2020	Quantum Information Processing	10.1007/s11128-020-02830-2
173	Ahmad, S., Manzoor, K., Purwar, R., Ikram, S.	Morphological and Swelling Potential Evaluation of Moringa oleifera Gum/Poly(vinyl alcohol) Hydrogels as a Superabsorbent	2020	ACS Omega	10.1021/acsomega.0c01023
174	Singh, A., Gurtu, A., Singh, R.K.	Selection of sustainable transport system: a case study	2020	Management of Environmental Quality: An International Journal	10.1108/MEQ-03-2020-0059
175	Gupta, A., Singh, R.K.	Developing a framework for evaluating sustainability index for logistics service providers: graph theory matrix approach	2020	International Journal of Productivity and Performance Management	10.1108/IJPPM-12-2019-0593
176	Joshi, A., Shrivastava, V., Pritam, A.	Microwave derived monoclinic Ba$_{1-x}$Sn$_x$Nb$_2$O$_6$ materials as an alternative of ITO	2020	Journal of Alloys and Compounds	10.1016/j.jallcom.2019.153096
177	Ahmad, S., Singari, R.M., Mishra, R.S.	Modelling and optimisation of magnetic abrasive finishing process based on a non-orthogonal array with ANN-GA approach	2020	Transactions of the Institute of Metal Finishing	10.1080/00202967.2020.1776966
178	Banerjee, S., Joshi, D., Singh, M.	Mathematical modelling of doubly-fed induction generator	2020	Journal of Interdisciplinary Mathematics	10.1080/09720502.2020.1723922
179	Singh, A., Sharma, J., Paichha, M., Chakrabarti, R.	Achyranthes aspera (Prickly chaff flower) leaves- and seeds-supplemented diets regulate growth, innate immunity, and oxidative stress in Aeromonas hydrophila-challenged Labeo rohita	2020	Journal of Applied Aquaculture	10.1080/10454438.2019.1615594
180	Pandey, D., Tiwari, K.C.	Performance evaluation and comparative assessment of Sentinel-2B, Landsat-8, and AVIRIS-NG sensor imageries for extraction of road and roof surfaces using different algorithms	2020	Journal of Applied Remote Sensing	10.1117/1.JRS.14.034502

S. No.	Authors	Title	Year	Source title	DOI
181	Sethi, M., Jindal, R.	Distributed association rules mining of varying data partition size using nodesets	2020	International Journal of Advanced Trends in Computer Science and Engineering	10.30534/ijatcse/2020/181942020
182	Sharma, S., Panwar, A.K., Tripathi, M.M.	Investigation of electrochemical, thermal and electrical performance of 3D lithium-ion battery module in a high-temperature environment	2020	International Journal of Renewable Energy Development	10.14710/ijred.9.2.151-157
183	Tomar, M., Jain, A., Pujari, P.C., Dewal, H., Kumar, N.	Potentials of waste plastic pyrolysis oil as an extender fuel for diesel engine	2020	Arabian Journal of Geosciences	10.1007/s12517-020-05574-6
184	Malhotra, R., Singh, P.	Exploiting bad-smells and object-oriented characteristics to prioritize classes for refactoring	2020	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-020-01001-x
185	Mehdi, H., Mishra, R.S.	Influence of Friction Stir Processing on Weld Temperature Distribution and Mechanical Properties of TIG-Welded Joint of AA6061 and AA7075	2020	Transactions of the Indian Institute of Metals	10.1007/s12666-020-01994-w
186	Kaur, M., Yadav, R.K.	Performance analysis of Beaulieu-Xie fading channel with MRC diversity reception	2020	Transactions on Emerging Telecommunications Technologies	10.1002/ett.3949
187	Suman, S., Singh, R.	Thiophene-based Schiff base ligand as ionophore for Ni(II)-selective polyvinyl chloride membrane electrode	2020	Journal of Polymer Engineering	10.1515/polyeng-2019-0325
188	Kaushik, A., Goswami, M., Manuja, M., Indu, S., Gupta, D.	A Binary PSO Approach for Improving the Performance of Wireless Sensor Networks	2020	Wireless Personal Communications	10.1007/s11277-020-07188-3
189	Das, L.N., Gupta, S.	Electrical power system transmission quality and power supplier micro grid control functional reliability	2020	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-019-00943-1
190	Fatma, N., Mehata, M.S., Pandey, N., Pant, S.	Flavones Fluorescence-Based Dual Response Chemosensor for Metal Ions in Aqueous Media and Fluorescence Recovery	2020	Journal of Fluorescence	10.1007/s10895-020-02540-z
191	Kumar, S., Singh, J., Singh, O.	Ensemble-based extreme learning machine model for occupancy detection with ambient attributes	2020	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-019-00935-1
192	Jain, G., Lobiyal, D.K.	Word sense disambiguation using implicit information	2020	Natural Language Engineering	10.1017/S1351324919000421

S. No.	Authors	Title	Year	Source title	DOI
193	Bodha, K.D., Yadav, V.K., Mukherjee, V.	Formulation and application of quantum-inspired tidal firefly technique for multiple-objective mixed cost-effective emission dispatch	2020	Neural Computing and Applications	10.1007/s00521-019-04433-0
194	Yadav, M., Gupta, D.N., Sharma, S.C., Suk, H.	Plasma bubble evolution in laser wakefield acceleration in a petawatt regime	2020	Laser Physics Letters	10.1088/1612-202X/ab8fa9
195	Kumar, A., Gupta, N., Tripathi, M.M., Chaujar, R.	Analysis of structural parameters on sensitivity of black phosphorus junctionless recessed channel MOSFET for biosensing application	2020	Microsystem Technologies	10.1007/s00542-019-04545-6
196	Tempa, K., Sarkar, R., Dikshit, A., Pradhan, B., Simonelli, A.L., Acharya, S., Alamri, A.M.	Parametric study of local site response for bedrock ground motion to earthquake in Phuentsholing, Bhutan	2020	Sustainability (Switzerland)	10.3390/su12135273
197	Pal, S., Shariq, M., Abbas, H., Pandit, A.K., Masood, A.	Strength characteristics and microstructure of hooked-end steel fiber reinforced concrete containing fly ash, bottom ash and their combination	2020	Construction and Building Materials	10.1016/j.conbuildmat.2020.118530
198	Mann, M., Kumar, S., Rao, A.S., Sharma, R.C.	Remote sensing for the detection of bio-and non-bioaerosols for defence applications	2020	Current Science	10.18520/cs/v118/i12/1980-1983
199	Goswami, L., Goswami, L., Aggarwal, N., Aggarwal, N., Krishna, S., Krishna, S., Singh, M., Vashishtha, P., Vashishtha, P., Singh, S.P., at All	Au-Nanoplasmonics-Mediated Surface Plasmon-Enhanced GaN Nanostructured UV Photodetectors	2020	ACS Omega	10.1021/acsomega.0c01239
200	Kaur, S., Rao, A.S., Jayasimhadri, M., Jaiswal, V.V., Haranath, D.	Tb^{3+} ion induced colour tunability in calcium aluminozincate phosphor for lighting and display devices	2020	Journal of Alloys and Compounds	10.1016/j.jallcom.2020.154212
201	Saxena, A., Garg, N., Punia, B.K., Prasad, A.	Exploring role of Indian workplace spirituality in stress management: a study of oil and gas industry	2020	Journal of Organizational Change Management	10.1108/JOCM-11-2019-0327
202	Krishnia, L., Tyagi, P.K.	Optimization of reducing agents for selective bandgap manipulation in visible region of graphene oxide and its work function estimation	2020	Materials Performance and Characterization	10.1520/MPC20190177
203	Kumar, R., Kumar, A., Ghosh, S.G.	Testing Rotating Regular Metrics as Candidates for Astrophysical Black Holes	2020	Astrophysical Journal	10.3847/1538-4357/ab8c4a
204	Varghese, J., Samsher, Manjunath, K.	Collector characterisation and heat loss tests on a novel batch solar water heater with CPC reflector for households	2020	International Journal of Ambient Energy	10.1080/01430750.2018.1484802
205	Kukreja, R., Tanwar, P., Verma, V., Niranjan, M.S.	Design and analysis of a polishing tool for different mrp fluid in the magnetic field assisted finishing (MFAF) process	2020	SSRG International Journal of Engineering Trends and Technology	10.14445/22315381/IJETT-V68I5P210S

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
206	Arora, A., Agarwal, D., Panda, J.	A novel MS-Word text document multiple watermarking technique for authentication and copyright protection	2020	SSRG International Journal of Engineering Trends and Technology	10.14445/22315381/IJETT-V68I5P201S
207	Shahid, S., Singh, T., Sharma, Y., Sharma, K.	Devising malware characteristics using transformers	2020	SSRG International Journal of Engineering Trends and Technology	10.14445/22315381/IJETT-V68I5P207S
208	Bhanoo, V., Gangal, A., Pandey, N.	Subthreshold low-transconductance M-CDTA based low frequency current mode universal filter	2020	SSRG International Journal of Engineering Trends and Technology	10.14445/22315381/IJETT-V68I5P204S
209	Roy, U., Khurana, S., Arora, P., Vipin	Strength of concrete-filled carbon fiber-reinforced polymer columns	2020	SSRG International Journal of Engineering Trends and Technology	10.14445/22315381/IJETT-V68I5P211S
210	Tyagi, L., Butola, R., Jha, A.K.	Mechanical and tribological properties of AA7075-T6 metal matrix composite reinforced with ceramic particles and aloevera ash via Friction stir processing	2020	Materials Research Express	10.1088/2053-1591/ab9c5e
211	Butola, R., Murtaza, Q., Singari, R.M.	Formation of self-assembled monolayerand characterization of AA7075-T6/B$_4$C nano-ceramic surface composite using friction stir processing	2020	Surface Topography: Metrology and Properties	10.1088/2051-672X/ab96db
212	Mishra, R.S., Gupta, M.K., Khatri, A.	Effect of coatings on tribological characteristics of low carbon steel	2020	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperd jun202074
213	Kumar, J., Kumar, N.	FACTS Devices Impact on Congestion Mitigation of Power System	2020	Journal of The Institution of Engineers (India): Series B	10.1007/s40031-020-00450-z
214	Mishra, N.S., Deo, N.	Kantorovich Variant of Ismail–May Operators	2020	Iranian Journal of Science and Technology, Transaction A: Science	10.1007/s40995-020-00863-x
215	Mehdi, H., Mishra, R.S.	Effect of Friction Stir Processing on Microstructure and Mechanical Properties of TIG Welded Joint of AA6061 and AA7075	2020	Metallography, Microstructure, and Analysis	10.1007/s13632-020-00640-7
216	Saxena, H., Singh, A., Rai, J.N.	Design and performance analysis of improved Adaline technique for synchronization and load compensation of grid-tied photovoltaic system	2020	International Transactions on Electrical Energy Systems	10.1002/2050-7038.12388

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
217	Arora, K., Puri, N.K.	Chemiresistive sensing platform based on PdO-PANI/ITO heterostructure for room temperature hydrogen detection	2020	Materials Chemistry and Physics	10.1016/j.matchemphys.2020.122850
218	Jain, A., Panwar, A.K.	Synergetic effect of rare-earths doping on the microstructural and electrical properties of Sr and Ca co-doped BaTiO<inf>3</inf> nanoparticles	2020	Ceramics International	10.1016/j.ceramint.2020.01.020
219	Vishwakarma, D.K.	A two-fold transformation model for human action recognition using decisive pose	2020	Cognitive Systems Research	10.1016/j.cogsys.2019.12.004
220	Deo, N., Pratap, R.	⍺-Bernstein–Kantorovich operators	2020	Afrika Matematika	10.1007/s13370-019-00746-4
221	Agarwal, S., Arora, A., Arora, B.B.	Energy and exergy analysis of vapor compression–triple effect absorption cascade refrigeration system	2020	Engineering Science and Technology, an International Journal	10.1016/j.jestch.2019.08.001
222	Kumar, A., Garg, G.	Systematic literature review on context-based sentiment analysis in social multimedia	2020	Multimedia Tools and Applications	10.1007/s11042-019-7346-5
223	Garg, N.	Promoting Organizational Performance in Indian Insurance Industry: The Roles of Workplace Spirituality and Organizational Citizenship Behaviour	2020	Global Business Review	10.1177/0972150918778983
224	Prasad, U.S., Das, R.K., Mishra, R.S.	Thermodynamic performance improvement in vapour compression refrigeration system with use of eco-friendly primary refrigerants and brine mixed with nano particles as secondary refrigerant	2020	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperdjun202093
225	Mann, S., Gupta, R.K.	Application of choerospondias axillaris fruit extract in edible coating films	2020	Indian Journal of Natural Products and Resources	
226	Ahmad, F., Yuvaraj, N., Bajpai, P.K.	Effect of reinforcement architecture on the macroscopic mechanical properties of fiberous polymer composites: A review	2020	Polymer Composites	10.1002/pc.25666
227	Kumar Singh, K., Kumar, R., Gupta, A.	Comparative energy, exergy and economic analysis of a cascade refrigeration system incorporated with flash tank (HTC) and a flash intercooler with indirect subcooler (LTC) using natural refrigerant couples	2020	Sustainable Energy Technologies and Assessments	10.1016/j.seta.2020.100716
228	Ali, P., Walia, R.S., Murtaza, Q., Ranganath Muttanna Singari	Material removal analysis of hybrid EDM-assisted centrifugal abrasive flow machining process for performance enhancement	2020	Journal of the Brazilian Society of Mechanical Sciences and Engineering	10.1007/s40430-020-02375-6

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
229	Pandey, N., Mehata, M.S., Fatma, N., Pant, S.	Modulation of Fluorescence properties of 5-Aminoquinoline by Ag^+ in aqueous media via charge transfer	2020	Journal of Photochemistry and Photobiology A: Chemistry	10.1016/j.jphotochem.2020.112549
230	Walia, G.S., Ahuja, H., Kumar, A., Bansal, N., Sharma, K.	Unified Graph-Based Multicue Feature Fusion for Robust Visual Tracking	2020	IEEE Transactions on Cybernetics	10.1109/TCYB.2019.2920289
231	Kumar, A., Kumar, M., Nilam	A study on the stability behavior of an epidemic model with ratio-dependent incidence and saturated treatment	2020	Theory in Biosciences	10.1007/s12064-020-00314-6
232	Jain, D., Kumar, A., Garg, G.	Sarcasm detection in mash-up language using soft-attention based bi-directional LSTM and feature-rich CNN	2020	Applied Soft Computing Journal	10.1016/j.asoc.2020.106198
233	Singh, A., Gupta, A.	Optimization-Based Consensus Model to Solve Multi-Criteria Large Group Decision Making Problems	2020	International Game Theory Review	10.1142/S0219198920400101
234	Kumar, A., Gupta, A., Mehra, A.	A Bilevel Programming Model for a Cohesive Decision-Making on Strategic Pricing and Production Distribution Planning for a Small-Scale Supplier	2020	International Game Theory Review	10.1142/S0219198920400095
235	Chilamkurti, N., Paul, A., Kumar, A.	Call for Special Issue Papers: Soft Computing Models for Big Data and Internet of Things	2020	Big data	10.1089/big.2020.29035.cfp
236	Singh, M., Trivedi, A., Shukla, S.K.	Influence of Geosynthetic Reinforcement on Unpaved Roads Based on CBR, and Static and Dynamic Cone Penetration Tests	2020	International Journal of Geosynthetics and Ground Engineering	10.1007/s40891-020-00196-0
237	Verma, M.K., Mukherjee, V., Yadav, V.K., Ghosh, S.	Constraints for effective distribution network expansion planning: an ample review	2020	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-020-00969-w
238	Deopa, N., Sahu, M.K., Rani, P.R., Punia, R., Rao, A.S.	Realization of warm white light and energy transfer studies of Dy^{3+}/Eu^{3+} co-doped Li_2O-PbO-Al_2O_3-B_2O_3 glasses for lighting applications	2020	Journal of Luminescence	10.1016/j.jlumin.2020.117166
239	Gupta, N., Kumar, A., Chaujar, R.	Design Considerations and Capacitance Dependent Parametric Assessment of Gate Metal Engineered SiNW MOSFET for ULSI Switching Applications	2020	Silicon	10.1007/s12633-019-00246-x
240	Chauhan, Y., Ahmad, N., Aggarwal, V., Chandra, A.	Herd behaviour and asset pricing in the Indian stock market; Herd behavior and asset pricing	2020	IIMB Management Review	10.1016/j.iimb.2019.10.008

16. ANNEXURE

273

S. No.	Authors	Title	Year	Source title	DOI
241	Talewar, R.A., Mahamuda, S., Rao, A.S., Gaikwad, V.M., Belsare, P.D., Moharil, S.V.	Broadband excited Nd^{3+} NIR emission in $Sr_5(PO_4)_3Cl:Eu^{2+}$, Nd^{3+} phosphor for solar spectral modification	2020	Journal of Luminescence	10.1016/j.jlumin.2020.117118
242	Pawar, D., Kanawade, R., Kumar, A., Rao, C.N., Cao, P., Gaware, S., Late, D., Kale, S.N., Navale, S.T., Liu, W.J., at All	High-performance dual cavity-interferometric volatile gas sensor utilizing Graphene/PMMA nanocomposite	2020	Sensors and Actuators, B: Chemical	10.1016/j.snb.2020.127921
243	Yadav, P.K., Salvi, P., Kamble, N.U., Petla, B.P., Majee, M., Saxena, S.C.	Deciphering the structural basis of the broad substrate specificity of myo-inositol monophosphatase (IMP) from Cicer arietinum	2020	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2019.11.098
244	Rana, R., Murtaza, Q., Walia, R.S.	GA based optimization of tri-bological behaviour of diamond coated tungsten carbide	2020	World Journal of Engineering	10.1108/WJE-08-2019-0220
245	Malhotra, R., Chauhan, A.	Application of XGBoost algorithm and deep learning techniques for severity assessment of software defect reports	2020	Indian Journal of Computer Science and Engineering	10.21817/indjcse/2020/v11i3/201103236
246	Mahto, P., Garg, P., Seth, P., Panda, J.	Refining Yolov4 for vehicle detection	2020	International Journal of Advanced Research in Engineering and Technology	10.34218/IJARET.11.5.2020.043
247	Kumar, A., Singh, C.P.	Observational constraints on holographic dark energy model with matter creation	2020	Astrophysics and Space Science	10.1007/s10509-020-03799-1
248	Jalil, O., Pandey, C.M., Kumar, D.	Electrochemical biosensor for the epithelial cancer biomarker EpCAM based on reduced graphene oxide modified with nanostructured titanium dioxide	2020	Microchimica Acta	10.1007/s00604-020-04233-7
249	Khatri, R., Puri, N.K.	Electrochemical study of hydrothermally synthesised reduced MoS_2 layered nanosheets	2020	Vacuum	10.1016/j.vacuum.2020.109250
250	Atal, D.K., Singh, M.	A dictionary matrix generation based compression and bitwise embedding mechanisms for ECG signal classification	2020	Multimedia Tools and Applications	10.1007/s11042-020-08671-6
251	Viswanadha, K., Raghava, N.S.	Design and Analysis of a Multi-band Flower Shaped Patch Antenna for WLAN/WiMAX/ISM Band Applications	2020	Wireless Personal Communications	10.1007/s11277-020-07078-8
252	Verma, P., Garg, R., Mahajan, P.	Asymmetrical interval type-2 fuzzy logic control based MPPT tuning for PV system under partial shading condition	2020	ISA Transactions	10.1016/j.isatra.2020.01.009

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
253	Raina, S., Roy, A., Bharadvaja, N.	Degradation of dyes using biologically synthesized silver and copper nanoparticles	2020	Environmental Nanotechnology, Monitoring and Management	10.1016/j.enmm.2019.100278
254	Verma, V., Singh, R., Gour, R.	ADSIG as Gen-Former providing three port network for soft coupling of distribution feeders in addition to wind energy harvesting	2020	International Journal of Electrical Power and Energy Systems	10.1016/j.ijepes.2019.105573
255	Susan, S., Rachna Devi, K.M.	Text area segmentation from document images by novel adaptive thresholding and template matching using texture cues	2020	Pattern Analysis and Applications	10.1007/s10044-019-00811-5
256	Thareja, H., Arora, R.	Impact of covid-19 on renewable power sector of India - An overview	2020	Water and Energy International	
257	Lingayat, A., Chandramohan, V.P., Raju, V.R.K., Kumar, A.	Development of indirect type solar dryer and experiments for estimation of drying parameters of apple and watermelon: Indirect type solar dryer for drying apple and watermelon	2020	Thermal Science and Engineering Progress	10.1016/j.tsep.2020.100477
258	Goswami, R.K., Shrivastav, A.K., Sharma, J.G., Tocher, D.R., Chakrabarti, R.	Growth and digestive enzyme activities of rohu labeo rohita fed diets containing macrophytes and almond oil-cake	2020	Animal Feed Science and Technology	10.1016/j.anifeedsci.2020.114456
259	Modi, K.S., Kaur, J., Singh, S.P., Tiwari, U., Sinha, R.K.	Extremely high figure of merit in all-dielectric split asymmetric arc metasurface for refractive index sensing	2020	Optics Communications	10.1016/j.optcom.2020.125327
260	Saxena, G., Jain, P., Awasthi, Y.K.	High Diversity Gain MIMO-Antenna for UWB Application with WLAN Notch Band Characteristic Including Human Interface Devices	2020	Wireless Personal Communications	10.1007/s11277-019-07018-1
261	Singh, V., Swapna, K., Kaur, S., Rao, A.S., Rao, J.L.	Narrow-Band UVB-Emitting Gd-Doped SrY_2O_4 Phosphors	2020	Journal of Electronic Materials	10.1007/s11664-020-08032-x
262	Kinyoki, at all	Mapping local patterns of childhood overweight and wasting in low- and middle-income countries between 2000 and 2017	2020	Nature Medicine	10.1038/s41591-020-0807-6
263	Badoni, M., Singh, A., Singh, B., Saxena, H.	Real-time implementation of active shunt compensator with adaptive SRLMMN control technique for power quality improvement in the distribution system	2020	IET Generation, Transmission and Distribution	10.1049/iet-gtd.2019.0929
264	Meena, D., Singh, B., Anand, A., Singh, M., Bhatnagar, M.C.	Phase dependent selectivity shifting behavior of Cd_2SnO_4 nanoparticles based gas sensor towards volatile organic compounds (VOC) at low operating temperature	2020	Journal of Alloys and Compounds	10.1016/j.jallcom.2019.153117

S. No.	Authors	Title	Year	Source title	DOI
265	Shita, A., Kumar, N., Singh, S.	Economic Benefit of Agricultural Technology on Teff and Maize Crops in Ethiopia: The Blinder-Oaxaca Decomposition	2020	Journal of Poverty	10.1080/10875549. 2019.1668899
266	Jain, G., Arora, A., Gupta, S.N.	Performance characteristics of a two-stage transcritical N_2O refrigeration cycle with vortex tube	2020	International Journal of Ambient Energy	10.1080/01430750. 2018.1472646
267	Mittal, P., Gupta, P., Shri, S., Goel, T.	Development of neural network approach towards MPPT optimization	2020	International Journal of Advanced Science and Technology	
268	Saxena, H., Singh, A., Rai, J.N.	Adaptive spline-based PLL for synchronisation and power quality improvement in distribution system	2020	IET Generation, Transmission and Distribution	10.1049/iet-gtd. 2019.0662
269	Shougrakpam, S., Trivedi, A.	Engineering properties of bacterially induced calcite formations	2020	Current Science	10.18520/cs/v118/ i7/1060-1068
270	Seth, A.K., Singh, M.	Resonant controller of single-stage off-board EV charger in G2V and V2G modes	2020	IET Power Electronics	10.1049/iet-pel. 2019.1111
271	Prasad, A., Rao, A.S., Prakash, G.V.	A study on up-conversion and energy transfer kinetics of $KGdF_4$:Yb^{3+}/Er^{3+} nanophosphors	2020	Journal of Molecular Structure	10.1016/j.molstruc. 2019.127647
272	Khan, N.A., Ninawe, A.S., Sharma, J., Chakrabarti, R.	Effect of light intensity on survival, growth and physiology of rohu, Labeo rohita (Cyprinidae) fry	2020	International Journal of Radiation Biology	10.1080/09553002. 2020.1704905
273	Kumar, A., Seth, S., Gupta, S., Shubham	Sentiment-enhanced content-based system for online recommendations and rating prediction	2020	International Journal of Gaming and Computer-Mediated Simulations	10.4018/IJGCMS. 2020040101
274	Suri, S., Gupta, A., Sharma, K.	Comparative analysis of ranking algorithms used on web	2020	Annals of Emerging Technologies in Computing	10.33166/AETiC. 2020.02.002
275	Singh, I., Jindal, R., Pandey, K., Agrawal, K., Kukreja, K.	Revised grey Wolf optimized SVM-KNN ensemble based automated diagnosis of breast cancer	2020	Ingenierie des Systemes d'Information	10.18280/isi.2502 16
276	Monika, Tomar, T., Kumar, V., Kumar, Y.	Implementation of elliptic - Curve cryptography	2020	International Journal of Electrical Engineering and Technology	
277	Garg, P., Jain, P.	Isolation Improvement of MIMO Antenna Using a Novel Flower Shaped Metamaterial Absorber at 5.5 GHz WiMAX Band	2020	IEEE Transactions on Circuits and Systems II: Express Briefs	10.1109/TCSII.2019. 2925148
278	Goel, K., Kumar, A., Nilam	A deterministic time-delayed SVIRS epidemic model with incidences and saturated treatment	2020	Journal of Engineering Mathematics	10.1007/s10665-020-10037-8
279	Mittal, A., Shrivastava, A.K.	Stress–strain characteristics of landfill clay cover barriers under geogrid reinforcements	2020	Innovative Infrastructure Solutions	10.1007/s41062-020-0263-7

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
280	Atal, D.K., Singh, M.	A hybrid feature extraction and machine learning approaches for epileptic seizure detection	2020	Multidimensional Systems and Signal Processing	10.1007/s11045-019-00673-4
281	Kumar, A., Arora, A.	An ANFIS-based compatibility scorecard for IoT integration in websites	2020	Journal of Supercomputing	10.1007/s11227-019-03026-x
282	Maurya, N.K., Rastogi, V., Singh, P.	Fabrication of prototype connecting rod of PLA plastic material using FDM prototype technology	2020	Indian Journal of Engineering and Materials Sciences	
283	Prasad, A., Rao, A.S., Prakash, G.V.	Up-conversion luminescence and EPR properties of KGdF$_4$:Yb^{3+}/Tm^{3+} nanophosphors	2020	Optik	10.1016/j.ijleo.2020.164538
284	Rani, P.R., Venkateswarlu, M., Swapna, K., Mahamuda, S., Prasad, M.V.V.K.S., Rao, A.S.	Spectroscopic and luminescence properties of Ho^{3+} ions doped Barium Lead Alumino Fluoro Borate glasses for green laser applications	2020	Solid State Sciences	10.1016/j.solidstatesciences.2020.106175
285	Vachher, M., Arora, K., Burman, A., Kumar, B.	NAMPT, GRN, and SERPINE1 signature as predictor of disease progression and survival in gliomas	2020	Journal of Cellular Biochemistry	10.1002/jcb.29560
286	Anand, A., Bhatt, N., Aggrawal, D.	Modeling Software Patch Management Based on Vulnerabilities Discovered	2020	International Journal of Reliability, Quality and Safety Engineering	10.1142/S0218539320400033
287	Verma, O.P., Jain, N., Pal, S.K.	A Hybrid-Based Verifiable Secret Sharing Scheme Using Chinese Remainder Theorem	2020	Arabian Journal for Science and Engineering	10.1007/s13369-019-03992-7
288	Verma, O.P., Jain, N., Pal, S.K.	Design and analysis of an optimal ECC algorithm with effective access control mechanism for big data	2020	Multimedia Tools and Applications	10.1007/s11042-019-7677-2
289	Kumar, V., Kumar, D.	Binary whale optimization algorithm and its application to unit commitment problem	2020	Neural Computing and Applications	10.1007/s00521-018-3796-3
290	Singh, A., Gupta, A., Mehra, A.	Matrix games with 2-tuple linguistic information	2020	Annals of Operations Research	10.1007/s10479-018-2810-6
291	Sharma, N., Tiwari, D.P., Singh, S.K.	Sorption potential of treated plant residues viz. Potato peel and neem bark for removal of synthetic dyes from aqueous solution	2020	Rasayan Journal of Chemistry	10.31788/RJC.2020.1325405
292	Singh, S.P., Kaur, J., Modi, K.S., Tiwari, U., Sinha, R.K.	Temperature-assisted broadly tunable supercontinuum generation in chalcogenide-glass-based capillary optical fiber	2020	Journal of the Optical Society of America B: Optical Physics	10.1364/JOSAB.387491
293	Gagandeep, Singh, M., Kumar, R., Singh, V.	Investigating the impact of layer properties on the performance of p-graphene/CH$_3$NH$_3$PbI$_3$/n-cSi solar cell using numerical modelling	2020	Superlattices and Microstructures	10.1016/j.spmi.2020.106468

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
294	Dahiya, S., Lahon, S., Sharma, R.	Effects of temperature and hydrostatic pressure on the optical rectification associated with the excitonic system in a semi-parabolic quantum dot	2020	Physica E: Low-Dimensional Systems and Nanostructures	10.1016/j.physe. 2019.113918
295	Gupta, K., Walia, G.S., Sharma, K.	Quality based adaptive score fusion approach for multimodal biometric system	2020	Applied Intelligence	10.1007/s10489-019-01579-1
296	Gahlot, A., Sharma, S.C., Sharma, J.	The effect of dust grains on the Weibel instability in presence of large amplitude electrostatic waves	2020	Physics of Plasmas	10.1063/1.5133756
297	Singh, V., Annapurna Devi, C.B., Rao, A.S., Rao, J.L.	Narrowband ultraviolet B emitting Gd^{3+} activated $NaSrPO_4$ phosphor prepared by co-precipitation method	2020	Optik	10.1016/j.ijleo. 2019.163632
298	Goswami, L., Pandey, R., Gupta, G.	Ultra-thin GaN nanostructures based self-powered ultraviolet photodetector via non-homogeneous Au-GaN interfaces	2020	Optical Materials	10.1016/j.optmat. 2020.109820
299	Saxena, S.C., Salvi, P., Kamble, N.U., Joshi, P.K., Majee, M., Arora, S.	Ectopic overexpression of cytosolic ascorbate peroxidase gene (Apx1) improves salinity stress tolerance in Brassica juncea by strengthening antioxidative defense mechanism	2020	Acta Physiologiae Plantarum	10.1007/s11738-020-3032-5
300	Kim, I.-W., Kaur, S., Yadav, A., Rao, A.S., Saravanakumar, S., Rao, J.L., Singh, V.	Structural, luminescence and EPR properties of deep red emitting $MgY_2Al_4SiO_{12}:Cr^{3+}$ garnet phosphor	2020	Journal of Luminescence	10.1016/j.jlumin. 2019.116975
301	Singh, V., Mahamuda, S., Rao, A.S., Singh, N., Rao, J.L., Irfan, M.	Ultraviolet (UV)-B radiation from Gd^{3+} activated Li_2MgSiO_4 ceramics	2020	Optik	10.1016/j.ijleo. 2020.164475
302	Rehman, B., Bhalla, N.K., Vihari, S., Jain, S.K., Vashishtha, P., Gupta, G.	SnO_2/Au multilayer heterostructure for efficient CO sensing	2020	Materials Chemistry and Physics	10.1016/j.matchemphys.2020.122741
303	Dikshit, A., Sarkar, R., Pradhan, B., Acharya, S., Alamri, A.M.	Spatial landslide risk assessment at Phuentsholing, Bhutan	2020	Geosciences (Switzerland)	10.3390/geosciences10040131
304	Dikshit, A., Sarkar, R., Pradhan, B., Segoni, S., Alamri, A.M.	Rainfall induced landslide studies in indian himalayan region: A critical review	2020	Applied Sciences (Switzerland)	10.3390/app10072466
305	Seth, H., Chadha, S., Ruparel, N., Arora, P.K., Sharma, S.K.	Assessing working capital management efficiency of Indian manufacturing exporters	2020	Managerial Finance	10.1108/MF-02-2019-0076
306	Jain, L., Katarya, R., Sachdeva, S.	Opinion leader detection using whale optimization algorithm in online social network	2020	Expert Systems with Applications	10.1016/j.eswa. 2019.113016

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
307	Kumari, M., Agarwal, S., Santapuri, S., Chatterjee, R.	Large negative magnetoelectric coupling in Fe substituted ferroelectric $Bi_{0.5}Na_{0.5}TiO_3$: An experimental study supported by Landau-Devonshire free-energy model based calculations	2020	Journal of Applied Physics	10.1063/1.5109827
308	Devanshu, A., Singh, M., Kumar, N.	Sliding Mode Control of Induction Motor Drive Based on Feedback Linearization	2020	IETE Journal of Research	10.1080/03772063.2018.1486743
309	Gupta, A., Singh, R.K.	Managing operations by a logistics company for sustainable service quality: Indian perspective	2020	Management of Environmental Quality: An International Journal	10.1108/MEQ-11-2019-0246
310	Dahiya, S., Nanda, H., Artwani, J., Varshney, J.	Using clustering techniques and classification mechanisms for fault diagnosis	2020	International Journal of Advanced Trends in Computer Science and Engineering	10.30534/ijatcse/2020/188922020
311	Raj, R., Jha, S., Singh, S., Choudhary, S.	Response analysis of plus shaped tall building with different bracing systems under wind load	2020	International Journal of Advanced Research in Engineering and Technology	10.34218/IJARET.11.3.2020.032
312	Kumar, V., Rana, K., Malik, J., Tomar, A.	Evaluating hybrid cnn-mlp architecture for analyzing novel network traffic attacks	2020	International Journal of Scientific and Technology Research	
313	Garg, P., Jain, P.	Novel ultrathin penta-band metamaterial absorber	2020	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2020.153063
314	Agarwal, R., Verma, O.P.	An efficient copy move forgery detection using deep learning feature extraction and matching algorithm	2020	Multimedia Tools and Applications	10.1007/s11042-019-08495-z
315	Ahuja, S., Roy, A., Kumar, L., Bharadvaja, N.	Media optimization using Box Behnken design for enhanced production of biomass, beta-carotene and lipid from Dunaliella salina	2020	Vegetos	10.1007/s42535-019-00079-4
316	Kumar, A., Rizwan, M., Nangia, U.	A Hybrid Intelligent Approach for Solar Photovoltaic Power Forecasting: Impact of Aerosol Data	2020	Arabian Journal for Science and Engineering	10.1007/s13369-019-04183-0
317	Sharma, R.	An examination of colorectal cancer burden by socioeconomic status: evidence from GLOBOCAN 2018	2020	EPMA Journal	10.1007/s13167-019-00185-y
318	Dahiya, P., Jain, P.	Efficient MDCT Recursive Structure for VLSI Implementation	2020	Circuits, Systems, and Signal Processing	10.1007/s00034-019-01195-x

S. No.	Authors	Title	Year	Source title	DOI
319	Sethi, R., Indu, S.	Fusion of Underwater Image Enhancement and Restoration	2020	International Journal of Pattern Recognition and Artificial Intelligence	10.1142/S0218001420540075
320	Kumari, N., Das, A., Bhatt, A.N.	Interleukin-6 confers radio-resistance by inducing Akt-mediated glycolysis and reducing mitochondrial damage in cells	2020	Journal of Biochemistry	10.1093/jb/mvz091
321	Koli, Y., Yuvaraj, N., Aravindan, S., Vipin	Multi-response Mathematical Modeling for Prediction of Weld Bead Geometry of AA6061-T6 Using Response Surface Methodology	2020	Transactions of the Indian Institute of Metals	10.1007/s12666-020-01883-2
322	Singh, V., Kaur, S., Jayasimhadri, M.	Luminescence properties of orange emitting $CaAl_4O_7$:Sm^{3+} phosphor for solid state lighting applications	2020	Solid State Sciences	10.1016/j.solidstatesciences.2019.106049
323	Jaiswal, V., Rawoof, A., Dubey, M., Chhapekar, S.S., Sharma, V., Ramchiary, N.	Development and characterization of non-coding RNA based simple sequence repeat markers in Capsicum species	2020	Genomics	10.1016/j.ygeno.2019.09.005
324	Ghosh, S., Yadav, V.K., Mukherjee, V.	A Novel Hot Spot Mitigation Circuit for Improved Reliability of PV Module	2020	IEEE Transactions on Device and Materials Reliability	10.1109/TDMR.2020.2970163
325	Sharma, P., Gupta, S., Gupta, K., Pandey, N.	A low power subthreshold Schmitt Trigger based 12T SRAM bit cell with process-variation-tolerant write-ability	2020	Microelectronics Journal	10.1016/j.mejo.2020.104703
326	Madan, J., Dassi, M., Pandey, R., Chaujar, R., Sharma, R.	Numerical analysis of Mg_2Si/Si heterojunction DG-TFET for low power/high performance applications: Impact of non-idealities	2020	Superlattices and Microstructures	10.1016/j.spmi.2020.106397
327	Kaur, D., Sharma, S.C., Pandey, R.S., Gupta, R.	Weibel instability oscillation in a dusty plasma with counter-streaming electrons	2020	Laser and Particle Beams	10.1017/S0263034619000776
328	Badoni, M., Singh, A., Singh, B.	Power Quality Enhancement Using Euclidean Direction Search Based Control Technique	2020	IEEE Transactions on Industrial Electronics	10.1109/TIE.2019.2905835
329	Kumar, D., Agrawal, R.K., Verma, H.	Kernel intuitionistic fuzzy entropy clustering for MRI image segmentation	2020	Soft Computing	10.1007/s00500-019-04169-y
330	Singh, V., Kaur, S., Rao, A.S., Singh, N., Rao, J.L., Irfan, M.	UVB-emitting gadolinium-doped Ba_2YZrO_6 perovskite ceramic phosphor	2020	Optik	10.1016/j.ijleo.2020.164263
331	Singh, A.K., Dawra, D., Dimri, M., Jha, A.K.S., Sharma, R., Mohan, M.	Relativistic photoionization cross section calculations and resonance parameters for Mg-like Se XXIII	2020	Radiation Physics and Chemistry	10.1016/j.radphyschem.2019.108447
332	Singh, V., Venkateswara Rao, B.R., Rao, A.S., Rao, J.L., Irfan, M.	Photoluminescence and electron spin resonance study on narrow-band UVB emitting Gd-doped $LaPO_4$ phosphors	2020	Optik	10.1016/j.ijleo.2019.164020

S. No.	Authors	Title	Year	Source title	DOI
333	Singh, V., Mahamuda, S., Rao, A.S., Rao, J.L., Irfan, M.	Luminescence and EPR properties of UVB emitting Gd doped NaBaPO$_4$ phosphor prepared by co-precipitation method	2020	Optik	10.1016/j.ijleo.2019.164086
334	Singh, V., Deopa, N., Kaur, S., Rao, A.S., Rao, J.L., Lakshminarayana, G.	EPR and Optical Properties of Green Emitting Mn Activated Sr$_2$ZnSi$_2$O$_7$ Phosphors Prepared by Sol–Gel Method	2020	Journal of Electronic Materials	10.1007/s11664-019-07914-z
335	Tiwari, D., Sherwani, A.F., Atheaya, D., Kumar, A., Kumar, N.	Thermodynamic analysis of Organic Rankine cycle driven by reversed absorber hybrid photovoltaic thermal compound parabolic concentrator system	2020	Renewable Energy	10.1016/j.renene.2019.10.018
336	Singh, V., Yadav, A., Rao, A.S., Irfan, M., Kwon, Y.-W., Rao, J.L.	Ultra-violet B emitting Gd^{3+} doped LaP$_3$O$_9$ phosphors prepared by co-precipitation procedure	2020	Optik	10.1016/j.ijleo.2020.164239
337	Singh, V., Mahamuda, S., Rao, A.S., Rao, J.L., Kokate, S., Irfan, M.	Photoluminescence and EPR studies of narrowband ultraviolet B emitting trivalent gadolinium activated CaLaAl$_3$O$_7$ phosphors	2020	Optik	10.1016/j.ijleo.2019.163978
338	Garg, N.	Exploring role of gratitude in developing teacher leadership in Indian universities	2020	International Journal of Educational Management	10.1108/IJEM-07-2019-0253
339	Sarkar, A., Garg, N.	"Peaceful workplace" only a myth?: Examining the mediating role of psychological capital on spirituality and nonviolence behaviour at the workplace	2020	International Journal of Conflict Management	10.1108/IJCMA-11-2019-0217
340	Singh, N., Ali, M.A., Rai, P., Ghori, I., Sharma, A., Malhotra, B.D., John, R.	Dual-modality microfluidic biosensor based on nanoengineered mesoporous graphene hydrogels	2020	Lab on a Chip	10.1039/c9lc00751b
341	Ratre, A.	Stochastic Gradient Descent-Whale Optimization Algorithm-Based Deep Convolutional Neural Network to Crowd Emotion Understanding	2020	Computer Journal	10.1093/comjnl/bxz103
342	Rahul, Kedia, P., Sarangi, S., Monika	Analysis of machine learning models for malware detection	2020	Journal of Discrete Mathematical Sciences and Cryptography	10.1080/09720529.2020.1721870
343	Kumar, A.	Using cognition to resolve duplicacy issues in socially connected healthcare for smart cities	2020	Computer Communications	10.1016/j.comcom.2020.01.041
344	Gupta, R., Ambasta, R.K., Kumar, P.	Pharmacological intervention of histone deacetylase enzymes in the neurodegenerative disorders	2020	Life Sciences	10.1016/j.lfs.2020.117278
345	Kharbanda, V., Singh, A.	Hedging and effectiveness of Indian currency futures market	2020	Journal of Asia Business Studies	10.1108/JABS-10-2018-0279

S. No.	Authors	Title	Year	Source title	DOI
346	Ranga, R., Kalra, Y., Kishor, K.	Petal shaped nanoantenna for solar energy harvesting	2020	Journal of Optics (United Kingdom)	10.1088/2040-8986/ab6ae5
347	Gupta, S., Garg, R., Singh, A.	ANFIS-Based Control of Multi-objective Grid Connected Inverter and Energy Management	2020	Journal of The Institution of Engineers (India): Series B	10.1007/s40031-020-00425-0
348	Anand, P., Chauhan, A.	The advent of ownerless businesses: Decentralised autonomous organisations	2020	International Journal of Scientific and Technology Research	
349	Singh, C.P., Kumar, A.	Quintessence behavior via matter creation cosmology	2020	European Physical Journal C	10.1140/epjc/s10052-020-7679-2
350	Sharma, P., Mehata, M.S.	Colloidal MoS_2 quantum dots based optical sensor for detection of 2,4,6-TNP explosive in an aqueous medium	2020	Optical Materials	10.1016/j.optmat.2019.109646
351	Kumar, A., Goel, K., Nilam	A deterministic time-delayed SIR epidemic model: mathematical modeling and analysis	2020	Theory in Biosciences	10.1007/s12064-019-00300-7
352	Sharma, R., Jain, M.	Removal of benzothiophenes from model diesel/jet oil fuel by using pervaporation process: Estimation of mass transfer properties of the different membranes and dynamic modeling of a scale-up batch process	2020	Journal of Membrane Science	10.1016/j.memsci.2019.117500
353	Kaushik, D., Singh, U., Sahu, U., Sreedevi, I., Bhowmik, D.	Comparing domain wall synapse with other non volatile memory devices for on-chip learning in analog hardware neural network	2020	AIP Advances	10.1063/1.5128344
354	Meena, D., Bhatnagar, M.C., Singh, B.	Synthesis, characterization and gas sensing properties of the rhombohedral ilmenite $CdSnO_3$ nanoparticles	2020	Physica B: Condensed Matter	10.1016/j.physb.2019.411848
355	Goyal, A., Sharma, R., Aggarwal, S.	Analysis of discrepancy in previously published excitation energies of Ne-like ions from two independent codes and atomic data of Rb XXVIII and Ba XLVII	2020	Journal of Electron Spectroscopy and Related Phenomena	10.1016/j.elspec.2019.146905
356	Ali, P., Pandey, S.M., Ranganath, M.S., Walia, R.S., Murtaza, Q.	Experimentation and modelling of CNT additive abrasive media for micro finishing	2020	Measurement: Journal of the International Measurement Confederation	10.1016/j.measurement.2019.107133
357	Vijayan, S., Arjunan, T.V., Kumar, A.	Exergo-environmental analysis of an indirect forced convection solar dryer for drying bitter gourd slices	2020	Renewable Energy	10.1016/j.renene.2019.08.066
358	Ahluwalia, S., Bidlan, R., Shrivastav, A.K., Goswami, R.K., Singh, P., Sharma, J.G.	Optimization of protein extraction from detoxified Jatropha seed cake using response surface methodology and amino acid analysis	2020	International Journal of Environmental Science and Technology	10.1007/s13762-019-02340-4

S. No.	Authors	Title	Year	Source title	DOI
359	Kumar, A., Gupta, N., Tripathi, S.K., Tripathi, M.M., Chaujar, R.	Performance evaluation of linearity and intermodulation distortion of nanoscale GaN-SOI FinFET for RFIC design	2020	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2019.153052
360	Sangeeta, Sharma, K., Bala, M.	An ecological space based hybrid swarm-evolutionary algorithm for software reliability model parameter estimation	2020	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-019-00926-2
361	Bansal, D., Minocha, V.K., Kaur, A.	Componentwise-embodied energy analysis of affordable houses in India	2020	Asian Journal of Civil Engineering	10.1007/s42107-019-00184-4
362	Tripathi, V., Thukral, S.	Role of Industry Factors in Financing the Outward Foreign Direct Investment by Indian Multinational Enterprises	2020	Global Business Review	10.1177/0972150919846815
363	Moona, G., Walia, R.S., Rastogi, V., Sharma, R.	Tribological characterization of eco-designed aluminium hybrid metal matrix composites	2020	Indian Journal of Engineering and Materials Sciences	
364	Singh, V., Kaur, S., Rao, A.S., Rao, J.L., Irfan, M.	PL and EPR characteristics of Gd^{3+}-activated $SrMgSi_2O_6$ phosphor prepared by sol-gel procedure	2020	Optik	10.1016/j.ijleo.2019.164157
365	Rawat, C., Shivangi, Kushwaha, S., Sharma, S., Srivastava, A.K., Kukreti, R.	Altered plasma prostaglandin E_2 levels in epilepsy and in response to antiepileptic drug monotherapy	2020	Prostaglandins Leukotrienes and Essential Fatty Acids	10.1016/j.plefa.2020.102056
366	Kinyoki, at All	Mapping child growth failure across low- and middle-income countries	2020	Nature	10.1038/s41586-019-1878-8
367	Graetz, at All	Mapping disparities in education across low- and middle-income countries	2020	Nature	10.1038/s41586-019-1872-1
368	Saxena, G., Jain, P., Awasthi, Y.K.	High diversity gain super-wideband single band-notch MIMO antenna for multiple wireless applications	2020	IET Microwaves, Antennas and Propagation	10.1049/iet-map.2019.0450
369	Sharma, R.C., Kumar, S., Kumar, S., Mann, M., Mayank, Sharma, M.	Photoacoustic remote sensing of suspicious objects for defence and forensic applications	2020	Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy	10.1016/j.saa.2019.117445
370	Kumar, S., Bhat, N., Panda, B.S.	Analysis of social network metrics based on the model of random recursive tree	2020	Journal of Interdisciplinary Mathematics	10.1080/09720502.2020.1721716
371	Bhatia, M.P.S., Kumar, A., Beniwal, R., Malik, T.	Ontology driven software development for automatic detection and updation of software requirement specifications	2020	Journal of Discrete Mathematical Sciences and Cryptography	10.1080/09720529.2020.1721884
372	Singh, K., Rajora, S., Vishwakarma, D.K., Tripathi, G., Kumar, S., Walia, G.S.	Crowd anomaly detection using Aggregation of Ensembles of fine-tuned ConvNets	2020	Neurocomputing	10.1016/j.neucom.2019.08.059

16. ANNEXURE

283

S. No.	Authors	Title	Year	Source title	DOI
373	Lochab, R., Kumar, V.	A new reconstruction of numerical fluxes for conservation laws using fuzzy operators	2020	International Journal for Numerical Methods in Fluids	10.1002/fld.4948
374	Garg, S., Roy, A.	A Current Perspective of Plants as an Antibacterial Agent: A Review	2020	Current pharmaceutical biotechnology	10.2174/13892010 21666200622121 249
375	Sharma, S., Saini, S., Khangembam, M., Singh, V.	Nanomaterials Based Biosensors for COVID-19 Detection-A Review	2020	IEEE Sensors Journal	10.1109/JSEN.202 0.3036748
376	Agarwal, S.A., Akhilesh, S.A., Arora, B.B.	Energy and Exergy Investigations of R1234Yf and R1234Ze as R134A Replacements in Mechanically Subcooled Vapour Compression Refrigeration Cycle	2020	Journal of Thermal Engineering	10.18186/thermal. 846561
377	Sharda, S., Singh, M., Sharma, K.	RSAM: Robust Self-Attention based Multi-horizon Model for Solar Irradiance Forecasting	2020	IEEE Transactions on Sustainable Energy	10.1109/TSTE.202 0.3046098
378	Batra, L., Taneja, H.C.	Portfolio optimization based on generalized information theoretic measures	2020	Communications in Statistics - Theory and Methods	10.1080/03610926. 2020.1861294
379	Kumar, A., Garg, G.	Data using contextual cues	2020	World Review of Entrepreneurship, Management and Sustainable Development	10.1504/WREMSD. 2020.111390
380	Kumar, S., Agarwal, A., Kumar, A.	Financial viability assessment of concentrated solar power technologies under Indian climatic conditions	2020	Sustainable Energy Technologies and Assessments	10.1016/j.seta. 2020.100928
381	Varshney, D., Vishwakarma, D.K.	Hoax news-inspector: a real-time prediction of fake news using content resemblance over web search results for authenticating the credibility of news articles	2020	Journal of Ambient Intelligence and Humanized Computing	10.1007/s12652-020-02698-1
382	Gupta, G., Katarya, R.	Research on Understanding the Effect of Deep Learning on User Preferences	2020	Arabian Journal for Science and Engineering	10.1007/s13369-020-05112-2
383	Gupta, S., Kumar, N.	Time varying dynamics of globalization effect in India	2020	Portuguese Economic Journal	10.1007/s10258-020-00190-4
384	Kumar, A., Jaiswal, A.	Deep learning based sentiment classification on user-generated big data	2020	Recent Advances in Computer Science and Communications	10.2174/22132759 126661904091523 08
385	Sharma, A., Rastogi, V., Agrawal, A.K.	Estimation and Experimental Validation of Mean-Field Homogenised Effective Properties of Composite	2020	Experimental Techniques	10.1007/s40799-020-00411-7
386	Katarya, R., Meena, S.K.	Machine Learning Techniques for Heart Disease Prediction: A Comparative Study and Analysis	2020	Health and Technology	10.1007/s12553-020-00505-7

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
387	Parihar, A.S., Jain, G., Chopra, S., Chopra, S.	SketchFormer: transformer-based approach for sketch recognition using vector images	2020	Multimedia Tools and Applications	10.1007/s11042-020-09837-y
388	Singh, S.K., Sachdeva, H., Joon, H., Narang, M.	Water Quality Assessment of a Water Body using Principal Component Analysis - Sanjay Lake, New Delhi, India	2020	Asian Journal of Water, Environment and Pollution	10.3233/AJW200047
389	Singh, H., Arora, B.B.	Effects of casing angle on the performance of parallel hub axial annular diffuser	2020	International Journal of Turbo and Jet Engines	10.1515/tjeng-2020-0019
390	Deo, N., Kumar, S.	Durrmeyer variant of apostol-genocchi-baskakov operators	2020	Quaestiones Mathematicae	10.2989/16073606.2020.1834000
391	Mehdi, H., Mishra, R.S.	An experimental analysis and optimization of process parameters of AA6061 and AA7075 welded joint by TIG+FSP welding using RSM	2020	Advances in Materials and Processing Technologies	10.1080/2374068X.2020.1829952
392	Bhardwaj, J., Lather, A.S., Gupta, V.	Reliability through mindfulness in Indian aircraft maintenance organisations: A proposed framework	2020	International Journal of Public Sector Performance Management	10.1504/IJPSPM.2020.110145
393	Joshi, S., Singh, R.C., Chaudhary, R.	Effect of Friction Stir Processing (Fsp) on the Wear Behavior of Cast AS21A Magnesium Alloy	2020	Surface Review and Letters	10.1142/S0218625X20500377
394	Rewari, S.	Core-Shell Nanowire Junctionless Accumalation Mode Field-Effect Transistor (CSN-JAM-FET) for High Frequency Applications - Analytical Study	2020	Silicon	10.1007/s12633-020-00744-3
395	Singh, I., Arora, N., Arora, S., Singhal, P.	Fuzzy ARM and cluster analysis for database intrusion detection and prevention	2020	International Journal of Information and Computer Security	10.1504/IJICS.2020.109483
396	Saxena, H., Singh, A., Rai, J.N.	Analysis of SOGI-ROGI for synchronization and shunt active filtering under distorted grid condition	2020	ISA Transactions	10.1016/j.isatra.2020.10.025
397	Kashyap, M.P., Chaujar, R.	Gate Oxide Variability Analysis of a Novel 3 nm Truncated Fin–FinFET for High Circuitry Performance	2020	Silicon	10.1007/s12633-020-00734-5
398	Kale, S.	Investigation of Dual Metal Gate Schottky Barrier MOSFET for Suppression of Ambipolar Current	2020	IETE Journal of Research	10.1080/03772063.2020.1823250
399	Singh, R., Bhushan, B.	Improved ant colony optimization for achieving self-balancing and position control for balancer systems	2020	Journal of Ambient Intelligence and Humanized Computing	10.1007/s12652-020-02566-y

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
400	Sakshi, Singh, S.K., Haritash, A.K.	Evolutionary Relationship of Polycyclic Aromatic Hydrocarbons Degrading Bacteria with Strains Isolated from Petroleum Contaminated Soil Based on 16S rRNA Diversity	2020	Polycyclic Aromatic Compounds	10.1080/10406638.2020.1825003
401	Chaudhary, P., Rizwan, M.	QNBP NN-based I cos Φ algorithm for PV systems integrated with LV/MV grid	2020	Soft Computing	10.1007/s00500-020-05295-8
402	Mazumder, S.K.	Hydraulic jump control using stilling basin with Adverse slope and positive step	2020	ISH Journal of Hydraulic Engineering	10.1080/09715010.2020.1824131
403	Gupta, S., Kumar, N.	Three decades of narrow globalization: Evaluating India's exports between 1991 and 2017	2020	Managerial and Decision Economics	10.1002/mde.3239
404	Singh, R., Bhushan, B.	Randomized probabilistic approach for parametric uncertainties in unmanned helicopters	2020	Optimal Control Applications and Methods	10.1002/oca.2678
405	Kaushal, V., Yadav, R.	Understanding customer experience of culinary tourism through food tours of Delhi	2020	International Journal of Tourism Cities	10.1108/IJTC-08-2019-0135
406	Shastri, A., Goyal, N., Anand, R.	Intelligent traffic management system	2020	International Journal of Pharmaceutical Research	10.31838/ijpr/2020.12.01.223
407	Ghiya, P., Shrivastava, S., Joshi, P., Anbu Kumar, S.	Effect of rainfall on groundwater quality in the Delhi-NCR region	2020	International Journal of Pharmaceutical Research	10.31838/ijpr/2020.12.01.224
408	Singh, H., Niranjan, M.S., Wattal, R.	A Study for the Nanofinishing of an EN-31 Workpiece with Pulse DC Power Supply Using Ball-End Magnetorheological Finishing	2020	Strojniski Vestnik/Journal of Mechanical Engineering	10.5545/sv-jme.2020.6681
409	Chauhan, D., Kumar, A., Warkar, S.G.	Synthesis, characterization and metal ions sensing applications of meta-benziporphodimethene-embedded polyacrylamide/carboxymethyl guargum polymeric hydrogels in water	2020	Environmental Technology (United Kingdom)	10.1080/09593330.2020.1812730
410	Malik, S., Maheshwari, G.C., Singh, A.	Formal vs informal demand for credit by women in urban India: a comparative study in slums of Delhi and Mumbai	2020	Gender in Management	10.1108/GM-06-2019-0087
411	Varshney, G., Pandey, N., Pandey, R.	Electronically Tunable Multifunction Transadmittance-Mode Fractional-Order Filter	2020	Arabian Journal for Science and Engineering	10.1007/s13369-020-04841-8
412	Kumar, A., Raheja, S.	Edge detection using ant colony optimization under novel intensity mapping function and weighted adaptive threshold	2020	International Journal of Integrated Engineering	
413	Bhaskar, D.R., Kumar, M., Kumar, P.	Minimal Realization of Fractional-Order Inverse Filters	2020	IETE Journal of Research	10.1080/03772063.2020.1803770

S. No.	Authors	Title	Year	Source title	DOI
414	Deo, N., Pratap, R.	Approximation by Integral form of Jain and Pethe Operators	2020	Proceedings of the National Academy of Sciences India Section A - Physical Sciences	10.1007/s40010-020-00691-z
415	Pandey, D., Tiwari, K.C.	New spectral indices for detection of urban built-up surfaces and its sub-classes in AVIRIS-NG hyperspectral imagery	2020	Geocarto International	10.1080/10106049.2020.1805031
416	Malhotra, R., Lata, K.	An empirical study to investigate the impact of data resampling techniques on the performance of class maintainability prediction models	2020	Neurocomputing	10.1016/j.neucom.2020.01.120
417	Ansari, N.A., Arora, A., Samsher, Manjunath, K.	Optimum parametric analysis based on thermodynamic modeling of a compression absorption cascade refrigeration system	2020	Journal of Thermal Engineering	10.18186/THERMAL.764297
418	Pandey, D., Tiwari, K.C.	Feature identification and extraction of urban built-up surfaces and materials in AVIRIS-NG hyperspectral imagery	2020	Geocarto International	10.1080/10106049.2020.1797187
419	Kumar, A., Garg, R., Mahajan, P.	Modified Synchronous Reference Frame Control of Solar Photovoltaic-Based Microgrid for Power Quality Improvement	2020	Arabian Journal for Science and Engineering	10.1007/s13369-020-04789-9
420	Singh, I., Singhal, S., Kumar, V.	Database intrusion detection using role and user level sequential pattern mining and fuzzy clustering	2020	International Journal of Engineering Research and Technology	
421	Batra, L., Taneja, H.C.	On Black–Scholes option pricing model with stochastic volatility: an information theoretic approach	2020	Stochastic Analysis and Applications	10.1080/07362994.2020.1797508
422	Viswanadha, K., Raghava, N.S.	Design and analysis of a dual-polarization multiband oval ring patch antenna with L-stubs and folded meander line for C-band/X-band/ Ku-band/ K-band communications	2020	International Journal of Electronics	10.1080/00207217.2020.1793411
423	Seshu Kumar, A.N., Kumar Yadav, R., Raghava, N.S.	A comprehensive outline of diverse IDS/IPS with respect to hypervisors	2020	Advances in Mathematics: Scientific Journal	10.37418/amsj.9.6.33
424	khan, Y., Mishra, R.S.	Parametric (exergy-energy) analysis of parabolic trough solar collector-driven combined partial heating supercritical CO_2 cycle and organic Rankine cycle	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2020.1788676
425	Verma, M., Dev, N.	Sodium hydroxide effect on the mechanical properties of flyash-slag based geopolymer concrete	2020	Structural Concrete	10.1002/suco.202000068

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
426	Kumar, A., Patel, P.	Fake news detection in benchmark dataset using hybrid deep neural model	2020	Journal of Advanced Research in Dynamical and Control Systems	10.5373/JARDCS/V12I6/S20201175
427	Nimker, D., Wattal, R.	Recycling of submerged arc welding slag for sustainability	2020	Production and Manufacturing Research	10.1080/21693277.2020.1774813
428	Singh, M.K., Gupta, V.	Critical types of knowledge loss in military organisations	2020	VINE Journal of Information and Knowledge Management Systems	10.1108/VJIKMS-09-2019-0152
429	Raj, R., Rana, T., Anchalia, T., Khola, U.	Numerical study of wind excited action on H Plan-shaped tall building	2020	International Journal on Emerging Technologies	
430	Malhotra, T., Gupta, A.	A systematic review of developments in the 2-tuple linguistic model and its applications in decision analysis	2020	Soft Computing	10.1007/s00500-020-05031-2
431	Malhotra, T., Gupta, A.	A new 2-tuple linguistic approach for unbalanced linguistic term sets	2020	IEEE Transactions on Fuzzy Systems	10.1109/TFUZZ.2020.2994987
432	Singh, T., Vishwakarma, D.K.	A deeply coupled ConvNet for human activity recognition using dynamic and RGB images	2020	Neural Computing and Applications	10.1007/s00521-020-05018-y
433	Kumar, N., Tripathi, M.M.	Solar Power Trading Models for Restructured Electricity Market in India	2020	Asian Journal of Water, Environment and Pollution	10.3233/AJW200020
434	Banerjee, S., Joshi, D., Singh, M.	Investigations on Two-lead and Three-lead Rotor Connections of Doubly Fed Induction Generator	2020	Asian Journal of Water, Environment and Pollution	10.3233/AJW200018
435	Malhotra, A., Jindal, R.	Multimodal deep learning based framework for detecting depression and suicidal behaviour by affective analysis of social media posts	2020	EAI Endorsed Transactions on Pervasive Health and Technology	10.4108/eai.13-7-2018.164259
436	Mehdi, H., Mishra, R.S.	Effect of friction stir processing on mechanical properties and heat transfer of TIG welded joint of AA6061 and AA7075	2020	Defence Technology	10.1016/j.dt.2020.04.014
437	Gupta, D., Vij, I., Gupta, M.	Autism detection using R-FMRI: Subspace approximation and CNN based approach	2020	International Journal of Advanced Trends in Computer Science and Engineering	10.30534/ijatcse/2020/20922020
438	Singh, V., Zutshi, S., Goel, U., Murtaza, Q.	Effect of process variables using square type cutting tool on surface roughness and residual stress of en24 in an end-milling process	2020	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperdjun202014
439	Singh, S., Jatin, Pandey, N., Pandey, R.	Electronically Tunable Grounded Capacitance Multiplier	2020	IETE Journal of Research	10.1080/03772063.2020.1739573

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
440	Kumar, A., Raghava, N.S.	Selective colour image encryption using Hénon chaotic system with a keyless substitution cipher	2020	Engineering and Applied Science Research	
441	Shiva, P., Singh, G.D., Kukal, R., Kumar, S.	Design and fabrication of wing of a high-payload aerial vehicle	2020	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperd apr202049
442	Kaur, R., Kumar, M.	Addition of anti-flaming agents in castor oil based rigid polyurethane foams: Studies on mechanical and flammable behaviour	2020	Materials Research Express	10.1088/2053-159 1/ab68a2
443	Arora, C., Kumar, V.	Dynamics of One-prey and Two-predator System Highlighting the Significance of Additional Food for Predators with Beddington–DeAngelis Functional Response	2020	Differential Equations and Dynamical Systems	10.1007/s12591-018-0442-6
444	Banga, S., Kumar, S.S.	Applications of differential subordinations to certain classes of starlike functions	2020	Journal of the Korean Mathematical Society	10.4134/JKMS. j190051
445	Dhiman, C., Vishwakarma, D.K.	View-Invariant Deep Architecture for Human Action Recognition Using Two-Stream Motion and Shape Temporal Dynamics	2020	IEEE Transactions on Image Processing	10.1109/TIP.2020. 2965299
446	Shita, A., Kumar, N., Singh, S.	The impact of agricultural technology adoption on income inequality: A propensity score matching analysis for rural Ethiopia	2020	International Journal of Information and Decision Sciences	10.1504/IJIDS. 2020.105013
447	Kumar, M., Nikhil, Anand, P.	A blockchain based approach for an efficient secure KYC process with data sovereignty	2020	International Journal of Scientific and Technology Research	
448	Singh, A., Gupta, A.	Best criteria selection based PROMETHEE II to aid decision-making under 2-tuple linguistic framework: Case-study of the most energy efficient region worldwide	2020	International Journal of Management and Decision Making	10.1504/IJMDM. 2020.104183
449	Singh, C.P., Kaur, S.	Probing bulk viscous matter-dominated model in Brans-Dicke theory	2020	Astrophysics and Space Science	10.1007/s10509-019-3713-y
450	Goel, P., Kumar, S.S.	Certain Class of Starlike Functions Associated with Modified Sigmoid Function	2020	Bulletin of the Malaysian Mathematical Sciences Society	10.1007/s40840-019-00784-y

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
451	Chauhan, P., Kumar, A., Kalra, Y.	Numerical exploration of coherent supercontinuum generation in multicomponent GeSe$_2$-As$_2$Se$_3$-PbSe chalcogenide based photonic crystal fiber	2020	Optical Fiber Technology	10.1016/j.yofte.2019.102100
452	Devanshu, A., Singh, M., Kumar, N.	An improved nonlinear flux observer based sensorless FOC im drive with adaptive predictive current control	2020	IEEE Transactions on Power Electronics	10.1109/TPEL.2019.2912265
453	Batra, L., Taneja, H.C.	Evaluating volatile stock markets using information theoretic measures	2020	Physica A: Statistical Mechanics and its Applications	10.1016/j.physa.2019.122711
454	Singh, R., Bhushan, B.	Real-time control of ball balancer using neural integrated fuzzy controller	2020	Artificial Intelligence Review	10.1007/s10462-018-9658-7
455	Thakran, S.	A hybrid GPFA-EEMD_Fuzzy threshold method for ECG signal de-noising	2020	Journal of Intelligent and Fuzzy Systems	10.3233/JIFS-191518
456	Agrawal, S., Singh, R.K.	Outsourcing and reverse supply chain performance: a triple bottom line approach	2020	Benchmarking	10.1108/BIJ-09-2020-0498
457	Tomar, M., Dewal, H., Sonthalia, A., Kumar, N.	Optimization of spark-ignition engine characteristics fuelled with oxygenated bio-additive (triacetin) using response surface methodology	2020	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	10.1177/0954408920971110
458	Kumar, R., Srivastava, S.	A novel dynamic recurrent functional link neural network-based identification of nonlinear systems using Lyapunov stability analysis	2020	Neural Computing and Applications	10.1007/s00521-020-05526-x
459	Bhowmik, A., De, D.	mTrust: Call Behavioral Trust Predictive Analytics Using Unsupervised Learning in Mobile Cloud Computing	2020	Wireless Personal Communications	10.1007/s11277-020-07879-x
460	Devanshu, A., Singh, M., Kumar, N.	Artificial neural network-based current control of field oriented controlled induction motor drive	2020	Electrical Engineering	10.1007/s00202-020-01138-9
461	Singh, S.P., Ahmad, T., Sharma, J.G., Chakrabarti, R.	Effect of temperature on food consumption, immune system, antioxidant enzymes, and heat shock protein 70 of Channa punctata (Bloch, 1793)	2020	Fish Physiology and Biochemistry	10.1007/s10695-020-00896-4
462	Jain, S., Seth, G., Paruthi, A., Soni, U., Kumar, G.	Synthetic data augmentation for surface defect detection and classification using deep learning	2020	Journal of Intelligent Manufacturing	10.1007/s10845-020-01710-x

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
463	Singh, K., Kumar, N.	Synergistic Effect of Pine Oil and Eucalyptus Oil on the Performance of a Compression Ignition Engine	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2020.1840669
464	Kulkarni, J., Kumar, N., Singh, B.	Design and Control of Medium-Voltage Multilevel Converter for Direct Grid Integration of Photovoltaic System	2020	Journal of The Institution of Engineers (India): Series B	10.1007/s40031-020-00509-x
465	Sharma, V.K., Singh, R.C., Chaudhary, R.	Improvement in the performance of journal bearings by using lead-free bearing material and surface texturing	2020	International Journal of Surface Science and Engineering	10.1504/IJSURFSE.2020.110542
466	Kumar, S., Panda, B.S., Aggarwal, D.	Community detection in complex networks using network embedding and gravitational search algorithm	2020	Journal of Intelligent Information Systems	10.1007/s10844-020-00625-6
467	Singh, K., Kumar, N.	Characterization of pine and Eucalyptus oil and correlative evaluation of their performance as diesel blend in conventional diesel engine	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2020.1833111
468	Singh, A., Chakrabarti, R., Sharma, J.	Assessment of immunostimulatory characteristics of achyranthes aspera seeds and leaves supplemented diets in Labeo rohita fingerlings	2020	Turkish Journal of Fisheries and Aquatic Sciences	10.4194/1303-2712-v20_11_03
469	Yadav, A., Choudhry, M.S.	A new approach for ocular artifact removal from EEG signal using EEMD and SCICA	2020	Cogent Engineering	10.1080/23311916.2020.1835146
470	Mittal, S., Pathak, S., Dhawan, H., Upadhyayula, S.	A machine learning approach to improve ignition properties of high-ash Indian coals by solvent extraction and coal blending	2020	Chemical Engineering Journal	10.1016/j.cej.2020.127385
471	Gupta, K., Gosain, V., Pandey, N.	Adiabatic Differential Cascode Voltage Switch Logic (A-DCVSL) for low power applications	2020	Journal of King Saud University - Engineering Sciences	10.1016/j.jksues.2020.09.018
472	Das, M., Das, A., Sarkar, R., Saha, S., Mandal, A.	Examining the impact of lockdown (due to COVID-19) on ambient aerosols (PM$_{2.5}$): A study on Indo-Gangetic Plain (IGP) Cities, India	2020	Stochastic Environmental Research and Risk Assessment	10.1007/s00477-020-01905-x
473	Tomar, M., Sonthalia, A., Kumar, N., Dewal, H.	Waste glycerol derived bio-propanol as a potential extender fuel for compressed ignition engine	2020	Environmental Progress and Sustainable Energy	10.1002/ep.13526
474	Gupta, M., Bhargava, L., Indu, S.	Dynamic workload-aware DVFS for multicore systems using machine learning	2020	Computing	10.1007/s00607-020-00845-2

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
475	Kansal, P., Kumar, A., Gangadharappa, M.	Spectrum Sensing Techniques for next Generation Wireless Technologies	2020	Telecommunications and Radio Engineering (English translation of Elektrosvyaz and Radiotekhnika)	10.1615/telecomra deng.v79.i13.50
476	James, A.T., Kumar, G., Bhalla, M., Amar, M., Jain, P.	Analysis of challenges for automobile service garages in India: a structural modeling approach	2020	Journal of Advances in Management Research	10.1108/JAMR-04-2020-0059
477	Pandey, J.K., Suri, P.K.	Collaboration competency and e-governance performance	2020	International Journal of Electronic Governance	10.1504/IJEG.2020.109835
478	Kumar, V., Kumar, D.	A Systematic Review on Firefly Algorithm: Past, Present, and Future	2020	Archives of Computational Methods in Engineering	10.1007/s11831-020-09498-y
479	Jain, A., Ratnoo, S., Kumar, D.	A novel multi-objective genetic algorithm approach to address class imbalance for disease diagnosis	2020	International Journal of Information Technology (Singapore)	10.1007/s41870-020-00471-3
480	Aggarwal, A., Soni, J., Sharma, K., Sapra, M., Chitrakshi, Karaca, O., Haritash, A.K.	Hydrogeochemical Assessment of Groundwater for Drinking and Agricultural Use: A Case Study of Rural Areas of Alwar, Rajasthan	2020	Environmental Management	10.1007/s00267-020-01361-x
481	Tokas, S., Zunaid, M., Ansari, M.A.	Numerical investigation of the performance of 3D-helical passive micromixer with Newtonian fluid and non-Newtonian fluid blood	2020	Asia-Pacific Journal of Chemical Engineering	10.1002/apj.2570
482	Faheem, A., Husain, T., Hasan, F., Murtaza, Q.	Effect of nanoparticles in cutting fluid for structural machining of Inconel 718	2020	Advances in Materials and Processing Technologies	10.1080/2374068X.2020.1802563
483	Kumar, G., Singh, R.K., Jain, R., Kain, R., Naveen	Analysis of demand risks for the Indian automotive sector in globally competitive environment	2020	International Journal of Organizational Analysis	10.1108/IJOA-03-2020-2076
484	Joshi, R., Yadav, R.	Brand Desire: Scale Development and Empirical Examination	2020	Journal of Asia-Pacific Business	10.1080/10599231.2020.1783971
485	Kohar, S., Singh, S., De, A.	Design of Cylindrical conformal slotted Microstrip Patch Antenna for wideband applications	2020	International Journal of Electronics Letters	10.1080/21681724.2020.1793394
486	Kumar, P., Pandey, N., Paul, S.K.	Electronically Tunable VDTA-Based Multi-function Inverse Filter	2020	Iranian Journal of Science and Technology - Transactions of Electrical Engineering	10.1007/s40998-020-00355-z
487	Devanshu, A., Singh, M., Kumar, N.	Nonlinear flux observer-based feedback linearisation control of IM drives with ANN speed and flux controller	2020	International Journal of Electronics	10.1080/00207217.2020.1765416

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
488	Devanshu, A., Singh, M., Kumar, N.	Adaptive Predictive Current Control of Field-Oriented Controlled Induction Motor Drive	2020	IETE Journal of Research	10.1080/03772063.2020.1775502
489	Gupta, A., Rastogi, V.	Effect of Distributed Damping on the Dynamic Behavior of Flexible Chassis of Heavy Road Vehicle Under Standardized Random Road Responses	2020	Iranian Journal of Science and Technology - Transactions of Mechanical Engineering	10.1007/s40997-020-00366-5
490	Gupta, K., Walia, G.S., Sharma, K.	Novel approach for multimodal feature fusion to generate cancelable biometric	2020	Visual Computer	10.1007/s00371-020-01873-x
491	Arora, C., Kumar, V.	Dynamics of Predator–Prey System with Migrating Species and Disease in Prey Population	2020	Differential Equations and Dynamical Systems	10.1007/s12591-020-00529-5
492	Gandhar, S., Ohri, J., Singh, M.	A Critical Review of Wind Energy Based Power Generation Systems	2020	Asian Journal of Water, Environment and Pollution	10.3233/AJW200017
493	Sundriyal, S., Vipin, Walia, R.S.	Study on the influence of metallic powder in near-dry electric discharge machining	2020	Strojniski Vestnik/Journal of Mechanical Engineering	10.5545/sv-jme.2019.6475
494	Kayina, H., Goel, S., Das, L.K.	Determinants of emotional value: Reference to chair design and wedding attire	2020	International Journal of Designed Objects	10.18848/2325-1379/CGP/V14I01/1-23
495	Anand, P., Bath, S.K., Rizwan, M.	Size optimisation of RES-based grid connected hybrid power system using harmony search algorithm	2020	International Journal of Energy Technology and Policy	10.1504/IJETP.2020.107035
496	Kumar, P., Singh, R.K.	Selection of sustainable solutions for crop residue burning: an environmental issue in northwestern states of India	2020	Environment, Development and Sustainability	10.1007/s10668-020-00741-x
497	Madan, J., Pandey, R., Sharma, R., Chaujar, R.	Investigation of electrical/analog performance and reliability of gate metal and source pocket engineered DG-TFET	2020	Microsystem Technologies	10.1007/s00542-020-04845-2
498	Maurya, R.K., Niranjan, M.S., Maurya, N.K., Dwivedi, S.P.	Development of a system to control flow of coolant in turning operation	2020	Journal of Mechanical Engineering	
499	Grover, A., Khosla, A., Joshi, D.	Design and simulation of 20MW photovoltaic power plant using PVSyst	2020	Indonesian Journal of Electrical Engineering and Computer Science	10.11591/ijeecs.v19.i1.pp58-65
500	Baliyan, A., Jamil, M., Rizwan, M.	An efficient and cost effective configuration of PV system in smart grid environment	2020	International Journal of Advanced Science and Technology	

S. No.	Authors	Title	Year	Source title	DOI
501	Adlakha, R., Khosla, A., Joshi, D.	Comparative analysis of positive output super lift DC-DC luo converters	2020	Indonesian Journal of Electrical Engineering and Computer Science	10.11591/ijeecs.v18.i2.pp707-716
502	Joshi, R., Yadav, R.	Captivating Brand Hate Using Contemporary Metrics: A Structural Equation Modelling Approach	2020	Vision	10.1177/0972262919892173
503	Sharma, S., Goyal, P.K., Chhipa, R.C.	Forecasting the probability of cost overrun risk of Indian construction projects using fuzzy model	2020	International Journal on Emerging Technologies	
504	Raman, R., Kumar, N.	Experimental studies to evaluate the combustion, performance and emission characteristics of acetylene fuelled CI engine	2020	International Journal of Ambient Energy	10.1080/01430750.2019.1709896
505	Shrivastava, P., Khongphakdi, P., Palamanit, A., Kumar, A., Tekasakul, P.	Investigation of physicochemical properties of oil palm biomass for evaluating potential of biofuels production via pyrolysis processes	2020	Biomass Conversion and Biorefinery	10.1007/s13399-019-00596-x
506	Dawar, G., Singh, S.	How Can Small and Medium Enterprises Effectively Implement Corporate Social Responsibility?: An Indian Perspective	2020	Global Business Review	10.1177/0972150919865086
507	Jaiswal, N., Pandey, C.M., Solanki, S., Tiwari, I., Malhotra, B.D.	An impedimetric biosensor based on electrophoretically assembled ZnO nanorods and carboxylated graphene nanoflakes on an indium tin oxide electrode for detection of the DNA of Escherichia coli O157:H7	2020	Microchimica Acta	10.1007/s00604-019-3921-8
508	Sharma, P., Choudhary, K., Gupta, K., Chawla, R., Gupta, D., Sharma, A.	Artificial plant optimization algorithm to detect heart rate & presence of heart disease using machine learning	2020	Artificial Intelligence in Medicine	10.1016/j.artmed.2019.101752
509	Negi, S., Mittal, P., Kumar, B.	Characteristic performance of oled based on hole injection, transport and blocking layers	2020	Recent Patents on Engineering	10.2174/1872212113666190409151647
510	Kaushik, A., Sharma, N.	An adaptive difference scheme for parabolic delay differential equation with discontinuous coefficients and interior layers	2020	Journal of Difference Equations and Applications	10.1080/10236198.2020.1843645
511	Karimi, S., Gholami, K., Rizwan, M.	Optimal sizing and placement of the UPQC and DG simultaneously based on sensitivity analysis and firefly algorithm	2020	International Journal of Power and Energy Conversion	10.1504/IJPEC.2020.110017
512	Perveen, G., Rizwan, M., Goel, N., Anand, P.	Artificial neural network models for global solar energy and photovoltaic power forecasting over India	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2020.1826017
513	Kumar, S., Saini, M., Goel, M., Panda, B.S.	Modeling information diffusion in online social networks using a modified forest-fire model	2020	Journal of Intelligent Information Systems	10.1007/s10844-020-00623-8

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
514	Yadav, S., Yadav, R., Kumar, A., Kumar, M.	A novel approach to design optimal 2-D digital differentiator using vortex search optimization algorithm	2020	Multimedia Tools and Applications	10.1007/s11042-020-10012-6
515	Yadav, S., Yadav, R., Kumar, A., Kumar, M.	A novel approach for optimal design of digital FIR filter using grasshopper optimization algorithm	2020	ISA Transactions	10.1016/j.isatra.2020.08.032
516	Garg, N., Jain, A., Punia, B.K.	Gratitude, social intelligence, and leadership among university teachers: mediation and moderation analysis	2020	International Journal of Organizational Analysis	10.1108/IJOA-01-2020-2016
517	Kumar, N., Sonthalia, A., Tomar, M., Koul, R.	An experimental investigation on spray, performance and emission of hydrotreated waste cooking oil blends in an agricultural engine	2020	International Journal of Engine Research	10.1177/14680874 20928734
518	Kumar, A., Gupta, N., Chaujar, R.	Reliability of Sub-20 nm Black Phosphorus Trench (BP-T) MOSFET in High-Temperature Harsh Environment	2020	Silicon	10.1007/s12633-020-00531-0
519	Jain, R., Acharya, M., Kansal, S.	Characterization of Line-Cut Signed Graphs	2020	National Academy Science Letters	10.1007/s40009-020-00971-7
520	Pandey, N., Pandey, R., Anurag, R., Vijay, R.	A class of differentiator-based multifunction biquad filters using otras	2020	Advances in Electrical and Electronic Engineering	10.15598/aeee.v18 i1.3363
521	Srivastava, P., Kumar, P., Tiwari, A.K.	Design, Synthesis, and In Silico Evaluation of Methyl 2-(2-(5-Bromo/chloro-2-oxobenzoxazol-3(2H)-yl)-acetamido)-3-phenylpropanoate for TSPO Targeting	2020	Radiochemistry	10.1134/S1066362 220010142
522	Gautam, R., Ansari, N., Sharma, A., Singh, Y.	Development of the ethyl ester from jatropa oil through response surface methodology approach	2020	Pollution	10.22059/POLL. 2019.284612.642
523	Hu, S., Kumar, A., Al-Turjman, F., Gupta, S., Seth, S., Shubham	Reviewer Credibility and Sentiment Analysis Based User Profile Modelling for Online Product Recommendation	2020	IEEE Access	10.1109/ACCESS. 2020.2971087
524	Walia, G.S., Jain, G., Bansal, N., Singh, K.	Adaptive Weighted Graph Approach to Generate Multimodal Cancelable Biometric Templates	2020	IEEE Transactions on Information Forensics and Security	10.1109/TIFS. 2019.2954779
525	Verma, A., Baurai, K., Sanjay, M.R., Siengchin, S.	Mechanical, microstructural, and thermal characterization insights of pyrolyzed carbon black from waste tires reinforced epoxy nanocomposites for coating application	2020	Polymer Composites	10.1002/pc.25373
526	Mahamuda, S., Syed, F., Annapurna Devi, C.B., Swapna, K., Prasad, M.V.V.K.S., Venkateswarlu, M., Rao, A.S.	Spectral characterization of Dy^{3+} ions doped phosphate glasses for yellow laser applications	2020	Journal of Non-Crystalline Solids	10.1016/j.jnoncryso l.2020.120538

S. No.	Authors	Title	Year	Source title	DOI
527	Kumar, A., Ranganatham, R., Singh, S., Komaragiri, R., Kumar, M.	A robust digital ECG signal watermarking and compression using biorthogonal wavelet transform	2020	Research on Biomedical Engineering	10.1007/s42600-020-00108-1
528	Pali, H.S., Sharma, A., Kumar, N., Singh, Y.	Sustainable route for S. Oleosa biodiesel production using response surface methodology	2020	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2020.1837298
529	Alrashed, S., Min-Allah, N., Saxena, A., Ali, I., Mehmood, R.	Impact of lockdowns on the spread of COVID-19 in Saudi Arabia	2020	Informatics in Medicine Unlocked	10.1016/j.imu.2020.100420
530	Anand, R., Chauhan, Y.K., Yadav, V., Pachauri, R.	Experimental system design for online characterization and performance analysis of PV module under distinguish environmental conditions	2020	EAI Endorsed Transactions on Energy Web	10.4108/EAI.13-7-2018.163838
531	Singh, A., Gupta, A., Mehra, A.	Best criteria selection based PROMETHEE II method	2020	OPSEARCH	10.1007/s12597-020-00464-7
532	Deopa, N., Sahu, M.K., Kaur, S., Prasad, A., Swapna, K., Kumar, V., Punia, R., Rao, A.S.	Enhanced visible green and 1.5 μm radiative emission of Er^{3+} ions in Li_2O-PbO-Al_2O_3-B_2O_3 glasses for photonic applications	2020	Journal of Rare Earths	10.1016/j.jre.2020.05.002
533	Singh, A., Pal, S., Kanungo, D.P.	An integrated approach for landslide susceptibility–vulnerability–risk assessment of building infrastructures in hilly regions of India	2020	Environment, Development and Sustainability	10.1007/s10668-020-00804-z
534	Srivastava, D., Kaur, G., Singh, G., Singh, P.	Evaluation of Atmospheric Detrimental Effects on Free Space Optical Communication System for Delhi Weather	2020	Journal of Optical Communications	10.1515/joc-2019-0078
535	Taghinezhad, E., Szumny, A., Kaveh, M., Sharabiani, V.R., Kumar, A., Shimizu, N.	Parboiled paddy drying with different dryers: Thermodynamic and quality properties, mathematical modeling using ANNs assessment	2020	Foods	10.3390/foods9010086
536	Tanwar, P., Panwar, A.K., Singh, S., Srivatava, A.K.	Microstructural and optical properties investigation of variable thickness of Tin Telluride thin films	2020	Thin Solid Films	10.1016/j.tsf.2019.137708
537	Shankar, S., Thakur, O.P., Jayasimhadri, M.	Impedance Spectroscopy and Conduction Behavior in $CoFe_2O_4$-$BaTiO_3$ Composites	2020	Journal of Electronic Materials	10.1007/s11664-019-07700-x
538	Kumar, A., Srinivasan, K., Cheng, W.-H., Zomaya, A.Y.	Hybrid context enriched deep learning model for fine-grained sentiment analysis in textual and visual semiotic modality social data	2020	Information Processing and Management	10.1016/j.ipm.2019.102141
539	Thakur, A., Kumar, P., Mouli Thalluri, S., Sinha, R.K., Devi, P.	Flexible polypyrrole activated micro-porous paper-based photoanode for photoelectrochemical water splitting	2020	International Journal of Hydrogen Energy	10.1016/j.ijhydene.2020.12.044

S. No.	Authors	Title	Year	Source title	DOI
540	Adhikari, M., Joshi, N.K., Joshi, H.C., Mehata, M.S., Mishra, H., Pant, S.	Revisiting the photochemistry 2,5-dihydroxy benzoic acid (gentisic acid): Solvent and pH effect	2020	Journal of Physical Organic Chemistry	10.1002/poc.4168
541	Sinha, D., Sinha, P., Saha, R., Bandyopadhyay, S., Sengupta, D.	Improved dropClust R package with integrative analysis support for scRNA-seq data	2020	Bioinformatics	10.1093/bioinformatics/btz823
542	Patel, S.M., Kalra, Y., Ojha, V.N., Sinha, R.K.	Improvement in short-circuited coaxial flange for evaluating microwave superconducting properties at low temperature	2020	Indian Journal of Pure and Applied Physics	
543	Mann, S., Sharma, A., Sarkar, A., Kharb, R., Malhotra, R., Datta, B., Gupta, R.K., Biswas, S.	Evaluation of anti-inflammatory effects of choerospondias axillaris fruit's methanolic extract in synoviocytes and CIA rat model	2020	Current Pharmaceutical Biotechnology	10.2174/1389201021666191210114127
544	Arya, Y., Dahiya, P., Çelik, E., Sharma, G., Gözde, H., Nasiruddin, I.	AGC performance amelioration in multi-area interconnected thermal and thermal-hydro-gas power systems using a novel controller	2020	Engineering Science and Technology, an International Journal	10.1016/j.jestch.2020.08.015
545	Dikshit, A., Sarkar, R., Pradhan, B., Jena, R., Drukpa, D., Alamri, A.M.	Temporal probability assessment and its use in landslide susceptibility mapping for Eastern Bhutan	2020	Water (Switzerland)	10.3390/w12010267
546	Sameen, M.I., Sarkar, R., Pradhan, B., Drukpa, D., Alamri, A.M., Park, H.-J.	Landslide spatial modelling using unsupervised factor optimisation and regularised greedy forests	2020	Computers and Geosciences	10.1016/j.cageo.2019.104336
547	Vashishtha, S., Susan, S.	Fuzzy rule based unsupervised sentiment analysis from social media posts	2019	Expert Systems with Applications	10.1016/j.eswa.2019.112834
548	Agrawal, A., Kaur, R., Singh Walia, R.	Flame retardancy of ceramic-based rigid polyurethane foam composites	2019	Journal of Applied Polymer Science	10.1002/app.48250
549	Augustine, S., Kumar, P., Malhotra, B.D.	Amine-Functionalized MoO_3@RGO Nanohybrid-Based Biosensor for Breast Cancer Detection	2019	ACS Applied Bio Materials	10.1021/acsabm.9b00659
550	Arora, P.K., Mukherjee, J.	The nexus between financial development and trade performance: Empirical evidence from India in the presence of endogenous structural breaks	2019	Journal of Financial Economic Policy	10.1108/JFEP-04-2019-0067
551	Butola, R., Ranganath, M.S., Murtaza, Q.	Fabrication and optimization of AA7075 matrix surface composites using Taguchi technique via friction stir processing (FSP)	2019	Engineering Research Express	10.1088/2631-8695/ab4b00
552	Bhatia, S., Singh, S.	Empowering Women Through Financial Inclusion: A Study of Urban Slum	2019	Vikalpa	10.1177/0256090919897809
553	Gera, I., Singh, S.	A Critique of Economic Literature on Technology and Fourth Industrial Revolution: Employment and the Nature of Jobs	2019	Indian Journal of Labour Economics	10.1007/s41027-019-00191-8

S. No.	Authors	Title	Year	Source title	DOI
554	Kumar, D., Kumar, P.	Aβ, Tau, and α-Synuclein aggregation and integrated role of PARK2 in the regulation and clearance of toxic peptides	2019	Neuropeptides	10.1016/j.npep.2019.101971
555	Duhan, M., Kaur, R.	Phytic acid doped polyaniline nanofibers: An advanced adsorbent for methylene blue dye	2019	Environmental Nanotechnology, Monitoring and Management	10.1016/j.enmm.2019.100248
556	Agrawal, A., Kaur, R., Walia, R.S.	Investigation on flammability of rigid polyurethane foam-mineral fillers composite	2019	Fire and Materials	10.1002/fam.2751
557	Vishwakarma, D.K., Varshney, D., Yadav, A.	Detection and veracity analysis of fake news via scrapping and authenticating the web search	2019	Cognitive Systems Research	10.1016/j.cogsys.2019.07.004
558	Kumar, D., Kumar, P.	An In-Silico Investigation of Key Lysine Residues and Their Selection for Clearing off Aβ and Holo-AβPP Through Ubiquitination	2019	Interdisciplinary Sciences: Computational Life Sciences	10.1007/s12539-018-0307-2
559	Nandan, Y., Mehata, M.S.	Wavefunction Engineering of Type-I/Type-II Excitons of CdSe/CdS Core-Shell Quantum Dots	2019	Scientific Reports	10.1038/s41598-018-37676-3
560	Reena, R., Kalra, Y., Kumar, A.	Fano Resonant Cuboidal Dielectric Nanoantennas	2019	Optics and Spectroscopy	10.1134/S0030400X19120385
561	Gulia, S., Gulati, K.K., Gambhir, V., Sharma, R.	Detection of explosive materials and their precursors through translucent commercial bottles using spatially offset Raman spectroscopy using excitation wavelength in visible range	2019	Optical Engineering	10.1117/1.OE.58.12.127102
562	Singh, D., Mahar, P.S., Singh, R.P.	Optimal Design of Gravity-Fed Sewer Lines Using Linear Programming	2019	Journal of The Institution of Engineers (India): Series A	10.1007/s40030-019-00391-x
563	Mishra, N., Mittal, P., Kumar, B.	Analytical modeling for static and dynamic response of organic pseudo all-p inverter circuits	2019	Journal of Computational Electronics	10.1007/s10825-019-01400-9
564	Yadav, D., Arora, M.K., Tiwari, K.C., Ghosh, J.K.	Identification of most useful spectral ranges in improvement of target detection using hyperspectral data	2019	Egyptian Journal of Remote Sensing and Space Science	10.1016/j.ejrs.2018.04.002
565	Shukla, S.K., Sushil, Sharma, M.K.	Managerial Paradox Toward Flexibility: Emergent Views Using Thematic Analysis of Literature	2019	Global Journal of Flexible Systems Management	10.1007/s40171-019-00220-x
566	Ghosh, S., Yadav, V.K., Mukherjee, V.	Improvement of partial shading resilience of PV array though modified bypass arrangement	2019	Renewable Energy	10.1016/j.renene.2019.05.062
567	Kaushik, S., Tiwari, U.K., Deep, A., Sinha, R.K.	Two-dimensional transition metal dichalcogenides assisted biofunctionalized optical fiber SPR biosensor for efficient and rapid detection of bovine serum albumin	2019	Scientific Reports	10.1038/s41598-019-43531-w

S. No.	Authors	Title	Year	Source title	DOI
568	Pokhariyal, J., Mandal, A., Aggarwal, S.G.	Measurement of Benzo(a)pyrene in PM<inf>10</inf> Collected in New Delhi	2019	Mapan - Journal of Metrology Society of India	10.1007/s12647-019-00316-w
569	Dubey, M., Jaiswal, V., Rawoof, A., Kumar, A., Nitin, M., Chhapekar, S.S., Kumar, N., Ahmad, I., Islam, K., Brahma, V., Ramchiary, N.	Identification of genes involved in fruit development/ripening in Capsicum and development of functional markers	2019	Genomics	10.1016/j.ygeno.2019.01.002
570	Thukral, K., Sonia, Jha, N., Vijayan, N., Singh, B., Dhas, S.A.M.B.	Analysis of mechanical behaviour of L-arginine hydrobromide monohydrate (LAHBr) single crystal grown by unidirectional growth technique	2019	Materials Research Express	10.1088/2053-1591/ab6b5b
571	Pourshams, at All	The global, regional, and national burden of pancreatic cancer and its attributable risk factors in 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017	2019	The Lancet Gastroenterology and Hepatology	10.1016/S2468-1253(19)30347-4
572	Fitzmaurice, at All	Global, regional, and national cancer incidence, mortality, years of life lost, years lived with disability, and disability-Adjusted life-years for 29 cancer groups, 1990 to 2017: A systematic analysis for the global burden of disease study	2019	JAMA Oncology	10.1001/jamaoncol.2019.2996
573	Mathur, K., Choudhary, L.K., Natu, A.M., Srinivas, K., Rastogi, V.	Conceptualization and Modeling of a Flywheel-Based Regenerative Braking System for a Commercial Electric Bus	2019	SAE International Journal of Commercial Vehicles	10.4271/02-12-04-0018
574	Arora, A., Singh, A.	Design and implementation of Legendrebased neural network controller in gridconnected PV systems	2019	IET Renewable Power Generation	10.1049/iet-rpg.2019.0269
575	Kumari, A., Adhikari, S.	Detection of a mixed bipartite entangled state in arbitrary dimension via a structural physical approximation of partial transposition	2019	Physical Review A	10.1103/PhysRevA.100.052323
576	Tyagi, A., Walia, R.S., Murtaza, Q.	Tribological behavior of HVOF carbon coating for wear resistance applications	2019	Materials Research Express	10.1088/2053-1591/ab555d
577	Sharma, J., Clark, W.D., Shrivastav, A.K., Goswami, R.K., Tocher, D.R., Chakrabarti, R.	Production potential of greater duckweed Spirodela polyrhiza (L. Schleiden) and its biochemical composition evaluation	2019	Aquaculture	10.1016/j.aquaculture.2019.734419
578	Bhavan, A., Chauhan, P., Hitkul, Shah, R.R.	Bagged support vector machines for emotion recognition from speech	2019	Knowledge-Based Systems	10.1016/j.knosys.2019.104886
579	Tyagi, A., Pandey, S.M., Gupta, K., Walia, R.S., Murtaza, Q., Krishen, K.	Tribological behavior of sustainable carbon based composite coating for wear resistance applications	2019	Materials Research Express	10.1088/2053-1591/ab52b4

S. No.	Authors	Title	Year	Source title	DOI
580	Khushbu, Warkar, S.G., Kumar, A.	Synthesis and assessment of carboxymethyl tamarind kernel gum based novel superabsorbent hydrogels for agricultural applications	2019	Polymer	10.1016/j.polymer.2019.121823
581	Saxena, H., Singh, A., Rai, J.N.	Design and analysis of different PLLs as load compensation techniques in 1-ϕ grid-tied PV system	2019	International Journal of Electronics	10.1080/00207217.2019.1600745
582	Sharma, B., Jain, P., Purwar, R.	Preparation and characterization of poly(vinyl alcohol)/modified clay electrospun nanocomposite nanofibrous mats for microbial protection	2019	Journal of the Textile Institute	10.1080/00405000.2019.1622263
583	Verma, V., Narula, A.	Wide Operating Range, Continuous Input Current T-Impedance Boost Converter for PV Application	2019	IEEE Transactions on Industry Applications	10.1109/TIA.2019.2933385
584	Kaushik, R., Kumar, S.	Image segmentation using convolutional neural network	2019	International Journal of Scientific and Technology Research	
585	Sethi, R., Sreedevi, I.	Adaptive enhancement of underwater images using multi-objective PSO	2019	Multimedia Tools and Applications	10.1007/s11042-019-07938-x
586	Goel, K., Nilam	A mathematical and numerical study of a SIR epidemic model with time delay, nonlinear incidence and treatment rates	2019	Theory in Biosciences	10.1007/s12064-019-00275-5
587	Vishwakarma, D.K., Dhiman, C.	A unified model for human activity recognition using spatial distribution of gradients and difference of Gaussian kernel	2019	Visual Computer	10.1007/s00371-018-1560-4
588	Singhal, K., Medhashree, R., Singari, R.M.	Differentiation of mamdani and sugeno fuzzy inference system in developing automatic plant watering systems for domestic use	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.A9232.119119
589	Khera, R., Khosla, A., Joshi, D.	Additional series positive output superlift LUO converter using particle swarm optimization	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.A4180.119119
590	Siva Rama Krishna Reddy, K., Swapna, K., Venkateswarlu, M., Mahamuda, S., Rao, A.S.	Thermal, Up-Conversion and Near-Infrared Luminescence studies of Erbium ions doped Alkaline-Earth Boro Tellurite glasses	2019	Solid State Sciences	10.1016/j.solidstatesciences.2019.106016
591	Agrawal, S., Singh, R.K.	Analyzing disposition decisions for sustainable reverse logistics: Triple Bottom Line approach	2019	Resources, Conservation and Recycling	10.1016/j.resconrec.2019.104448
592	Raman, R., Kumar, N.	The utilization of n-butanol/diesel blends in Acetylene Dual Fuel Engine	2019	Energy Reports	10.1016/j.egyr.2019.08.005

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
593	Bhowmik, D., Saxena, U., Dankar, A., Verma, A., Kaushik, D., Chatterjee, S., Singh, U.	On-chip learning for domain wall synapse based Fully Connected Neural Network	2019	Journal of Magnetism and Magnetic Materials	10.1016/j.jmmm.2019.165434
594	Talewar, R.A., Mahamuda, S., Swapna, K., Rao, A.S.	Near UV based Dy^{3+} ions doped alkaline-earth chloro borate glasses for white LED's and visible lasers	2019	Optics and Laser Technology	10.1016/j.optlastec.2019.105646
595	Negi, S., Mittal, P., Kumar, B.	Analytical modelling and parameters extraction of multilayered OLED	2019	IET Circuits, Devices and Systems	10.1049/iet-cds.2019.0164
596	Arora, B.B., Bhattacharjee, S., Kashyap, V., Khan, M.N., Tlili, I.	Aerodynamic effect of bicycle wheel cladding — A CFD study	2019	Energy Reports	10.1016/j.egyr.2019.11.014
597	George, H., Deopa, N., Kaur, S., Prasad, A., Sreenivasulu, M., Jayasimhadri, M., Rao, A.S.	Judd-Ofelt parametrization and radiative analysis of Dy^{3+} ions doped Sodium Bismuth Strontium Phosphate glasses	2019	Journal of Luminescence	10.1016/j.jlumin.2019.116693
598	Moona, G., Walia, R.S., Rastogi, V., Sharma, R.	Parameter optimization and characterization of environmental friendly aluminium hybrid metal matrix composites	2019	Materials Research Express	10.1088/2053-1591/ab4fb4
599	Kumar, N., Singh, B., Panigrahi, B.K., Chakraborty, C., Suryawanshi, H.M., Verma, V.	Integration of solar PV with low-voltage weak grid system: Using normalized laplacian kernel adaptive kalman filter and learning based InC algorithm	2019	IEEE Transactions on Power Electronics	10.1109/TPEL.2019.2898319
600	Saxena, A., Ng, E.Y.K., Mathur, M., Manchanda, C., Jajal, N.A.	Effect of carotid artery stenosis on neck skin tissue heat transfer	2019	International Journal of Thermal Sciences	10.1016/j.ijthermalsci.2019.106010
601	Kapoor, R., Gupta, R., Kumar, R., Son, L.H., Jha, S.	New scheme for underwater acoustically wireless transmission using direct sequence code division multiple access in MIMO systems	2019	Wireless Networks	10.1007/s11276-018-1750-z
602	Singh, G.D., Misra, A.	Design and optimization of crankshaft for four cylinder 4- stroke spark ignition engine using transient structural analysis	2019	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperd oct2019106
603	Singh, C.P., Kaur, S.	Matter creation cosmology in Brans-Dicke theory: Observational tests and thermodynamic analysis	2019	Physical Review D	10.1103/PhysRevD.100.084057
604	Bansal, R., Majumdar, S.	Extended Kalman filter-based state estimation of MOSFET circuit	2019	COMPEL - The International Journal for Computation and Mathematics in Electrical and Electronic Engineering	10.1108/COMPEL-09-2018-0367
605	Bhatt, N., Anand, A., Aggrawal, D.	Improving system reliability by optimal allocation of resources for discovering software vulnerabilities	2019	International Journal of Quality and Reliability Management	10.1108/IJQRM-07-2019-0246

S. No.	Authors	Title	Year	Source title	DOI
606	Agrawal, S., Singh, R.K.	Forecasting product returns and reverse logistics performance: structural equation modelling	2019	Management of Environmental Quality: An International Journal	10.1108/MEQ-05-2019-0109
607	Burstein, at All	Mapping 123 million neonatal, infant and child deaths between 2000 and 2017	2019	Nature	10.1038/s41586-019-1545-0
608	Gagandeep, G., Singh, M., Kumar, R., Singh, V.	Graphene as charge transport layers in lead free perovskite solar cell	2019	Materials Research Express	10.1088/2053-1591/ab4b02
609	Negi, S., Mittal, P., Kumar, B., Juneja, P.K.	Organic LED based light sensor for detection of ovarian cancer	2019	Microelectronic Engineering	10.1016/j.mee.2019.111154
610	Kaushik, A., Vashishth, A.K., Kumar, V., Sharma, M.	A modified graded mesh and higher order finite element approximation for singular perturbation problems	2019	Journal of Computational Physics	10.1016/j.jcp.2019.04.073
611	Agrawal, A., Kaur, R.	Effect of Nano Filler on the Flammability of Bio-Based RPUF	2019	Integrated Ferroelectrics	10.1080/10584587.2019.1674820
612	Kaushik, A., Vashishth, A.K., Kumar, V., Sharma, M.	An Asymptotic-Numerical Method for a Class of Weakly Coupled System of Singularly Perturbed Convection-Diffusion Equations	2019	Numerical Functional Analysis and Optimization	10.1080/01630563.2019.1615946
613	Murthy, K.V.B., Kalsie, A.	US-China currency and trade war: round one to China!	2019	Transnational Corporations Review	10.1080/19186444.2019.1684134
614	Singh, A., Radhakrishnan, S., Vijayalakshmi, R., Talawar, M.B., Kumar, A., Kumar, D.	Screening of polymer-plasticizer systems for propellant binder applications: an experimental and simulation approach	2019	Journal of Energetic Materials	10.1080/07370652.2019.1615581
615	Singhal, C., Murtaza, Q., Alam, P., Hasan, F.	Structural and mechanical properties of microwave hybrid sintered aluminium silicon carbide composite	2019	Advances in Materials and Processing Technologies	10.1080/2374068X.2019.1636188
616	Yadav, N., Kaur, R.	Environment friendly qualitatively responsive ethyl cellulose films as smart food packaging	2019	Materials Express	10.1166/mex.2019.1559
617	Sundriyal, S., Vipin, Walia, R.S.	Near dry and powder mixed near dry electric discharge machining	2019	International Journal of Engineering and Advanced Technology	10.35940/ijeat.A9542.109119
618	Kaustubh, C., Bharat, J.	CFD simulation of local scouring around bridge pier	2019	International Journal of Engineering and Advanced Technology	10.35940/ijeat.A1002.109119
619	Jindal, R., Jain, K.	A review on recommendation systems using deep learning	2019	International Journal of Scientific and Technology Research	
620	Sinh, S.K., Kumar, N., Kumar, R.	Characterization of the physicochemical property of blend of butanol and octanol with biodiesel	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.L3083.1081219

S. No.	Authors	Title	Year	Source title	DOI
621	Kumar, A., Sharma, A.	Systematic literature review of fuzzy logic based text summarization	2019	Iranian Journal of Fuzzy Systems	10.22111/ijfs.2019.4906
622	Goel, K., Nilam	Stability behavior of a nonlinear mathematical epidemic transmission model with time delay	2019	Nonlinear Dynamics	10.1007/s11071-019-05276-z
623	Kannojiya, R., Kumar, R.	Performance evaluation of absorption refrigeration systems using intelligent optimization techniques: A review	2019	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperd oct201985
624	Singh, H., Arora, B.B.	Review: Effects of inlet conditions on diffuser performance	2019	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperd oct201972
625	Srinivas, K., Murtaza, Q., Aggarwal, A.K.	Effect of permanent magnetic pole orientation on field strength in viscoelastic magnetic abrasive finishing process	2019	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperd oct20195
626	Gautam, M., Santhiya, D.	In-situ mineralization of calcium carbonate in pectin based edible hydrogel for the delivery of protein at colon	2019	Journal of Drug Delivery Science and Technology	10.1016/j.jddst.2019.101137
627	Nandakumar, S., Pipil, H., Ray, S., Haritash, A.K.	Removal of phosphorous and nitrogen from wastewater in Brachiaria-based constructed wetland	2019	Chemosphere	10.1016/j.chemosphere.2019.05.240
628	Roy, A., Bharadvaja, N.	Establishment of root suspension culture of Plumbago zeylanica and enhanced production of plumbagin	2019	Industrial Crops and Products	10.1016/j.indcrop.2019.05.007
629	Kumar, A., Jaiswal, A.	Swarm intelligence based optimal feature selection for enhanced predictive sentiment accuracy on twitter	2019	Multimedia Tools and Applications	10.1007/s11042-019-7278-0
630	Quadri, I.A., Bhowmick, S., Joshi, D.	A hybrid teaching–learning-based optimization technique for optimal DG sizing and placement in radial distribution systems	2019	Soft Computing	10.1007/s00500-018-3544-8
631	Agarwal, R., Verma, O.P.	CMFD using a novel localisation technique and CNN based classification	2019	International Journal of Engineering and Advanced Technology	10.35940/ijeat.A2019.109119
632	Sharma, K., Tayal, S.	An adaptive whale optimization algorithm guided smart city big data feature identification for fair resource utilization	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.L3763.1081219

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
633	Raman, R., Kumar, N.	Performance Analysis of Diesel Cycle under Efficient Power Density Condition with Variable Specific Heat of Working Fluid	2019	Journal of Non-Equilibrium Thermodynamics	10.1515/jnet-2019-0020
634	Khan, S., Bhowmick, S.	A Generalized Power-Flow Model of VSC-Based Hybrid AC-DC Systems Integrated with Offshore Wind Farms	2019	IEEE Transactions on Sustainable Energy	10.1109/TSTE.2018.2870914
635	Gupta, S., Soni, U., Kumar, G.	Green supplier selection using multi-criterion decision making under fuzzy environment: A case study in automotive industry	2019	Computers and Industrial Engineering	10.1016/j.cie.2019.07.038
636	Kumar, G., Jain, V., Soni, U.	Modelling and simulation of repairable mechanical systems reliability and availability	2019	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-019-00852-3
637	Sharma, A., Ansari, N.A., Pal, A., Singh, Y., Lalhriatpuia, S.	Effect of biogas on the performance and emissions of diesel engine fuelled with biodiesel-ethanol blends through response surface methodology approach	2019	Renewable Energy	10.1016/j.renene.2019.04.031
638	Vishwakarma, A.K., Jha, K., Jayasimhadri, M.	Enhancement of luminescent properties in Eu^{3+} doped $BaNb_2O_6$ nanophosphor synthesized by facile metal citrate gel method	2019	Optical Materials	10.1016/j.optmat.2019.109301
639	Aronov, J., Carrion, A., Papic, L., Galkina, N., Aggrawal, D., Anand, A.	Standards development and innovative products. when should standards be prepared?	2019	International Journal of Mathematical, Engineering and Management Sciences	10.33889/IJMEMS.2019.4.5-086
640	Kaur, S., Rao, A.S., Jayasimhadri, M., Sivaiah, B., Haranath, D.	Synthesis optimization, photoluminescence and thermoluminescence studies of Eu^{3+} doped calcium aluminozincate phosphor	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2019.06.169
641	Gautam, M., Santhiya, D.	Pectin/PEG food grade hydrogel blend for the targeted oral co-delivery of nutrients	2019	Colloids and Surfaces A: Physicochemical and Engineering Aspects	10.1016/j.colsurfa.2019.06.027
642	Agrawal, R.K., Muchahary, F., Tripathi, M.M.	Ensemble of relevance vector machines and boosted trees for electricity price forecasting	2019	Applied Energy	10.1016/j.apenergy.2019.05.062
643	Poonam, Singh, R.	Facile one-pot synthesis of 5-amino-1H-pyrazole-4-carbonitriles using alumina–silica-supported MnO_2 as recyclable catalyst in water	2019	Research on Chemical Intermediates	10.1007/s11164-019-03847-8
644	Komanapalli, G., Pandey, R., Pandey, N.	Operational Transresistance Amplifier Based Wienbridge Oscillator and Its Harmonic Analysis	2019	Wireless Personal Communications	10.1007/s11277-019-06382-2

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
645	Kumar, A., Sachdeva, N.	Cyberbullying detection on social multimedia using soft computing techniques: a meta-analysis	2019	Multimedia Tools and Applications	10.1007/s11042-019-7234-z
646	Arora, K., Srivastava, S., Solanki, P.R., Puri, N.K.	Electrochemical Hydrogen Gas Sensing Employing Palladium Oxide/ Reduced Graphene Oxide (PdO-rGO) Nanocomposites	2019	IEEE Sensors Journal	10.1109/JSEN.2019.2918360
647	Dabas, S., Kumar, M., Chaudhary, P., Shankar, S., Roy, S., Thakur, O.P.	Structural, Energy Storage Analysis and Enhanced Magnetoelectric Coupling in Mn Modified Multiferroic BiFeO$_3$	2019	Journal of Electronic Materials	10.1007/s11664-019-07370-9
648	Singh, R.K., Kumar, P.	Measuring the flexibility index for a supply chain using graph theory matrix approach	2019	Journal of Global Operations and Strategic Sourcing	10.1108/JGOSS-04-2019-0027
649	Sreejeth, M., Singh, M., Kumar, P.	Efficiency enhancement for indirect vector-controlled induction motor drive	2019	International Journal of Electronics	10.1080/00207217.2019.1584921
650	Chaudhary, P., Rizwan, M.	Intelligent approach-based hybrid control algorithm for integration of solar photovoltaic system in smart grid environment	2019	IET Smart Grid	10.1049/iet-stg.2019.0055
651	Srinivas, K., Murtaza, Q., Aggarwal, A.K.	Effect of shape of magnet on the machining of workpiece	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B1367.0982S1119
652	Agarwal, S., Singh, N.K., Shambharkar, P.G.	Automatic annotation of events and highlights generation of cricket match videos	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.J1118.0981119
653	Tomar, V.K., Kumar, R., Kesari, J.P.	Concentrated solar thermal steam cooking system: An application in DTU hostel	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B1101.0982S1019
654	Das, L.N., Gupta, S.	Fibonacci algorithm for determining minimum value of a unimodal function using MATLAB programmed computing software	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.C5913.098319
655	Verma, P., Sahu, A.K.	Effect of grouted granular column on the load carrying capacity of the expansive soil	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.C4924.098319
656	Purwar, R., Verma, A., Batra, R.	Antimicrobial gelatin/sericin/clay films for packaging of hygiene products	2019	Journal of Polymer Engineering	10.1515/polyeng-2018-0406
657	Gupta, P., Pandey, R.	A low-power voltage differencing buffered amplifier	2019	International Journal of Circuit Theory and Applications	10.1002/cta.2668

S. No.	Authors	Title	Year	Source title	DOI
658	Singh, M.K., Mehata, M.S.	Phase-dependent optical and photocatalytic performance of synthesized titanium dioxide (TiO$_2$) nanoparticles	2019	Optik	10.1016/j.ijleo. 2019.163011
659	Kumar, A., Nilam	Stability of a delayed SIR epidemic model by introducing two explicit treatment classes along with nonlinear incidence rate and Holling type treatment	2019	Computational and Applied Mathematics	10.1007/s40314-019-0866-9
660	Verma, K., Ram, S., Verma, A.	Fuzzy logic modelling of degradation of cement mortar in aggressive environment	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte. C4613.098319
661	Verm, A., Verma, I.	Use of artificial neural network in design of fly ash blended cement concrete mixes	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte. C5146.098319
662	Kumar, V., Raghava, N.S., Soni, S.	A time-domain double diffraction for non-perfectly conducting wedges	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.C59 33.098319
663	Maurya, N.K., Rastogi, V., Singh, P.	Experimental and computational investigation on mechanical properties of reinforced additive manufactured component	2019	Evergreen	10.5109/2349296
664	Dubey, K.K., Mishra, R.S.	Energy-exergy analysis of combined reheating-regenerative rankine cycle using entropy generation principle	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.C50 08.098319
665	Kumar, S., Panwar, S., Kumar, S., Augustine, S., Malhotra, B.D.	Biofunctionalized nanostructured yttria modified non-invasive impedometric biosensor for efficient detection of oral cancer	2019	Nanomaterials	10.3390/nano909 1190
666	Madan, J., Pandey, R., Sharma, R., Chaujar, R.	Impact of metal silicide source electrode on polarity gate induced source in junctionless TFET	2019	Applied Physics A: Materials Science and Processing	10.1007/s00339-019-2900-6
667	Bansal, S., Biswas, S., Singh, S.K.	Holistic assessment of existing buildings: Indian context	2019	Journal of Building Engineering	10.1016/j.jobe. 2019.100793
668	Raman, R., Kumar, N., Lather, A., Panjeta, A.	Performance and emission analyses of acetylene dual fuel engine	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B13 49.0982S1119
669	Shambharkar, P.G., Doja, M.N., Chandel, D., Bansal, K., Taneja, K.	Multimodal KDK classifier for automatic classification of movie trailers	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.C48 25.098319
670	Garg, N., Punia, B.K., Jain, A.	Workplace Spirituality and Job Satisfaction: Exploring Mediating Effect of Organization Citizenship Behaviour	2019	Vision	10.1177/09722629 19850928

S. No.	Authors	Title	Year	Source title	DOI
671	Yadav, V.K., Singh, K., Gupta, S.	Market-oriented transmission expansion planning using non-linear programming and multi-criteria data envelopment analysis	2019	Sustainable Energy, Grids and Networks	10.1016/j.segan.2019.100234
672	Srivastava, P., Kakkar, D., Kumar, P., Tiwari, A.K.	Modified benzoxazolone (ABO-AA) based single photon emission computed tomography (SPECT) probes for 18 kDa translocator protein	2019	Drug Development Research	10.1002/ddr.21547
673	Peesapati, R., Yadav, A., Yadav, V.K., Kumar, N.	GSA-FAPSO-Based Generators Active Power Rescheduling for Transmission Congestion Management	2019	IEEE Systems Journal	10.1109/JSYST.2018.2869672
674	Singla, A., Singh, K., Yadav, V.K.	Transmission congestion management considering modeling of solar photovoltaic distributed generator in deregulated power system	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.C4549.098319
675	Gariano, S.L., Sarkar, R., Dikshit, A., Dorji, K., Brunetti, M.T., Peruccacci, S., Melillo, M.	Automatic calculation of rainfall thresholds for landslide occurrence in Chukha Dzongkhag, Bhutan	2019	Bulletin of Engineering Geology and the Environment	10.1007/s10064-018-1415-2
676	Parihar, C.M., Nayak, H.S., Rai, V.K., Jat, S.L., Parihar, N., Aggarwal, P., Mishra, A.K.	Soil water dynamics, water productivity and radiation use efficiency of maize under multi-year conservation agriculture during contrasting rainfall events	2019	Field Crops Research	10.1016/j.fcr.2019.107570
677	Kapoor, R., Gupta, R., Son, L.H., Kumar, R., Jha, S.	Fog removal in images using improved dark channel prior and contrast limited adaptive histogram equalization	2019	Multimedia Tools and Applications	10.1007/s11042-019-7574-8
678	Chopra, M., Gupta, V.	Linking knowledge management practices to organizational performance using the balanced scorecard approach	2019	Kybernetes	10.1108/K-04-2019-0295
679	Kaur, H., Jayasimhadri, M.	Color tunable photoluminescence properties in Eu^{3+} doped calcium bismuth vanadate phosphors for luminescent devices	2019	Ceramics International	10.1016/j.ceramint.2019.05.034
680	Singh, T., Vishwakarma, D.K.	Video benchmarks of human action datasets: a review	2019	Artificial Intelligence Review	10.1007/s10462-018-9651-1
681	Narayan, T., Kumar, S., Kumar, S., Augustine, S., Yadav, B.K., Malhotra, B.D.	Protein functionalised self assembled monolayer based biosensor for colon cancer detection	2019	Talanta	10.1016/j.talanta.2019.04.039
682	Kumar, D., Kumar, V., Kumari, R.	Automatic clustering using quantum-based multi-objective emperor penguin optimizer and its applications to image segmentation	2019	Modern Physics Letters A	10.1142/S0217732319501931

S. No.	Authors	Title	Year	Source title	DOI
683	Deep, A., Kumar, R., Kumar, N.	Studies on the use of orange peel oil and ethanol in an unmodified agricultural diesel engine	2019	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036. 2018.1549160
684	Chaurasia, M., Gupta, S., Das, A., Dwarakanath, B.S., Simonsen, A., Sharma, K.	Radiation induces EIF2AK3/PERK and ERN1/IRE1 mediated pro-survival autophagy	2019	Autophagy	10.1080/15548627. 2019.1582973
685	Sharma, K., Sharma, D., Aryan, K., Gupta, A.K.	Use of the Rmocol waste in fiber reinforced concrete	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B11 80.0882S819
686	Sharma, A., Gupta, A.K., Aryan, K.	Research on civil engineering waste management for collapsible soils	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B11 87.0882S819
687	Aryan, K., Gupta, A.K., Agrawal, K.	Permeable roads and pavements for ground water replenishing water drinking concrete	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte. 1179.0882S819
688	Kaur, S., Rao, A.S., Jayasimhadri, M.	Color tunability and energy transfer studies of Dy^{3+} / Eu^{3+} co-doped calcium aluminozincate phosphor for lighting applications	2019	Materials Research Bulletin	10.1016/j.materres bull.2019.04.022
689	Ratnesh, R.K.	Hot injection blended tunable CdS quantum dots for production of blue LED and a selective detection of Cu^{2+} ions in aqueous medium	2019	Optics and Laser Technology	10.1016/j.optlastec. 2019.03.001
690	Sethia, D., Gupta, D., Saran, H.	Smart health record management with secure NFC-enabled mobile devices	2019	Smart Health	10.1016/j.smhl. 2018.11.001
691	Bansal, R., Majumdar, S., Parthasarathy, H.	Extended Kalman filter based nonlinear system identification described in terms of Kronecker product	2019	AEU - International Journal of Electronics and Communications	10.1016/j.aeue. 2019.05.033
692	Kumar, P., Pandey, N., Paul, S.K.	Realization of Resistorless and Electronically Tunable Inverse Filters Using VDTA	2019	Journal of Circuits, Systems and Computers	10.1142/S02181266 19501433
693	Prasad, S.B.S., Kumar, V., Reddy, K.K., Dhaka, S.K., Malik, S., Reddy, M.V., Krishna, U.M.	Perturbations in Earth's Atmosphere over An Indian Region during the Total Solar Eclipse on 22 July 2009	2019	Journal of Meteorological Research	10.1007/s13351- 019-8056-7
694	Nagal, R., Kumar, P., Bansal, P.	Optimal C code implementation of OWGWA-CSS algorithm on TMS320C6713 DSK	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.J9 558.0881019

S. No.	Authors	Title	Year	Source title	DOI
695	Verma, M.K., Yadav, V.K., Mukherjee, V., Ghosh, S.	A Multi-criteria Approach for Distribution Network Expansion through Pooled MCDEA and Shannon Entropy	2019	International Journal of Emerging Electric Power Systems	10.1515/ijeeps-2019-0043
696	Khan, S., Bhowmick, S., Ahmad, T.	A Unified AC–MTDC Power-Flow Algorithm with IDCPFC	2019	Arabian Journal for Science and Engineering	10.1007/s13369-018-3637-9
697	Malhotra, R., Khanna, M.	Dynamic selection of fitness function for software change prediction using Particle Swarm Optimization	2019	Information and Software Technology	10.1016/j.infsof.2019.04.007
698	Kapoor, R., Gupta, R., Son, L.H., Kumar, R.	Iris localization for direction and deformation independence based on polynomial curve fitting and singleton expansion	2019	Multimedia Tools and Applications	10.1007/s11042-019-7314-0
699	Sharma, R., Prasad, A., Kaur, S., Deopa, N., Rani, R., Venkateswarlu, M., Rao, A.S.	Spectroscopic properties of deep red emitting Tm^{3+} doped ZnPbWTe glasses for optoelectronic and laser applications	2019	Journal of Non-Crystalline Solids	10.1016/j.jnoncrysol.2019.04.032
700	Luthra, P., Singh, R., Kapur, G.S.	Development of polypropylene/banana peel (treated and untreated) composites with and without compatibilizer and their studies	2019	Materials Research Express	10.1088/2053-1591/ab2eea
701	Sharma, A., Singh, R.C., Singari, R.M.	Effect of direct LN2 single jet supply during turning of AISI D3 steel alloy using an optimization technique	2019	Materials Research Express	10.1088/2053-1591/ab2ded
702	Chittora, P., Singh, A., Singh, M.	Adaptive EPLL for improving power quality in three-phase three-wire grid-connected photovoltaic system	2019	IET Renewable Power Generation	10.1049/iet-rpg.2018.5261
703	Kumar, A., Hung, C.-H., Rana, S., Deshmukh, M.M.	Study on the structure, stability and tautomerisms of meta-benziporphodimethene and N-Confused isomers containing ⬚–lactam ring	2019	Journal of Molecular Structure	10.1016/j.molstruc.2019.03.064
704	Natu, A., Badhwar, A., Garg, V., Biswas, U., Bansal, D., Kumar, A.	Modeling and development of an autonomous underwater vehicle Arya for object recognition	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B2843.078219
705	Kumar, A., Raghava, N.S.	Adaptive sitting plan algorithm based on henon chaotic map	2019	International Journal of Scientific and Technology Research	
706	Mudgal, A., Sarkar, R., Shrivastava, A.K.	Effect of 3d geogrid and glasgrid in the bearing capacity of square footing over soil slope	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.A2208.078219
707	Swarup, J., Indu, S.	MSB based cellular automata for edge detection	2019	International Journal of Innovative Technology and Exploring Engineering	10.35940/ijitee.i7491.078919

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
708	Kaushik, A., Indu, S., Gupta, D.	Adaptive mobile sink for energy efficient WSN using biogeography-based optimization	2019	International Journal of Mobile Computing and Multimedia Communications	10.4018/IJMCMC.2019070101
709	Verma, R., Pandey, N., Pandey, R.	Novel CFOA based capacitance multiplier and its application	2019	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2019.05.010
710	Dhiman, C., Vishwakarma, D.K.	A robust framework for abnormal human action recognition using\ boldsymbol{\mathcal{r}} -transform and zernike moments in depth videos	2019	IEEE Sensors Journal	10.1109/JSEN.2019.2903645
711	Pratap, R., Deo, N.	Approximation by genuine Gupta–Srivastava operators	2019	Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales - Serie A: Matematicas	10.1007/s13398-019-00633-4
712	Vishwakarma, D.K., Singh, T.	A visual cognizance based multi-resolution descriptor for human action recognition using key pose	2019	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2019.05.023
713	Susan, S., Keshari, J.	Finding significant keywords for document databases by two-phase Maximum Entropy Partitioning	2019	Pattern Recognition Letters	10.1016/j.patrec.2019.04.023
714	Sharma, R.	Breast cancer incidence, mortality and mortality-to-incidence ratio (MIR) are associated with human development, 1990–2016: evidence from Global Burden of Disease Study 2016	2019	Breast Cancer	10.1007/s12282-018-00941-4
715	Tayal, S., Sharma, K.	The recommender systems model for smart cities	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B1083.0782S719
716	Sharma, K., Tayal, S.	Indian smart city ranking model	2019	International Journal of Recent Technology and Engineering	10.35940/ijrte.B2472.078219
717	Ojha, D., Deodiya, S., Purwar, R.	Printing of lyocell fabric with rubia cordifolia and acacia catechu using guar gum and chitosan as thickening agent	2019	Indian Journal of Traditional Knowledge	
718	Tripathi, A.K., Sharma, K., Bala, M.	Parallel hybrid BBO search method for twitter sentiment analysis of large scale datasets using MapReduce	2019	International Journal of Information Security and Privacy	10.4018/IJISP.201907010107
719	Segwal, K.R., Sharma, S.C.	A Nonlocal Theory of Current-Driven Low-Frequency Modes in a Magnetized Strongly Coupled Collisional Dusty Plasma	2019	IEEE Transactions on Plasma Science	10.1109/TPS.2019.2906035

S. No.	Authors	Title	Year	Source title	DOI
720	Sharma, R., Goyal, A., Mohan, M.	Analysis of configuration interaction and convergence with energy levels and radiative data in W XXXIX	2019	Journal of Electron Spectroscopy and Related Phenomena	10.1016/j.elspec.2019.05.011
721	Kumar, P., Hirani, H., Agrawal, A.K.	Modeling and Simulation of Mild Wear of Spur Gear Considering Radial Misalignment	2019	Iranian Journal of Science and Technology - Transactions of Mechanical Engineering	10.1007/s40997-018-0143-3
722	Luthra, P., Singh, R., Kapur, G.S.	Preparation and studies of pigeon pea stalk/polypropylene composites with and without compatibilizer	2019	Polymers and Polymer Composites	10.1177/0967391119847849
723	Bhandari, D., Singh, R.K., Garg, S.K.	Prioritisation and evaluation of barriers intensity for implementation of cleaner technologies: Framework for sustainable production	2019	Resources, Conservation and Recycling	10.1016/j.resconrec.2019.02.038
724	Anantha Lakshmi, Y., Swapna, K., Siva Rama Krishna Reddy, K., Venkateswarlu, M., Mahamuda, S., Rao, A.S.	Structural, optical and NIR studies of Er^{3+} ions doped bismuth boro tellurite glasses for luminescence materials applications	2019	Journal of Luminescence	10.1016/j.jlumin.2019.03.022
725	Susan, S., Hanmandlu, M.	Smaller feature subset selection for real-world datasets using a new mutual information with Gaussian gain	2019	Multidimensional Systems and Signal Processing	10.1007/s11045-018-0612-2
726	Soni, S., Sinha, R.K.	Tumor blood perfusion-based requirement of nanoparticle dose-loadings for plasmonic photothermal therapy	2019	Nanomedicine	10.2217/nnm-2018-0494
727	Tiwari, M.K., Pandey, N., Paul, S.K., Rizvi, S.M.I.	Programmable CCCII: Reliability analysis and design methodology	2019	IET Circuits, Devices and Systems	10.1049/iet-cds.2018.5165
728	Ray, S., Scholz, M., Haritash, A.K.	Kinetics of carbon and nitrogen assimilation by heterotrophic microorganisms during wastewater treatment	2019	Environmental Monitoring and Assessment	10.1007/s10661-019-7599-5
729	Chang, D., Ghosh, M., Sanadhya, S.K., Singh, M., White, D.R.	FbHash: A New Similarity Hashing Scheme for Digital Forensics	2019	Digital Investigation	10.1016/j.diin.2019.04.006
730	Sharma, P.K., Dwivedi, S.P., Kumar, A., Sharma, A.K.	Effect of Magnesium Addition on Mechanical Properties of Al-Fly Ash Green Composite Produced Under Green Ultrasonic Vibration Process	2019	International Journal of Precision Engineering and Manufacturing - Green Technology	10.1007/s40684-019-00044-1
731	Cheng, E.-J., Chou, K.-P., Rajora, S., Jin, B.-H., Tanveer, M., Lin, C.-T., Young, K.-Y., Lin, W.-C., Prasad, M.	Deep Sparse Representation Classifier for facial recognition and detection system	2019	Pattern Recognition Letters	10.1016/j.patrec.2019.03.006
732	Jat, S.L., Parihar, C.M., Dey, A., Nayak, H.S., Ghosh, A., Parihar, N., Goswami, A.K., Singh, A.K.	Dynamics and temperature sensitivity of soil organic carbon mineralization under medium-term conservation agriculture as affected by residue and nitrogen management options	2019	Soil and Tillage Research	10.1016/j.still.2019.02.005

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
733	Walia, G.S., Rishi, S., Asthana, R., Kumar, A., Gupta, A.	Secure multimodal biometric system based on diffused graphs and optimal score fusion	2019	IET Biometrics	10.1049/iet-bmt.2018.5018
734	Mishra, M., Bhalla, N.K., Dash, A., Gupta, G.	Nanostructured GaN and AlGaN/GaN heterostructure for catalyst-free low-temperature CO sensing	2019	Applied Surface Science	10.1016/j.apsusc.2019.03.125
735	Subia, B., Reinisalo, M., Dey, N., Tavakoli, S., Subrizi, A., Ganguli, M., Ruponen, M.	Nucleic acid delivery to differentiated retinal pigment epithelial cells using cell-penetrating peptide as a carrier	2019	European Journal of Pharmaceutics and Biopharmaceutics	10.1016/j.ejpb.2019.05.003
736	Kumar, N., Tomar, M.	Influence of nanoadditives on ignition characteristics of Kusum (Schleichera oleosa) biodiesel	2019	International Journal of Energy Research	10.1002/er.4446
737	Sharma, R.	The burden of prostate cancer is associated with human development index: evidence from 87 countries, 1990–2016	2019	EPMA Journal	10.1007/s13167-019-00169-y
738	Khan, N.A., Sharma, J.G., Chakrabarti, R.	The study of ameliorative effect of dietary supplementation of vitamin C, vitamin E, and tryptophan on Labeo rohita (Cyprinidae) fry exposed to intense light	2019	Fish Physiology and Biochemistry	10.1007/s10695-019-00626-5
739	Singh, V., Kaur, S., Rao, A.S., Singh, N., Pathak, M.S., Rao, J.L.	An Electron Paramagnetic Resonance and Photoluminescence Investigation of UVB Radiation Emitting Gadolinium-Activated $CaY_2Al_4SiO_{12}$ Garnet Compound	2019	Journal of Electronic Materials	10.1007/s11664-019-07175-w
740	Sailaja, P., Mahamuda, S., Talewar, R.A., Swapna, K., Rao, A.S.	Spectroscopic investigations of dysprosium ions doped oxy chloro boro tellurite glasses for visible photonic device applications	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2019.03.148
741	Jha, K., Jayasimhadri, M., Haranath, D., Jang, K.	Influence of modifier oxides on spectroscopic properties of Eu^{3+} doped oxy-fluoro tellurophosphate glasses for visible photonic applications	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2019.02.277
742	Lal, R., Singh, R.C.	Investigations of tribodynamic characteristics of chrome steel pin against plain and textured surface cast iron discs in lubricated conditions	2019	World Journal of Engineering	10.1108/WJE-09-2018-0311
743	Sharma, V.K., Singh, R.C., Chaudhary, R., Saxena, M., Anand, M.	Effects of flyash addition on the dry sliding tribological behavior of aluminum composites	2019	Materials Research Express	10.1088/2053-1591/ab24fd
744	Saroha, R., Khan, T.S., Chandra, M., Shukla, R., Panwar, A.K., Gupta, A., Haider, M.A., Basu, S., Dhaka, R.S.	Electrochemical Properties of $Na_{0.66}V_4O_{10}$ Nanostructures as Cathode Material in Rechargeable Batteries for Energy Storage Applications	2019	ACS Omega	10.1021/acsomega.9b00105

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
745	Arora, A., Singh, A.	Design and analysis of functional link artificial neural network controller for shunt compensation	2019	IET Generation, Transmission and Distribution	10.1049/iet-gtd.2018.6070
746	Susan, S., Agrawal, P., Mittal, M., Bansal, S.	New shape descriptor in the context of edge continuity	2019	CAAI Transactions on Intelligence Technology	10.1049/trit.2019.0002
747	Mudgal, A., Sarkar, R., Shrivastava, A.K.	Bearing capacity behaviour of geosynthetics reinforced soil	2019	International Journal of Innovative Technology and Exploring Engineering	
748	Jain, N.K., Nangia, U., Jain, J.	Multiobjective Economic Load Dispatch Studies in 2-D and 3-D Space by Particle Swarm Optimization Technique	2019	Journal of The Institution of Engineers (India): Series B	10.1007/s40031-019-00386-z
749	Krishnan, M.L., Roy, A., Bharadvaja, N.	Elicitation effect on the production of asiaticoside and asiatic acid in shoot, callus, and cell suspension culture of Centella asiatica	2019	Journal of Applied Pharmaceutical Science	10.7324/JAPS.2019.90609
750	Singh, C.P., Kumar, A.	Observational constraints on viscous Ricci dark energy model	2019	Astrophysics and Space Science	10.1007/s10509-019-3583-3
751	Tyagi, A., Walia, R.S., Murtaza, Q.	Tribological behavior of temperature dependent environment friendly thermal CVD diamond coating	2019	Diamond and Related Materials	10.1016/j.diamond.2019.05.003
752	Chauhan, P., Kumar, A., Kalra, Y.	A dispersion engineered silica-based photonic crystal fiber for supercontinuum generation in near-infrared wavelength region	2019	Optik	10.1016/j.ijleo.2019.03.107
753	Chauhan, P., Kumar, A., Kalra, Y.	Computational modeling of tellurite based photonic crystal fiber for infrared supercontinuum generation	2019	Optik	10.1016/j.ijleo.2019.03.106
754	Kumar, A., Sharma, A.	Ontology driven social big data analytics for fog enabled sentic-social governance	2019	Scalable Computing	10.12694/scpe.v20i2.1513
755	Joshi, M.	Understanding the Nuances of Employees' Safety to Improve Job Satisfaction of Employees in Manufacturing Sector	2019	Journal of Health Management	10.1177/0972063419835125
756	Malik, S., Maheshwari, G.C., Singh, A.	Understanding Financial Inclusion in India: A Theoretical Framework Building Through SAP–LAP and Efficient IRP	2019	Global Journal of Flexible Systems Management	10.1007/s40171-019-00207-8
757	Kumar, A., Tripathi, M.M., Chaujar, R.	Sub-30nm In_2O_5Sn gate electrode recessed channel MOSFET: A biosensor for early stage diagnostics	2019	Vacuum	10.1016/j.vacuum.2019.02.054
758	Saini, M.K., Kapoor, R., Beniwal, R.K., Aggarwal, A.	Recognition of voltage sag causes using fractionally delayed biorthogonal wavelet	2019	Transactions of the Institute of Measurement and Control	10.1177/0142331218814292

S. No.	Authors	Title	Year	Source title	DOI
759	Mittal, P., Naresh, S., Luthra, P., Singh, A., Dhaliwal, J.S., Kapur, G.S.	Polypropylene composites reinforced with hybrid inorganic fillers: Morphological, mechanical, and rheological properties	2019	Journal of Thermoplastic Composite Materials	10.1177/08927057 18785674
760	Srivastava, D., Kaur, G., Singh, P.	Design of novel hybrid WDM/multiple-beam FSO system to improve the link length in rainy season	2019	Journal of Optics (India)	10.1007/s12596-019-00534-0
761	Deopa, N., Kumar, B., Sahu, M.K., Rani, P.R., Rao, A.S.	Effect of Sm^{3+} ions concentration on borosilicate glasses for reddish orange luminescent device applications	2019	Journal of Non-Crystalline Solids	10.1016/j.jnoncrysol.2019.03.025
762	Agrawal, D.C., Dwevedi, A., Kayastha, A.M.	Biochemical and thermodynamic characterization of de novo synthesized ▯-amylase from fenugreek	2019	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2019.02.162
763	Srivastava, C.M., Purwar, R., Gupta, A.P.	Enhanced potential of biomimetic, silver nanoparticles functionalized Antheraea mylitta (tasar) silk fibroin nanofibrous mats for skin tissue engineering	2019	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2018.12.255
764	Singh, M., Trivedi, A., Shukla, S.K.	Strength enhancement of the subgrade soil of unpaved road with geosynthetic reinforcement layers	2019	Transportation Geotechnics	10.1016/j.trgeo.2019.01.007
765	Kumar, R., Rab, S., Pant, B.D., Maji, S., Mishra, R.S.	FEA-Based Design Studies for Development of Diaphragm Force Transducers	2019	Mapan - Journal of Metrology Society of India	10.1007/s12647-018-0292-2
766	Virmani, R., Sajid, A., Singhal, A., Gaur, M., Joshi, J., Bothra, A., Garg, R., Misra, R., Singh, V.P., Molle, V., at All	The Ser/Thr protein kinase PrkC imprints phenotypic memory in Bacillus anthracis spores by phosphorylating the glycolytic enzyme enolase	2019	Journal of Biological Chemistry	10.1074/jbc.RA118.005424
767	Rekha Rani, P., Venkateswarlu, M., Mahamuda, S., Swapna, K., Deopa, N., Rao, A.S.	Spectroscopic studies of Dy^{3+} ions doped barium lead alumino fluoro borate glasses	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2019.02.088
768	Malhotra, R., Kamal, S.	An empirical study to investigate oversampling methods for improving software defect prediction using imbalanced data	2019	Neurocomputing	10.1016/j.neucom.2018.04.090
769	Jain, G., Arora, A., Gupta, S.N.	Performance analysis of a transcritical N_2O refrigeration cycle with vortex tube	2019	International Journal of Ambient Energy	10.1080/01430750.2017.1399449
770	Kumar, S., Umar, M., Saifi, A., Kumar, S., Augustine, S., Srivastava, S., Malhotra, B.D.	Electrochemical paper based cancer biosensor using iron oxide nanoparticles decorated PEDOT:PSS	2019	Analytica Chimica Acta	10.1016/j.aca.2018.12.053
771	Jain, L., Katarya, R.	Discover opinion leader in online social network using firefly algorithm	2019	Expert Systems with Applications	10.1016/j.eswa.2018.12.043

16. ANNEXURE

314

S. No.	Authors	Title	Year	Source title	DOI
772	S.Shankar, Thakur, O.P., Jayasimhadri, M.	Conductivity behavior and impedance studies in $BaTiO_3–CoFe_2O_4$ magnetoelectric composites	2019	Materials Chemistry and Physics	10.1016/j.matchemphys.2019.05.095
773	Jat, S.L., Parihar, C.M., Singh, A.K., Kumar, B., Choudhary, M., Nayak, H.S., Parihar, M.D., Parihar, N., Meena, B.R.	Energy auditing and carbon footprint under long-term conservation agriculture-based intensive maize systems with diverse inorganic nitrogen management options	2019	Science of the Total Environment	10.1016/j.scitotenv.2019.01.425
774	Soni, A., Pandey, C.M., Pandey, M.K., Sumana, G.	Highly efficient Polyaniline-MoS_2 hybrid nanostructures based biosensor for cancer biomarker detection	2019	Analytica Chimica Acta	10.1016/j.aca.2018.12.033
775	Mehta, S., Brahmchari, D.	Phosphazene Superbase-Mediated Regio- and Stereoselective Iodoaminocyclization of 2-(1-Alkynyl) benzamides for the Synthesis of Isoindolin-1-ones	2019	Journal of Organic Chemistry	10.1021/acs.joc.9b00452
776	Singh, Y., Gupta, A.K., Aryan, K.	Structural health assessment of bridge	2019	International Journal of Innovative Technology and Exploring Engineering	
777	Singh, I., Sahu, A.K.	A review on stone columns used for ground improvement of soft soil	2019	International Journal of Innovative Technology and Exploring Engineering	10.11159/icgre19.132
778	Jaint, B., Indu, S., Pandey, N.	Energy efficient communication techniques for wireless sensor networks	2019	International Journal of Innovative Technology and Exploring Engineering	
779	Komanapalli, G., Pandey, R., Pandey, N.	New sinusoidal oscillator configurations using operational transresistance amplifier	2019	International Journal of Circuit Theory and Applications	10.1002/cta.2619
780	Susan, S., Kumar, A.	SSO Maj -SMOTE-SSO Min : Three-step intelligent pruning of majority and minority samples for learning from imbalanced datasets	2019	Applied Soft Computing Journal	10.1016/j.asoc.2019.02.028
781	Garg, P., Jain, P.	Design and analysis of a metamaterial inspired dual band antenna for WLAN application	2019	International Journal of Microwave and Wireless Technologies	10.1017/S1759078719000035
782	Antony, S.M., Indu, S., Pandey, R.	High speed ALU design using vedic neurons for energy efficient sensor nodes	2019	International Journal of Recent Technology and Engineering	

S. No.	Authors	Title	Year	Source title	DOI
783	Antony, S.A., Indu, S., Pandey, R.	Design improvements in power amplifier for making energy efficient transceiver blocks of sensor nodes	2019	International Journal of Innovative Technology and Exploring Engineering	
784	Agrawal, S., Chinnadurai, V., Kaur, A., Kumar, P., Kaur, P., Sharma, R., Kumar Singh, A.	Estimation of Functional Connectivity Modulations during Task Engagement and Their Neurovascular Underpinnings Through Hemodynamic Reorganization Method	2019	Brain Connectivity	10.1089/brain.2018.0656
785	Sarpras, M., Ahmad, I., Rawoof, A., Ramchiary, N.	Comparative analysis of developmental changes of fruit metabolites, antioxidant activities and mineral elements content in Bhut jolokia and other Capsicum species	2019	LWT	10.1016/j.lwt.2019.02.020
786	Sharma, P., Sundaram, S., Sharma, M., Sharma, A., Gupta, D.	Diagnosis of Parkinson's disease using modified grey wolf optimization	2019	Cognitive Systems Research	10.1016/j.cogsys.2018.12.002
787	Pandove, G., Singh, M.	Robust Repetitive Control Design for a Three-Phase Four Wire Shunt Active Power Filter	2019	IEEE Transactions on Industrial Informatics	10.1109/TII.2018.2875035
788	Tripathi, G., Singh, K., Vishwakarma, D.K.	Convolutional neural networks for crowd behaviour analysis: a survey	2019	Visual Computer	10.1007/s00371-018-1499-5
789	Yuce, E., Verma, R., Pandey, N., Minaei, S.	New CFOA-based first-order all-pass filters and their applications	2019	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2019.02.017
790	Ramesh, K., Ramesh, M., Krishnan, R.	Management and disposal of mercury and amalgam in the dental clinics of South India: A cross-sectional study	2019	Journal of Pharmacy and Bioallied Sciences	10.4103/JPBS.JPBS_280_18
791	Singh, K., Vishwakarma, D.K., Walia, G.S.	Blind image deblurring via gradient orientation-based clustered coupled sparse dictionaries	2019	Pattern Analysis and Applications	10.1007/s10044-017-0652-5
792	Nath, M., Bhatt, D., Jain, A., Saxena, S.C., Saifi, S.K., Yadav, S., Negi, M., Prasad, R., Tuteja, N.	Salt stress triggers augmented levels of Na^+, Ca^{2+} and ROS and alter stress-responsive gene expression in roots of CBL9 and CIPK23 knockout mutants of Arabidopsis thaliana	2019	Environmental and Experimental Botany	10.1016/j.envexpbot.2018.10.005
793	Sharma, J., Kumar, N., Singh, S.P., Singh, A., HariKrishna, V., Chakrabarti, R.	Evaluation of immunostimulatory properties of prickly chaff flower Achyranthes aspera in rohu Labeo rohita fry in pond conditions	2019	Aquaculture	10.1016/j.aquaculture.2019.02.065
794	Sandil, D., Sharma, S.C., Puri, N.K.	Protein-functionalized WO3 nanorods-based impedimetric platform for sensitive and label-free detection of a cardiac biomarker	2019	Journal of Materials Research	10.1557/jmr.2018.481

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
795	Pandey, R., Singla, A., Madan, J., Sharma, R., Chaujar, R.	Toward the design of monolithic 23.1% efficient hysteresis and moisture free perovskite/c-Si HJ tandem solar cell: A numerical simulation study	2019	Journal of Micromechanics and Microengineering	10.1088/1361-6439/ab1512
796	Kumar, A., Nilam	Mathematical analysis of a delayed epidemic model with nonlinear incidence and treatment rates	2019	Journal of Engineering Mathematics	10.1007/s10665-019-09989-3
797	Kaushik, A., Indu, S., Gupta, D.	A Grey Wolf Optimization Based Algorithm for Optimum Camera Placement	2019	Wireless Personal Communications	10.1007/s11277-019-06140-4
798	Yadav, P., Kumar, M., Bansal, R., Kaur, P., Ethayathulla, A.S.	Structure model of ferrochelatase from Salmonella Typhi elucidating metalation mechanism	2019	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2019.01.066
799	Kapoor, R., Gupta, R., Son, L.H., Jha, S., Kumar, R.	Adaptive Technique with Cross Correlation for Lowering Signal-to-Noise Ratio Wall in Sensor Networks	2019	Wireless Personal Communications	10.1007/s11277-019-06121-7
800	Garg, N.	High performance work practices and organizational performance-mediation analysis of explanatory theories	2019	International Journal of Productivity and Performance Management	10.1108/IJPPM-03-2018-0092
801	Deo, N., Dhamija, M.	Generalized Positive Linear Operators Based on PED and IPED	2019	Iranian Journal of Science and Technology, Transaction A: Science	10.1007/s40995-017-0477-5
802	Mehdi, H., Mishra, R.S.	Analysis of Material Flow and Heat Transfer in Reverse Dual Rotation Friction Stir Welding: A Review	2019	International Journal of Steel Structures	10.1007/s13296-018-0131-x
803	Mandpura, A., Prakriya, S., Mallik, R.K.	Outage probability of fixed-gain amplify-and-forward two-way relays with multiple cochannel interferers	2019	IET Communications	10.1049/iet-com.2018.5045
804	Srivastava, A., Singh, P., Gupta, H., Kaur, H., Kanojia, N., Guin, D., Sood, M., Chadda, R.K., Yadav, J., Vohora, D., at All	Systems approach to identify common genes and pathways associated with response to selective serotonin reuptake inhibitors and major depression risk	2019	International Journal of Molecular Sciences	10.3390/ijms20081993
805	Rajinder, Sreejeth, M., Singh, M.	FSS based control of induction motor drive	2019	International Journal of Innovative Technology and Exploring Engineering	
806	Ali, P., Ranganath, M.S., Walia, R.S., Murtaza, Q.	Optimization of micro hardness of finished surface in spark assisted abrasive flow machining	2019	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperdapr201940
807	Kashyap, P.K., Kumar, S., Dohare, U., Kumar, V., Kharel, R.	Green computing in sensors-enabled internet of things: Neuro fuzzy logic-based load balancing	2019	Electronics (Switzerland)	10.3390/electronics8040384

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
808	Bardhan, S., Sharma, R., Mukherjee, V.	Threshold Effect of Bank-specific Determinants of Non-performing Assets: An Application in Indian Banking	2019	Journal of Emerging Market Finance	10.1177/0972652719831546
809	Gaurav, K., Singh, R., Tiwari, B.K., Srivastava, R.	Novel proton exchange membranes based on PVC for microbial fuel cells (MFCs)	2019	Journal of Polymer Engineering	10.1515/polyeng-2018-0276
810	Madan, A.O., Madan, S.	Attracting millennial talent: a signal theory perspective	2019	Evidence-based HRM	10.1108/EBHRM-01-2018-0009
811	Devi, C.B.A., Swapna, K., Mahamuda, S., Venkateswarlu, M., Prasad, M.V.V.K.S., Siva Rama Krishna Reddy, K., Deopa, N., Rao, A.S.	Spectroscopic studies and lasing potentialities of Sm^{3+} ions doped single alkali and mixed alkali fluoro tungstentellurite glasses	2019	Optics and Laser Technology	10.1016/j.optlastec.2018.09.051
812	Sharma, R., Kodan, N., Singh, V., Sharma, S.N., Sinha, O.P.	Enhanced photoelectrochemical performance of TiO_2 photoanode decorated with Pd-carbon core shell nanoparticles	2019	Renewable Energy	10.1016/j.renene.2018.09.061
813	Shankar, S., Kumar, M., Ghosh, A.K., Thakur, O.P., Jayasimhadri, M.	Anomalous ferroelectricity and strong magnetoelectric coupling in $CoFe_2O_4$-ferroelectric composites	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2018.11.252
814	Singh, R.C., Chaudhary, R., Sharma, V.K.	Fabrication and sliding wear behavior of some lead-free bearing materials	2019	Materials Research Express	10.1088/2053-1591/ab0be4
815	Ullas, A.V., Sharma, P., Kumar, D., Roy, P.K.	Rheokinetic studies and compressive response of high performance polybenzoxazine syntactic foams	2019	Journal of Applied Polymer Science	10.1002/app.47234
816	Bhadhadhara, K., Hasija, Y.	ARD-PRED: an in silico tool for predicting age-related-disorder-associated proteins	2019	Soft Computing	10.1007/s00500-018-3154-5
817	Singh, A., Kanungo, D.P., Pal, S.	Physical vulnerability assessment of buildings exposed to landslides in India	2019	Natural Hazards	10.1007/s11069-018-03568-y
818	Kumari, K., Tewari, N., Mehata, M.S., Pandey, N., Tiwari, K., Ratnesh, R.K., Joshi, H.C., Pant, S.	Steady state and time-resolved fluorescence study of 7,8-benzoquinoline: Reinvestigation of excited state protonation	2019	Journal of Molecular Structure	10.1016/j.molstruc.2018.12.013
819	Khatter, K., Ravichandran, V., Kumar, S.S.	Starlike functions associated with exponential function and the lemniscate of Bernoulli	2019	Revista de la Real Academia de Ciencias Exactas, Fisicas y Naturales - Serie A: Matematicas	10.1007/s13398-017-0466-8
820	Sharma, M., Khera, S.N., Sharma, P.B.	Applicability of Machine Learning in the Measurement of Emotional Intelligence	2019	Annals of Data Science	10.1007/s40745-018-00185-1
821	Pokhariyal, J., Mandal, A., Aggarwal, S.G.	Uncertainty Estimation in PM_{10} Mass Measurements	2019	Mapan - Journal of Metrology Society of India	10.1007/s12647-018-0285-1

S. No.	Authors	Title	Year	Source title	DOI
822	Jain, N., Gupta, V.	The impact of knowledge management system on student performance: A case study of the University of Delhi	2019	VINE Journal of Information and Knowledge Management Systems	10.1108/VJIKMS-07-2018-0065
823	Sahu, M., Gupta, A.	Improving the consistency of incomplete hesitant multiplicative preference relation	2019	OPSEARCH	10.1007/s12597-018-00350-3
824	Jaint, B., Indu, S., Pandey, N.	Wireless sensor network based controlling and monitoring for smart homes using Zig Bee	2019	International Journal of Recent Technology and Engineering	
825	Bansal, S., Biswas, S., Singh, S.K.	Review of green building movement and appraisal of rating systems in the indian context	2019	International Journal of Technology Management and Sustainable Development	10.1386/tmsd.18.1.55_1
826	Kumar, V., Pal, Y., Tripathi, M.M.	Short term GA-NFIS based hybrid method for prediction of wind speed & power in sustainable power generation	2019	International Journal of Recent Technology and Engineering	
827	Yadav, H.K., Pal, Y., Tripathi, M.M.	PSO tuned ANFIS model for short term photovoltaic power forecasting	2019	International Journal of Recent Technology and Engineering	
828	Khera, S.N., Divya	Predictive Modelling of Employee Turnover in Indian IT Industry Using Machine Learning Techniques	2019	Vision	10.1177/0972262918821221
829	Kaur, D., Sharma, S.C., Pandey, R.S., Gupta, R.	Excitation of Gould-Trivelpiece mode by streaming particles in dusty plasma	2019	Laser and Particle Beams	10.1017/S0263034619000284
830	Saroha, J., Singh, M., Jain, D.K.	Voltage unbalance compensation using novel virtual impedance loop	2019	Journal of Electrical Systems	
831	Gupta, S., Gupta, K., Calhoun, B.H., Pandey, N.	Low-power near-threshold 10T SRAM bit cells with enhanced data-independent read port leakage for array augmentation in 32-nm CMOS	2019	IEEE Transactions on Circuits and Systems I: Regular Papers	10.1109/TCSI.2018.2876785
832	Shankhwar, N., Kalra, Y., Li, Q., Sinha, R.K.	Zero-index metamaterial based all-dielectric nanoantenna	2019	AIP Advances	10.1063/1.5086234
833	Tiwari, D., Sherwani, A.F., Arora, A.	Thermodynamic and multi-objective optimisation of solar-driven Organic Rankine Cycle using zeotropic mixtures	2019	International Journal of Ambient Energy	10.1080/01430750.2017.1378718
834	Yadav, A.K., Pal, A., Ghosh, U., Gupta, S.K.	Comparative study of biodiesel production methods from Yellow Oleander oil and its performance analysis on an agricultural diesel engine	2019	International Journal of Ambient Energy	10.1080/01430750.2017.1381152

S. No.	Authors	Title	Year	Source title	DOI
835	Dahiya, P., Jain, P.	Realization of Second-Order Structure of Recursive Algorithm for Discrete Cosine Transform	2019	Circuits, Systems, and Signal Processing	10.1007/s00034-018-0885-6
836	Jamalaiah, B.C., Jayasimhadri, M.	Tunable luminescence properties of $SrAl_2O_4$: Eu^{3+} phosphors for LED applications	2019	Journal of Molecular Structure	10.1016/j.molstruc.2018.10.060
837	Soni, A., Pandey, C.M., Solanki, S., Sumana, G.	Synthesis of 3D-coral like polyaniline nanostructures using reactive oxide templates and their high performance for ultrasensitive detection of blood cancer	2019	Sensors and Actuators, B: Chemical	10.1016/j.snb.2018.10.126
838	Talewar, R.A., Mahamuda, S., Vyas, A., Rao, A.S., Moharil, S.V.	Enhancement of 1.54 μm emission in Ce^{3+}-Er^{3+} codoped $Ca_4Si_2O_7F_2$ phosphor	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2018.10.198
839	Cho, N.E., Kumar, V., Kumar, S.S., Ravichandran, V.	Radius Problems for Starlike Functions Associated with the Sine Function	2019	Bulletin of the Iranian Mathematical Society	10.1007/s41980-018-0127-5
840	Malhotra, R., Sharma, A.	Estimating the threshold of software metrics for web applications	2019	International Journal of Systems Assurance Engineering and Management	10.1007/s13198-019-00773-1
841	Varanasi, J., Tripathi, M.M.	Performance comparison of generalized regression network, radial basis function network and support vector regression for wind power forecasting	2019	International Review on Modelling and Simulations	10.15866/iremos.v12i1.15781
842	Verma, M., Haritash, A.K.	Degradation of amoxicillin by Fenton and Fenton-integrated hybrid oxidation processes	2019	Journal of Environmental Chemical Engineering	10.1016/j.jece.2019.102886
843	Chhabra, A., Kumar, A., Chaujar, R.	Sub-20 nm GaAs junctionless FinFET for biosensing application	2019	Vacuum	10.1016/j.vacuum.2018.12.007
844	Verma, R., Pandey, N., Pandey, R.	CFOA based low pass and high pass fractional step filter realizations	2019	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2018.11.032
845	Sharma, R., Sharma, S.C.	Theoretical model for the effect of dust grains on self-filamentation of a gaussian electromagnetic beam in a fully ionized plasma	2019	Contributions to Plasma Physics	10.1002/ctpp.201800058
846	Mohan, S., Pal, A., Singh, R.K., Mishra, R.S.	Pressurized ultrasonic production of biodiesel from Jatropha oil: optimization and energy analysis	2019	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2018.1515276

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
847	Pandey, N., Verma, O.P., Kumar, A.	Nature Inspired Power Optimization in smartphones	2019	Swarm and Evolutionary Computation	10.1016/j.swevo. 2018.06.006
848	Jain, A., Shekhar, S.	Estimation of regional groundwater discharge and baseflow contribution in northern stretch of the Yamuna River system of Delhi	2019	Current Science	10.18520/cs/v116/ i4/660-664
849	Mishra, R.K., Pandey, A., Pandey, G., Kumar, A.	The effect of odd-even driving scheme on PM $_{2.5}$ and PM $_{1.0}$ emission	2019	Transportation Research Part D: Transport and Environment	10.1016/j.trd.2019. 01.005
850	Kumar, N., Sharma, J., Singh, S.P., Singh, A., Hari Krishna, V., Chakrabarti, R.	Validation of growth enhancing, immunostimulatory and disease resistance properties of Achyranthes aspera in Labeo rohita fry in pond conditions	2019	Heliyon	10.1016/j.heliyon. 2019.e01246
851	Sharma, A., Dhal, C., Srivastava, R.	A Comparative estimation of the morphine content of the ayurvedic formulation 'Kamini Vidrawan Ras' using validated high-performance thin-layer chromatography and high-performance liquid chromatography techniques	2019	Journal of Planar Chromatography - Modern TLC	10.1556/1006. 2019.32.1.6
852	Kaushik, S., Tiwari, U.K., Pal, S.S., Sinha, R.K.	Rapid detection of Escherichia coli using fiber optic surface plasmon resonance immunosensor based on biofunctionalized Molybdenum disulfide (MoS $_2$) nanosheets	2019	Biosensors and Bioelectronics	10.1016/j.bios. 2018.11.006
853	Kassarwani, N., Ohri, J., Singh, A.	Performance analysis of dynamic voltage restorer using improved PSO technique	2019	International Journal of Electronics	10.1080/00207217. 2018.1519859
854	Kumar, V., Rastogi, V., Pathak, P.M.	Modelling and evaluation of the hunting behaviour of a high-speed railway vehicle on curved track	2019	Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit	10.1177/09544097 18789531
855	Rani, P.R., Venkateswarlu, M., Mahamuda, S., Swapna, K., Deopa, N., Rao, A.S., Prakash, G.V.	Structural, absorption and photoluminescence studies of Sm^{3+} ions doped barium lead alumino fluoro borate glasses for optoelectronic device applications	2019	Materials Research Bulletin	10.1016/j.materres bull.2018.10.033
856	Kaushik, S., Tiwari, U., Nilima, Prashar, S., Das, B., Sinha, R.K.	Label-free detection of Escherichia coli bacteria by cascaded chirped long period gratings immunosensor	2019	Review of Scientific Instruments	10.1063/1.5036693

S. No.	Authors	Title	Year	Source title	DOI
857	Sharma, M., Sundriyal, S., Panwar, A.K., Gaur, A.	Facile synthesis and electrochemical performance of Mg-substituted $Ni_{1-x}Mg_xCo_2O_4$ mesoporous nanoflakes for energy storage applications	2019	Electrochimica Acta	10.1016/j.electacta.2018.10.085
858	Kumar, A., Nilam	Dynamical Model of Epidemic Along with Time Delay; Holling Type II Incidence Rate and Monod–Haldane Type Treatment Rate	2019	Differential Equations and Dynamical Systems	10.1007/s12591-018-0424-8
859	Kumar, V., Srinivasan, B.	A Novel Adaptive Mesh Strategy for Singularly Perturbed Parabolic Convection Diffusion Problems	2019	Differential Equations and Dynamical Systems	10.1007/s12591-017-0394-2
860	Pushkar, K.L., Bhaskar, D.R.	Voltage-mode third-order quadrature sinusoidal oscillator using VDIBAs	2019	Analog Integrated Circuits and Signal Processing	10.1007/s10470-018-1359-2
861	Talewar, R.A., Mahamuda, S., Swapna, K., Rao, A.S.	Sensitization of Yb^{3+} by Nd^{3+} emission in alkaline-earth chloro borate glasses for laser and fiber amplifier applications	2019	Journal of Alloys and Compounds	10.1016/j.jallcom.2018.08.270
862	Aditya, A., Chattopadhyay, S., Gupta, N., Alam, S., Veedu, A.P., Pal, M., Singh, A., Santhiya, D., Ansari, K.M., Ganguli, M.	ZnO Nanoparticles Modified with an Amphipathic Peptide Show Improved Photoprotection in Skin	2019	ACS Applied Materials and Interfaces	10.1021/acsami.8b08431
863	Mazumder, S.K.	Economic and efficient method of design of a flumed canal fall	2019	ISH Journal of Hydraulic Engineering	10.1080/09715010.2017.1364982
864	Kassarwani, N., Ohri, J., Singh, A.	Performance analysis of dynamic voltage restorer using modified sliding mode control	2019	International Journal of Electronics Letters	10.1080/21681724.2017.1419508
865	Gupta, S., Kumar, N.	Globalisation, trade and growth dynamics: An empirical investigation for the indian economy	2019	Indian Journal of Economics and Business	
866	Agrawal, A., Malhotra, R.	Cross project defect prediction for open source software	2019	International Journal of Information Technology (Singapore)	10.1007/s41870-019-00299-6
867	Agrawal, A., Kaur, R., Walia, R.S.	Response surface methodological evaluation of drilling for the optimization of residual compressive strength of bio-based RPUF composite	2019	Materials Research Express	10.1088/2053-1591/ab5ea4
868	Bhandari, A., Tiwari, K.C.	Loss of target information in full pixel and subpixel target detection in hyperspectral data with and without dimensionality reduction	2019	Evolving Systems	10.1007/s12530-019-09265-w
869	Gupta, P., Pandey, R.	Voltage differencing buffered amplifier based voltage mode four quadrant analog multiplier and its applications	2019	International Journal of Engineering, Transactions A: Basics	10.5829/ije.2019.32.04a.10

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
870	Shita, A., Kumar, N., Singh, S.	The impact of technology adoption on agricultural productivity in Ethiopia: Ardl approach	2019	Indian Journal of Economics and Business	
871	Tosha, M.	Hindi Haiku: A study of shifts in moods	2019	IAFOR Journal of Literature and Librarianship	10.22492/ijl.8.1.04
872	Tatwani, S., Kumar, E.	Parametric comparison of various feature selection techniques	2019	Journal of Advanced Research in Dynamical and Control Systems	10.5373/JARDCS/ V11SP10/20192961
873	Garg, N., Gera, S.	Gratitude and leadership in higher education institutions: Exploring the mediating role of social intelligence among teachers	2019	Journal of Applied Research in Higher Education	10.1108/JARHE-09-2019-0241
874	Singh, C.P., Srivastava, M.	New holographic dark energy model with bulk viscosity in f(R, T) gravity	2019	Indian Journal of Physics	10.1007/s12648-019-01663-9
875	Rathee, S., Nilam	Quantitative and stability analysis of three time delays in glucose and insulin oscillations profile using artificial pancreas	2019	Journal of Applied Nonlinear Dynamics	10.5890/JAND. 2019.09.011
876	Ratre, A.	Taylor series based compressive approach and firefly support vector neural network for tracking and anomaly detection in crowded videos	2019	Journal of Engineering Research (Kuwait)	
877	Kumar, A., Raghava, N.S.	Chaos-based steganography technique to secure information and integrity preservation of smart grid readings using wavelet	2019	International Journal of Computers and Applications	10.1080/1206212X. 2019.1692511
878	Kumar, A., Jaiswal, A.	Scalable intelligent data-driven decision making for cognitive cities	2019	Energy Systems	10.1007/s12667-019-00369-5
879	Veer, B., Singh, R.	Facile synthesis of 2-arylimidazo[1,2-a]pyridines catalysed by DBU in aqueous ethanol	2019	Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences	10.1098/rspa.2019. 0238
880	Raheja, S., Kumar, A.	Edge detection based on type-1 fuzzy logic and guided smoothening	2019	Evolving Systems	10.1007/s12530-019-09304-6
881	Bhandari, S., Choudhry, M.S.	Brain tumor detection using particle swarm optimization and texture analysis of MRI images with minimum feature set	2019	Journal of Advanced Research in Dynamical and Control Systems	
882	Kumar, A., Sharma, A.	SOOP: A swarm-optimized opinion prediction model for S-health governance	2019	Recent Patents on Computer Science	10.2174/22132759 11666181114143641

S. No.	Authors	Title	Year	Source title	DOI
883	Kumar, A., Nilam	Dynamic Behavior of an SIR Epidemic Model along with Time Delay; Crowley-Martin Type Incidence Rate and Holling Type II Treatment Rate	2019	International Journal of Nonlinear Sciences and Numerical Simulation	10.1515/ijnsns-2018-0208
884	Ghazi, M.R., Raghava, N.S.	Mapreduce based analysis of sample applications using hadoop	2019	Communications in Computer and Information Science	10.1007/978-981-13-2035-4_4
885	Kaushik, A., Indu, S., Gupta, D.	Optimizing and enhancing the lifetime of a wireless sensor network using biogeography based optimization	2019	Communications in Computer and Information Science	10.1007/978-981-13-2035-4_23
886	Kumar, A., Garg, G.	Empirical study of shallow and deep learning models for sarcasm detection using context in benchmark datasets	2019	Journal of Ambient Intelligence and Humanized Computing	10.1007/s12652-019-01419-7
887	Tyagi, A., Pandey, S.M., Walia, R.S., Murtaza, Q.	Characterization and parametric optimization of tribological properties of Mo blend composite coating	2019	Materials Research Express	10.1088/2053-1591/ab1d0a
888	Malhotra, R., Sharma, A.	Empirical assessment of feature selection techniques in defect prediction models using web applications	2019	Journal of Intelligent and Fuzzy Systems	10.3233/JIFS-18473
889	Agrawal, A., Kaur, R., Walia, R.S.	Development of vegetable oil-based conducting rigid PU foam	2019	E-Polymers	10.1515/epoly-2019-0042
890	Mehata, M.S., Ratnesh, R.K.	Luminescence properties and exciton dynamics of core-multi-shell semiconductor quantum dots leading to QLEDs	2019	Dalton Transactions	10.1039/c9dt00989b
891	Sahu, M.K., Mula, J.	White light emitting thermally stable bismuth phosphate phosphor $Ca_3Bi(PO_4)_3:Dy^{3+}$ for solid-state lighting applications	2019	Journal of the American Ceramic Society	10.1111/jace.16479
892	Kumar, M., Khanna, S., Gupta, N., Gupta, R., Sharma, S.C.	Numerical simulation and parametric study of carbon deposition during graphene growth in PECVD system	2019	IEEE Transactions on Nanotechnology	10.1109/TNANO.2019.2910173
893	Kumar, D., Kumar, P.	Integrated Mechanism of Lysine 351, PARK2, and STUB1 in APP Ubiquitination	2019	Journal of Alzheimer's Disease	10.3233/JAD-181219
894	Pandey, N., Verma, O.P., Kumar, A.	A framework for usage pattern–based power optimization and battery lifetime prediction in smartphones	2019	Personal and Ubiquitous Computing	10.1007/s00779-019-01213-4
895	Singh, C.P., Kumar, A.	Holographic Ricci Dark Energy with Constant Bulk Viscosity in f(R,T) Gravity	2019	Gravitation and Cosmology	10.1134/S0202289319010109
896	Kumar, A., Garg, G.	Sentiment analysis of multimodal twitter data	2019	Multimedia Tools and Applications	10.1007/s11042-019-7390-1

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
897	Kaushik, A., Indu, S., Gupta, D.	A Grey Wolf Optimization Approach for Improving the Performance of Wireless Sensor Networks	2019	Wireless Personal Communications	10.1007/s11277-019-06223-2
898	Joshi, S., Singh, R.C., Chaudhary, R.	Effect of rotational speed in friction stir processing on the microstructural and mechanical characteristics of cast AS21A magnesium alloy	2019	Materials Research Express	10.1088/2053-1591/ab0633
899	Mittal, M., Chaudhary, R.	Biodegradability and mechanical properties of pineapple leaf/coir Fiber reinforced hybrid epoxy composites	2019	Materials Research Express	10.1088/2053-1591/aaf8d6
900	Mittal, M., Chaudhary, R.	Experimental investigation on the mechanical properties and water absorption behavior of randomly oriented short pineapple/coir fiber-reinforced hybrid epoxy composites	2019	Materials Research Express	10.1088/2053-1591/aae944
901	Mazumder, S.K.	Discussions on 'Effect of downstream apron elevation and downstream submergence in discharge coefficient of ogee weir' Author: Farzin Salmasi	2019	ISH Journal of Hydraulic Engineering	10.1080/09715010.2019.1574620
902	Singh, A., Gupta, A.	Some observations on 2-tuple linguistic and interval 2-tuple linguistic operators	2019	International Journal of Mathematical, Engineering and Management Sciences	10.33889/ijmems.2019.4.2-026
903	Hailu, T., Gupta, R.K., Rani, A.	Sisymbrium irio L.: A herb used in the unani system of medicine for broad spectrum therapeutical applications	2019	Indian Journal of Traditional Knowledge	
904	Rani, S., Agrawal, A.K., Rastogi, V.	Vibration analysis for detecting failure mode and crack location in first stage gas turbine blade	2019	Journal of Mechanical Science and Technology	10.1007/s12206-018-1201-x
905	Chaujar, R.	Analog and RF assessment of sub-20 nm 4H-SiC trench gate MOSFET for high frequency applications	2019	AEU - International Journal of Electronics and Communications	10.1016/j.aeue.2018.10.035
906	Dhiman, C., Vishwakarma, D.K.	A review of state-of-the-art techniques for abnormal human activity recognition	2019	Engineering Applications of Artificial Intelligence	10.1016/j.engappai.2018.08.014
907	Deopa, N., Saini, S., Kaur, S., Prasad, A., Rao, A.S.	Spectroscopic investigations on Dy^{3+} ions doped zinc lead alumino borate glasses for photonic device applications	2019	Journal of Rare Earths	10.1016/j.jre.2018.04.013
908	Malhotra, G., Srivastava, R., Taneja, H.C.	Calibration of the risk-neutral density function by maximization of a two-parameter entropy	2019	Physica A: Statistical Mechanics and its Applications	10.1016/j.physa.2018.08.148
909	Gupta, R., Sharma, S.C.	Modelling the effects of nitrogen doping on the carbon nanofiber growth via catalytic plasma-enhanced chemical vapour deposition process	2019	Contributions to Plasma Physics	10.1002/ctpp.201700138

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
910	Gupta, R.K., Rastogi, V., Singh, R.C., Tandon, N.	Experimental investigation of ball bearing lubrication conditions by shock pulse method	2019	Tribologia	10.30678/FJT.79897
911	Tyagi, A., Pandey, S.M., Walia, R.S., Murtaza, Q., Mishra, R.S.	Characterization and parametric optimization of % change in residual stress of Mo composite coating using Taguchi approach	2019	Materials Research Express	10.1088/2053-1591/ab6252
912	Koli, Y., Yuvaraj, N., Vipin, Aravindan, S.	Investigations on weld bead geometry and microstructure in CMT, MIG pulse synergic and MIG welding of AA6061-T6	2019	Materials Research Express	10.1088/2053-1591/ab61b6
913	Sharma, Y., Dhawan, A.	Nanoline-gap controlled self assembly of plasmonic nanoparticles inside plasmonic nanolines	2019	Journal of Physics Communications	10.1088/2399-6528/ab5596
914	Deo, N., Dhamija, M., Miclăuş, D.	New modified baskakov operators based on the inverse pólya-eggenberger distribution	2019	Filomat	10.2298/FIL1911537D
915	Gupta, V., Thoma, A.	Fostering tacit knowledge sharing and innovative work behaviour: An integrated theoretical view	2019	International Journal of Managerial and Financial Accounting	10.1504/IJMFA.2019.104134
916	Sonthalia, A., Kumar, N.	Comparison of fuel characteristics of hydrotreated waste cooking oil with its biodiesel and fossil diesel	2019	Environmental Science and Pollution Research	10.1007/s11356-019-07110-w
917	Sharma, K., Tayal, S.	Indian smart city ranking model using taxicab distance-based approach	2019	Energy Systems	10.1007/s12667-019-00365-9
918	Goel, R., Sharma, A., Kapoor, R.	Object recognition using deep Learning	2019	Journal of Computational and Theoretical Nanoscience	10.1166/jctn.2019.8291
919	Mishra, D., Fatima, A., Singh, R., Munjal, N.S., Mehta, V., Malairaman, U.	Design, synthesis and evaluation of Coumarin-Phenylthiazole conjugates as cholinesterase inhibitors	2019	Chemical Biology Letters	
920	Maurya, N.K., Rastogi, V., Singh, P.	Comparative study and measurement of form errors for the component printed by FDM and polyjet process	2019	Instrumentation Mesure Metrologie	10.18280/i2m.180404
921	Singh, A.K., Singhania, S., Sardana, V.	Do Women on Boards affect Firm's Financial Performance? Evidence from Indian IPO Firms	2019	Australasian Accounting, Business and Finance Journal	10.14453/aabfj.v13i2.4
922	Sharma, V.K., Singh, R.C., Chaudhary, R.	An experimental study of tribological behaviours of aluminium- And copper-based metal matrix composites for bearing applications	2019	International Journal of Materials Engineering Innovation	10.1504/IJMATEI.2019.101964

S. No.	Authors	Title	Year	Source title	DOI
923	Raman, R., Kumar, N.	Experimental investigation to analyze the effect of induction length of diesel-acetylene dual fuel engine	2019	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2019.1663314
924	Hasanabdulsadah, F., Hasan, F., Murtaza, Q., Bhardwaj, S.	An effect of ankle foot orthosis on the muscle activity of drop foot patient: A case study	2019	International Journal of Mechanical and Production Engineering Research and Development	10.24247/ijmperdjun2019161
925	Ullas, A.V., Kumar, D., Roy, P.K.	Epoxy-glass microballoon syntactic foams: Rheological optimization of the processing window	2019	Advances in Polymer Technology	10.1155/2019/9180302
926	Goyal, P., Kaur, G.	Design and Analysis of Static Characteristics of VCSEL at 1160 nm for Optical Interconnects	2019	Journal of Optical Communications	10.1515/joc-2019-0043
927	Dawar, P., Raghava, N.S., De, A.	UWB metamaterial-loaded antenna for C-band applications	2019	International Journal of Antennas and Propagation	10.1155/2019/6087039
928	Gupta, D.K., Kumar, R., Kumar, N.	Performance analysis of PTC field based ejector organic Rankine cycle integrated with a triple pressure level vapor absorption system (EORTPAS)	2019	Engineering Science and Technology, an International Journal	10.1016/j.jestch.2019.04.008
929	Madan, K., Yadav, R.	A two-stage SEM-neural network analysis to predict drivers of m-commerce in India	2019	International Journal of Electronic Marketing and Retailing	10.1504/IJEMR.2019.098750
930	Kumar, A., Sangwan, S.R., Nayyar, A.	Rumour veracity detection on twitter using particle swarm optimized shallow classifiers	2019	Multimedia Tools and Applications	10.1007/s11042-019-7398-6
931	Joshi, M., Bisht, D.	Empirical study of emotional intelligence among higher-education teachers and role of certifications on emotional intelligence levels	2019	Prabandhan: Indian Journal of Management	10.17010/pijom/2019/v12i2/141755
932	Chakrabarti, R., Singh, M.K., Sharma, J.G., Mittal, P.	Dietary supplementation of vitamin C: an effective measure for protection against UV-B irradiation using fish as a model organism	2019	Photochemical and Photobiological Sciences	10.1039/C8PP00481A
933	Anjum, S.S., Prakash, O., Pal, A.	Conversion of non-edible Argemone Mexicana seed oil into biodiesel through the transesterification process	2019	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036.2018.1563244
934	Goswami, S., Adhikari, S., Majumdar, A.S.	Coherence and entanglement under three-qubit cloning operations	2019	Quantum Information Processing	10.1007/s11128-018-2150-0
935	Anand, P., Bath, S.K., Rizwan, M.	Renewable energy-based hybrid model for rural electrification	2019	International Journal of Energy Technology and Policy	10.1504/IJETP.2019.096633

16. ANNEXURE

327

S. No.	Authors	Title	Year	Source title	DOI
936	Gupta, A., Suri, P.K., Singh, R.K.	Analyzing the Interaction of Barriers in E-Governance Implementation for Effective Service Quality: Interpretive Structural Modeling Approach	2019	Business Perspectives and Research	10.1177/22785337 18800562
937	Kumar, A., Gupta, N., Tripathi, M.M., Chaujar, R.	RF noise modeling of Black Phosphorus Junctionless Trench MOSFET in strong inversion region	2019	Superlattices and Microstructures	10.1016/j.spmi. 2018.10.025
938	Subramanyam, A.V., Gupta, V., Ahuja, R.	Robust discriminative subspace learning for person reidentification	2019	IEEE Signal Processing Letters	10.1109/LSP.2018. 2882301
939	Pandey, R., Saini, A.P., Chaujar, R.	Numerical simulations: Toward the design of 18.6% efficient and stable perovskite solar cell using reduced cerium oxide based ETL	2019	Vacuum	10.1016/j.vacuum. 2018.10.033
940	Pandey, N., Singh Mehata, M., Fatma, N., Pant, S.	Efficient fluorescence quenching of 5-aminoquinoline: Silver ion recognition study	2019	Journal of Luminescence	10.1016/j.jlumin. 2018.09.062
941	Kumar, P., Hirani, H., Kumar Agrawal, A.	Effect of gear misalignment on contact area: Theoretical and experimental studies	2019	Measurement: Journal of the International Measurement Confederation	10.1016/j.measure ment.2018.09.070
942	Sharma, V.K., Chaudhary, S., Singh, R.C., Sonia, Vikas, Goel, V.	Reusing marble dust as reinforcement material for better mechanical performance: Studies on compositing aluminum matrix	2019	Materials Research Express	10.1088/2053-1591/ab6702
943	Sangeeta, Sharma, K., Bala, M.	A quantitative testing effort estimate for reliability assessment of multi release open source software systems	2019	Journal of Computational and Theoretical Nanoscience	10.1166/jctn.2019. 8568
944	Phaijit, S., Suklueng, M., Marthosa, S., Niyomwas, S., Voo, N.Y., Kumar, A.	A novel micro-solid oxide fuel cell (μ-SOFC) for detecting methane content in biogas	2019	Bulletin of Materials Science	10.1007/s12034-019-1789-1
945	Malhotra, R., Khanna, M.	Software change prediction: A systematic review and future guidelines	2019	E-Informatica Software Engineering Journal	10.5277/e-Inf190107
946	Verma, P.K., Soni, S.K., Jain, P.	Modelling and performance evaluation over Nakagami-m/log-normal fading environments	2019	International Journal of Communication Networks and Distributed Systems	10.1504/IJCNDS. 2019.102984
947	Verma, P.K., Kumar, R.	Modelling and performance analysis of energy detector-based spectrum sensing with maximum ratio combining over Nakagami-m/log-normal fading channels	2019	International Journal of Communication Networks and Distributed Systems	10.1504/IJCNDS. 2019.101914
948	Kumar, N., Chandna, P., Joshi, D.	Integrated scheduling of part, tool and automated guided vehicles in a flexible manufacturing system using modified genetic algorithm	2019	International Journal of Industrial and Systems Engineering	10.1504/IJISE.2019. 101332

S. No.	Authors	Title	Year	Source title	DOI
949	Srivastava, P., Kumari, N., Kakkar, D., Kaul, A., Kumar, P., Tiwari, A.K.	Comparative evaluation of ^{99m}Tc-MBIP-X/^{11}[C] MBMP for visualization of 18 kDa translocator protein	2019	New Journal of Chemistry	10.1039/c9nj00180h
950	Singh, R.K., Kumar, P., Chand, M.	Evaluation of supply chain coordination index in context to Industry 4.0 environment	2019	Benchmarking	10.1108/BIJ-07-2018-0204
951	Yadav, A.K., Emran Khan, M., Pal, A.	Custard apple seed oil as promising biodiesel feedstock using advanced techniques and experimental investigation on diesel engine	2019	International Journal of Oil, Gas and Coal Technology	10.1504/IJOGCT.2019.099174
952	Kaushik, A., Yakkali, R.T., Indu, S., Ahmed, F., Gupta, D., Nayar, R., Yadav, S.	A self-configurable event coverage approach for wireless sensor networks	2019	International Journal of Mobile Computing and Multimedia Communications	10.4018/IJMCMC.2019040101
953	Tiwari, U.K., Saini, T.S., Negi, V., Pandey, A., Garg, H., Sinha, R.K.	Design and development of a field deployable packaged fiber Bragg grating-based accelerometer	2019	Optical Engineering	10.1117/1.OE.58.1.014104
954	Jain, A., Jain, M., Jain, G., Tayal, D.	"UTTAM": An efficient spelling correction system for Hindi language based on supervised learning	2019	ACM Transactions on Asian and Low-Resource Language Information Processing	10.1145/3264620
955	Kumar, A., Tyagi, S., Singh, R., Tyagi, Y.K.	Synthesis, characterisation and self-assembly studies of dendron-based novel non-ionic amphiphiles	2019	New Journal of Chemistry	10.1039/C8NJ05143G
956	Kaur, G., Srivastava, D., Singh, P., Parasher, Y.	Development of a novel hybrid PDM/OFDM technique for FSO system and its performance analysis	2019	Optics and Laser Technology	10.1016/j.optlastec.2018.08.008
957	Chand, P., Kumar, L., Yadav, A., Khasa, S.	Structural, physical, electrical and dielectric properties of magnetic glasses: $xFe_2O_3 + (30 - X)V_2O_5 + 30Na_2O + 40B_2O_3$ with x = 0 to 15	2019	Acta Physica Polonica A	10.12693/APhysPolA.136.897
958	Sonthalia, A., Garg, S., Sharma, R., Subramanian, T., Kumar, N.	Effect of electrostatic precipitator on exhaust emissions in biodiesel fuelled CI engine	2019	Environmental Science and Pollution Research	10.1007/s11356-019-07359-1
959	Gupta, A., Sharma, P., Jain, A., Xue, H., Malik, S.C., Jha, P.C.	An integrated DEMATEL Six Sigma hybrid framework for manufacturing process improvement	2019	Annals of Operations Research	10.1007/s10479-019-03341-9
960	Singh, C.V., Pachauri, P., Dwivedi, S.P., Sharma, S., Singari, R.M.	Formation of functionally graded hybrid composite materials with Al_2O_3 and RHA reinforcements using friction stir process	2019	Australian Journal of Mechanical Engineering	10.1080/14484846.2019.1679583

S. No.	Authors	Title	Year	Source title	DOI
961	Dewangan, A., Yadav, A.K., Mallick, A., Pal, A., Singh, S.	Comparative study of Manilkara zapota and Karanja based biodiesel properties and its effect on diesel engine characteristics	2019	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	10.1080/15567036. 2019.1661551
962	Sharma, B., Kishor, K., Sharma, S., Makkar, R.	Design and Simulation of Broadband Beam Splitter on a Silicon Nitride Platform for Optical Coherence Tomography	2019	Fiber and Integrated Optics	10.1080/01468030. 2019.1639001
963	Gupta, V., Kaushik, A., Verma, M.	Some new fixed point results on V-$\Box$-fuzzy contraction endowed with graph	2019	Journal of Intelligent and Fuzzy Systems	10.3233/JIFS-182945
964	Son, L.H., Kumar, A., Sangwan, S.R., Arora, A., Nayyar, A., Abdel-Basset, M.	Sarcasm detection using soft attention-based bidirectional long short-term memory model with convolution network	2019	IEEE Access	10.1109/ACCESS. 2019.2899260
965	Jain, D.K., Kumar, A., Sangwan, S.R., Nguyen, G.N., Tiwari, P.	A Particle Swarm Optimized Learning Model of Fault Classification in Web-Apps	2019	IEEE Access	10.1109/ACCESS. 2019.2894871
966	Singh, N., Rai, P., Ali, M.A., Kumar, R., Sharma, A., Malhotra, B.D., John, R.	A hollow-nanosphere-based microfluidic biosensor for biomonitoring of cardiac troponin i	2019	Journal of Materials Chemistry B	10.1039/c9tb00126c
967	Mylavarapu, S., Kumar, H., Kumari, S., Sravanthi, L.S., Jain, M., Basu, A., Biswas, M., Mylavarapu, S.V.S., Das, A., Roy, M.	Activation of Epithelial-Mesenchymal Transition and Altered $\Box$-Catenin Signaling in a Novel Indian Colorectal Carcinoma Cell Line	2019	Frontiers in Oncology	10.3389/fonc. 2019.00054
968	Ahirwar, R., Dalal, A., Sharma, J.G., Yadav, B.K., Nahar, P., Kumar, A., Kumar, S.	An aptasensor for rapid and sensitive detection of estrogen receptor alpha in human breast cancer	2019	Biotechnology and Bioengineering	10.1002/bit.26819
969	Guin, D., Rani, J., Singh, P., Grover, S., Bora, S., Talwar, P., Karthikeyan, M., Satyamoorthy, K., Adithan, C., Ramachandran, S., Saso, L., Hasija, Y., Kukreti, R.	Global text mining and development of pharmacogenomic knowledge resource for precision medicine	2019	Frontiers in Pharmacology	10.3389/fphar. 2019.00839

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

16.2 Conference Publications

S. No.	Authors	Title	Year	Source title	DOI
1	Varughese, A., Kaur, R., Singh, P.	Green Synthesis and Characterization of Copper Oxide Nanoparticles Using Psidium guajava Leaf Extract	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/961/1/012011
2	Gagandeep, Singh, M., Kumar, R., Kumari, S.	Numerical simulation of n-TiO2/p-CIGS solar cell	2020	AIP Conference Proceedings	10.1063/5.0017203
3	Kumar, N., Saini, H.S., Nisha, Singh, M., Kashyap, M.K.	Enhanced thermoelectric properties of hf doped half-heusler compound NbFeSb	2020	AIP Conference Proceedings	10.1063/5.0017704
4	Gagandeep, Singh, M., Kumar, R., Singh, V., Srivastava, S.	A theoretical comparison between CH3NH3PbI3 and CH3NH3SnI3 based solar cells	2020	AIP Conference Proceedings	10.1063/5.0017201
5	Srivastava, K., Ahlawat, M., Singh, J., Kumar, V.	Learning Partial Differential Equations from Noisy Data using Neural Networks	2020	Journal of Physics: Conference Series	10.1088/1742-6596/1655/1/012075
6	Mittal, S., Hasija, Y.	RNA Secondary Structure Prediction using Machine Learning: A Review	2020	2020 IEEE 5th International Conference on Computing Communication and Automation, ICCCA 2020	10.1109/ICCCA49541.2020.9250877
7	Imran, M., Chaudhary, N., Hafiz, A.K., Singh, B., Khanuja, M.	CVD synthesis and characterization of ultrathin MoS<inf>2</inf>film	2020	AIP Conference Proceedings	10.1063/5.0026128
8	Vikram, A., Karna, D., Kumar, A., Rizwan, M.	An Analytical Approach of Integrating Automated Load Scheduling to a Smart Energy Meter using Differential Evolution Algorithm	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/946/1/012007
9	Sombir, S., Singh, M.	Voltage and Frequency Control of Self Excited Induction Generator Integrated with PV System	2020	IECON Proceedings (Industrial Electronics Conference)	10.1109/IECON43393.2020.9254608
10	Aditya, M., Kumar, N., Kumar, C., Panwar, A.K.	The effect of variable electrolyte thickness of LMO vs Li metal foil lithium-ion coin cell using simulation	2020	AIP Conference Proceedings	10.1063/5.0026247
11	Aditya, M., Chaujar, R.	A Novel Trench FinFET as biosensor for early detection of dengue fever	2020	Proceedings of the International Semiconductor Conference, CAS	10.1109/CAS50358.2020.9267989
12	Singh, L., Gupta, P., Katarya, R., Jayvant, P.	Twitter data in emotional analysis - A study	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243326
13	Ghimire, A., Thapa, S., Jha, A.K., Adhikari, S., Kumar, A.	Accelerating business growth with big data and artificial intelligence	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243318

S. No.	Authors	Title	Year	Source title	DOI
14	Katarya, R., Lal, A.	A study on combating emerging threat of deepfake weaponization	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243588
15	Yadav, R.K., Awasthi, N.	A survey on enhanced RPL: Addressing the mobility in RPL	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243405
16	Rastogi, H., Jain, M.	A correlative study of centrality measures across real-world networks	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243484
17	Mohta, A., Jain, A., Saluja, A., Dahiya, S.	Pre-processing and emoji classification of whatsapp chats for sentiment analysis	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243443
18	Rahul, Katarya, R.	Impact of supervised classification techniques for the prediction of student's performance	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243360
19	Jain, V., Chandel, D., Garg, P., Vishwakarma, D.K.	Depression and impaired mental health analysis from social media platforms using predictive modelling techniques	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243334
20	Gupta, M., Bhargava, L., Sreedevi, I.	Dynamic voltage frequency scaling in multi-core systems using adaptive regression model	2020	Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020	10.1109/I-SMAC49090.2020.9243505
21	Singh, Y., Jain, S., Snehill, S., Bhagat, R., Meena, D.C.	Multi-functional circuit using two Current Feedback Operational Amplifiers	2020	2020 4th International Conference on Electronics, Materials Engineering and Nano-Technology, IEMENTech 2020	10.1109/IEMENTech51367.2020.9270105
22	Goel, D., Nand, D.	VDDDA Based Multifunction Voltage-Mode MISO Filter	2020	2020 4th International Conference on Electronics, Materials Engineering and Nano-Technology, IEMENTech 2020	10.1109/IEMENTech51367.2020.9270071
23	Mehta, A., Nayak, R., Hasija, Y.	Melanoma risk prediction with respect to modifiable lifestyle factors by meta-analysis aided machine learning technique	2020	2020 IEEE International Conference on Computing, Power and Communication Technologies, GUCON 2020	10.1109/GUCON48875.2020.9231223
24	Ahlawat, A., Nagarajan, S.T.	Study of estimating dynamic state jacobian matrix and dynamic system state matrix based on PMU	2020	2020 IEEE International Conference on Computing, Power and Communication Technologies, GUCON 2020	10.1109/GUCON48875.2020.9231185

S. No.	Authors	Title	Year	Source title	DOI
25	Koul, R., Yadav, M., Suneja, K.	Comparative analysis of fpga based hardware design of dynamic time warping algorithm using different multiplier architectures	2020	2020 IEEE International Conference on Computing, Power and Communication Technologies, GUCON 2020	10.1109/GUCON48875.2020.9231244
26	Kumar, V., Mishra, S.	Speed and current controller modelling for close loop control of separately excited DC motor for constant flux and flux weakening operation	2020	2020 IEEE International Conference on Computing, Power and Communication Technologies, GUCON 2020	10.1109/GUCON48875.2020.9231111
27	Kumar, S., Suryawanshi, H.M., Singh, B., Verma, V., Chakraborty, C.	Synchronization and de-synchronization of single stage PV-battery based microgrid for enhancing power grid resilience	2020	2020 IEEE International Conference on Computing, Power and Communication Technologies, GUCON 2020	10.1109/GUCON48875.2020.9231262
28	Gupta, S., Bhambri, S., Dhingra, K., Buduru, A.B., Kumaraguru, P.	Multi-objective Reinforcement Learning based approach for User-Centric Power Optimization in Smart Home Environments	2020	Proceedings - 2020 IEEE International Conference on Smart Data Services, SMDS 2020	10.1109/SMDS49396.2020.00018
29	Mittal, A., Misra, A., Sharma, A., Gupta, A., Ansari, N.	Design and Analysis of Modified Radiator Fins to Improve Overall Cooling Efficiency	2020	SAE Technical Papers	10.4271/2020-01-2029
30	Tomar, M., Choudhary, M., Jain, D., Kumar, N.	Performance Analysis and Economic Feasibility of Fuel Cell Vehicles: A Perspective Review	2020	SAE Technical Papers	10.4271/2020-01-2256
31	Patel, U., Maulik, A., Das, D.	Control and operation of a small autonomous DC microgrid with improved dynamic performance	2020	2020 IEEE International Conference on Power Systems Technology, POWERCON 2020	10.1109/POWERCON48463.2020.9230530
32	Bansal, S., Dagar, Y., Singh, Y.K., Ansari, N.A.	Effect of concentration of alumina nanoparticles on performance and emissions of biodiesel fueled compression ignition engine	2020	AIP Conference Proceedings	10.1063/5.0015783
33	Singal, S., Goel, T., Chopra, S., Dahiya, S.	Open Domain Suggestion Mining Leveraging Fine-Grained Analysis (Workshop Paper)	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055.2020.00069
34	Vashishtha, S., Susan, S.	Unsupervised Fuzzy Inference System for Speech Emotion Recognition using audio and text cues (Workshop Paper)	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055.2020.00067
35	Yadav, A., Vishwakarma, D.K.	A Weighted Text Representation framework for Sentiment Analysis of Medical Drug Reviews	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055.2020.00057
36	Yadav, A., Vishwakarma, D.K.	Recent Developments in Generative Adversarial Networks: A Review (Workshop Paper)	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055.2020.00068

16. ANNEXURE

333

S. No.	Authors	Title	Year	Source title	DOI
37	Malhotra, B., Vishwakarma, D.K.	Classification of Propagation Path and Tweets for Rumor Detection using Graphical Convolutional Networks and Transformer based Encodings	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055. 2020.00034
38	Mangal, A., Goyal, A., Kulkarni, A.R.	Design and development of IOT based prototype police barricade	2020	IEMTRONICS 2020 - International IOT, Electronics and Mechatronics Conference, Proceedings	10.1109/IEMTRONICS 51293.2020.9216443
39	Bansal, M., Singh, J.	Comparative Analysis of 4-bit CMOS Vedic Multiplier and GDI Vedic Multiplier using 18nm FinFET Technology	2020	Proceedings - International Conference on Smart Electronics and Communication, ICOSEC 2020	10.1109/ICOSEC49089. 2020.9215317
40	Bansal, M., Singh, J.	Qualitative Analysis of 2-bit CMOS Magnitude Comparator and GDI Magnitude Comparator using FinFET Technology (18nm)	2020	Proceedings - International Conference on Smart Electronics and Communication, ICOSEC 2020	10.1109/ICOSEC49089. 2020.9215251
41	Kumar, V., Kumar, R.	Energy Efficient Resource Allocation using Reinforcement Learning in SDN Based Wireless Networks	2020	Proceedings - International Conference on Smart Electronics and Communication, ICOSEC 2020	10.1109/ICOSEC49089. 2020.9215388
42	Aditya, M., Chaujar, R.	A Novel GAA Hollow Cavity FinFET based biosensor for Cancer protein marker sensing	2020	2020 9th International Conference on Modern Circuits and Systems Technologies, MOCAST 2020	10.1109/MOCAST49295. 2020.9200281
43	Khan, S.N., Leekha, M., Shukla, J., Shah, R.R.	Vyaktitv: A Multimodal Peer-to-Peer Hindi Conversations based Dataset for Personality Assessment	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055. 2020.00024
44	Kumar, M., Bareja, J., Singh, M., Sharma, R.	An Intelligent Prediction Model of COVID-19 in India using Hybrid Epidemic Model	2020	Proceedings - International Conference on Smart Electronics and Communication, ICOSEC 2020	10.1109/ICOSEC49089. 2020.9215426
45	Rustagi, S., Garg, A., Anand, P.R., Kumar, R., Kumar, Y., Shah, R.R.	Touchless Typing Using Head Movement-based Gestures	2020	Proceedings - 2020 IEEE 6th International Conference on Multimedia Big Data, BigMM 2020	10.1109/BigMM50055. 2020.00025
46	Jindal, R., Leekha, M., Manuja, M., Goswami, M.	What makes a better companion towards social and engaging peer learning	2020	Frontiers in Artificial Intelligence and Applications	10.3233/FAIA200129
47	Jain, G., Chopra, S., Chopra, S., Singh Parihar, A.	Transsketchnet: Attention-based sketch recognition using transformers	2020	Frontiers in Artificial Intelligence and Applications	10.3233/FAIA200447
48	Susan, S., Kaushik, A.	Weakly Supervised Metric Learning with Majority Classes for Large Imbalanced Image Dataset	2020	ACM International Conference Proceeding Series	10.1145/3421537.3421549

S. No.	Authors	Title	Year	Source title	DOI
49	Zahoor, S., Rohilla, R.	Twitter Sentiment Analysis Using Machine Learning Algorithms: A Case Study	2020	Proceedings - 2020 International Conference on Advances in Computing, Communication and Materials, ICACCM 2020	10.1109/ICACCM50413. 2020.9213011
50	McReynolds, A.A., Naderzad, S.P., Goswami, M., Mostow, J.	Toward Learning at Scale in Developing Countries: Lessons from the Global Learning XPRIZE Field Study	2020	L@S 2020 - Proceedings of the 7th ACM Conference on Learning @ Scale	10.1145/3386527. 3405920
51	Khanna, A., Thakur, A., Tewari, A., Bhat, A.	Cross-age face verification using face aging	2020	ACM International Conference Proceeding Series	10.1145/3421558. 3421573
52	Shambharkar, P.G., Anand, A., Kumar, A.	A survey paper on movie trailer genre detection	2020	Proceedings - 2020 International Conference on Computing and Data Science, CDS 2020	10.1109/CDS49703. 2020.00055
53	Agrawal, A., Jha, A.K., Kumar, V., Jaiswal, A.	Irony detection using transformers	2020	Proceedings - 2020 International Conference on Computing and Data Science, CDS 2020	10.1109/CDS49703. 2020.00040
54	Garg, P., Jain, P.	Analysis of a novel Metamaterial Absorber using equivalent circuit model operating at 3.5 GHz	2020	Proceedings of the 2020 IEEE International Conference on Computational Electromagnetics, ICCEM 2020	10.1109/ICCEM47450. 2020.9219486
55	Dubey, S., Meena, J.	Improvement of throughput using dual connectivity in non-standalone 5G NR networks	2020	Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020	10.1109/ICSSIT48917. 2020.9214179
56	Jain, A., Vishwakarma, D.K.	Deep neuralNet for violence detection using motion features from dynamic images	2020	Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020	10.1109/ICSSIT48917. 2020.9214153
57	Yadav, R.K., Gupta, M.	Data aggregation algorithms in IoT: An organized evaluation of the literature	2020	Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020	10.1109/ICSSIT48917. 2020.9214242
58	Patidar, S., Bains, I.S.	Web security in IoT networks using deep learning model	2020	Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020	10.1109/ICSSIT48917. 2020.9214114
59	Tripathi, G., Singh, K., Vishwakarma, D.K.	Crowd emotion analysis using 2D ConvNets	2020	Proceedings of the 3rd International Conference on Smart Systems and Inventive Technology, ICSSIT 2020	10.1109/ICSSIT48917. 2020.9214208

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
60	Hossain, K., Sabapathy, T., Jusoh, M., Soh, P.J., Fazilah, A.F.M., Halim, A.A.A., Raghava, N.S., Podilchak, S.K., Schreurs, D., Abbasi, Q.H.	ENG and NZRI Characteristics of Decagonal-Shaped Metamaterial for Wearable Applications	2020	2020 International Conference on UK-China Emerging Technologies, UCET 2020	10.1109/UCET51115.2020.9205409
61	Suvarna, A., Bhalla, G., Kumar, S., Bhardwaj, A.	Identifying Victim Blaming Language in Discussions about Sexual Assaults on Twitter	2020	ACM International Conference Proceeding Series	10.1145/3400806.3400825
62	Sharma, A.	Real Option Framework for a Highway Project	2020	ACM International Conference Proceeding Series	10.1145/3414752.3414760
63	Sagar, S., Chan, S.Y., Pal, T., Mittal, P.	Designing and parametric extraction of low pass filter using metamaterials	2020	2020 IEEE Students' Conference on Engineering and Systems, SCES 2020	10.1109/SCES50439.2020.9236727
64	Kumar, N., Mittal, P., Mittal, M.	Performance analysis of FinFET based 2:1 multiplexers for low power application	2020	2020 IEEE Students' Conference on Engineering and Systems, SCES 2020	10.1109/SCES50439.2020.9236770
65	Saini, R., Sanjana, Gairola, S., Vinayak, V., Singh, K.	Energy Harvesting through Piezoelectric Tile	2020	2020 International Conference on System, Computation, Automation and Networking, ICSCAN 2020	10.1109/ICSCAN49426.2020.9262301
66	Meena, H., Nandanwar, H., Pahl, D., Chauhan, A.	IoT based perceptive monitoring and controlling an automated irrigation system	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239.2020.9225455
67	Parihar, A.S., Gupta, G.	A Study on Dark Channel Prior based Image Enhancement Techniques	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239.2020.9225671
68	Gupta, A., Sharma, K.	Ranking of Countries Using World Development Indicators: A Computational Approach	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239.2020.9225403
69	Yadav, A., Vishwakarma, D.K.	A Multilingual Framework of CNN and Bi-LSTM for Emotion Classification	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239.2020.9225614
70	Kumar, N., Susan, S.	COVID-19 Pandemic Prediction using Time Series Forecasting Models	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239.2020.9225319

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
71	Vashishtha, S., Susan, S.	Fuzzy Interpretation of Word Polarity Scores for Unsupervised Sentiment Analysis	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239. 2020.9225646
72	Valluru, S.K., Kumar, G., Kumar, R., Meena, A.L.	Experimental validation and control of Laboratory aerial system by IC741-IOPID and IC741-FOP I Controllers: An Analog approach	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239. 2020.9225460
73	Khariwal, K., Singh, J., Arora, A.	IPDroid: Android malware detection using intents and permissions	2020	Proceedings of the World Conference on Smart Trends in Systems, Security and Sustainability, WS4 2020	10.1109/WorldS450073. 2020.9210414
74	Jha, A.K., Adhikari, S., Thapa, S., Kumar, A., Kumar, A., Mishra, S.	Evaluation of Factors Affecting Compressive Strength of Concrete using Machine Learning	2020	Proceedings - 2020 Advanced Computing and Communication Technologies for High Performance Applications, ACCTHPA 2020	10.1109/ACCTHPA49271. 2020.9213199
75	Meel, P., Chawla, P., Jain, S., Rai, U.	Web Text Content Credibility Analysis using Max Voting and Stacking Ensemble Classifiers	2020	Proceedings - 2020 Advanced Computing and Communication Technologies for High Performance Applications, ACCTHPA 2020	10.1109/ACCTHPA49271. 2020.9213234
76	Yadav, P., Porwal, T., Jha, V., Indu, S.	Emerging Low-Cost Air Quality Monitoring Techniques for Smart Cities with UAV	2020	Proceedings of CONECCT 2020 - 6th IEEE International Conference on Electronics, Computing and Communication Technologies	10.1109/CONECCT50063. 2020.9198487
77	Kalita, K., Rai, A.K., Pandey, K., Garg, R.	Comparative Analysis of different Variants of Particle Swarm Optimization for Economic Load Dispatch Problem	2020	2020 International Conference on Computational Performance Evaluation, ComPE 2020	10.1109/ComPE49325. 2020.9200066
78	Singh, R., Singh, J., Gill, M.S., Malhotra, R., Garima	Transfer Learning Code Vectorizer based Machine Learning Models for Software Defect Prediction	2020	2020 International Conference on Computational Performance Evaluation, ComPE 2020	10.1109/ComPE49325. 2020.9200076
79	Malhotra, R., Gupta, S., Singh, T.	A Systematic Review on Application of Deep Learning Techniques for Software Quality Predictive Modeling	2020	2020 International Conference on Computational Performance Evaluation, ComPE 2020	10.1109/ComPE49325. 2020.9200103
80	Preity, Jayanthi, N.	A Segmentation Technique of Retinal Blood Vessels using Multi-Threshold and Morphological Operations	2020	2020 International Conference on Computational Performance Evaluation, ComPE 2020	10.1109/ComPE49325. 2020.9200042

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
81	Mishra, S., Birok, R.	Sleep Classification using CNN and RNN on Raw EEG Single-Channel	2020	2020 International Conference on Computational Performance Evaluation, ComPE 2020	10.1109/ComPE49325. 2020.9200002
82	Singh, S., Raj, P., Kumar, R., Chaujar, R.	Prediction and forecast for COVID-19 Outbreak in India based on Enhanced Epidemiological Models	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183126
83	Kumar, N., Sonowal, S., Nishant	Email Spam Detection Using Machine Learning Algorithms	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183098
84	Nandanwar, H., Chauhan, A., Pahl, D., Meena, H.	A Survey of Application of ML and Data Mining Techniques for Smart Irrigation System	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183088
85	Yadav, R.K., Awasthi, N.	A Route Stable Energy and Mobility aware routing protocol for IoT	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183226
86	Jain, A., Sharma, S., Chaujar, R.	Impact of Metal Strip on Nanoscale Double Gate Overlap Tunnel FET	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183099
87	Dhiran, A., Kumar, D., Abhishek, Arora, A.	Video Fraud Detection using Blockchain	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9182963
88	Kaur, A., Raj, A., Jayanthi, N., Indu, S.	Inpainting of Irregular Holes in a Manuscript using UNet and Partial Convolution	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9182917
89	Malhotra, R., Lata, K.	Improving Software Maintainability Predictions using Data Oversampling and Hybridized Techniques	2020	2020 IEEE Congress on Evolutionary Computation, CEC 2020 - Conference Proceedings	10.1109/CEC48606. 2020.9185809
90	Kumar, V., Kumar, R.	Smart Re-Route Routing Protocol for Vehicular Ad-Hoc Networks	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9182996

S. No.	Authors	Title	Year	Source title	DOI
91	Getnet Yirak, M., Chaujar, R.	TCAD Analysis and Modelling of Gate-Stack Gate All around Junctionless Silicon NWFET Based Bio-Sensor for Biomedical Application	2020	Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020	10.1109/VLSIDCS47293. 2020.9179866
92	Chauhan, A., Mahor, L., Tiwari, P.	Low Power Quaternary Adder Using CNFET	2020	Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020	10.1109/VLSIDCS47293. 2020.9179898
93	Sharma, S., Chaujar, R.	Performance Analysis of a Novel Hetero-material InAs/GaAs Junctionless TFET	2020	Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020	10.1109/VLSIDCS47293. 2020.9179852
94	Sharma, M., Chaujar, R.	Impact of Graded Back-Barrier on Linearity of Recessed Gate InAlN/ GaN HEMT	2020	Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020	10.1109/VLSIDCS47293. 2020.9179897
95	Tanwar, V., Sharma, K.	Multi-Model Fake News Detection based on Concatenation of Visual Latent Features	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182398
96	Jha, R., Prasad, R., Khemka, R., Mandpura, A.	A Faster DFT Algorithm for Specific Binary Pulse Sequences	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182054
97	Jain, A., Vishwakarma, D.K.	State-of-the-arts Violence Detection using ConvNets	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182433
98	Choraria, K., Divya, Basson, I., Pandey, R.	CDTA Based Multimode SIMO Biquad Filter	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182372
99	Tiwari, G., Sharma, A., Sahotra, A., Kapoor, R.	English-Hindi Neural Machine Translation-LSTM Seq2Seq and ConvS2S	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182117
100	Agarwal, T., Raturi, S., Vybhav, T.K., Singh, M.	Classification of EEG signal using LSTMs under Audiovisual Stimuli	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182092
101	Kumar, A., Kumawat, B., Pandey, N.	Design of 4-bit ALU using TEAM Memristor Model and CMOS Logic	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568. 2020.9182450

S. No.	Authors	Title	Year	Source title	DOI
102	Raghava, N.S., Gupta, K., Kedia, I., Goyal, A.	An Experimental Comparison of Different Object Tracking Algorithms	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568.2020.9182101
103	Dubey, S., Meena, J.	Computation Offloading Techniques in Mobile Edge Computing Environment: A Review	2020	Proceedings of the 2020 IEEE International Conference on Communication and Signal Processing, ICCSP 2020	10.1109/ICCSP48568.2020.9182210
104	Kashyap, M.P., Chaujar, R.	Temperature investigation of a Novel 3nm TF-Bulk FinFET for Improved Performance	2020	Proceedings of the IEEE Conference on Nanotechnology	10.1109/NANO47656.2020.9183594
105	Patidar, S., Singh, U., Sharma, S.K., Himanshu	Weed Seedling Detection Using Mask Regional Convolutional Neural Network	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155701
106	Kapoor, R., Malhotra, V., Yasser, S., Wadhwa, V.	A Comparative Analysis of Capsule Networks in Content based Image Retrieval tasks: CapsCBIR	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9156067
107	Katarya, R., Mehta, D., Singh, J.	Location based Human Behaviour Analysis on Products or Events	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155869
108	Jindal, R., Kunwar, A.K., Kaur, A., Jakhar, B.S.	Predicting the Dynamics of Forest Fire Spread from Satellite Imaging Using Deep Learning	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155734
109	Adhikari, S., Thapa, S., Shah, B.K.	Oversampling based Classifiers for Categorization of Radar Returns from the Ionosphere	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155833
110	Kumar, M., Sharma, P., Kumar, P.	Trajectory Planning of Unmanned Aerial Vehicle using Invasive Weed Optimization	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155987
111	Kumar, V., Arora, H., Harsh, Sisodia, J.	ResNet-based approach for Detection and Classification of Plant Leaf Diseases	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155585

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
112	Kumar, V., Pasari, S., Patil, V.P., Seniaray, S.	Machine Learning based Language Modelling of Code Switched Data	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155695
113	Murtirawat, R., Panchal, S., Singh, V.K., Panchal, Y.	Breast Cancer Detection Using K-Nearest Neighbors, Logistic Regression and Ensemble Learning	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155783
114	Katarya, R., Maan, S.	Stress Detection using Smartwatches with Machine Learning: A Survey	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155568
115	Yadav, Y., Kumar, V., Ranga, V., Rawat, R.M.	Analysis of Facial Sentiments: A deep-learning Way	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155622
116	Rahul, Srivastava, S., Kumar, P.	Comparative Study of Clustering Approaches in Rumor Source Localization Algorithm in Social Networks	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155799
117	Sharma, A., Gupta, S., Kumar, N.	Modelling and Comparison of Different MPPT Algorithms for a Standalone PV System	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155717
118	Gangal, A., Bhanoo, V., Pandey, N.	Low Transconductance M-CDTA Block and its Application in Biomedical Signal Processing	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155787
119	Varshney, A., Bhushan, B.	Trajectory Tracking and Ball Position Control of Magnetic Levitation System using Swarm Intelligence Technique	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155772
120	Katarya, R., Srinivas, P.	Predicting Heart Disease at Early Stages using Machine Learning: A Survey	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155586

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
121	Karan, Yadav, K., Singh, A.	Comparative analysis of Visual Recognition Capabilities of CNN Architecture Enhanced with Gabor Filter	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155891
122	Singh, I., Arora, H., Kaur, H., Kumar, H.	Divergence based Database Intrusion Detection by user Profile Generation	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9156041
123	Gandhi, V., Mendiratta, V., Thakur, S., Choudhry, M.S.	Morphological Operations for denoising of White Gaussian Noise Corrupted MR Images	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155936
124	Bhat, A., Rustagi, S., Purwaha, S.R., Singhal, S.	Deep-learning based group-photo Attendance System using One Shot Learning	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155755
125	Kapoor, R., Saifi, S., Kapoor, T., Bisaria, U., Singh, N.	Dual-Modal Emotion Recognition Using Discriminant Correlation Analysis	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155659
126	Kapoor, R., Kumar, D., Harshit, Garg, A., Sharma, A.	Completely Contactless Finger-Knuckle Recognition using Gabor Initialized Siamese Network	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155554
127	Rohilla, R., Banga, P.S., Garg, P., Mittal, P.	GPU based Re-trainable Pruned CNN design for Camera Trapping at the Edge	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155885
128	Sethi, M., Pandey, S., Trar, P., Soni, P.	Sentiment Identification in COVID-19 Specific Tweets	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155674
129	Jaiswal, P.S., Choudhry, M.S.	Analysis of Segmentation Techniques for Synthetic Aperture RADAR Image Processing Applications	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915.2020.9155665

S. No.	Authors	Title	Year	Source title	DOI
130	Yadav, J., Kumar, D., Chauhan, D.	Cyberbullying Detection using Pre-Trained BERT Model	2020	Proceedings of the International Conference on Electronics and Sustainable Communication Systems, ICESC 2020	10.1109/ICESC48915. 2020.9155700
131	Raj, S., Sebastian, N., Bisht, R.	ExtraDet with Quad Feature Pyramid Networks	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239. 2020.9225379
132	Dua, S., Shahi, D.P., Singh, J., Parthasarathy, H.	Passive Copy-Move Forgery Detection using Localized Intensity Feature	2020	2020 11th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2020	10.1109/ICCCNT49239. 2020.9225329
133	Sekhri, E., Kapoor, R., Tamre, M.	Double deep Q-learning approach for tuning microwave cavity filters using locally linear embedding technique	2020	15th International Conference Mechatronic Systems and Materials, MSM 2020	10.1109/MSM49833. 2020.9202393
134	Chauhan, A., Sharma, M., Baghel, S.	Designing and Performance Analysis of 15KWP Grid Connection Photovoltaic System Using Pvsyst Software	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183386
135	Sethi, R., Mehrotra, M., Sethi, D.	Deep Learning based Diagnosis Recommendation for COVID-19 using Chest X-Rays Images	2020	Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020	10.1109/ICIRCA48905. 2020.9183278
136	Kumar, B., Kumar, A., Chaujar, R.	The Effect of Gate Stack and High-κ Spacer on Device Performance of a Junctionless GAA FinFET	2020	Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020	10.1109/VLSIDCS47293. 2020.9179855
137	Jain, D.K., Kumar, A., Cai, L., Singhal, S., Kumar, V.	ATT: Attention-based Timbre Transfer	2020	Proceedings of the International Joint Conference on Neural Networks	10.1109/IJCNN48605. 2020.9207146
138	Gupta, N., Kumar, A., Chaujar, R., Kumar, B., Tripathi, M.M.	Gate Engineered GAA Silicon-Nanowire MOSFET for High Switching Performance	2020	Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020	10.1109/VLSIDCS47293. 2020.9179932
139	Thapa, S., Singh, P., Jain, D.K., Bharill, N., Gupta, A., Prasad, M.	Data-Driven Approach based on Feature Selection Technique for Early Diagnosis of Alzheimer's Disease	2020	Proceedings of the International Joint Conference on Neural Networks	10.1109/IJCNN48605. 2020.9207359
140	Raj, R., Gupta, S., Lohia, M., Taneja, H.C.	Dual Stage Network Intrusion Detection System Through Feature Reduction	2020	Journal of Physics: Conference Series	10.1088/1742-6596/ 1564/1/012033

16. ANNEXURE

343

S. No.	Authors	Title	Year	Source title	DOI
141	Gupta, A., Rana, K., Joshi, D.	Design and Analysis of Multioutput Flyback Converter under Continuous and Discontinuous Conduction mode using PID Controller	2020	2020 1st IEEE International Conference on Measurement, Instrumentation, Control and Automation, ICMICA 2020	10.1109/ICMICA48462.2020.9242853
142	Saini, A., Rana, K., Joshi, D.	Performance analysis of FS3P VSI fed Induction Motor Drive using Adaptive carrier based PWM Technique	2020	2020 1st IEEE International Conference on Measurement, Instrumentation, Control and Automation, ICMICA 2020	10.1109/ICMICA48462.2020.9242884
143	Upadhyaya, S., Rana, K., Taneja, M., Joshi, D.	Modelling and control of non-isolated multiport DC/DC converter	2020	2020 1st IEEE International Conference on Measurement, Instrumentation, Control and Automation, ICMICA 2020	10.1109/ICMICA48462.2020.9242764
144	Agarwal, A., Sangma, B.S., Lal, D., Singh, S.	Mathematical Modelling for Circular Prey-Predator Model	2020	ACM International Conference Proceeding Series	10.1145/3409915.3409926
145	Yadav, V., Pujari, P.C., Kumar, N.	Modification of 4-Stroke S.I. Engine to a Compressed Air Engine for a Light Utility Vehicle	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012006
146	Zunaid, M., Mustafa, M.G.	Mathematical Analysis of Wind Turbine Blade at various Angle of attack and Reynold Number	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012005
147	Khuntia, S., Yadav, R., Singh, R.C., Rastogi, V.	Design, development and analysis of a magnetorheological damper	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012009
148	Jain, D., Jain, A., Singh, R.	Investigation of wear in a 3D printed Shaft - Bearing mechanism using different Lubricants	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012029
149	Bajaj, N., Chhabra, R., Sharma, R., Gupta, N., Vipin, V.	Effect of ply orientation angle on residual stress in carbon fibre laminates	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012017
150	Mishra, D., Kumar, N., Chaudhary, R.	A comprehensive review on performance, combustion and emission characteristics of diesel/biodiesel/alcohols and their blends	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012030
151	Singh, C.S., Kumar, N., Gautam, R.	Thermal Cracking of Karanja de-oiled seed cake on Pyrolysis Reactor for producing Bio-oil with focus on its application in diesel Engine	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012014
152	Nath, D.S., Kumar, N.	To investigate the variation in Swirl Ratio by changing the Valve Lift of an Internal Combustion Engine	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012018
153	Dixit, A., Chaudhary, R.	Sustainability: An Essential Concept for Current and Upcoming Technological Practices	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012023

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
154	Tomar, M., Kumar, N.	Impact of doping alumina nanoparticles on spray characteristics of diesel-biodiesel fuel blends	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012007
155	Jain, V., Mittal, M., Chaudhary, R.	Design Optimization and Analysis of Car Bumper with the Implementation of Hybrid Biocomposite Material	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012004
156	Yadav, B.S., Singh, R.C., Chaudhary, R.	Experimental investigations for erosive wear of Mild Steel Pipe bends at different positions in Pneumatic Conveying System (PCS)	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012008
157	Saxena, M., Tarique, M., Rafi, M., Anand, M., Joshi, S., Sharma, V.K., Singh, R.C., Chaudhary, R.	Fabrication and Characterization of hybrid aluminium-fly ash-graphite composite	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012032
158	Yadav, K., Kumar, N., Chaudhary, R.	A review on cold flow properties of biodiesel and their improvement	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012027
159	Kumar, A., Singh, R.C., Chaudhary, R., Singh, V.P.	Tribological studies and Microstructural characterisation of SiC and Fly Ash Particles Based Aluminium 2024 alloy Composites Prepared through Stir Casting Route	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012025
160	Pal, S., Singh, K.	Shear resistance of hybrid steel and basalt fiber reinforced concrete	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012038
161	Alok, A., Niranjan, M.S., Kumar, A., Kumar, M., Das, M.	Synthesis and Characterization of Sintered Magnetic Abrasive Particles having Alumina and Carbonyl Iron Powder	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012002
162	Kushwaha, V.P., Joshi, S., Singh, R.C., Chaudhary, R.	Characterisation of floor tiles reinforced aluminium surface composite synthesized by friction stir processing	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012013
163	Shrivastava, P., Agarwal, P., Rahul, Monika	WiFi Data Leakage Detection	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/804/1/012042
164	Ahady, S., Dev, N., Mandal, A.	An overview of the opportunities and challenges in sustaining the energy industry in Afghanistan	2020	E3S Web of Conferences	10.1051/e3sconf/202017303006
165	Chaudhary, S., Singh, R.C., Chaudhary, R., Sonia	Evaluation of high-temperature tribological behavior of Chromium coating using LRT	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/788/1/012043

S. No.	Authors	Title	Year	Source title	DOI
166	Kumar, A., Kumar, P., Singh, R.C.	The effect of alumina on mechanical behavior of Al 6064 alloy	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/802/1/012004
167	Ahuja, N., Kumar, S.	S-HAN: Hierarchical Attention Networks with Stacked Gated Recurrent Unit for Fake News Detection	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9197914
168	Zahoor, S., Rohilla, R.	Twitter Sentiment Analysis Using Lexical or Rule Based Approach: A Case Study	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9197910
169	Malhotra, R., Khan, K.	A Study on Software Defect Prediction using Feature Extraction Techniques	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9197999
170	Sharma, M.	A CNN-Based K-Mer Classification of Anti-Microbial Peptide Sequences	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9198006
171	Malhotra, R., Cherukuri, M.	Software Defect Categorization based on Maintenance Effort and Change Impact using Multinomial Naïve Bayes Algorithm	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9198037
172	Sharma, M.	Polarity Detection in a Cross-Lingual Sentiment Analysis using spaCy	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9197829
173	Kumar, M., Bhatt, V.	A review on monolingual and cross lingual FAQ retrieval system	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137932
174	Salik, S., Priyal, S., Khokher, N., Kumar, N.	Fuzzy logic based automatic generation control	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137953
175	Jain, M., Bhati, P.K., Kataria, P., Kumar, R.	Modelling logistic growth model for covid-19 pandemic in India	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09138049

S. No.	Authors	Title	Year	Source title	DOI
176	Kumar, V., Choudhary, V., Sahrawat, V., Kumar, V.	Detecting intrusions and attacks in the network traffic using anomaly based techniques	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09137968
177	Gupta, G., Setia, R., Meena, A., Jaint, B.	Environment monitoring system for agricultural application using IoT and predicting crop yield using various data mining Techniques	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09138032
178	Yadav, R.K., Kishor, G., Himanshu, Kashyap, K.	Comparative analysis of route planning algorithms on road networks	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09137965
179	Bhat, N., Saggu, N., Pragati, Kumar, S.	Generating visible spectrum images from thermal infrared using conditional generative adversarial Networks	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09137895
180	Bazari, A.S., Singh, A., Khan, A.A., Jindal, R.	Filter based scalable blockchain for domestic internet of things	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09138008
181	Kumar, A., Kumar, S.	A systematic review of the research on disruptive technology - Blockchain	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09138055
182	Kumar, M., Gupta, P., Madhav, P., Sachin	Disease detection in coffee plants using convolutional neural network	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09138000
183	Rawat, R.M., Tomar, V., Kumar, V.	An embedding-based deep learning approach for movie recommendation	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09137998
184	Rawat, R.M., Akram, M., Mithil, Pradeep, S.S.	Dementia detection using machine learning by stacking models	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09137852
185	Dahiya, S., Mohta, A., Jain, A.	Text classification based behavioural analysis of whatsapp chats	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766. 2020.09137911

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
186	Kumar, S., Singh, S.S., Gupta, V.	Predicting link sign in online social networks based on social psychology theory and PageRank	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137976
187	Kumar, S., Dhawan, S.	A detailed study on generative adversarial networks	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137883
188	Divyam, Saxena, A., Singh, B., Rai, J.N.	Comparative analysis of PWM Techniques and SVPWM operated V/f control of induction motor having different power ratings	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09138038
189	Divyam, Saxena, A., Rai, J.N., Singh, B.	Comparative study of static Var compensation techniques - Thyristor switched reactor and thyristor switched capacitor	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137906
190	Parihar, A.S., Jain, A., Gupta, A.	Citation-based scientific paper summarization using game theory	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137972
191	Kumar, S., Chaudhary, S., Kumar, S., Yadav, R.K.	Node classification in complex networks using network embedding techniques	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09138094
192	Jaiswal, V.K., Singh, H.K., Singh, K.	Arduino GSM based power theft detection and energy metering system	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09138085
193	Parihar, A.S., Gupta, Y.K., Singodia, Y., Singh, V., Singh, K.	A comparative study of image dehazing algorithms	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09138037
194	Verma, A., Yadav, S., Arora, A., Singh, K.	Comparison of maximum power tracking using artificial intelligence based optimization controller in photovoltaic systems	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154109
195	Goel, G., Bhardwaj, H., Hooda, I., Kumar, S.	Optimal N-gram subset extraction for accelerating evaluation using genetic Algorithm	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154083

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
196	Mohindroo, B., Paliwal, A., Suneja, K.	FPGA based faster implementation of MAC unit in residual number system	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154105
197	Vishwakarma, D.K., Jain, C.	Recent state-of-the-art of fake news detection: A review	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9153985
198	Suri, S., Sharma, K., Papneja, S.	Frustration detection on reviews using machine learning	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9153975
199	Gupta, A., Suri, S., Sharma, K.	Ranking of countries using R	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154070
200	Gupta, R., Kapoor, C., Yadav, J.	Acceptance towards digital payments and improvements in cashless payment ecosystem	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154024
201	Yadav, R.K., Bharti, R., Nagar, R., Kumar, S.	A model for recapitulating audio messages using machine learning	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154064
202	Agarwal, D., Gupta, V., Jaiswal, D., Mandpura, A.K.	A machine learning-based approach for PV power forecasting	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154131
203	Kumar, M., Nikhil, N., Singh, R.	Decentralising finance using decentralised blockchain oracles	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154123
204	Ahlawat, A., Nagarajan, S.T.	Laboratory scale power cable model for power system education	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154108
205	Singla, R., Gupta, S., Gupta, A., Vishwakarma, D.K.	FLEX: A content based movie recommender	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154163
206	Aind, A.T., Ramnaney, A., Sethia, D.	Q-Bully: A reinforcement learning based cyberbullying detection framework	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154092
207	Kukreja, M., Arora, A., Thakural, N.S., Malhotra, L.	Power quality improvement in grid connected distribution systems using artificial intelligence based controller	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154082
208	Gupta, R., Koli, N., Mahor, N., Tejashri, N.	Performance analysis of machine learning classifier for predicting chronic kidney disease	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154147
209	Punia, R., Kumar, L., Mujahid, M., Rohilla, R.	Computer vision and radiology for COVID-19 detection	2020	2020 International Conference for Emerging Technology, INCET 2020	10.1109/INCET49848.2020.9154088
210	Jain, R., Pandey, N.	Realization of Regula-Falsi Iteration based Double Precision Floating Point Division	2020	Proceedings of the 4th International Conference on Trends in Electronics and Informatics, ICOEI 2020	10.1109/ICOEI48184.2020.9142875

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
211	Kailkhura, V., Aravindh, S., Jha, S.S., Jayanthi, N.	Ensemble learning-based approach for crack detection using CNN	2020	Proceedings of the 4th International Conference on Trends in Electronics and Informatics, ICOEI 2020	10.1109/ICOEI48184.2020.9143035
212	Rathi, P., Adarsh, P., Kumar, M.	Deep Learning Approach for Arbitrary Image Style Fusion and Transformation using SANET model	2020	Proceedings of the 4th International Conference on Trends in Electronics and Informatics, ICOEI 2020	10.1109/ICOEI48184.2020.9143024
213	Alem, A., Kumar, S.	Deep Learning Methods for Land Cover and Land Use Classification in Remote Sensing: A Review	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9197824
214	Singh, S., Tayal, V.K., Singh, H.P., Yadav, V.K.	Fractional Control Design of Renewable Energy Systems	2020	ICRITO 2020 - IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)	10.1109/ICRITO48877.2020.9197902
215	Suthar, N., Yadav, R.Kr.	PMS-sharing: Framework for automatically authenticating users in a group to allow sharing storage	2020	Proceedings of the 5th International Conference on Communication and Electronics Systems, ICCES 2020	10.1109/ICCES48766.2020.09137942
216	Chauhan, A., Singh, R., Jain, P.	A Literature Review: Intrusion Detection Systems in Internet of Things	2020	Journal of Physics: Conference Series	10.1088/1742-6596/1518/1/012040
217	Mataruna-Dos-Santos, L.J., Faccia, A., Helú, H.M., Khan, M.S.	Big Data Analyses and New Technology Applications in Sport Management, an Overview	2020	ACM International Conference Proceeding Series	10.1145/3437075.3437085
218	Agarwal, R., Verma, O.P.	A Comparative study of copy-move forgery detection methods	2020	Journal of Physics: Conference Series	10.1088/1742-6596/1478/1/012018
219	Chauhan, A., Sharma, K.	Intrusion detection systems: A Comparison of soft computing techniques	2020	Journal of Physics: Conference Series	10.1088/1742-6596/1478/1/012013
220	Choudhary, R., Rai, J.N., Arya, Y.	Automatic generation control for single area power system using GNA tuned PID controller	2020	Journal of Physics: Conference Series	10.1088/1742-6596/1478/1/012011
221	Kumar, M., Rawat, M., Shambharkar, P.G.	Localization of User in an Indoor Environment Using Machine Learning Classification Models	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121134
222	Parihar, A.S., Singh, K., Rohilla, H., Asnani, G., Kour, H.	A Comprehensive Analysis of Fusion-based Image Enhancement Techniques	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120999

S. No.	Authors	Title	Year	Source title	DOI
223	Kwatra, C., Gupta, K., Chhabra, K., Jain, P.	Design and Implementation of Microstrip Low Pass Filter at 2.4 GHz	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120895
224	Rahul, Kajla, H., Hooda, J., Saini, G.	Classification of Online Toxic Comments Using Machine Learning Algorithms	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120939
225	Gupta, A., Suneja, K.	Hardware Design of Approximate Matrix Multiplier based on FPGA in Verilog	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121004
226	Kumar, S., Ramdev, D., Aggarwal, H., Choudhary, H.	End-to-End Neural Network for Shadow Detection using Combined Color Spaces	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121088
227	Rai, J.N., Verma, N., Gaba, A., Meena, P.	Advanced Hybrid Grid with Anti-Theft Alert and Fault Detection	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121117
228	Manocha, S., Bansal, V., Kaushal, I., Bhat, A.	Efficient Power Theft Detection using Smart Meter Data in Advanced Metering Infrastructure	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120963
229	Agarwal, R., Khudaniya, D., Gupta, A., Grover, K.	Image Forgery Detection and Deep Learning Techniques: A Review	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121083
230	Aggarwal, S., Nand, D., Rayer, M., Jha, S.K.	Instant Access Memory Design based on an FPGA	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121095
231	Pandya, K., Varshney, D., Aggarwal, A., Parihar, A.S.	An Analytical Study of CNN-based Video Frame Interpolation Techniques	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120989
232	Gupta, R., Kumar, J., Agrawal, H., Kunal	A Statistical Approach for Sarcasm Detection Using Twitter Data	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120917
233	Yadav, R.K., Jain, R., Yadav, S., Bansal, S.	Dynamic Traffic Management System Using Neural Network based IoT System	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121066
234	Saini, N., Singhal, M., Tanwar, M., Meel, P.	Multimodal, Semi-supervised and Unsupervised web content credibility analysis Frameworks	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121005

S. No.	Authors	Title	Year	Source title	DOI
235	Shukla, K., Verma, M., Gupta, D.	Age-Structured Biogeography-based Optimization	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121034
236	Guha, R., Sharma, V., Yadav, Y., Bhat, A.	Survey Paper:Introduction to Generative Adversarial Networks in Speech Imitation	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9120898
237	Yadav, R.K., Singh, N., Piyush, P.	Genetic CoCoA++: Genetic Algorithm based Congestion Control in CoAP	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121093
238	Meena, K., Kumar, M., Jangra, M.	Controlling Mouse Motions Using Eye Tracking Using Computer Vision	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121137
239	Malik, K., Srivastava, K., Sharma, K.	Optimization of Neural Network Architecture using Lions Optimization Algorithm	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121072
240	Kumar, S., Kathpalia, D., Singh, D., Vats, M.	Convolutional Neural Network based Automated Attendance System by using Facial Recognition Domain	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121163
241	Dagar, A., Dixit, A., Kumar, A., Kaur, G.	Dispersion Compensation in a 64-Channel Dense Wavelength Division Multiplexing Network	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121140
242	Saini, Y., Bachchas, V., Kumar, Y., Kumar, S.	Abusive Text Examination Using Latent Dirichlet Allocation, Self Organizing Maps and K Means Clustering	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121090
243	Wadera, M., Mathur, M., Vishwakarma, D.K.	Sentiment Analysis of Tweets-A Comparison of Classifiers on Live Stream of Twitter	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121166
244	Prabhat, Nishant, Vishwakarma, D.K.	Comparative Analysis of Deep Convolutional Generative Adversarial Network and Conditional Generative Adversarial Network using Hand Written Digits	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121178
245	Bhola, G., Kathuria, A., Kumar, D., Das, C.	Real-time Pedestrian Tracking based on Deep Features	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265.2020.9121061

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
246	Rathore, N.P.S., Yadav, A., Chauhan, A.	Multi-Agent based Stable Clustering and Collision Detection in VANET	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265. 2020.9120900
247	Kumar, S., Varshney, D., Dhawan, G., Jalutharia, H.	Analysing the Effective Psychological State of Students using Facial Features	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265. 2020.9120909
248	Gupta, R., Hooda, P., Sanjeev, Chikkara, N.K.	Natural Language Processing based Visual Question Answering Efficient: An EfficientDet Approach	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265. 2020.9121068
249	Shambharkar, P.G., Gupta, A., Gupta, A., Anshuman, Doja, M.N.	Understanding and Analyzing Methods of Character Identification in Movies	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265. 2020.9121122
250	Shambharkar, P.G., Thakur, P., Imadoddin, S., Chauhan, S., Doja, M.N.	Genre Classification of Movie Trailers using 3D Convolutional Neural Networks	2020	Proceedings of the International Conference on Intelligent Computing and Control Systems, ICICCS 2020	10.1109/ICICCS48265. 2020.9121148
251	Lohia, D., Krishna, A., Pratap, D., Kumar, S.	Influence Maximisation in Social Networks Using Neighbourhood Degree Based Vote-Rank Approach	2020	2020 3rd International Conference on Communication Systems, Computing and IT Applications, CSCITA 2020 - Proceedings	10.1109/CSCITA47329. 2020.9137787
252	Singh, G., Garima, Kumar, P.	Fractional Order Capacitors Based Filters Using Three OTAs	2020	2020 6th International Conference on Control, Automation and Robotics, ICCAR 2020	10.1109/ICCAR49639. 2020.9108100
253	Srivastava, J., Bhagat, R., Kumar, P.	Analog Inverse Filters Using OTAs	2020	2020 6th International Conference on Control, Automation and Robotics, ICCAR 2020	10.1109/ICCAR49639. 2020.9108048
254	Singh, V., Kumar, P.	Fractional Order Oscillator Using OTAs	2020	2020 6th International Conference on Control, Automation and Robotics, ICCAR 2020	10.1109/ICCAR49639. 2020.9108095
255	Bhatia, K., Mittal, R., Nisha, Tripathi, M.M.	A Multi-Phase Ensemble Model for Long Term Hourly Load Forecasting	2020	2020 IEEE 7th International Conference on Industrial Engineering and Applications, ICIEA 2020	10.1109/ICIEA49774. 2020.9102076
256	Garg, V., Sharma, T., Kumar, A., Rastogi, V.	HandAid: A Seven DoF Semi-Autonomous Robotic Manipulator	2020	2020 5th International Conference on Control and Robotics Engineering, ICCRE 2020	10.1109/ICCRE49379. 2020.9096262

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
257	Soni, H., Tripathi, P.M., Tripathi, M.M., Kumar, A., Chaujar, R.	Thermal Reliability of GaN-BTG-MOSFET for High-Performance Applications in Integrated Circuits	2020	2020 IEEE 40th International Conference on Electronics and Nanotechnology, ELNANO 2020 - Proceedings	10.1109/ELNANO50318. 2020.9088791
258	Kalra, J., Batra, D., Diwan, N., Bagler, G.	Nutritional profile estimation in cooking recipes	2020	Proceedings - 2020 IEEE 36th International Conference on Data Engineering Workshops, ICDEW 2020	10.1109/ICDEW49219. 2020.000-3
259	Sharma, T., Upadhyay, U., Bagler, G.	Classification of cuisines from sequentially structured recipes	2020	Proceedings - 2020 IEEE 36th International Conference on Data Engineering Workshops, ICDEW 2020	10.1109/ICDEW49219. 2020.00008
260	Sharma, T., Upadhyay, U., Kalra, J., Arora, S., Ahmad, S., Aggarwal, B., Bagler, G.	Hierarchical clustering of world cuisines	2020	Proceedings - 2020 IEEE 36th International Conference on Data Engineering Workshops, ICDEW 2020	10.1109/ICDEW49219. 2020.00007
261	Nath, D., Anubhav, Singh, M., Sethia, D., Kalra, D., Indu, S.	A Comparative Study of Subject-Dependent and Subject-Independent Strategies for EEG-Based Emotion Recognition using LSTM Network	2020	ACM International Conference Proceeding Series	10.1145/3388142. 3388167
262	Daniel, G., Girishkumar, Ali-Ul-Hasan-Rizvi, Mathan Kumar, P.	Parametric study and optimization of regression model in WEDM using genetic algorithm	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/ 764/1/012047
263	Karna, D., Vikram, A., Kumar, A., Rizwan, M.	A Novel Fuzzy based Intelligent Demand Side Management for Automated Load Scheduling	2020	Proceedings of 2020 4th International Conference on Green Energy and Applications, ICGEA 2020	10.1109/ICGEA49367. 2020.239701
264	Sharma, S., Agrawal, R.K., Tripathi, M.M.	Synergism of Recurrent Neural Network and Fuzzy Logic for Short Term Energy Load Forecasting	2020	Proceedings of the 4th International Conference on Computing Methodologies and Communication, ICCMC 2020	10.1109/ICCMC48092. 2020.ICCMC-00033
265	Adarsh, P., Rathi, P., Kumar, M.	YOLO v3-Tiny: Object Detection and Recognition using one stage improved model	2020	2020 6th International Conference on Advanced Computing and Communication Systems, ICACCS 2020	10.1109/ICACCS48705. 2020.9074315
266	Rahul, Adhikar, S., Monika	NLP based Machine Learning Approaches for Text Summarization	2020	Proceedings of the 4th International Conference on Computing Methodologies and Communication, ICCMC 2020	10.1109/ICCMC48092. 2020.ICCMC-00099
267	Chandra, Y., Jana, A.	Sentiment analysis using machine learning and deep learning	2020	Proceedings of the 7th International Conference on Computing for Sustainable Global Development, INDIACom 2020	10.23919/INDIACom 49435.2020.9083703

S. No.	Authors	Title	Year	Source title	DOI
268	Sharma, S., Fulzele, P., Sreedevi, I.	Hybrid Model for Lung Nodule Segmentation based on Support Vector Machine and k-Nearest Neighbor	2020	Proceedings of the 4th International Conference on Computing Methodologies and Communication, ICCMC 2020	10.1109/ICCMC48092. 2020.ICCMC-00034
269	Kumar, A., Saini, S., Gupta, A., Gupta, N., Tripathi, M.M., Chaujar, R.	Sub-10 nm High-k Dielectric SOI-FinFET for HighPerformance Low Power Applications	2020	2020 6th International Conference on Signal Processing and Communication, ICSC 2020	10.1109/ICSC48311. 2020.9182748
270	Verma, Y., Rastogi, V.	Two Finger Gesture Imitating Animatronic Hand	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/ 748/1/012004
271	Saurabh, A., Atheaya, D., Kumar, A.	Study of hybrid photovoltaic thermal systems	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/ 748/1/012016
272	Singhal, M., Kumar, R., Walia, R.S., Pandey, S.K.	Development of a Sintered Porous Neck Filter for miniature Joule Thomson Cryo-cooler for cooling Infrared detectors	2020	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/ 748/1/012013
273	Kumar, A., Sharma, A., Nayyar, A.	Fuzzy Logic based Hybrid Model for Automatic Extractive Text Summarization	2020	ACM International Conference Proceeding Series	10.1145/3385209. 3385235
274	Singhal, A., Indu, S.	Enhancing Accuracy for Human Trajectory Forecasting in Crowded Scenes	2020	ACM International Conference Proceeding Series	10.1145/3383812. 3383822
275	Ayush, Prabha, H., Kumar, R.	Robust H Control Approach for Trajectory Tracking of Twin Rotor MIMO System	2020	Proceedings - 2020 International Conference on Emerging Trends in Communication, Control and Computing, ICONC3 2020	10.1109/ICONC345789. 2020.9117352
276	Raturi, A., Mittal, P.	Analysis of Electronic and Optical Properties of Pristine $LiNbO_3$ Using First-Principle Calculations	2020	International Conference on Electrical and Electronics Engineering, ICE3 2020	10.1109/ICE348803. 2020.9122943
277	Chamola, P., Mittal, P.	Analysis of Performance Diversity in OTFT Utilizing $La_{0.850}Nb_{0.150}O_4$ as Gate Dielectric	2020	International Conference on Electrical and Electronics Engineering, ICE3 2020	10.1109/ICE348803. 2020.9122941
278	Kumar, N., Mittal, P.	Performance Investigation of 2:1 Multiplexer using 90nm Technology Node for Low Power Application	2020	International Conference on Electrical and Electronics Engineering, ICE3 2020	10.1109/ICE348803. 2020.9122869
279	Arora, A., Singh, A.	Design and implementation of biquad filter for shunt compensation under normal and distorted grid conditions	2020	PIICON 2020 - 9th IEEE Power India International Conference	10.1109/PIICON49524. 2020.9112949
280	Saxena, H., Singh, A., Rai, J.N.	Design and testing of frequency adaptive zero- crossing detector as a synchronizing technique	2020	PIICON 2020 - 9th IEEE Power India International Conference	10.1109/PIICON49524. 2020.9113009

S. No.	Authors	Title	Year	Source title	DOI
281	Rahul, Rauniyar, S., Monika	A Survey on Deep Learning based Various Methods Analysis of Text Summarization	2020	Proceedings of the 5th International Conference on Inventive Computation Technologies, ICICT 2020	10.1109/ICICT48043. 2020.9112474
282	Upadhyay, G.K., Aggarwal, D., Bansal, A., Bhola, G.	Augmented Reality and Machine Learning based Product Identification in Retail using Vuforia and MobileNets	2020	Proceedings of the 5th International Conference on Inventive Computation Technologies, ICICT 2020	10.1109/ICICT48043. 2020.9112490
283	Gupta, A., Rana, K., Joshi, D.	Design and Analysis of Multioutput Flyback Convertor under Continuous and Discontinuous Conduction mode using PI Controller	2020	2020 IEEE International Students' Conference on Electrical, Electronics and Computer Science, SCEECS 2020	10.1109/SCEECS48394. 2020.201
284	Katarya, R., Raturi, A., Mehndiratta, A., Thapper, A.	Impact of Machine Learning Techniques in Precision Agriculture	2020	Proceedings of 3rd International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things, ICETCE 2020	10.1109/ICETCE48199. 2020.9091741
285	Singh, K., Parihar, A.S.	A comparative analysis of illumination estimation based Image Enhancement techniques	2020	International Conference on Emerging Trends in Information Technology and Engineering, ic-ETITE 2020	10.1109/ic-ETITE47903. 2020.195
286	Susan, S., Malhotra, J.	Learning Interpretable Hidden State Structures for Handwritten Numeral Recognition	2020	4th International Conference on Computational Intelligence and Networks, CINE 2020	10.1109/CINE48825. 2020.234394
287	Kaur, M., Mandal, A.	$PM_{2.5}$ Concentration Forecasting using Neural Networks for Hotspots of Delhi	2020	2020 International Conference on Contemporary Computing and Applications, IC3A 2020	10.1109/IC3A48958. 2020.233265
288	Prabha, H., Kumar, R.	Real Time Experimental control and Design of $FOPI^{\lambda}$ and L-PID Controllers tuned by Invasiveweed optimization for Trajectory Control of TRAS	2020	2020 International Conference on Power Electronics and IoT Applications in Renewable Energy and its Control, PARC 2020	10.1109/PARC49193. 2020.236577
289	Anubhav, Nath, D., Singh, M., Sethia, D., Kalra, D., Indu, S.	An Efficient Approach to EEG-Based Emotion Recognition using LSTM Network	2020	Proceedings - 2020 16th IEEE International Colloquium on Signal Processing and its Applications, CSPA 2020	10.1109/CSPA48992. 2020.9068691
290	Garg, P., Suneja, K.	Hardware design of high speed 1-D DCT module using approximate floating point adder	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934. 2020.9071259
291	Jain, M., Kumar, R.S., Nair, L., Pandey, R.	VDTA based fractional order floating inductor and its applications	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934. 2020.9070836

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
292	Rani, P., Pandey, R.	Voltagel	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071041
293	Agarwal, A., Trivedi, A.K., Parashar, C., Pandey, N.	4-bit arithmetic logic unit that uses adjustable threshold pseudo-dynamic logic	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071089
294	Jayanthi, N., Harsha, H., Jain, N., Dhingra, I.S.	Language detection of text document image	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071167
295	Anand, S., Indu, S.	A low power and high speed 8-bit ALU design using 17T full adder	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9070844
296	Pahwa, K., Sharma, M., Saggu, M.S., Mandpura, A.K.	Performance evaluation of machine learning techniques for fault detection and classification in PV array systems	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071223
297	Kumar, A.S., Wadhwa, A., Pandey, N.	New adiabatic error tolerant adder i architectures	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9070877
298	Bhanoo, V., Gangal, A., Pandey, N.	New realization of OFCC universal TAM filter: A differentiator based approach	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9070870
299	Yadav, M., Koul, R., Suneja, K.	FPGA based hardware design of PCA for face recognition	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071096
300	Meel, P., Singhal, M., Tanwar, M., Saini, N.	Predicting flight delays with error calculation using machine learned classifiers	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071159
301	Khan, S., Niharika, Yadav, P., Verma, R., Sreedevi, I.	FPGA simulation of fingertip digit recognition using CNN	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9070864
302	Gupta, M., Bhargava, L., Indu, S.	Artificial Neural Network based Task Scheduling for Heterogeneous Systems	2020	Proceedings of 3rd International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things, ICETCE 2020	10.1109/ICETCE48199.2020.9091745

S. No.	Authors	Title	Year	Source title	DOI
303	Saxena, G., Sharma, M.K., Gupta, V., Prajapati, V., Kumar, S., Jain, P.	Super wide band mickey shaped mimo antenna for wireless communication	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9070819
304	Juneja, P., Garg, R., Kumar, P.	Fuzzy petri net model of phasor measurement unit	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9070847
305	Saxena, G., Yadava, R.L., Jain, P., Awasthi, Y.K.	Tripple band polarization insensitive ultra thin metamaterial absorber for EMC and RCS reduction in X-band applications	2020	2020 7th International Conference on Signal Processing and Integrated Networks, SPIN 2020	10.1109/SPIN48934.2020.9071128
306	Kumar, A., Jaiswal, A.	Systematic literature review of sentiment analysis on Twitter using soft computing techniques	2020	Concurrency Computation	10.1002/cpe.5107
307	Chaturvedi, K., Vishwakarma, D.K.	Face Recognition in an Unconstrained Environment using ConvNet	2020	ACM International Conference Proceeding Series	10.1145/3378904.3378905
308	Susan, S., Malhotra, J.	CNN Pre-initialization by Minimalistic Part-Learning for Handwritten Numeral Recognition	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-66187-8_30
309	Gupta, R., Yadav, N., Sharma, N., Garg, R.	Analyzing Fuzzy Phrases for Emotion Detection Using Distance Based Approach	2020	Communications in Computer and Information Science	10.1007/978-981-15-9671-1_14
310	Saini, R., Jain, M., Manish, Suneja, K.	FPGA Based Design of Speech Encryption and Decryption for Secure Communication	2020	Communications in Computer and Information Science	10.1007/978-981-15-9671-1_3
311	Tripathi, M., Singh, D., Susan, S.	Speaker Recognition Using SincNet and X-Vector Fusion	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-61401-0_24
312	Choudhary, H., Rao, S., Rohilla, R.	Neural machine translation for low-resourced Indian languages	2020	LREC 2020 - 12th International Conference on Language Resources and Evaluation, Conference Proceedings	
313	Basu, M., Kumar, S., Gupta, P., Singh, R.K.	A quantitative analysis of machine learning based regressors for pressure reconstruction in particle image velocimetry applications	2020	American Society of Mechanical Engineers, Fluids Engineering Division (Publication) FEDSM	10.1115/FEDSM2020-20262
314	Chauhan, P., Kumar, A., Kalra, Y.	Supercontinuum generation in a hollow-core methanol-silica based photonic crystal fiber: Computational model and analysis	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2568970

S. No.	Authors	Title	Year	Source title	DOI
315	Sharma, Y., Prashar, V.	Hybrid plasmonic substrates fabricated by a nanoline-gap-modulated assembly of nanoparticles	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2571260
316	Ranga, R., Dewan, A., Kalra, Y., Kishor, K.	Design of nanoantenna for magnetic field enhancement	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2569082
317	Sharma, Y., Jain, S., Vishen, R., Dhawan, A.	Design and modeling of novel plasmonic switches based on phase change materials	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2571259
318	Bansal, M., Malik, S., Kumar, M., Meena, N.	Arduino based Smart Walking Cane for Visually Impaired People	2020	Proceedings of the 4th International Conference on Inventive Systems and Control, ICISC 2020	10.1109/ICISC47916.2020.9171209
319	Bansal, M., Jyoti	Cascode Inductive Source Degenerated CMOS LNA with Parallel RLC Output Matching Network for IEEE 802.11 Standard in 45 nm Technology	2020	Proceedings of the 4th International Conference on Inventive Systems and Control, ICISC 2020	10.1109/ICISC47916.2020.9171114
320	Bansal, M., Prince, Yadav, R., Ujjwal, P.K.	Palmistry using Machine Learning and OpenCV	2020	Proceedings of the 4th International Conference on Inventive Systems and Control, ICISC 2020	10.1109/ICISC47916.2020.9171158
321	Bansal, M., Adarsh, N., Kumar, N., Meena, M.	24×7 Smart IoT based Integrated Home Security System	2020	Proceedings of the 4th International Conference on Inventive Systems and Control, ICISC 2020	10.1109/ICISC47916.2020.9171051
322	Bansal, M., Sagar, I.	Low Noise Amplifier for ECG Signals	2020	Proceedings of the 4th International Conference on Inventive Systems and Control, ICISC 2020	10.1109/ICISC47916.2020.9171200
323	Bansal, M., Priya	Application Layer Protocols for Internet of Healthcare Things (IoHT)	2020	Proceedings of the 4th International Conference on Inventive Systems and Control, ICISC 2020	10.1109/ICISC47916.2020.9171092
324	Singh, R., Das, P.P.	An Approach to Develop Accessible and Affordable Products	2020	Procedia CIRP	10.1016/j.procir.2020.02.204
325	Sharma, S., Panwar, A.K., Tripathi, M.M.	Enhanced electrical and mechanical characteristics monitored by various software for lithium-ion battery tests	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-5089-8_28
326	Mishra, R.K., Mishra, A.R., Pandey, A.	Commuters' Exposure to Fine Particulate Matter in Delhi City	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-3742-4_23

S. No.	Authors	Title	Year	Source title	DOI
327	Pandey, S., Bansal, R., Chauhan, P., Kumar, A.	Numerical modeling & analysis of AsSe<inf>2</inf>-As<inf>2</inf>S<inf>5</inf> chalcogenide based step-index optical fiber for nonlinear applications	2020	Materials Today: Proceedings	10.1016/j.matpr.2020.01.148
328	Sharma, A., Shekhar, H.	Intelligent Learning based Opinion Mining Model for Governmental Decision Making	2020	Procedia Computer Science	10.1016/j.procs.2020.06.026
329	Roy, A., Jas, D.S., Jaggi, G., Sharma, K.	Android Malware Detection based on Vulnerable Feature Aggregation	2020	Procedia Computer Science	10.1016/j.procs.2020.06.040
330	Patidar, S., Pandey, A., Shirish, B.A., Sriram, A.	Rice Plant Disease Detection and Classification Using Deep Residual Learning	2020	Communications in Computer and Information Science	10.1007/978-981-15-6315-7_23
331	Kumar, A., Sachdeva, N.	Multi-input integrative learning using deep neural networks and transfer learning for cyberbullying detection in real-time code-mix data	2020	Multimedia Systems	10.1007/s00530-020-00672-7
332	Agarwal, T., Saroha, N., Kumar, G.	Consumer Behaviour Analysis for Purchasing a Passenger Car in Indian Context	2020	Springer Proceedings in Mathematics and Statistics	10.1007/978-981-15-1157-8_15
333	Valluru, S.K., Singh, M.	Optimization Strategy of Bio-Inspired Metaheuristic Algorithms Tuned PID Controller for PMBDC Actuated Robotic Manipulator	2020	Procedia Computer Science	10.1016/j.procs.2020.04.219
334	Agrawal, A., Gupta, A., Bhowmick, J., Singh, A., Nallanthighal, R.	A Novel Controller of Multi-Agent System Navigation and Obstacle Avoidance	2020	Procedia Computer Science	10.1016/j.procs.2020.04.131
335	Valluru, S.K., Kaur, M., Kartikeya, K., Goel, A., Dobhal, D.	Experimental Investigation of Fully Informed Particle Swarm Optimization tuned Multi Loop L-PID and NL-PID Controllers for Gantry Crane System	2020	Procedia Computer Science	10.1016/j.procs.2020.04.014
336	Bhat, N., Aggarwal, N., Kumar, S.	Identification of Influential Spreaders in Social Networks using Improved Hybrid Rank Method	2020	Procedia Computer Science	10.1016/j.procs.2020.04.072
337	Misra, A., Sharma, A., Singh, G., Kumar, A., Rastogi, V.	Design and Development of a Low-Cost CNC Alternative SCARA Robotic Arm	2020	Procedia Computer Science	10.1016/j.procs.2020.04.266
338	Kumar, S., Saini, M., Goel, M., Aggarwal, N.	Modeling Information Diffusion in Online Social Networks Using SEI Epidemic Model	2020	Procedia Computer Science	10.1016/j.procs.2020.04.073

S. No.	Authors	Title	Year	Source title	DOI
339	Misra, A., Yadav, M., Sharma, A., Singh, G.	Methane–Diesel Dual Fuel Engine: A Comprehensive Review	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-15-2647-3_30
340	Kumar, A., Garg, G.	The Multifaceted Concept of Context in Sentiment Analysis	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-15-1451-7_44
341	Kumar, A., Sharma, A.	Public Opinion Mining Based Intelligent Governance for Next-Generation Technologies	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-15-1451-7_43
342	Sharma, S., Dhama, V.	Abnormal Human Behavior Detection in Video Using Suspicious Object Detection	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-1420-3_39
343	Mittal, A., Shrivastava, A.K.	Numerical Optimization of Settlement in Geogrid Reinforced Landfill Clay Cover Barriers	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-15-3215-3_8
344	Vashishtha, S., Susan, S.	Inferring Sentiments from Supervised Classification of Text and Speech cues using Fuzzy Rules	2020	Procedia Computer Science	10.1016/j.procs.2020.03.348
345	Asthana, P., Verma, V.	PV Fed Current Controlled Low Stress High Gain Converter for Battery Charging Applications	2020	2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy, PESGRE 2020	10.1109/PESGRE45664.2020.9070757
346	Arora, V., Verma, V.	Capacitor Trapped Switching Coupled Inductor based High Step-Up Gain Converter addressing Partial Shading Conditions in Rooftop PV Systems	2020	2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy, PESGRE 2020	10.1109/PESGRE45664.2020.9070374
347	Chauhan, P., Kumar, A., Kalra, Y.	Ultra-coherent supercontinuum generation in isopropanol-silica based photonic crystal fiber at 1300nm and 1600nm wavelengths	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2544242
348	Gupta, S., Das, L.N.	Optimal investment decision model based on simplex algorithm with variable optimal value evaluation process	2020	Springer Proceedings in Mathematics and Statistics	10.1007/978-981-15-3615-1_31
349	Leekha, M., Goswami, M., Jain, M.	A multi-task approach to open domain suggestion mining using language model for text over-sampling	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-45442-5_28
350	Malhotra, R., Lata, K.	Using hybridized techniques for prediction of software maintainability using imbalanced data	2020	Proceedings of the Confluence 2020 - 10th International Conference on Cloud Computing, Data Science and Engineering	10.1109/Confluence47617.2020.9058197

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
351	Malhotra, R., Jain, J.	Handling imbalanced data using ensemble learning in software defect prediction	2020	Proceedings of the Confluence 2020 - 10th International Conference on Cloud Computing, Data Science and Engineering	10.1109/Confluence47617.2020.9058124
352	Maheshwari, A., Yadav, R.K.	Analysis of congestion control mechanism for IOT	2020	Proceedings of the Confluence 2020 - 10th International Conference on Cloud Computing, Data Science and Engineering	10.1109/Confluence47617.2020.9058058
353	Chakraborty, R., Kedia, S., Hasija, Y.	Integrated transcriptional meta-analysis of pigmentation disorders	2020	Biotechnology and Biological Sciences-Proceedings of the 3rd International Conference of Biotechnology and Biological Sciences, BIOSPECTRUM 2019	10.1201/9781003001614-26
354	Jain, V., Malhotra, R., Jain, S., Tanwar, N.	Cross-domain ambiguity detection using linear transformation of word embedding spaces	2020	CEUR Workshop Proceedings	
355	Gupta, D., Sethia, D., Gupta, A., Sharma, T.	A multiclass classification of epileptic activity in patients using wavelet decomposition	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-15-1366-4_33
356	Bansal, M., Jyoti	Low-Noise Amplifier for Wireless Local Area Network Applications	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-2612-1_64
357	Dagur, R., Singh, D., Bhateja, S., Rastogi, V.	Mechanical and material designing of lightweight high endurance multirotor system	2020	Materials Today: Proceedings	10.1016/j.matpr.2019.11.251
358	Chandra Srivastava, S., Murtaza, Q., Kumar, P.	Microwave cladding on metallic surfaces: A review	2020	Materials Today: Proceedings	10.1016/j.matpr.2019.11.078
359	Kumar, A., Gupta, A., Jain, A., Farma, V.	Comparative Study on Swarm Based Algorithms for Feature Reduction in Twitter Sentiment Analysis on Figurative Language	2020	Advances in Intelligent Systems and Computing	10.1007/978-3-030-39442-4_1
360	Lochab, R., Kumar, V.	Numerical Simulation of Hyperbolic Conservation Laws Using High Resolution Schemes with the Indulgence of Fuzzy Logic	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-40616-5_11
361	Pratap, R., Deo, N.	Q-Analogue of Generalized Bernstein–Kantorovich Operators	2020	Springer Proceedings in Mathematics and Statistics	10.1007/978-981-15-1153-0_6
362	Mundalia, M., Shanmugam, S.K.	Coefficient Bounds for a Unified Class of Holomorphic Functions	2020	Springer Proceedings in Mathematics and Statistics	10.1007/978-981-15-1153-0_17
363	Sharma, A., Singh, R.C., Singari, R.M.	Optimization of Cutting Parameters of Machinability Aspects During Dry Turning	2020	Lecture Notes in Mechanical Engineering	10.1007/978-981-15-1071-7_8
364	Deepankan, B.N., Agarwal, R.	A two-phase image classification approach with very less data	2020	Advances in Intelligent Systems and Computing	10.1007/978-3-030-37218-7_44

S. No.	Authors	Title	Year	Source title	DOI
365	Singh, S., Pandey, N., Pandey, R.	CFOA Based Negative Floating Capacitance Multiplier	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-1289-6_22
366	Jain, S., Pandey, N.	Single Clock Diode Based Adiabatic Logic Family at Sub-90nm Regime	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-1289-6_23
367	Srivastava, T., Tripathi, M.M.	Predictive analysis of narx, nlio, and rnn networks for short-term wind power forecasting	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-0372-6_4
368	Bansal, M., Srivastava, G.	Design and Implementation of LNA for Biomedical Applications	2020	Advances in Intelligent Systems and Computing	10.1007/978-3-030-30465-2_18
369	Kumar, A., Garg, G.	Sarcasm Detection Using Feature-Variant Learning Models	2020	Lecture Notes in Electrical Engineering	10.1007/978-3-030-30577-2_61
370	Kumar, A., Jaiswal, A.	Particle Swarm Optimized Ensemble Learning for Enhanced Predictive Sentiment Accuracy of Tweets	2020	Lecture Notes in Electrical Engineering	10.1007/978-3-030-30577-2_56
371	Valluru, S.K., Singh, M., Dobhal, D., Kartikeya, K., Kaur, M., Goel, A.	Experimental validation of fully informed particle swarm optimization tuned multi-loop L-PID controllers for stabilization of gantry crane system	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-13-8618-3_61
372	Valluru, S.K., Singh, M., Ayush, Dharavath, A.	Design and experimental implementation of multi-loop LQR, PID, and LQG controllers for the trajectory tracking control of twin rotor MIMO system	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-13-8618-3_62
373	Susan, S., Kumar, A.	Hybrid of Intelligent Minority Oversampling and PSO-Based Intelligent Majority Undersampling for Learning from Imbalanced Datasets	2020	Advances in Intelligent Systems and Computing	10.1007/978-3-030-16660-1_74
374	Susan, S., Bhutani, A.	Data Mining with Association Rules for Scheduling Open Elective Courses Using Optimization Algorithms	2020	Advances in Intelligent Systems and Computing	10.1007/978-3-030-16660-1_75
375	Sharma, P., Jindal, R., Borah, M.D.	A Preventive Intrusion Detection Architecture Using Adaptive Blockchain Method	2020	Communications in Computer and Information Science	10.1007/978-3-030-62625-9_3
376	Singh, M., Trivedi, A., Shukla, S.K.	Unpaved test sections reinforced with geotextile and geogrid	2020	Materials Today: Proceedings	10.1016/j.matpr.2020.03.260
377	Sharma, Y., Gupta, S., Das, A., Dhawan, A.	Polarization-independent SERS substrates for trace detection of chemical and biological molecules	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2556050
378	Singh, A.K., Wadhwa, G., Ahuja, M., Soni, K., Sharma, K.	Android Malware Detection using LSI-based Reduced Opcode Feature Vector	2020	Procedia Computer Science	10.1016/j.procs.2020.06.034

S. No.	Authors	Title	Year	Source title	DOI
379	Kumar, A., Raheja, S.	Edge Detection using Guided Image Filtering and Enhanced Ant Colony Optimization	2020	Procedia Computer Science	10.1016/j.procs.2020.06.003
380	Dahiya, S., Tyagi, R., Gaba, N.	Streamlining Choice of CNNs and Structure Framing of Convolution Layer	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-15-4032-5_64
381	Kumar, S., Aggarwal, N., Panda, B.S.	Identifying influential spreaders on a weighted network using hookerank method	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-50371-0_45
382	Dhull, S., Murtaza, Q., Walia, R.S., Niranjan, M.S., Vats, S.	Abrasive Flow Machining Process Hybridization with Other Non-Traditional Machining Processes: A Review	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-15-2647-3_10
383	Vidya, S., Srikanth, K.S., Tarique, A.H., Mathiyalagan, P.	Tolerance Estimation of Different Cavity Geometries Produced by CO_2 Laser	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-15-2647-3_27
384	Gupta, K., Singh, R.K., Tendolkar, M.V.	Modified Twisted Tape Inserts: Significance of Geometric Non-dimensional Parameters	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-15-2647-3_2
385	Yadav, K., Kumar, N., Chaudhary, R.	Comprehensive Study of Additives and Corrosion in Biodiesel	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-15-2647-3_1
386	Verma, P., Walia, G.S., Sharma, K.	Highly scalable block cipher encryption in mapreduce-based distribution system	2020	Lecture Notes in Networks and Systems	10.1007/978-981-15-3020-3_3
387	Dalal, S., Vishwakarma, V.P.	GA based KELM Optimization for ECG Classification	2020	Procedia Computer Science	10.1016/j.procs.2020.03.322
388	Dalal, S., Vishwakarma, V.P., Kumar, S.	Feature-based Sketch-Photo Matching for Face Recognition	2020	Procedia Computer Science	10.1016/j.procs.2020.03.318
389	Jain, S., Seeja, K.R., Jindal, R.	A New Methodology for Computing Semantic Relatedness: Modified Latent Semantic Analysis by Fuzzy Formal Concept Analysis	2020	Procedia Computer Science	10.1016/j.procs.2020.03.412
390	Jindal, R., Kumar, N., Nirwan, H.	MTFCT: A task offloading approach for fog computing and cloud computing	2020	Proceedings of the Confluence 2020 - 10th International Conference on Cloud Computing, Data Science and Engineering	10.1109/Confluence47617.2020.9058209
391	Sanserwal, M., Kumar Singh, A., Singh, P.	Impact of materials and economic analysis of single slope single basin passive solar still: A review	2020	Materials Today: Proceedings	10.1016/j.matpr.2019.11.289
392	Kumar, A., Singh, R.C., Chaudhary, R.	Recent progress in production of metal matrix composites by stir casting process: An overview	2020	Materials Today: Proceedings	10.1016/j.matpr.2019.10.079

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
393	Habib, S., Shukla, M.K., Kapoor, R.	Preprocessing for Identification of Degraded Urdu and Devanagari Printed Script	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-15-2449-3_44
394	Gupta, N., Walia, R.S., Agrawal, A.K.	Robust Taguchi Based Optimization of Surface Finish During Hard Turning EN 31 with Carbon Nanotubes-Based Nano-Coated Tip	2020	Lecture Notes in Mechanical Engineering	10.1007/978-981-15-1071-7_24
395	Chaudhary, S., Singh, R.C., Chaudhary, R., Sonia	Evaluation of High Temperature Tribological Behaviour of Nickel Coating Using LRT	2020	Lecture Notes in Mechanical Engineering	10.1007/978-981-15-1071-7_11
396	Yadav, H.K., Pal, Y., Tripathi, M.M.	Parameter optimization using PSO for neural network-based short-term PV power forecasting in Indian electricity market	2020	Lecture Notes in Electrical Engineering	10.1007/978-3-030-29407-6_25
397	Kumar, A., Nayyar, A., Upasani, S., Arora, A.	Empirical Study of Soft Clustering Technique for Determining Click Through Rate in Online Advertising	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-32-9949-8_1
398	Gupta, S., Gandhi, T.	Identification of Neural Correlates of Face Recognition Using Machine Learning Approach	2020	Advances in Intelligent Systems and Computing	10.1007/978-981-13-8798-2_2
399	Thapa, S., Adhikari, S., Naseem, U., Singh, P., Bharathy, G., Prasad, M.	Detecting Alzheimer's Disease by Exploiting Linguistic Information from Nepali Transcript	2020	Communications in Computer and Information Science	10.1007/978-3-030-63820-7_20
400	Kathuria, R., Wadehra, A., Kathuria, V.	Human-Centered Artificial Intelligence: Antecedents of Trust for the Usage of Voice Biometrics for Driving Contactless Interactions	2020	Communications in Computer and Information Science	10.1007/978-3-030-60700-5_42
401	Gupta, N., Kumar, A., Chaujar, R.	Static and cv analysis of gate engineered gaa silicon nanowire mosfet for high-performance applications	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-5089-8_6
402	Pandey, R., Madan, J., Sharma, R., Dassi, M., Chaujar, R.	Built-in reliability investigation of gate-drain underlapped pnin-gaa-tfet for improved linearity and reduced intermodulation distortion	2020	Lecture Notes in Electrical Engineering	10.1007/978-981-15-5089-8_19
403	Kumar, A., Walia, G.S., Sharma, K.	Real-time multi-cue object tracking: Benchmark	2020	Lecture Notes in Networks and Systems	10.1007/978-981-15-3020-3_29
404	Rajani, Kumar, D., Kumar, V.	Impact of Controlling Parameters on the Performance of MOPSO Algorithm	2020	Procedia Computer Science	10.1016/j.procs.2020.03.261
405	Agarwal, M., Leekha, M., Sawhney, R., Ratn Shah, R., Kumar Yadav, R., Kumar Vishwakarma, D.	MEMIS: Multimodal Emergency Management Information System	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-45439-5_32

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
406	Singhal, S., Chawla, U., Shorey, R.	Machine Learning Concept Drift based Approach for Malicious Website Detection	2020	2020 International Conference on COMmunication Systems and NETworkS, COMSNETS 2020	10.1109/COMSNETS 48256.2020.9027485
407	Malhotra, T., Gupta, A., Singh, A.	Methodology for Interval-Valued Matrix Games with 2-Tuple Fuzzy Linguistic Information	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-40616-5_12
408	Sinha, M.K., Ahmad, J., Kumar, H., Singari, R.M.	Drilling Process Improvements in EN31 Steel Under Different Environments	2020	Lecture Notes in Mechanical Engineering	10.1007/978-981-15-1071-7_21
409	Moona, G., Rastogi, V., Walia, R.S., Sharma, R.	Microstructure and Wear Study of Al 7075-T6/Eggshell/SiC/Al$_2$O$_3$ Hybrid Composites	2020	Lecture Notes in Mechanical Engineering	10.1007/978-981-15-1071-7_39
410	Kumar, V., Pal, Y., Tripathi, M.M.	PSO-tuned ANN-based prediction technique for penetration of wind power in grid	2020	Lecture Notes in Electrical Engineering	10.1007/978-3-030-29407-6_35
411	Parasher, Y., Kaur, G., Tomar, P., Kaushik, A.	Development of Artificial Neural Network to Predict the Concrete Strength	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-13-8406-6_36
412	Kaur, G., Tomar, P., Agrawal, A., Singh, P.	Attacks and Their Solution at Data Link Layer in Cognitive Radio Networks	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-13-8406-6_34
413	Tiwari, P.K., Pandey, M., Sharma, M.	Efficient Channel Access Scheme with Low Congestion Lane Selection in Vehicular Ad Hoc Network	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-13-8406-6_54
414	Yadav, V., Tomar, P., Singh, P., Kaur, G.	Improvement in XML Keyword Search and Ranking for Data Analytics	2020	Smart Innovation, Systems and Technologies	10.1007/978-981-13-8406-6_33
415	Tiwari, S., Rathore, S.S., Nautiyal, L., Singh, R.	A report on the first workshop on Natural Language Processing Advancements for Software Engineering (NLPaSE) co-located with APSEC 2020	2020	CEUR Workshop Proceedings	
416	Agarwal, A., Chivukula, A.S., Bhuyan, M.H., Jan, T., Narayan, B., Prasad, M.	Identification and Classification of Cyberbullying Posts: A Recurrent Neural Network Approach Using Under-Sampling and Class Weighting	2020	Communications in Computer and Information Science	10.1007/978-3-030-63823-8_14
417	Kaushik, A., Sharma, M., Gupta, A., Choudhary, M.	Iterative analytic approximation to one-dimensional nonlinear reaction–diffusion equations	2020	Mathematical Methods in the Applied Sciences	10.1002/mma.6840
418	Budhwar, N., Daniel, S., Kumar, V.	An SIRS Age-Structured Model for Vector-Borne Diseases with Infective Immigrants	2020	Springer Proceedings in Mathematics and Statistics	10.1007/978-981-15-1157-8_18

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
419	Mathur, P., Sawhney, R., Chopra, S., Leekha, M., Ratn Shah, R.	Utilizing temporal psycholinguistic cues for suicidal intent estimation	2020	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-45442-5_33
420	Modi, K.S., Kaur, J., Singh, S.P., Tiwari, U., Sinha, R.K.	Fano-resonance based tunable all-dielectric metasurfaces	2020	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2544250
421	Moona, G., Walia, R.S., Rastogi, V., Sharma, R.	Parametric optimization of fatigue behaviour of hybrid aluminium metal matrix composites	2020	Materials Today: Proceedings	10.1016/j.matpr.2019.10.002
422	Jain, A., Nandi, B.P., Gupta, C., KumarTayal, D.	A hybrid framework based on PSO and neutrosophic set for document level sentiment analysis	2020	Studies in Computational Intelligence	10.1007/978-3-030-34152-7_28
423	Singh, A.K., Singh, D.B., Dwivedi, V.K., Tiwari, G.N., Gupta, A.	Water purification using solar still with/without nano-fluid: A review	2020	Materials Today: Proceedings	10.1016/j.matpr.2019.12.025
424	Bansal, M., Gandhi, B.	CNT based electrodes (wearable & textile-based) for cardiac monitoring in long term & continuous fashion	2019	AIP Conference Proceedings	10.1063/1.5141447
425	Bansal, A.D., Ramachandran, N., Rastogi, V.	Studies on the effects of braking loads on a Railway Wheel	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/691/1/012019
426	Gambhir, D., Faizan Sherwani, A., Arora, A.	Thermodynamic Analysis of Cogeneration Cycle by Utilizing Waste Heat of Blow Down Water	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/691/1/012092
427	Dixit, A., Srivastava, A., Anmol, Gupta, A., Garg, N., Chaudhary, R.	EMISSION & PERFORMANCE ANALYSIS of PRODUCER GAS AS in IC ENGINE FUEL: A TECHNICAL REVIEW	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/691/1/012070
428	Dubey, A., Ahmad Ansari, N., Kumar, G., Arora, A., Sharma, A.	A Review on Performance and Emission of CI Engine using Exhaust gas recirculation (EGR)	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/691/1/012028
429	Sidharth, Kumar, N.	Comparison of properties of ternary fuel blends of diesel-octanol with biodiesel	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/691/1/012050
430	Taneja, H.C., Batra, L., Gaur, P.	Entropy as a measure of implied volatility in options market	2019	AIP Conference Proceedings	10.1063/1.5136222
431	Valluru, S.K., Kumar, R., Kumar, R.	Design of Precise FLC for Trajectory Tracking and Stabilization of Twin Rotor MIMO System	2019	ICETAS 2019 - 2019 6th IEEE International Conference on Engineering, Technologies and Applied Sciences	10.1109/ICETAS48360.2019.9117570

16. ANNEXURE

367

S. No.	Authors	Title	Year	Source title	DOI
432	Viswanadha, K., Raghava, N.S.	Design of a dual polarized ultra wideband dual feed dumb-bell patch antenna with splattered ring EBG for ultra high speed communications	2019	2019 IEEE Indian Conference on Antennas and Propagation, InCAP 2019	10.1109/InCAP 47789.2019.9134652
433	Verma, A., Raghava, S.N.	Circularly polarized slots in T-shape based substrate integrated waveguide PIFA Antenna for 5G applications	2019	2019 IEEE Indian Conference on Antennas and Propagation, InCAP 2019	10.1109/InCAP 47789.2019.9134527
434	Singh, M.	Extended Kalman Filter based Speed Estimation for the Control of PMSG	2019	2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference, COBEP/SPEC 2019	10.1109/COBEP/SPEC 44138.2019.9065641
435	Saxena, H., Singh, A., Rai, J.N.	Application of Time Delay Recurrent Neural Network for Shunt Active Power Filter in 3-Phase Grid-tied PV System	2019	2019 National Power Electronics Conference, NPEC 2019	10.1109/NPEC 47332.2019.9034769
436	Monika, Bhat, A.	An analysis of Crime data under Apache Pig on Big Data	2019	Proceedings of the 3rd International Conference on I-SMAC IoT in Social, Mobile, Analytics and Cloud, I-SMAC 2019	10.1109/I-SMAC 47947.2019.9032565
437	Rahul, Katarya, R.	A Review: Predicting the Performance of Students Using Machine learning Classification Techniques	2019	Proceedings of the 3rd International Conference on I-SMAC IoT in Social, Mobile, Analytics and Cloud, I-SMAC 2019	10.1109/I-SMAC 47947.2019.9032493
438	Bansal, M., Gandhi, B.	ECG Electrodes for Smart ECG Monitoring for biomedical applications	2019	Proceedings of the 3rd International Conference on I-SMAC IoT in Social, Mobile, Analytics and Cloud, I-SMAC 2019	10.1109/I-SMAC 47947.2019.9032663
439	Susan, S., Shinde, S., Batra, S.	Vegetation-specific hyperspectral band selection for binary-to-multiclass classification	2019	2019 IEEE 16th India Council International Conference, INDICON 2019 - Symposium Proceedings	10.1109/INDICON 47234.2019.9030286
440	Garg, S., Goyal, S., Nawale, P., Kaur, R., Pandey, N.	Leakage tolerant wide or domino gate with modified keeper controlling network	2019	2019 IEEE 16th India Council International Conference, INDICON 2019 - Symposium Proceedings	10.1109/INDICON 47234.2019.9030342
441	Sharma, P., Jindal, R., Borah, M.D.	Blockchain-based Integrity Protection System for Cloud Storage	2019	TIMES-iCON 2019 - 2019 4th Technology Innovation Management and Engineering Science International Conference	10.1109/TIMES-iCON 47539.2019.9024583

S. No.	Authors	Title	Year	Source title	DOI
442	Singh, S., Agarwal, T., Kumar, G., Yadav, O.M.	Predicting the Remaining Useful Life of Ball Bearing under Dynamic Loading Using Supervised Learning	2019	IEEE International Conference on Industrial Engineering and Engineering Management	10.1109/IEEM 44572.2019.8978649
443	Pandey, S., Singh, A., Bohara, V.A., Srivastava, A.	Visible Light Communication Modulation Toolkit using Reconfigurable GNU Radio Framework	2019	International Symposium on Advanced Networks and Telecommunication Systems, ANTS	10.1109/ANTS 47819.2019.9118103
444	Srivastava, A., Gupta, M.S., Kaur, G.	A Game Theory based Approach for Opportunistic Channel Access in Green Cognitive Radio Networks	2019	International Symposium on Advanced Networks and Telecommunication Systems, ANTS	10.1109/ANTS 47819.2019.9118105
445	Habib, S., Shukla, M.K., Kapoor, R.	OCR Recognition System for Degraded Urdu and Devnagari Script	2019	Proceedings of the 4th International Conference on Contemporary Computing and Informatics, IC3I 2019	10.1109/IC3I46837. 2019.9055519
446	Mittal, S., Mittal, V.K.	Biomedical requirements for human machine interface towards building a humanoid: A review	2019	2019 IEEE 16th India Council International Conference, INDICON 2019 - Symposium Proceedings	10.1109/INDICON47234. 2019.9030298
447	Pahwa, K., Bharti, A., Sahu, K.J.	A novel wireless sensor network based rescue management system	2019	2019 IEEE 16th India Council International Conference, INDICON 2019 - Symposium Proceedings	10.1109/INDICON47234. 2019.9030344
448	Dahiya, S., Lahon, S., Sharma, R.	Study of temperature and hydrostatic pressure effect on SHG associated with the excitonic system in an InN Quantum dot	2019	2019 Workshop on Recent Advances in Photonics, WRAP 2019	10.1109/WRAP47485. 2019.9013655
449	Kumari, D., Kailkhura, V., Kumar, L.	Hemispherical Harmonics based Acoustic Source Localization in Mixed-field	2019	2019 IEEE 19th International Symposium on Signal Processing and Information Technology, ISSPIT 2019	10.1109/ISSPIT47144. 2019.9001852
450	Kumar, J., Arvind, P., Singh, P., Sarada, Y., Kumar, N., Bhardwaj, S.	LBP^{riu2}Features for Classification of Radiographic Weld Images	2019	Proceeding - 1st International Conference on Innovative Trends and Advances in Engineering and Technology, ICITAET 2019	10.1109/ICITAET47105. 2019.9170146
451	Kumar, A., Kumar, D.R., Gautam, V.	Prediction of residual stresses in biaxial stretching of tailor welded blanks by finite element analysis	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/ 651/1/012039
452	Lather, A.S., Malhotra, R., Saloni, P., Singh, P., Mittal, S.	Prediction of employee performance using machine learning techniques	2019	ACM International Conference Proceeding Series	10.1145/3373477. 3373696
453	Bazari, A.S., Aggarwal, A., Asif, W., Lestas, M., Rajarajan, M.	Node Criticality Assessment in a Blockchain Network	2019	BlockSys 2019 - Proceedings of the 2019 Workshop on Blockchain-Enabled Networked Sensor Systems	10.1145/3362744. 3363343

S. No.	Authors	Title	Year	Source title	DOI
454	Sinha, P.P., Mahata, D., Mishra, R., Shah, R.R., Sawhney, R., Liu, H.	#suicidal - A multipronged approach to identify and explore suicidal ideation in twitter	2019	International Conference on Information and Knowledge Management, Proceedings	10.1145/3357384.3358060
455	Khabusi, S.P., Jindal, R.	Pressure dependent piped water theft detection with IOT based remote billing and location alert	2019	2019 International Congress on Applied Information Technology, AIT 2019	10.1109/AIT49014.2019.9144798
456	Sharma, R., Mahajan, P., Garg, R.	Analysis of Faults for Railway Traction System	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975545
457	Pandey, A., Singh, A.	Development of Conductance Based Algorithm for Compensation in Highly Unbalanced and Distorted Grid	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975503
458	Singh, R., Bhushan, B., Varshney, A.	Real-Time Simulation and Control of Helicopter Systems	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975393
459	Bansal, P., Singh, A.	Control of Multilevel Inverter as Shunt Active Power Filter using Maximum Versoria Criterion	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975392
460	Valluru, S.K., Kumar, R., Kumar, R.	Design and Implementation of L-PID and IO-PID Controllers for Twin Rotor MIMO System	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975542
461	Singhal, A., Singh, A.	Design and Performance Analysis of Synchronization techniques under Non-Ideal conditions	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975390
462	Singh, R., Bhushan, B.	Fault Classification for Unmanned Surface Vehicles using Supervised Learning Methods	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975587
463	Kumar, A., Rizwan, M., Nangia, U.	Optimal Sizing of Renewable Energy Resources in a Microgrid for a Distributed Generation System	2019	2019 International Symposium on Advanced Electrical and Communication Technologies, ISAECT 2019	10.1109/ISAECT47714.2019.9069731
464	Suryakant, S., Sreejeth, M., Singh, M.	Sensorless control of PMSM Drive with BEMF based MRAC Algorithm	2019	2019 International Symposium on Advanced Electrical and Communication Technologies, ISAECT 2019	10.1109/ISAECT47714.2019.9069705
465	Raj, A., Kumar, P., Bhaskar, D.R.	Multiple-Input Single-Output Universal Biquad Filters Using Reduced Number of OTAs	2019	2019 International Symposium on Advanced Electrical and Communication Technologies, ISAECT 2019	10.1109/ISAECT47714.2019.9069693

S. No.	Authors	Title	Year	Source title	DOI
466	Saxena, H., Singh, A., Rai, J.N.	Design and Analysis of Cascaded Generalized Integrators for Mitigation of Power Quality Problems	2019	2019 International Symposium on Advanced Electrical and Communication Technologies, ISAECT 2019	10.1109/ISAECT47714.2019.9069704
467	Singh, D., Pandey, N.	Realization of Single CCCDTA based incremental/decremental type Memconductance Emulator	2019	2019 International Symposium on Advanced Electrical and Communication Technologies, ISAECT 2019	10.1109/ISAECT47714.2019.9069680
468	Jain, L., Katarya, R., Sachdeva, S.	Opinion Leader discovery based on text analysis in Online Social Network	2019	2019 4th International Conference on Information Systems and Computer Networks, ISCON 2019	10.1109/ISCON47742.2019.9036205
469	Arora, V., Verma, V.	High Gain Module Integrated Converter Combating Partial Shading on PV Panel	2019	2019 IEEE 4th International Future Energy Electronics Conference, IFEEC 2019	10.1109/IFEEC47410.2019.9015128
470	Asthana, P., Verma, V.	Dual Channel Bidirectional Interleaved Cuk Converter for Battery Source interfaced with LVDC μgrid	2019	2019 IEEE 4th International Future Energy Electronics Conference, IFEEC 2019	10.1109/IFEEC47410.2019.9015086
471	Gupta, G., Katarya, R.	Recommendation Analysis on Item-based and User-Based Collaborative Filtering	2019	Proceedings of the 2nd International Conference on Smart Systems and Inventive Technology, ICSSIT 2019	10.1109/ICSSIT46314.2019.8987745
472	Aggarwal, A., Das, N., Sreedevi, I.	Attention-guided deep convolutional neural networks for skin cancer classification	2019	2019 9th International Conference on Image Processing Theory, Tools and Applications, IPTA 2019	10.1109/IPTA.2019.8936100
473	Suvarna, A., Dey, K., Nagar, S., Madaan, N., Mehta, S.	Handling Gender Biases in E-Commerce Product Specifications	2019	2019 Grace Hopper Celebration India, GHCI 2019	10.1109/GHCI47972.2019.9071916
474	Singh, R., Khan, M.A., Kurukuru, V.S.B.	Control of drum level dynamics in Coal-Fired Boiler-Turbine Units	2019	2019 International Conference on Power Electronics, Control and Automation, ICPECA 2019 - Proceedings	10.1109/ICPECA47973.2019.8975646
475	Habib, S., Shukla, M.K., Kapoor, R.	Degraded Script Identification of Urdu and Devanagari Document-A Survey	2019	2019 4th International Conference on Information Systems and Computer Networks, ISCON 2019	10.1109/ISCON47742.2019.9036305
476	Agarwal, Y., Sharma, D.K., Katarya, R.	Sentiment/Opinion Review Analysis: Detecting Spams from the good ones!	2019	2019 4th International Conference on Information Systems and Computer Networks, ISCON 2019	10.1109/ISCON47742.2019.9036249
477	Malhotra, D., Katarya, R.	A Survey of Different Methods in Finding Latent Relationships among Complex Networks	2019	2019 4th International Conference on Information Systems and Computer Networks, ISCON 2019	10.1109/ISCON47742.2019.9036260

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
478	Agarwal, Y., Katarya, R., Sharma, D.K.	Deep Learning for Opinion Mining: A Systematic Survey	2019	2019 4th International Conference on Information Systems and Computer Networks, ISCON 2019	10.1109/ISCON47742. 2019.9036187
479	Saurabh, A., Atheaya, D., Kumar, A.	Computational fluid dynamics (Cfd) modelling of hybrid photovoltaic thermal system	2019	Vibroengineering Procedia	10.21595/vp.2019.21098
480	Sharma, P., Gupta, K., Pandey, N.	A Single-Ended 10-Transistors Static Random Access Memory Bit-Cell with Improved Write-Margins at Low Voltages and High I<inf>ON</inf>-I<inf>OFF</inf>Ratio	2019	Proceedings of the 2nd International Conference on Smart Systems and Inventive Technology, ICSSIT 2019	10.1109/ICSSIT46314. 2019.8987770
481	Ahmad, M.T., Kumar, N., Singh, B., Khan, S.	Efficient Matrix Wiener Filter Implementation Improves Power Quality in Distribution System	2019	Proceedings - 2019 International Conference on Electrical, Electronics and Computer Engineering, UPCON 2019	10.1109/UPCON47278. 2019.8980035
482	Thakur, R., Rohilla, R.	Copy-Move Forgery Detection using Residuals and Convolutional Neural Network Framework: A Novel Approach	2019	2019 2nd International Conference on Power Energy Environment and Intelligent Control, PEEIC 2019	10.1109/PEEIC47157. 2019.8976868
483	Chauhan, A., Aggarwal, A.	Buffer Adaptive Epidemic Protocols for DTN	2019	2019 Global Conference for Advancement in Technology, GCAT 2019	10.1109/GCAT47503. 2019.8978412
484	Rahul, Raj, V., Monika	Sentiment Analysis on Product Reviews	2019	Proceedings - 2019 International Conference on Computing, Communication, and Intelligent Systems, ICCCIS 2019	10.1109/ICCCIS48478. 2019.8974527
485	Bansal, M., Jyoti	Low Power and High Linearity Cascode CMOS LNA for BLE Applications in 45 nm Technology	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979023
486	Bansal, M., Singh, J.	Qualitative Analysis of CMOS Logic Full Adder and GDI Logic Full Adder using 18 nm FinFET Technology	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979087
487	Valluru, S.K., Kumar, R., Ayush	Trajectory Tracking Control of TRMS using FO-PID and FOI-PD Controllers: An Experiment	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979086

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
488	Jaint, B., Indu, S., Pandey, N., Pahwa, K.	Malicious Node Detection in Wireless Sensor Networks Using Support Vector Machine	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979125
489	Bansal, M., Gandhi, B.	CNT based Textiles for Smart ECG Monitoring	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8978999
490	Bansal, M., Jyoti	Comparison of RL and LC Output Matching Networks for Cascode Inductive Source Degeneration LNA in 45 nm CMOS Technology	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979112
491	Bansal, M., Gandhi, B.	CNT based Wearable ECG Sensors	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979051
492	Sethia, D., Shakya, A., Aggarwal, R., Bhayana, S.	Constant Size CP-ABE with Scalable Revocation for Resource-Constrained IoT Devices	2019	2019 IEEE 10th Annual Ubiquitous Computing, Electronics and Mobile Communication Conference, UEMCON 2019	10.1109/UEMCON47517. 2019.8993103
493	Yadav, R.K., Anubhav	GA and PSO hybrid algorithm for ANN training with application in Medical Diagnosis	2019	2019 3rd International Conference on Intelligent Computing in Data Sciences, ICDS 2019	10.1109/ICDS47004. 2019.8942375
494	Sharma, K.K., Indu, S.	GPS Based Adaptive Traffic Light Timings and Lane Scheduling	2019	2019 IEEE Intelligent Transportation Systems Conference, ITSC 2019	10.1109/ITSC.2019. 8917153
495	Varshney, A., Garg, R., Kumar, N.	Implementation of ANFIS control shceme for D-STATCOM	2019	2019 2nd International Conference on Power Energy Environment and Intelligent Control, PEEIC 2019	10.1109/PEEIC47157. 2019.8976757
496	Datta, P., Rohilla, R.	An Introduction to Deep Learning Applications in MRI Images	2019	2019 2nd International Conference on Power Energy Environment and Intelligent Control, PEEIC 2019	10.1109/PEEIC47157. 2019.8976727
497	Datta, P., Rohilla, R.	Optimization and Performance matrices in 5G Networks	2019	2019 2nd International Conference on Power Energy Environment and Intelligent Control, PEEIC 2019	10.1109/PEEIC47157. 2019.8976723
498	Quadri, A.H., Rizwan, M., Kumar, N., Bansal, M.	Design and Analysis of a RES based Autonomous Hybrid Model for Rural Electrification	2019	2019 2nd International Conference on Power Energy Environment and Intelligent Control, PEEIC 2019	10.1109/PEEIC47157. 2019.8976778

16. ANNEXURE

373

S. No.	Authors	Title	Year	Source title	DOI
499	Bahar, T., Singh, O., Yadav, V.	Interval Derivatives Based Approach for Multiple DGs allocation Considering Variation in Input Parameters	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979058
500	Khanna, A., Garg, A., Singh, A.	Maintenance of DC Link Voltage using Synchronous Reference Frame Theory	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979040
501	Bahar, T., Singh, O., Yadav, V.	Multiple Dispersed Generation Allocation using Analytical Approach	2019	2019 3rd International Conference on Recent Developments in Control, Automation and Power Engineering, RDCAPE 2019	10.1109/RDCAPE47089. 2019.8979123
502	Bhatt, D., Garg, A., Gopalakrishnan, B., Krishna, K.M.	Probabilistic obstacle avoidance and object following: An overlap of Gaussians approach	2019	2019 28th IEEE International Conference on Robot and Human Interactive Communication, RO-MAN 2019	10.1109/RO-MAN46459. 2019.8956314
503	Dey, N., Sharda, J., Saxena, U., Kaushik, D., Singh, U., Bhowmik, D.	On-chip learning in a conventional silicon mosfet based analog hardware neural network	2019	BioCAS 2019 - Biomedical Circuits and Systems Conference, Proceedings	10.1109/BIOCAS. 2019.8919088
504	Shariatmadar, K., Misra, A., Debrouwere, F., Versteyhe, M.	Optimal Modelling of Process Variations in Industry 4.0 Facility under Advanced P-Box uncertainty	2019	2019 IEEE Student Conference on Research and Development, SCOReD 2019	10.1109/SCORED. 2019.8896326
505	Rastogi, P., Rastogi, V.	Synchronization dynamics and numerical simulation of three coupled oscillators through extended Poincaré-Cartan invariants	2019	AIP Conference Proceedings	10.1063/1.5086639
506	Kumar, A., Tripathi, S.K., Gupta, N., Tripathi, P.M., Chaujar, R.	GaN silicon-on-insulator (SOI) N-Channel FinFET for high-performance low power applications	2019	2019 IEEE 14th Nanotechnology Materials and Devices Conference, NMDC 2019	10.1109/NMDC47361. 2019.9084011
507	Gupta, K., Walia, G.S., Sharma, K.	Multimodal Biometric System using Grasshopper Optimization	2019	Proceedings - 2019 International Conference on Computing, Communication, and Intelligent Systems, ICCCIS 2019	10.1109/ICCCIS48478. 2019.8974504
508	Kumar, A., Gupta, N., Singh, S., Tiwari, B., Tripathi, M.M., Chaujar, R.	Carbon Nanotube Recessed Channel (CNT-RC) MOSFET for High Linearity/ULSI Applications	2019	IEEE Region 10 Annual International Conference, Proceedings/TENCON	10.1109/TENCON. 2019.8929540
509	Kumar Verma, M., Kumar Yadav, V., Mukherjee, V.	Objective functions of distribution network expansion planning - A comprehensive and exhaustive review	2019	IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/ 594/1/012016

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
510	Chauhan, P., Kumar, A., Kalra, Y.	Mid-infrared supercontinuum generation in highly nonlinear AsSe<inf>2</inf> chalcogenide circular photonic crystal fiber	2019	Frontiers in Optics - Proceedings Frontiers in Optics + Laser Science APS/DLS	10.1364/FIO.2019.JTu3A.34
511	Aneja, R., Paliwal, A., Dham, J.S., Chauhan, P., Kumar, A.	Polarimetrical optical sensing using plasmonic nanocrescent dimer based nanoantenna arrays	2019	Frontiers in Optics - Proceedings Frontiers in Optics + Laser Science APS/DLS	10.1364/FIO.2019.JTu4A.80
512	Shiva, M., Chakraborty, R., Sharma, I., Hasija, Y.	DermaMeth: Human DNA Methylation Database for Genes Associated with Dermatological Disorders	2019	2019 International Conference on Computing, Power and Communication Technologies, GUCON 2019	
513	Shiva, M., Kumari, N., Hasija, Y.	MethARD: Human DNA Methylation Database for Genes Associated with Age-related Disorders	2019	2019 International Conference on Computing, Power and Communication Technologies, GUCON 2019	
514	Rajesh, Arundeepakvel, R., Jatin, Khatter, P., Pandey, N.	Realization of Memristor based D-Latch	2019	2019 International Conference on Computing, Power and Communication Technologies, GUCON 2019	
515	Gangwar, P., Maurya, S., Pandey, N.	Realization of Game Tree Search Algorithms on FPGA: A Comparative Study	2019	IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques, ICICT 2019	10.1109/ICICT46931.2019.8977671
516	Rahul, Bansal, H., Monika	Classification Techniques Used in Sentiment Analysis & Prediction of Heart Disease using Data Mining Techniques: Review	2019	IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques, ICICT 2019	10.1109/ICICT46931.2019.8977707
517	Roohani, Rana, T., Meel, P.	Rumor propagation: A state-of-the-art survey of current challenges and opportunities	2019	2019 2nd International Conference on Intelligent Communication and Computational Techniques, ICCT 2019	10.1109/ICCT46177.2019.8969023
518	Singh, T., Rustagi, S., Garg, A., Vishwakarma, D.K.	Deep learning framework for single and dyadic human activity recognition	2019	Proceedings - 2019 IEEE 5th International Conference on Multimedia Big Data, BigMM 2019	10.1109/BigMM.2019.00-19
519	Dhiman, C., Saxena, M., Vishwakarma, D.K.	Skeleton-based view invariant deep features for human activity recognition	2019	Proceedings - 2019 IEEE 5th International Conference on Multimedia Big Data, BigMM 2019	10.1109/BigMM.2019.00-21
520	Yadav, A., Agarwal, A., Vishwakarma, D.K.	XRA-net framework for visual sentiments analysis	2019	Proceedings - 2019 IEEE 5th International Conference on Multimedia Big Data, BigMM 2019	10.1109/BigMM.2019.00-22
521	Jain, B., Singh, P., Goel, R.	Handwritten Marathi Character Image Recognition using Convolutional Neural Network	2019	2019 International Conference on Computing, Power and Communication Technologies, GUCON 2019	

16. ANNEXURE

375

S. No.	Authors	Title	Year	Source title	DOI
522	Verma, M.K., Mukherjee, V., Yadav, V.K.	A Review on Optimization Methodologies for Distribution Network Expansion Planning	2019	2019 International Conference on Computing, Power and Communication Technologies, GUCON 2019	
523	Sahrawat, D., Agarwal, M., Sinha, S., Adhikary, A., Agarwal, M., Shah, R.R., Zimmermann, R.	Video summarization using global attention with memory network and LSTM	2019	Proceedings - 2019 IEEE 5th International Conference on Multimedia Big Data, BigMM 2019	10.1109/BigMM.2019.00-20
524	Leekha, M., Goswami, M., Shah, R.R., Yin, Y., Zimmermann, R.	Are you paying attention? Detecting distracted driving in real-time	2019	Proceedings - 2019 IEEE 5th International Conference on Multimedia Big Data, BigMM 2019	10.1109/BigMM.2019.00-28
525	Chakraborty, P., Singh, P., Singh, J., Tripathi, A.	Novel layered Zn-Y hydroxide and study of their UV properties by intercalation of organic aliphatic and aromatic UV-absorbent molecules	2019	AIP Conference Proceedings	10.1063/1.5122624
526	Katyal, V., Plakkot, V., Kishor, K.	Design and parameter retrieval of novel unit cell structure for metamaterial applications	2019	AIP Conference Proceedings	10.1063/1.5120912
527	Sharma, S., Bhushan, B.	Adaptive control using Jaya algorithm	2019	AIP Conference Proceedings	10.1063/1.5120906
528	Sharma, R., Sharma, S.C.	Theoretical model for self-trapping of Gaussian electromagnetic beam in dusty plasma	2019	AIP Conference Proceedings	10.1063/1.5120947
529	Ranga, R., Shankhwar, N., Kalra, Y., Kishor, K.	Design of hexameric flower shaped nanoantenna for energy harvesting	2019	AIP Conference Proceedings	10.1063/1.5120913
530	Shankhwar, N., Ranga, R., Kalra, Y., Sinha, R.K.	Controlling the radiation pattern of a microstrip patch antenna using a checkerboard patterned metasurface	2019	AIP Conference Proceedings	10.1063/1.5120911
531	Kumar, A., Roy, M., Tripathi, M.M., Chaujar, R.	TCAD analysis of transparent gate thin film transistor (TFT) for high performance applications	2019	AIP Conference Proceedings	10.1063/1.5120917
532	Sharma, A., Chauhan, P., Kumar, A., Kalra, Y., Singh, T.	Design and analysis of microstructured optical fiber for supercontinuum generation	2019	AIP Conference Proceedings	10.1063/1.5120935
533	Gupta, R., Sharma, S.C., Gupta, R.	Stabilization of plane polarized Alfven waves by anomalous Doppler resonance	2019	AIP Conference Proceedings	10.1063/1.5120961
534	Shekhar Singh, C., Kumar, N.	Role of Co-Solvent in the Super Critical Esterification process of Bio-Diesel Production through Karanja oil	2019	Journal of Physics: Conference Series	10.1088/1742-6596/1240/1/012159

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
535	Joshi, S., Chandra Singh, R., Chaudhary, R.	Microstructural and wear characterisation of as-cast AS21A magnesium alloy	2019	Journal of Physics: Conference Series	10.1088/1742-6596/1240/1/012127
536	Kumar, N., Sidharth	Performance and Emission Characteristics of Ternary Fuel Blends in Diesel Engines	2019	Journal of Physics: Conference Series	10.1088/1742-6596/1240/1/012095
537	Abdulsadah, F.H., Murtaza, Q., Hasan, F., Bhardwaj, S.	Mechanical suitability of carbon fiber based composite for chopart prosthetic socket	2019	Journal of Physics: Conference Series	10.1088/1742-6596/1240/1/012154
538	Yadav, P.S., Saxena, V., Pali, H.S., Kumar, N., Singh, S.N.	Effect of Mast Modification in Ingress Problem in Gas Turbine of Naval Ship	2019	Journal of Physics: Conference Series	10.1088/1742-6596/1240/1/012076
539	Suri, S., Gupta, A., Sharma, K.	Comparative study of ranking algorithms	2019	Proceedings - 2019 International Conference on Computing, Electronics and Communications Engineering, iCCECE 2019	10.1109/iCCECE46942.2019.8941989
540	Susan, S., Bhutani, A.	A novel memetic algorithm incorporating greedy stochastic local search mutation for course scheduling	2019	Proceedings - 22nd IEEE International Conference on Computational Science and Engineering and 17th IEEE International Conference on Embedded and Ubiquitous Computing, CSE/EUC 2019	10.1109/CSE/EUC.2019.00056
541	Gangwar, P., Maurya, S., Garg, S., Goyal, S., Kumar, A.S., Dalmia, P., Pandey, N.	Hardware/Software Co-Design of a High-Speed Othello Solver	2019	Midwest Symposium on Circuits and Systems	10.1109/MWSCAS.2019.8885136
542	Gangwar, P., Pandey, N., Pandey, R.	Novel Control Unit Design for a High-Speed SHA-3 Architecture	2019	Midwest Symposium on Circuits and Systems	10.1109/MWSCAS.2019.8885323
543	Susan, S., Kumar, A.	Learning data space transformation matrix from pruned imbalanced datasets for nearest neighbor classification	2019	Proceedings - 21st IEEE International Conference on High Performance Computing and Communications, 17th IEEE International Conference on Smart City and 5th IEEE International Conference on Data Science and Systems, HPCC/SmartCity/DSS 2019	10.1109/HPCC/SmartCity/DSS.2019.00397
544	Jain, L., Katarya, R., Sachdeva, S.	Role of Opinion Leader for the diffusion of products using Epidemic model in Online Social Network	2019	2019 12th International Conference on Contemporary Computing, IC3 2019	10.1109/IC3.2019.8844911
545	Amarpuri, L., Yadav, N., Kumar, G., Agrawal, S.	Prediction of CO_2 emissions using deep learning hybrid approach: A Case Study in Indian Context	2019	2019 12th International Conference on Contemporary Computing, IC3 2019	10.1109/IC3.2019.8844902

S. No.	Authors	Title	Year	Source title	DOI
546	Kumar, A., Kashyap, H., Malhotra, H., Rawat, K., Kumar, G., Soni, U.	Preferential Selection of Locations for Installing CCTV using Fuzzy TOPSIS approach: A case study for North Delhi	2019	2019 12th International Conference on Contemporary Computing, IC3 2019	10.1109/IC3.2019. 8844896
547	Susan, S., Agarwal, A., Gulati, C., Singh, S., Chauhan, V.	Human attention span modeling using 2D visualization plots for gaze progression and gaze sustenance	2019	ACM International Conference Proceeding Series	10.1145/3348488. 3348494
548	Mittal, A., Patidar, S.	Sentiment analysis on twitter data: A survey	2019	ACM International Conference Proceeding Series	10.1145/3348445. 3348466
549	Sen, P.K., Veeravalli, S.V., Vijaya Kumar, T., Hegde, S.	Algebraic growth in turbulent shear flows	2019	AIP Conference Proceedings	10.1063/1.5115972
550	Vasudevan, P., Sen, P.K., Srivastava, R.K., Tandon, M., Hegde, S., Vijaya Kumar, T., Davies, P.	Ecosystem services by wetlands for polluted water treatment	2019	AIP Conference Proceedings	10.1063/1.5115973
551	Gagandeep, Singh, M., Kumar, R.	Simulation of perovskite solar cell with graphene as hole transporting material	2019	AIP Conference Proceedings	10.1063/1.5113387
552	Sen, S., Kathyal, V., Bhattacharya, S., Pitale, S., Gadkari, S.C.	Indigenously developed alpha particle detector using ZnS nanostructure	2019	AIP Conference Proceedings	10.1063/1.5113048
553	Poonam, Pundir, A.K., Singh, M., Thakur, J., Kashyap, M.K., Saini, H.S.	First-principles investigation of half metallic ferromagnetism in Ti-doped MgTe binary alloy via modified Becke-Johnson potential	2019	AIP Conference Proceedings	10.1063/1.5113324
554	Saini, H.S., Poonam, Pundir, A.K., Singh, M., Thakur, J., Kashyap, M.K.	Prediction of half metallicity in Ti-doped BeSe: A spintronics material	2019	AIP Conference Proceedings	10.1063/1.5113337
555	Kumar, S., Beniwal, R., Singh, S.S., Gupta, V.	Predicting Link Sign in Online Social Networks based on Social Psychology Theory and Machine Learning Techniques	2019	Proceedings of 2019 IEEE 18th International Conference on Cognitive Informatics and Cognitive Computing, ICCI*CC 2019	10.1109/ICCICC46617. 2019.9146087
556	Bansal, M., Singh, D.	Different Input Impedance Matching Circuits for Cascode Common Source LNA with Inductive Degeneration Topology in 45nm CMOS Technology	2019	Proceedings of the 4th International Conference on Communication and Electronics Systems, ICCES 2019	10.1109/ICCES45898. 2019.9002199
557	Bansal, M., Singh, D.	Cascode Common Source LNA with Inductive Degeneration Topology utilizing Different Output Matching Circuits in 45nm CMOS Technology	2019	Proceedings of the 4th International Conference on Communication and Electronics Systems, ICCES 2019	10.1109/ICCES45898. 2019.9002244

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
558	Zakariya, A.M., Jindal, R.	Arabic Sign Language Recognition System on Smartphone	2019	2019 10th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2019	10.1109/ICCCNT45670.2019.8944518
559	Jain, P.	A New Algorithm for DCT Using Dual Split Radix and Recursive Technique	2019	2019 3rd International Conference on Imaging, Signal Processing and Communication, ICISPC 2019	10.1109/ICISPC.2019.8935781
560	Sharma, K., Jain, D.	Consensus Algorithms in Blockchain Technology: A Survey	2019	2019 10th International Conference on Computing, Communication and Networking Technologies, ICCCNT 2019	10.1109/ICCCNT45670.2019.8944509
561	Singh, V., Sharma, K.	Empirical Analysis of Shallow and Deep Architecture Classifiers on Emotion Recognition from Speech	2019	Proceedings - 6th IEEE International Conference on Cyber Security and Cloud Computing, CSCloud 2019 and 5th IEEE International Conference on Edge Computing and Scalable Cloud, EdgeCom 2019	10.1109/CSCloud/EdgeCom.2019.00-16
562	Chhabra, A., Kumar, A., Chaujar, R.	Effect of Temperature on GaAs Junctionless FinFET Using High-κ Dielectric	2019	Proceedings of the 3rd International Conference on Electronics and Communication and Aerospace Technology, ICECA 2019	10.1109/ICECA.2019.8821826
563	Verma, M., Sinha, P., Goyal, K., Verma, A., Susan, S.	A novel framework for neural architecture search in the hill climbing domain	2019	Proceedings - IEEE 2nd International Conference on Artificial Intelligence and Knowledge Engineering, AIKE 2019	10.1109/AIKE.2019.00009
564	Pandey, R., Madan, J., Sharma, R., Chaujar, R.	Numerical Simulations to Understand the Role of DIO Additive in PTB7:PC$_{71}$BM Solar Cell	2019	Conference Record of the IEEE Photovoltaic Specialists Conference	10.1109/PVSC40753.2019.8980682
565	Kumar, D., Agrawal, R.K., Singh Kirar, J.	Intuitionistic Fuzzy Clustering Method with Spatial Information for MRI Image Segmentation	2019	IEEE International Conference on Fuzzy Systems	10.1109/FUZZ-IEEE.2019.8858865
566	Sharma, M., Makwana, M., Upadhyay, A., Singh, A.P., Badhwar, A., Trivedi, A., Saini, A., Chaudhury, S.	Robust image colorization using self attention based progressive generative adversarial network	2019	IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops	10.1109/CVPRW.2019.00272

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
567	Nah, S., Timofte, R., Zhang, R., Suin, M., Purohit, K., Rajagopalan, A.N., Athi Narayanan, S., Pinjari, J.B., Xiong, Z., Shi, Z., at All	NTIRE 2019 challenge on image colorization: Report	2019	IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops	10.1109/CVPRW. 2019.00276
568	Nah, S., Timofte, R., Gu, S., Baik, S., Hong, S., Moon, G., Son, S., Lee, K.M., Wang, X., Chan, K.C.K., at All	NTIRE 2019 challenge on video super-resolution: Methods and results	2019	IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops	10.1109/CVPRW. 2019.00250
569	Sagar, Vishwakarma, D.K.	A State-of-the-Arts and Prospective in Neural Style Transfer	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN. 2019.8711612
570	Chhabra, K., Singhal, S., Pandey, N.	Realisation of CBTA Based Current Mode Frequency Agile Filter	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN. 2019.8711586
571	Jaiswal, S., Vishwakarma, D.K.	State-of-the-Arts Person Re-Identification Using Deep Learning	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN. 2019.8711617
572	Malhotra, N., Mann, A., Pandey, N.	Design of Low Power ECRL Based Power Gated 4:2 Compressor	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN. 2019.8711712
573	Bansal, M., Jyoti	Low Noise Amplifier in Smart Healthcare Applications	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN. 2019.8711705
574	Meel, P., Goswami, A.	Inverse Document Frequency-Weighted Word2Vec Model to Recommend Apparels	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN. 2019.8711722
575	Nagar, P., Sethia, D.	Brain Mapping Based Stress Identification Using Portable EEG Based Device	2019	2019 11th International Conference on Communication Systems and Networks, COMSNETS 2019	10.1109/COMSNETS. 2019.8711009
576	Saxena, G., Jain, P., Awasthi, Y.K.	High Isolation EBG Based MIMO Antenna for X-Band Applications	2019	2019 6th International Conference on Signal Processing and Integrated Networks, SPIN 2019	10.1109/SPIN.2019. 8711602
577	Mehta, R., Kapoor, N., Sourav, S., Shorey, R.	Decentralised Image Sharing and Copyright Protection using Blockchain and Perceptual Hashes	2019	2019 11th International Conference on Communication Systems and Networks, COMSNETS 2019	10.1109/COMSNETS. 2019.8711440

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
578	Bansal, M., Gandhi, B.	Smart SWCNT ECG electrodes for continuous and long-term monitoring	2019	2019 International Conference on Intelligent Computing and Control Systems, ICCS 2019	10.1109/ICCS45141.2019.9065345
579	Bansal, M., Srivastava, G.	High linearity and low power cascode CMOS LNA for RF front end applications	2019	2019 International Conference on Intelligent Computing and Control Systems, ICCS 2019	10.1109/ICCS45141.2019.9065393
580	Agarwal, A., Yadav, A., Vishwakarma, D.K.	Multimodal Sentiment Analysis via RNN variants	2019	Proceedings - 2019 IEEE/ACIS 4th International Conference on Big Data, Cloud Computing, and Data Science, BCD 2019	10.1109/BCD.2019.8885108
581	Sekhri, E., Tamre, M., Kapoor, R.	Optimal Q-learning approach for tuning the cavity filters	2019	Proceedings of the 2019 20th International Conference on Research and Education in Mechatronics, REM 2019	10.1109/REM.2019.8744118
582	Kumar, A., Gupta, N., Tripathi, M.M., Chaujar, R.	Non-Quasi-Static Small-Signal Modeling of TGRC MOSFET in Parameter Perspective for RF/Microwave Applications	2019	2019 8th International Conference on Modern Circuits and Systems Technologies, MOCAST 2019	10.1109/MOCAST.2019.8742066
583	Kumar, A., Arora, A.	A Filter-Wrapper based Feature Selection for Optimized Website Quality Prediction	2019	Proceedings - 2019 Amity International Conference on Artificial Intelligence, AICAI 2019	10.1109/AICAI.2019.8701362
584	Nagpal, A., Agrawal, B., Kumar, R., Saini, H.S., Kashyap, M.K., Singh, M.	Effect of disorders on half-metallic ferromagnetism in Cr_2CoAl inverse Heusler alloy	2019	AIP Conference Proceedings	10.1063/1.5097092
585	Agrawal, B., Nagpal, A., Kumar, R., Saini, H.S., Kashyap, M.K., Singh, M.	Study of $FeCrSn_{1-x}Ga_x$ Heusler alloys: Tuning Fermi level to attain half-metallic ferromagnetism	2019	AIP Conference Proceedings	10.1063/1.5097088
586	Gagandeep, Singh, M., Kumar, R., Chand, F.	A theoretical modeling of the $Cu(In, Ga)Se_2$ solar cell	2019	AIP Conference Proceedings	10.1063/1.5097087
587	Poonam, Saini, H.S., Thakur, J., Pundir, A.K., Singh, M., Kashyap, M.K.	Structural, electronic and magnetic properties of Ti-doped MgSe diluted magnetic semiconductor compound	2019	AIP Conference Proceedings	10.1063/1.5097070
588	Nisha, Saini, H.S., Kashyap, M.K., Thakur, J., Singh, M.	First-principles study on electronic, mechanical and thermoelectric transport properties of topological insulator NaAuS	2019	AIP Conference Proceedings	10.1063/1.5097085
589	Garg, P., Awasthi, S., Jain, P.	A Survey of Microwave Bandpass Filter Using Coupled Line Resonator -Research Design and Development	2019	2018 International Conference on Sustainable Energy, Electronics and coMputing System, SEEMS 2018	10.1109/SEEMS.2018.8687341
590	Dahiya, P., Jain, P.	Efficient Recursive Algorithm for Discrete Cosine Transform and Inverse Discrete Cosine Transform	2019	2018 International Conference on Sustainable Energy, Electronics and coMputing System, SEEMS 2018	10.1109/SEEMS.2018.8687354

S. No.	Authors	Title	Year	Source title	DOI
591	Kumar, N., Jain, S., Bagla, A., Sharma, S., Tomar, M.	Study of performance and emission characteristics of propan-2-ol and gasoline fuel blends in an unmodified spark ignition engine	2019	SAE Technical Papers	10.4271/2019-01-0793
592	Mukhopadhyay, S., Malhotra, A., Tomar, M., Choudhary, N., Kumar, N.	Experimental investigations of metal oxide nano-additives on working characteristics of CI engine	2019	SAE Technical Papers	10.4271/2019-01-0794
593	Sinha, S.K., Kumar, N.	Utilization of blends of biodiesel and higher alcohols in a small capacity diesel engine	2019	SAE Technical Papers	10.4271/2019-01-0580
594	Butola, R., Malhotra, A., Yadav, M., Singari, R., Murtaza, Q., Chandra, P.	Experimental studies on mechanical properties of metal matrix composites reinforced with natural fibres ashes	2019	SAE Technical Papers	10.4271/2019-01-1123
595	Paul, S., Jain, D., Brella, R., Kumar, N.	Design and modelling of single cylinder 4 stroke gasoline engine crankshaft	2019	SAE Technical Papers	10.4271/2019-01-0767
596	Malhotra, A., Yadav, M., Tomar, M., Jain, S., Kumar, N.	Effect of using exhaust gas recirculation (EGR) on the emission characteristics of the CI engine fuelled by acetone-butanol-ethanol (ABE) diesel blends	2019	SAE Technical Papers	10.4271/2019-01-0748
597	Goyal, A., Kumar, N.	Some experimental studies on the use of tyre pyrolysis oil (TPO) in an agricultural diesel engine	2019	SAE Technical Papers	10.4271/2019-01-0796
598	Sharma, V.K., Singh, R.C., Chaudhary, R.	Experimental study of sliding wear behavior of the casted lead bronze journal bearing material	2019	SAE Technical Papers	10.4271/2019-01-0824
599	Aggarwal, A., Das, N., Arora, M., Tripathi, M.M.	A novel hybrid architecture for classification of power quality disturbances	2019	2019 6th International Conference on Control, Decision and Information Technologies, CoDIT 2019	10.1109/CoDIT.2019.8820557
600	Rahul, Dahiya, H., Singh, D.	A Review of Trends and Techniques in Recommender Systems	2019	Proceedings - 2019 4th International Conference on Internet of Things: Smart Innovation and Usages, IoT-SIU 2019	10.1109/IoT-SIU.2019.8777645
601	Kumar, A., Bansal, A.	Software Fault Proneness Prediction Using Genetic Based Machine Learning Techniques	2019	Proceedings - 2019 4th International Conference on Internet of Things: Smart Innovation and Usages, IoT-SIU 2019	10.1109/IoT-SIU.2019.8777494
602	Singh, N., Malik, A., Maini, O., Rajput, G.	Identification of Influence Propagation Metrics in Social Networks	2019	2019 International Conference on Automation, Computational and Technology Management, ICACTM 2019	10.1109/ICACTM.2019.8776752

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
603	Jindal, R., Shweta	A novel method for efficient multi-label text categorization of research articles	2019	2018 International Conference on Computing, Power and Communication Technologies, GUCON 2018	10.1109/GUCON.2018.8674985
604	Sharma, I., Mandal, D., Hasija, Y.	Big data and hadoop in biology: Introduction, implementation and applications	2019	2018 International Conference on Computing, Power and Communication Technologies, GUCON 2018	10.1109/GUCON.2018.8675042
605	Mehta, G., Yadav, V.K.	Design of photovoltaic and fuel cells based distributed generation system: Entire system survey	2019	2018 International Conference on Computing, Power and Communication Technologies, GUCON 2018	10.1109/GUCON.2018.8675106
606	Sivaram, R., Gupta, K., Pandey, N.	New improved low power triple tail cell with controlled current source	2019	2018 International Conference on Computing, Power and Communication Technologies, GUCON 2018	10.1109/GUCON.2018.8675003
607	Khatter, P., Pandey, N., Gupta, K.	An arithmetic and logical unit using reversible gates	2019	2018 International Conference on Computing, Power and Communication Technologies, GUCON 2018	10.1109/GUCON.2018.8675034
608	Mehta, G., Mittra, G., Yadav, V.K.	Application of IoT to optimize data center operations	2019	2018 International Conference on Computing, Power and Communication Technologies, GUCON 2018	10.1109/GUCON.2018.8674939
609	Saluja, V., Jain, M., Yadav, P.	L,M&A: An algorithm for music lyrics mining and sentiment analysis	2019	Proceedings of 34th International Conference on Computers and Their Applications, CATA 2019	
610	Singh, M., Sreejeth, M., Devanshu, A.	Comparative Performance Analysis of IVCIM Drive using different Gain values of PI and Band values of Hysteresis Band Controller	2019	2018 International Conference on Power Energy, Environment and Intelligent Control, PEEIC 2018	10.1109/PEEIC.2018.8665406
611	Thakran, S., Singh, J., Garg, R., Mahajan, P.	Implementation of PO Algorithm for MPPT in SPV System	2019	2018 International Conference on Power Energy, Environment and Intelligent Control, PEEIC 2018	10.1109/PEEIC.2018.8665588
612	Singh, J., Mahajan, P., Garg, R.	Techno-Economic Analysis of Different Lighting Schemes: A Case Study	2019	2018 International Conference on Power Energy, Environment and Intelligent Control, PEEIC 2018	10.1109/PEEIC.2018.8665597
613	Jain, V., Kumar, V., Nagarajan, S.T.	Laboratory Scale Long Transmission Line SCADA	2019	2018 International Conference on Power Energy, Environment and Intelligent Control, PEEIC 2018	10.1109/PEEIC.2018.8665570

S. No.	Authors	Title	Year	Source title	DOI
614	Yadav, A.S., Yadav, V.K., Choudhary, S.	Power Enhancement from Solar PV Array Topologies under Partial Shading Condition	2019	2018 International Conference on Power Energy, Environment and Intelligent Control, PEEIC 2018	10.1109/PEEIC.2018.8665461
615	Gupta, G., Katarya, R.	A Study of Recommender Systems Using Markov Decision Process	2019	Proceedings of the 2nd International Conference on Intelligent Computing and Control Systems, ICICCS 2018	10.1109/ICCONS.2018.8663161
616	Kumar, M., Joshi, N., Kumar, D.	Augmentation in UCON Access Control Model for E-Healthcare Domain	2019	Proceedings of the 2nd International Conference on Intelligent Computing and Control Systems, ICICCS 2018	10.1109/ICCONS.2018.8663205
617	Bansal, M., Jyoti	A review of low noise amplifier for 2.4GHz frequency band	2019	International Conference on Innovations in Control, Communication and Information Systems, ICICCI 2017	10.1109/ICICCIS.2017.8660895
618	Aditi, Bansal, M.	A High Linearity and Moderate Gain LNA for Receiver Front-End Applications in 2.4GHz ISM Band	2019	International Conference on Innovations in Control, Communication and Information Systems, ICICCI 2017	10.1109/ICICCIS.2017.8660854
619	Bansal, M., Jyoti	A review of various applications of low noise amplifier	2019	International Conference on Innovations in Control, Communication and Information Systems, ICICCI 2017	10.1109/ICICCIS.2017.8660954
620	Gupta, R., Kumar, A.	An Intelligent Information Retrieval System for Finding Contextual Information on Twitter	2019	International Conference on Innovations in Control, Communication and Information Systems, ICICCI 2017	10.1109/ICICCIS.2017.8660934
621	Raghav, N., Bansal, M.	Analysis of Power Efficient 6-T SRAM Cell with Performance Measurements	2019	International Conference on Innovations in Control, Communication and Information Systems, ICICCI 2017	10.1109/ICICCIS.2017.8660819
622	Lal, S., Duggal, S., Sreedevi, I.	Online video summarization: Predicting future to better summarize present	2019	Proceedings - 2019 IEEE Winter Conference on Applications of Computer Vision, WACV 2019	10.1109/WACV.2019.00056
623	Singhal, S., Rawat, B., Gupta, H.O.	Comprehensive Evaluation of Renewable and Conventional Electric Utility of India under Noncooperative and Cooperative Environment	2019	2nd International Conference on Energy, Power and Environment: Towards Smart Technology, ICEPE 2018	10.1109/EPETSG.2018.8658646

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
624	Mahor, L., Chauhan, A., Tiwari, P.	Parity Preserving Reversible Design Using FinFETs	2019	2019 1st International Conference on Signal Processing, VLSI and Communication Engineering, ICSPVCE 2019	10.1109/ICSPVCE46182. 2019.9092779
625	Viswanadha, K., Raghava, N.S.	Design and analysis of a slotted waveguide antenna array with double broken ring Meta posts for 5G (India) and C-band applications	2019	2019 1st International Conference on Signal Processing, VLSI and Communication Engineering, ICSPVCE 2019	10.1109/ICSPVCE46182. 2019.9092807
626	Kumar, A., Garg, R., Mahajan, P.	Performance Analysis of Grid Integrated PV System using SRF and IRPT Control	2019	2019 1st International Conference on Signal Processing, VLSI and Communication Engineering, ICSPVCE 2019	10.1109/ICSPVCE46182. 2019.9092869
627	Singh, G., Kaur, G.	Design and Implementation of Photonic Crystal Vertical Cavity Surface Emitting Laser	2019	2019 International Conference on Signal Processing and Communication, ICSC 2019	10.1109/ICSC45622. 2019.8938267
628	Katarya, R., Arora, Y.	Study on Text Classification using Capsule Networks	2019	2019 5th International Conference on Advanced Computing and Communication Systems, ICACCS 2019	10.1109/ICACCS. 2019.8728394
629	Katarya, R., Gautam, D.	Survey on Opinion Leader in Social Network using Data Mining	2019	2019 5th International Conference on Advanced Computing and Communication Systems, ICACCS 2019	10.1109/ICACCS. 2019.8728445
630	Ankita, Singh, N.	A link prediction model using similarity and centrality based features	2019	Proceedings of the 2019 6th International Conference on Computing for Sustainable Global Development, INDIACom 2019	
631	Chandra, Y., Jana, A.	Improvement in phishing websites detection using meta classifiers	2019	Proceedings of the 2019 6th International Conference on Computing for Sustainable Global Development, INDIACom 2019	
632	Jha, B., Gupta, K., Pandey, N.	Multiple threshold CVSL full adder design	2019	Proceedings of the 2019 6th International Conference on Computing for Sustainable Global Development, INDIACom 2019	
633	Kumar, A., Tripathi, M.M., Chaujar, R.	Low-Temperature Reliability of Sub-20nm 4H-SiC Trench MOSFET with Black Phosphorus Gate Material	2019	2019 International Conference on Signal Processing and Communication, ICSC 2019	10.1109/ICSC45622. 2019.8938226

16. ANNEXURE

385

S. No.	Authors	Title	Year	Source title	DOI
634	Jain, P., Jayanthi, N., Lakshmanan, M., Saxena, A., Jain, A.	Outage Probability and Average Capacity Analysis over η-μ Distribution in Free Space Optical Communication System	2019	Proceedings - International Conference on Vision Towards Emerging Trends in Communication and Networking, ViTECoN 2019	10.1109/ViTECoN. 2019.8899462
635	Kumar, A., Singh, S., Tiwari, B., Chaujar, R.	Temperature Reliability of Junctionless Twin Gate Recessed Channel (JL-TGRC) MOSFET with Different Gate Material for Low Power Digital-Logic Applications	2019	IEEE Region 10 Annual International Conference, Proceedings/TENCON	10.1109/TENCON. 2018.8650267
636	Raizada, S., Verma, V.	Coupled Inductor based Isolated Voltage Multiplier Converter	2019	2018 IEEE 4th Southern Power Electronics Conference, SPEC 2018	10.1109/SPEC.2018. 8635881
637	Narula, A., Verma, V.	Dual Port Impedance Converter for PV - Battery fed Remote Telecom Towers	2019	2018 IEEE 4th Southern Power Electronics Conference, SPEC 2018	10.1109/SPEC.2018. 8636089
638	Yadav, A., Sahay, A., Yadav, M.R., Bhandari, S., Yadav, A., Sahay, K.B.	One hour Ahead Short-Term Electricity Price Forecasting Using ANN Algorithms	2019	Proceedings of the Conference on the Industrial and Commercial Use of Energy, ICUE	10.23919/ICUE-GESD. 2018.8635596
639	Mohapatra, S., Srivastava, R., Khera, R.	Implementation of a two wheel self-balanced robot using MATLAB simscape multibody	2019	2019 2nd International Conference on Advanced Computational and Communication Paradigms, ICACCP 2019	10.1109/ICACCP.2019. 8883007
640	Mohapatra, S.	Segmentation using support vector machines	2019	2019 2nd International Conference on Advanced Computational and Communication Paradigms, ICACCP 2019	10.1109/ICACCP.2019. 8882941
641	Bansal, M., Gandhi, B.	IoT Big Data in Smart Healthcare (ECG Monitoring)	2019	Proceedings of the International Conference on Machine Learning, Big Data, Cloud and Parallel Computing: Trends, Prespectives and Prospects, COMITCon 2019	10.1109/COMITCon. 2019.8862197
642	Shambharkar, P.G., Bhambri, S., Goel, A., Doja, M.N.	A Survey on Schedulability Analysis of Rate-Adaptive Tasks	2019	Proceedings of the International Conference on Machine Learning, Big Data, Cloud and Parallel Computing: Trends, Prespectives and Prospects, COMITCon 2019	10.1109/COMITCon. 2019.8862266
643	Bhavan, A., Aggarwal, S.	Stacked Generalization with Wrapper-Based Feature Selection for Human Activity Recognition	2019	Proceedings of the 2018 IEEE Symposium Series on Computational Intelligence, SSCI 2018	10.1109/SSCI.2018. 8628830

S. No.	Authors	Title	Year	Source title	DOI
644	Qararyah, F., Daraghmi, Y.-A., Daraghmi, E., Rajora, S., Lin, C.-T., Prasad, M.	A Time Efficient Model for Region of Interest Extraction in Real Time Traffic Signs Recognition System	2019	Proceedings of the 2018 IEEE Symposium Series on Computational Intelligence, SSCI 2018	10.1109/SSCI.2018.8628874
645	Rajora, S., Li, D.-L., Jha, C., Bharill, N., Patel, O.P., Joshi, S., Puthal, D., Prasad, M.	A Comparative Study of Machine Learning Techniques for Credit Card Fraud Detection Based on Time Variance	2019	Proceedings of the 2018 IEEE Symposium Series on Computational Intelligence, SSCI 2018	10.1109/SSCI.2018.8628930
646	Prasad, M., Rajora, S., Gupta, D., Daraghmi, Y.-A., Daraghmi, E., Yadav, P., Tiwari, P., Saxena, A.	Fusion based En-FEC Transfer Learning Approach for Automobile Parts Recognition System	2019	Proceedings of the 2018 IEEE Symposium Series on Computational Intelligence, SSCI 2018	10.1109/SSCI.2018.8628789
647	Raizada, S., Verma, V.	Isolated high gain multi-input converter fed floating PV system for DC microgrid	2019	2018 13th IEEE International Conference on Industry Applications, INDUSCON 2018 - Proceedings	10.1109/INDUSCON.2018.8627240
648	Pandey, R., Pandey, N.	OTRA based log and antilog amplifiers	2019	Midwest Symposium on Circuits and Systems	10.1109/MWSCAS.2018.8624089
649	Bhatia, V., Pandey, N., Prasanthi, S.R.	Design of an SCL logic based current comparator	2019	Midwest Symposium on Circuits and Systems	10.1109/MWSCAS.2018.8624040
650	Pal, R., Pandey, R., Tiwari, R.C.	Single CDBA based grounded negative Inductor	2019	Midwest Symposium on Circuits and Systems	10.1109/MWSCAS.2018.8623898
651	Cheng, Q., Mehta, S., Schürer, S.	A Gene Family-led Meta-Analysis of Drug-Target Interactions	2019	Proceedings - 2018 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2018	10.1109/BIBM.2018.8621087
652	Sengupta, J.	Instantaneous Driver Safety Assistance and Rear Wheel Maneuvering System Based on Computer Vision	2019	SAE Technical Papers	10.4271/2019-01-0095
653	Rajora, S., Kumar Vishwakarma, D., Singh, K., Prasad, M.	CSgI: A Deep Learning based approach for Marijuana Leaves Strain Classification	2019	2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference, IEMCON 2018	10.1109/IEMCON.2018.8615011
654	Dahiya, S., Sharma, R.	Comparative Study of Popular Cryptographic Techniques	2019	Proceedings of the 2nd World Conference on Smart Trends in Systems, Security and Sustainability, WorldS4 2018	10.1109/WorldS4.2018.8611581
655	Raizada, S., Verma, V.	Step Up Gain Converter with fast MPPT control under moving partial shading for train rooftop PV-DC-µG	2019	2018 IEEE International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles and International Transportation Electrification Conference, ESARS-ITEC 2018	10.1109/ESARS-ITEC.2018.8607357

16. ANNEXURE

387

S. No.	Authors	Title	Year	Source title	DOI
656	Kumar, G., Varghese, J.P.	Optimum Preventive Maintenance Policy for a Mechanical System Using Semi-markov Method and Golden Section Technique	2019	IEEE International Conference on Industrial Engineering and Engineering Management	10.1109/IEEM.2018. 8607343
657	Garg, S., Afzulpurkar, S., Kumar, A.	Adaptive Biased Random Walk Algorithm for Ocean Chemical Feature Tracking using an Autonomous Underwater Vehicle	2019	OCEANS 2018 MTS/IEEE Charleston, OCEAN 2018	10.1109/OCEANS.2018. 8604733
658	Katyal, S., Kumar, S., Sakhuja, R., Gupta, S.	Object detection in foggy conditions by fusion of saliency map and YOLO	2019	Proceedings of the International Conference on Sensing Technology, ICST	10.1109/ICSensT.2018. 8603632
659	Chauhan, M.S., Singh, A., Khemka, M., Prateek, A., Sen, R.	Embedded CNN based vehicle classification and counting in non-laned road traffic	2019	ACM International Conference Proceeding Series	10.1145/3287098. 3287118
660	Kumar, Y., Sharma, A., Khaund, A., Kumar, A., Kumaraguru, P., Shah, R.R., Zimmermann, R.	IceBreaker: Solving cold start problem for video recommendation engines	2019	Proceedings - 2018 IEEE International Symposium on Multimedia, ISM 2018	10.1109/ISM.2018. 000-3
661	Dagur, R., Shiva, P., Kumar, S.	Shape-changing airfoil and actuated elevons for miniature-aerial vehicle: Unimorph	2019	Materials Today: Proceedings	10.1016/j.matpr.2020. 02.598
662	Yadav, M., Misra, A., Malhotra, A., Kumar, N.	Design and analysis of a high-pressure turbine blade in a jet engine using advanced materials	2019	Materials Today: Proceedings	10.1016/j.matpr.2019. 07.530
663	Yadav, M., Kumar, D., Butola, R., Singari, R.M.	Effect of the impact strength of glass fibre reinforced plastic composite using wet layup process	2019	Materials Today: Proceedings	10.1016/j.matpr.2020. 03.077
664	Gupta, N., Agrawal, A.K., Walia, R.S.	Taguchi based analysis of cutting force in hard turning EN 31 with indigenous developed Carbon Nano Tubes coated insert	2019	Materials Today: Proceedings	10.1016/j.matpr.2019. 10.001
665	Kumar, P., Shrivastava, A.K.	Deformation behaviour of tunnels under different loading conditions: State of art	2019	World Congress on Civil, Structural, and Environmental Engineering	10.11159/icgre19.130
666	Singh, I., Sahu, A.K.	A review on stone columns used for ground improvement of soft soil	2019	World Congress on Civil, Structural, and Environmental Engineering	10.11159/icgre19.132
667	Kashyap, V., Arora, B.B., Bhattacharjee, S., Mittal, P.	Aerodynamic Effect of Aspect Ratio of Spherical Depressions on the Bonnet of Hatchback Cars	2019	SAE Technical Papers	10.4271/2019-01-5096
668	Kashyap, V., Arora, B.B., Bhattacharjee, S.	Effect of Fender Coverage Angle on the Aerodynamic Drag of a Bicycle	2019	SAE Technical Papers	10.4271/2019-01-5086
669	Bhattacharjee, S., Arora, B.B., Kashyap, V.	Optimization of Race Car Front Splitter Placement Using CFD	2019	SAE Technical Papers	10.4271/2019-01-5097

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
670	Aneja, R., Paliwal, A., Dham, J.S., Chauhan, P., Kumar, A.	Polarimetrical optical sensing using plasmonic nanocrescent dimer based nanoantenna arrays	2019	Optics InfoBase Conference Papers	10.1364/FIO.2019. JTu4A.80
671	Chauhan, P., Kumar, A., Kalra, Y.	Mid-infrared supercontinuum generation in highly nonlinear AsSe$_2$ chalcogenide circular photonic crystal fiber	2019	Optics InfoBase Conference Papers	10.1364/FIO.2019. JTu3A.34
672	Mishra, R.K., Mishra, A.R., Singh, A.	Traffic noise analysis using RLS-90 model in urban city	2019	INTER-NOISE 2019 MADRID - 48th International Congress and Exhibition on Noise Control Engineering	
673	Sharma, U., Sharma, S.C.	Investigating the effect of different carrier gases on plasma-assisted multi-walled carbon nanotube growth	2019	46th EPS Conference on Plasma Physics, EPS 2019	
674	Krishnayatra, G., Tokas, S., Kumar, R., Zunaid, M.	3 Dimensional CFD analysis of laminar flow natural convection of hollow cylinder with annular fins	2019	Proceedings of the World Congress on Mechanical, Chemical, and Material Engineering	10.11159/htff19.181
675	Kumar, S., Gupta, P., Singh, R.K.	Metaheuristic optimization of dual-element vertical axis wind turbine using genetic algorithm	2019	ASME 2019 Gas Turbine India Conference, GTINDIA 2019	10.1115/GTINDIA2019-2490
676	Gupta, K., Singh, R.K., Choudhary, N., Mukhopadhyay, S.	Numerical analysis for performance evaluation of round tubes inserted with corrugated twisted tape	2019	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)	10.1115/IMECE2019-10432
677	Arora, B.B., Suri, U., Garg, U., Das, S., Kumar, S.	Computational evaluation of a novel aerodynamic road vehicle design and drag reduction using vortex generators	2019	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)	10.1115/IMECE2019-11319
678	Kumar, S., Gupta, P., Singh, R.K.	A natural evolution based numerical optimisation framework to develop and enhance airfoil - Slat arrangement	2019	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)	10.1115/IMECE2019-10846
679	Kumar, S., Suri, U., Sachdeva, P., Singh, R.K.	Investigation of conduit flow past corrugated structures using large eddy simulations	2019	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE)	10.1115/IMECE2019-11273
680	Bansal, M., Singh, D.	Design and implementation of low noise amplifier in neural signal analysis	2019	Communications in Computer and Information Science	10.1007/978-981-15-1384-8_2
681	Kumar, S., Harariya, N., Bhowmik, A.	Energy Aware SEP Based on Dual Cluster Heads and Dual Sink Approach in WSN	2019	Communications in Computer and Information Science	10.1007/978-981-15-1718-1_24
682	Saini, M., Susan, S.	Data Augmentation of Minority Class with Transfer Learning for Classification of Imbalanced Breast Cancer Dataset Using Inception-V3	2019	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-31332-6_36

16. ANNEXURE

389

S. No.	Authors	Title	Year	Source title	DOI
683	Gautam, V., Kumar, A.	Experimental and numerical studies on formability of tailor welded blanks of high strength steel	2019	Procedia Manufacturing	10.1016/j.promfg.2019.02.164
684	Meena, J., Chauhan, A., Hasija, Y.	Deciphering the Association of Single Amino Acid Variations with Dermatological Diseases Applying Machine Learning Techniques	2019	Communications in Computer and Information Science	10.1007/978-981-15-0108-1_22
685	Nayak, R., Hasija, Y.	Deep Learning in Image Processing: Revolutionizing Diagnosis in the Field of Dermatology	2019	Communications in Computer and Information Science	10.1007/978-981-15-0108-1_27
686	Choudhary, A., Meena, D.C., Patra, A.K.	Asynchronous motor modeling in simulink for stator and rotor fault analysis	2019	Proceedings - 2019 7th International Conference on Green and Human Information Technology, ICGHIT 2019	10.1109/ICGHIT.2019.00026
687	Kumar, V., Tripathi, M.M.	Weight and bias initialization of ANN for load forecasting using cuckoo search algorithm	2019	Proceedings - 2019 7th International Conference on Green and Human Information Technology, ICGHIT 2019	10.1109/ICGHIT.2019.00021
688	Ranga, R., Kalra, Y., Kishor, K.	Design of arrow shaped nanoantenna for electric field enhancement	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2529188
689	Kashyap, V., Bhattacharjee, S.	Computational Analysis of Flap Camber and Ground Clearance in Double-Element Inverted Airfoils	2019	SAE Technical Papers	10.4271/2019-01-5065
690	Butola, R., Pratap, C., Shukla, A., Walia, R.S.	Effect on the mechanical properties of aluminum-based hybrid metal matrix composite using stir casting method	2019	Materials Science Forum	10.4028/www.scientific.net/MSF.969.253
691	Jain, M., Beniwal, R., Ghosh, A., Grover, T., Tyagi, U.	Classifying Question Papers with Bloom's Taxonomy Using Machine Learning Techniques	2019	Communications in Computer and Information Science	10.1007/978-981-13-9942-8_38
692	Saini, M., Susan, S.	Comparison of Deep Learning, Data Augmentation and Bag of-Visual-Words for Classification of Imbalanced Image Datasets	2019	Communications in Computer and Information Science	10.1007/978-981-13-9181-1_49
693	Singh, R., Bhushan, B.	Adaptive Neuro-Fuzzy-PID and Fuzzy-PID-Based Controller Design for Helicopter System	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-6772-4_25
694	Joshi, D., Sharma, S.	PV Emulator Modeling and Design Using Buck Converter	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-6772-4_55
695	Vashishtha, S., Susan, S.	Fuzzy logic based dynamic plotting of mood swings from tweets	2019	Advances in Intelligent Systems and Computing	10.1007/978-3-030-16681-6_13
696	Bhowmik, A., Kumar, S., Bhat, N.	Eye disease prediction from optical coherence tomography images with transfer learning	2019	Communications in Computer and Information Science	10.1007/978-3-030-20257-6_9

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
697	Kumar, S., Kumar, M.	Predicting customer churn using artificial neural network	2019	Communications in Computer and Information Science	10.1007/978-3-030-20257-6_25
698	Singh, T., Vishwakarma, D.K.	Human activity recognition in video benchmarks: A survey	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-2553-3_24
699	Susan, S., Ranjan, R., Taluja, U., Rai, S., Agarwal, P.	Neural Net Optimization by Weight-Entropy Monitoring	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1135-2_16
700	Susan, S., Mittal, M., Bansal, S., Agrawal, P.	Dynamic Texture Recognition from Multi-offset Temporal Intensity Co-occurrence Matrices with Local Pattern Matching	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1135-2_41
701	Garg, P., Jain, P.	Metamaterial-based patch antennas—review	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-0665-5_6
702	Dahiya, P., Jain, P.	Realization of recursive algorithm for one-dimensional discrete cosine transform and its inverse	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-0665-5_7
703	Kumar, V., Kumar, S.	Coverage preserving scheduling for life span maximization in wireless sensor network based internet of things	2019	Communication and Computing Systems- Proceedings of the 2nd International Conference on Communication and Computing systems, ICCCS 2018	
704	Jain, G., Lobiyal, D.K.	Epidemic spreading based word sense disambiguation of hindi text	2019	Communication and Computing Systems- Proceedings of the 2nd International Conference on Communication and Computing systems, ICCCS 2018	
705	Sahni, L., Chakraborty, D., Ghosh, A.	Implementation of boolean and and or logic gates with biologically reasonable time constants in spiking neural networks	2019	33rd AAAI Conference on Artificial Intelligence, AAAI 2019, 31st Innovative Applications of Artificial Intelligence Conference, IAAI 2019 and the 9th AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2019	
706	Bhatia, A., Wattal, R.	Friction stir welding of carbon steel: Effect on microstructure and tensile strength	2019	Materials Today: Proceedings	10.1016/j.matpr.2020.02.378
707	Bhukesh, S.K., Kumar, A., Gaware, S.K.	Bismuth telluride (Bi_2Te_3) thermoelectric material as a transducer for solar energy application	2019	Materials Today: Proceedings	10.1016/j.matpr.2020.02.646
708	Saxena, V., Yadav, P.S., Pali, H.S.	Effect of magnetic abrasive machining process parameters on internal surface finish	2019	Materials Today: Proceedings	10.1016/j.matpr.2019.11.051

S. No.	Authors	Title	Year	Source title	DOI
709	Khurana, I., Pratap, C., Singh, S., Bansal, A., Butola, R.	Experimental analysis of different GSM of glass fibre using dynamic mechanical analysis	2019	Materials Today: Proceedings	10.1016/j.matpr.2020.04.332
710	Yadav, M., Sharma, S.C., Gupta, D.N.	Plasma bubble evolution related electron beam parameter estimation in laser wakefield acceleration	2019	46th EPS Conference on Plasma Physics, EPS 2019	
711	Maurya, R.K., Niranjan, M.S.	An experimental analysis of process parameters for EN-36C alloy steel using CNC lathe - A review	2019	Materials Today: Proceedings	10.1016/j.matpr.2019.09.008
712	Bansal, S., Singh, S.K.	Sustainability analysis of transportation corridors under construction in an urban environment	2019	FIB 2018 - Proceedings for the 2018 fib Congress: Better, Smarter, Stronger	
713	Gupta, N., Agrawal, A.K., Walia, R.S.	Soft modeling approach in predicting surface roughness, temperature, cutting forces in hard turning process using artificial neural network: An empirical study	2019	Communications in Computer and Information Science	10.1007/978-981-15-1384-8_17
714	Jain, S., Sreedevi, I.	Robust Detection of Iris Region Using an Adapted SSD Framework	2019	Communications in Computer and Information Science	10.1007/978-981-15-1387-9_5
715	Kumar, A., Das, S.D.	Bird Species Classification Using Transfer Learning with Multistage Training	2019	Communications in Computer and Information Science	10.1007/978-981-15-1387-9_3
716	Shankhwar, N., Ranga, R., Kalra, Y., Sinha, R.K.	Dielectric ring based metamaterial perfect reflector	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2529033
717	Tyagi, A., Pandey, S.M., Murtaza, Q., Walia, R.S., Tyagi, M.	Tribological behavior of carbon coating for piston ring applications using Taguchi approach	2019	Materials Today: Proceedings	10.1016/j.matpr.2019.09.004
718	Chauhan, P., Kumar, A., Kalra, Y., Saini, T.S.	A multicomponent GAP-Se chalcogenide composition-based rectangular photonic crystal fiber for coherent supercontinuum generation	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2535677
719	Maurya, N.K., Rastogi, V., Singh, P.	Investigation of dimensional accuracy and international tolerance grades of 3D printed polycarbonate parts	2019	Materials Today: Proceedings	10.1016/j.matpr.2019.06.007
720	Sharma, Y., Ghosh, R., Jaiswal, M., Dhawan, A.	Modelling and fabrication of novel SERS sensor chips for chemical and biological sensing applications	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2524931
721	Sharma, Y., Jaiswal, M., Ghosh, R., Dhawan, A.	Hydrogen sensors based on plasmonic nanostructures present on palladium films	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2524928

16. ANNEXURE

S. No.	Authors	Title	Year	Source title	DOI
722	Lather, A.S., Kaur, S.	Role of leader-member exchange and organisational justice on firm sustainability in India: An empirical examination	2019	World Review of Entrepreneurship, Management and Sustainable Development	10.1504/WREMSD. 2019.102342
723	Khulbe, M., Kumar, S.	Role of nonlinear optics in big data transmission and next generation computing technologies	2019	Proceedings of the 9th International Conference On Cloud Computing, Data Science and Engineering, Confluence 2019	10.1109/CONFLUENCE. 2019.8776895
724	Jain, G., Lobiyal, D.K.	Word sense disambiguation of Hindi text using fuzzified semantic relations and fuzzy Hindi WordNet	2019	Proceedings of the 9th International Conference On Cloud Computing, Data Science and Engineering, Confluence 2019	10.1109/CONFLUENCE. 2019.8776967
725	Jaiswal, S., Gupta, D.	Security Validation of Cloud Based Storage	2019	Communications in Computer and Information Science	10.1007/978-981-13-9942-8_55
726	Rajput, V., Jayanthi, N., Indu, S.	An Efficient Character Segmentation Algorithm for Connected Handwritten Documents	2019	Communications in Computer and Information Science	10.1007/978-981-13-9361-7_9
727	Odun-Ayo, I., Geteloma, V., Eweoya, I., Ahuja, R.	Virtualization, Containerization, Composition, and Orchestration of Cloud Computing Services	2019	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-24305-0_30
728	Garg, L., Shukla, P., Singh, S.K., Bajpai, V., Yadav, U.	Land use land cover classification from satellite imagery using mUnet: A modified UNET architecture	2019	VISIGRAPP 2019 - Proceedings of the 14th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications	10.5220/0007370603590365
729	Sharma, Y., Ghosh, R.R., Sapra, V., Jalal, V., Ahmed, K., Dhawan, A.	Plasmonic switches based on arrays of plasmonic nanostructures surrounded by VO$_2$ thin films	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2511206
730	Bahar, T., Singh, O., Yadav, V.	Optimal Planning Strategies of DG in Distribution Systems	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-6772-4_29
731	Pachar, N., Jha, P.C., Gupta, A.	DEA-cross efficiency approach for peer assessment of retail stores' efficiency	2019	Proceedings of the International Conference on Industrial Engineering and Operations Management	
732	Gupta, S., Kumar, N., Srivastava, L.	Bat Search Algorithm for Solving Multi-objective Optimal Power Flow Problem	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-6772-4_30
733	Tomar, D., Tomar, P., Kaur, G.	Deep Learning in Big Data and Internet of Things	2019	Communications in Computer and Information Science	10.1007/978-981-13-5992-7_6

S. No.	Authors	Title	Year	Source title	DOI
734	Jain, V., Randheer, Priyadarshi, R., Thakur, A.	Performance Analysis of Block Matching Algorithms	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-7091-5_7
735	Varma, A.K., Lahiri, D.	Selection of optimum sensors for cooperative sensing in cognitive radio	2019	Smart Innovation, Systems and Technologies	10.1007/978-981-13-1747-7_57
736	Rathee, N., Chillar, R.S., Vij, S., Kukreja, S.	Automatic optimization of test path using firefly algorithm	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-0761-4_69
737	Jain, A., Pandey, N., Jain, P.	FPGA-based architecture for implementation of discrete sine transform	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-0665-5_2
738	Goswami, M., Mian, S., Mostow, J.	What's most broken? A tool to assist data-driven iterative improvement of an intelligent tutoring system	2019	33rd AAAI Conference on Artificial Intelligence, AAAI 2019, 31st Innovative Applications of Artificial Intelligence Conference, IAAI 2019 and the 9th AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2019	
739	Sundriyal, S., Walia, R.S., Vipin, Tyagi, M.	Investigation on surface finish in powder mixed near dry electric discharge machining method	2019	Materials Today: Proceedings	10.1016/j.matpr.2019.09.031
740	Anshu, Sharma, S.C., Sharma, J.	Lower hybrid waves excitation by a relativistic electron beam in a magnetized dusty plasma: Kinetic theory	2019	46th EPS Conference on Plasma Physics, EPS 2019	
741	Bhavan, A., Mishra, R., Sinha, P.P., Sawhney, R., Ratn Shah, R.	Investigating political herd mentality: A community sentiment based approach	2019	ACL 2019 - 57th Annual Meeting of the Association for Computational Linguistics, Proceedings of the Student Research Workshop	
742	Sharma, B., Kishor, K., Sharma, S., Makkar, R.	Broadband SiN directional coupler at 850 nm for optical coherence tomography	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2529351
743	Singh, P., Malhotra, R., Bansal, S.	Analyzing the effectiveness of machine learning algorithms for determining faulty classes: A comparative analysis	2019	Proceedings of the 9th International Conference On Cloud Computing, Data Science and Engineering, Confluence 2019	10.1109/CONFLUENCE.2019.8776946
744	Gupta, V., Chattoraj, A., Banarjee, A., Bhattacharya, B.	Wave propagation in auxetic mechanical metamaterial: Bloch formalism for various boundary conditions	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2514266

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
745	Mian, S., Goswami, M., Mostow, J.	What's most broken? Design and evaluation of a tool to guide improvement of an intelligent tutor	2019	Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)	10.1007/978-3-030-23204-7_24
746	Malhotra, R., Sharma, A.	An Empirical Study to Classify Website Using Thresholds from Data Characteristics	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-5934-7_39
747	Goyal, T., Walia, R.S., Sidhu, T.S.	Investigation on multiple parametric optimization of cold sprayed coatings process	2019	Materials Science and Technology 2018, MS and T 2018	10.7449/2018/MST_2018_567_577
748	Kaur, G., Dhamania, M., Tomar, P., Singh, P.	Efficient integration of high-order models using an FDTD–TDMA method for error minimization	2019	Lecture Notes in Electrical Engineering	10.1007/978-981-13-0212-1_33
749	Badoni, M., Singh, A., Singh, B.	Implementation of immune feedback control algorithm for distribution static compensator	2019	IEEE Transactions on Industry Applications	10.1109/TIA.2018.2867328
750	Kumar, N., Saini, H.S., Nisha, Singh, M., Kashyap, M.K.	Enhanced thermoelectric properties of Ta-doped Half-Heusler ZrNiSn	2019	Materials Today: Proceedings	10.1016/j.matpr.2020.01.367
751	Mishra, R., Sinha, P.P., Sawhney, R., Mahata, D., Mathur, P., Shah, R.R.	SNAP-BATNET: Cascading author profiling and social network graphs for suicide ideation detection on social media	2019	NAACL HLT 2019 - 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies - Proceedings of the Student Research Workshop	
752	Modi, K.S., Kaur, J., Singh, S.P., Tiwari, U., Sinha, R.K.	Split-arc-based metasurface for refractive index sensing applications	2019	Proceedings of SPIE - The International Society for Optical Engineering	10.1117/12.2511114
753	Rahul, M., Shukla, R., Yadav, D.K., Yadav, V.	Zernike Moment-Based Facial Expression Recognition Using Two-Staged Hidden Markov Model	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-6861-5_56

16.3 Book Chapters

S. No.	Authors	Title	Year	Source title	DOI
1	Gupta, R., Ambasta, R.K., Kumar, P.	Histone deacetylase in neuropathology	2020	Advances in Clinical Chemistry	10.1016/bs.acc.2020.09.004
2	Panchal, S., Shrivastava, A.K.	Landslide Susceptibility Mapping Along Highway Corridors in GIS Environment	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_8
3	Kumar, L., Bharadvaja, N.	Microbial remediation of heavy metals	2020	Microbial Bioremediation & Biodegradation	10.1007/978-981-15-1812-6_2
4	Kumar, A., Garg, G., Kumar, R., Chugh, M.	Context Annotated Graph and Fuzzy Similarity Based Document Descriptor	2020	Lecture Notes in Networks and Systems	10.1007/978-981-15-3369-3_53
5	Sonia	Opinion Mining Techniques and Its Applications: A Review	2020	Lecture Notes in Networks and Systems	10.1007/978-981-15-3369-3_41
6	Kumari, N., Trivedi, A.	Semi-active control strategy for horizontal dynamic loading on wall retaining granular fills	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-3677-9_8
7	Singh, H., Gupta, A.K.	Correlation Between Shear Strength of Soils and Water Content Ratio as a Substitute for Liquidity Index	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-0890-5_25
8	Kumari, N., Trivedi, A.	Vibration Control of Flexible Retention Systems	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-0890-5_44
9	Meel, P., Singh, T.	Detection of Flooding Attacks Using Multivariate Analysis	2020	Lecture Notes on Data Engineering and Communications Technologies	10.1007/978-3-030-43192-1_36
10	Patidar, S., Singh, U., Patidar, A., Munsoori, R.A., Patidar, J.	Comparative Study on Face Detection by GPU, CPU and OpenCV	2020	Lecture Notes on Data Engineering and Communications Technologies	10.1007/978-3-030-37051-0_77
11	Chauhan, A., Malhotra, A., Singh, A., Arora, J., Shukla, S.	Encoding Context in Task-Oriented Dialogue Systems Using Intent, Dialogue Acts, and Slots	2020	Lecture Notes in Networks and Systems	10.1007/978-981-15-2043-3_34
12	Lingwal, P., Gupta, A.K.	Bearing capacity of clayey soil reinforced with geogrid	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-0886-8_14
13	Srivastava, G., Bansal, M.	A High Linearity Shunt Capacitive Feedback LNA for Wireless Applications	2020	Lecture Notes in Networks and Systems	10.1007/978-3-030-33846-6_79
14	Jain, P.K., Arora, A., Arora, B.B.	Performance Analysis of ORC with Environment-Friendly Working Fluids Novec 649 and R1233zd[E] as Alternative to R245fa	2020	Lecture Notes in Civil Engineering	10.1007/978-981-13-7557-6_5
15	Agarwal, S., Arora, A., Arora, B.B.	Exergy Analysis of Dedicated Mechanically Subcooled Vapour Compression Refrigeration Cycle Using HFC-R134a, HFO-R1234ze and R1234yf	2020	Lecture Notes in Civil Engineering	10.1007/978-981-13-7557-6_3
16	Kumar, A., Gupta, D.	Challenges Within the Industry 4.0 Setup	2020	Advances in Science, Technology and Innovation	10.1007/978-3-030-14544-6_11

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
17	Sharma, A., Pandey, H.	Big Data and Analytics in Industry 4.0	2020	Advances in Science, Technology and Innovation	10.1007/978-3-030-14544-6_4
18	Kaur, M., Arvind, P., Mandal, A.	ANN-Based Prediction of $PM_{2.5}$ for Delhi	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_52
19	Yadav, M., Jamil, M., Rizwan, M.	Enabling Technologies for Smart Energy Management in a Residential Sector: A Review	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_2
20	Roshan, P., Pal, S., Kumar, R.	Performance Assessment Indexing of Buildings Through Fuzzy AHP Methodology	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_42
21	Gandhi, N., Haleem, A., Shuaib, M., Kumar, D.	Analysis of Logistical Barriers Faced by MNCs for Business in Indian Smart Cities Using ISM-MICMAC Approach	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_47
22	Chaudhary, I., Verma, S.R.	Ligninolysis: Roles of microbes and their extracellular enzymes	2020	Microbial Bioremediation & Biodegradation	10.1007/978-981-15-1812-6_14
23	Kumar, A., Nayyar, A.	si^3-Industry: A Sustainable, Intelligent, Innovative, Internet-of-Things Industry	2020	Advances in Science, Technology and Innovation	10.1007/978-3-030-14544-6_1
24	Singh, M., Trivedi, A., Shukla, S.K.	Effect of geosynthetic reinforcement on strength behaviour of subgrade-aggregate composite system	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-3677-9_7
25	Kumar, S., Grover, S., Walia, R.S.	Evaluation of cutting rate for ultrasonic work piece vibration assisted wire-EDM under varying amplitude of vibration	2020	Materials Science Forum	10.4028/www.scientific.net/MSF.979.149
26	Sarkar, R., Shrivastava, A.K., Mudgal, A.	An experimental investigation on bearing capacity behavior of rectangular footing over reinforced soil slope	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-0802-8_141
27	Kumar, A., Sangwan, S.R., Nayyar, A.	Multimedia social big data: mining	2020	Intelligent Systems Reference Library	10.1007/978-981-13-8759-3_11
28	Baruah, D., Goel, S., Gupta, C., Sahu, A.K.	Ground improvement using municipal solid waste ash	2020	Lecture Notes in Civil Engineering	10.1007/978-981-13-7480-7_25
29	Ansari, N.A., Arora, A., Samsher, Manjunath, K.	The Effect of Eco-friendly Refrigerants on Performance of Vapor Compression Refrigeration System with Dedicated Mechanical Subcooling	2020	Lecture Notes in Civil Engineering	10.1007/978-981-13-7557-6_4
30	Kaur, D., Kumar, V.	Numerical Solution with Special Layer Adapted Meshes for Singularly Perturbed Boundary Value Problems	2020	Studies in Systems, Decision and Control	10.1007/978-3-319-99918-0_12
31	Ansari, M.I., Thakural, L.N., Anbu Kumar, S.	Streamflow Modelling for a Peninsular Basin in India	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_53
32	Chaudhary, A., Siddarth, R., Sahu, A.K., Abbas, S.M.	A Study on Modelled Granular Column of Various Diameters in Soils	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_55

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
33	Saraswat, R., Parkash, S., Pal, S.	Landslide Susceptibility Assessment Due to Construction of Buildings in Garhwal Area Using GIS	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-2545-2_70
34	Dhall, S., Pal, S.K., Sharma, K.	A chaos-based multi-level dynamic framework for image encryption	2020	Internet of Things (IoT): Concepts and Applications	10.1007/978-3-030-37468-6_10
35	Veer, B., Geetanjali, Singh, R.	Natural products as anti-Alzheimer's drugs	2020	Studies in Natural Products Chemistry	10.1016/B978-0-12-817907-9.00006-4
36	Kumar, A., Goyal, A.K., Roy, M., Gupta, N., Tripathi, M., Chaujar, R.	Detection of Hazardous Analyte Using Transparent Gate Thin-Film Transistor	2020	Lecture Notes in Networks and Systems	10.1007/978-981-15-2329-8_20
37	Rai, A., Pandey, A., Mishra, P.K., Tiwari, K.C.	The potential of UAV based remote sensing for monitoring hindu kush himalayan glaciers	2020	Lecture Notes in Civil Engineering	10.1007/978-3-030-37393-1_26
38	Mandal, P., Sri Nagesh, M., Mandal, A.	Status of carbonaceous aerosol at indoor environment of a cafeteria in Delhi, India—A case study	2020	Lecture Notes in Civil Engineering	10.1007/978-981-15-1334-3_2
39	Gandhar, S., Ohri, J., Singh, M.	Improvement of Voltage Stability of Renewable Energy Sources-Based Microgrid Using ANFIS-Tuned UPFC	2020	Lecture Notes in Civil Engineering	10.1007/978-981-13-7557-6_11
40	Kaushik, S.C., Arora, A., Dixit, M.	Hybrid Absorption Cycles for Solar Cooling	2020	Lecture Notes in Civil Engineering	10.1007/978-981-13-7557-6_19
41	Kumar, N., Sonthalia, A., Pali, H.S., Sidharth	Next-Generation Biofuels—Opportunities and Challenges	2020	Green Energy and Technology	10.1007/978-981-13-9012-8_8
42	Kumar, A., Saikiran, G., Anju, T., Anusree, V.K., Jasna, K., Sharma, Y.P., Chandu, K.D., Singh, K., Rawoof, A., Ramchiary, N., at All	Biosynthesis, genetic regulation and therapeutic potential of capsaicinoids	2020	Plant-derived Bioactives: Chemistry and Mode of Action	10.1007/978-981-15-2361-8_15
43	Thomas, A., Chopra, M.	On how big data revolutionizes knowledge management	2019	Digital Transformation in Business and Society: Theory and Cases	10.1007/978-3-030-08277-2_3
44	Garg, N., Saxena, A.	Promoting constructive deviance as an antidote to organizational stress	2019	Analyzing Workplace Deviance in Modern Organizations	10.4018/978-1-5225-9996-8.ch008
45	Kumar, L., Bharadvaja, N.	Enzymatic bioremediation: A smart tool to fight environmental pollutants	2019	Smart Bioremediation Technologies: Microbial Enzymes	10.1016/B978-0-12-818307-6.00006-8
46	Jain, S., Meena, J.	Workflow Scheduling Algorithms in Cloud Computing: An Analysis, Analogy, and Provocations	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-7082-3_57
47	Nara, S., Malhotra, B.D.	Applications of Immuno-electrochemical Detection Strategies for Food Analysis	2019	Food Chemistry, Function and Analysis	10.1039/9781788016322-00154

16. ANNEXURE

ISO 9001:2015 Certified | Accredited Grade 'A' by NAAC

S. No.	Authors	Title	Year	Source title	DOI
48	Pandey, P., Seeja, K.R.	Emotional State Recognition with EEG Signals Using Subject Independent Approach	2019	Lecture Notes on Data Engineering and Communications Technologies	10.1007/978-981-10-7641-1_10
49	Bhardwaj, A., Ali, P., Walia, R.S., Murtaza, Q., Pandey, S.M.	Development of hybrid forms of abrasive flow machining process: A review	2019	Lecture Notes in Mechanical Engineering	10.1007/978-981-13-6412-9_5
50	Kumar, A., Sangwan, S.R.	Rumor detection using machine learning techniques on social media	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-2354-6_23
51	Kumar, A., Nayak, S., Chandra, N.	Empirical analysis of supervised machine learning techniques for cyberbullying detection	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-2354-6_24
52	Malhotra, R., Jain, J.	Analysis of refactoring effect on software quality of object-oriented systems	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-2354-6_22
53	Pandey, P., Seeja, K.R.	Subject-independent emotion detection from eeg signals using deep neural network	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-2354-6_5
54	Rahul, Rajiv, K., Tripathi, M.M.	Long Short-Term Memory-Convolution Neural Network Based Hybrid Deep Learning Approach for Power Quality Events Classification	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-3765-9_52
55	Sanwal, K., Ahuja, H.	Breast Cancer Detection Using Low-Computation-Based Collaborating Forward-Dependent Neural Networks	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-0277-0_9
56	Kumar, A., Sharma, A.	Opinion mining of Saubhagya Yojna for digital India	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-2354-6_40
57	Hooda, H., Verma, O.P., Arora, S.	Optimal fuzzy C-means algorithm for brain image segmentation	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1819-1_56
58	Khanduja, N., Bhushan, B.	CSTR control using IMC-PID, PSO-PID, and hybrid BBO-FF-PID controller	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_48
59	Garg, P., Jain, P.	Extraction of equivalent circuit parameters of metamaterial-based bandstop filter	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_16
60	Viswanadha, K., Raghava, N.S.	Design of a narrow-band pass asymmetric microstrip coupled-line filter with distributed amplifiers at 5.5 GHz for WLAN applications	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_17
61	Dahiya, P., Jain, P.	Realization of recursive algorithm for one-dimensional discrete sine transform and its inverse	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_33
62	Bansal, M., Jyoti	Utilizing CMOS low-noise amplifier for bluetooth low energy applications	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_22
63	Kumar, A., Sujal	Multi-document Summarization and Opinion Mining Using Stack Decoder Method and Neural Networks	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1274-8_5

S. No.	Authors	Title	Year	Source title	DOI
64	Kumar, P., Mir, F.A.	Use of jute fiber in improving geotechnical properties of soil	2019	Lecture Notes in Civil Engineering	10.1007/978-981-13-6713-7_38
65	Singh, H., Arora, B.B.	Effect of area ratio on flow separation in annular diffuser	2019	Lecture Notes in Mechanical Engineering	10.1007/978-981-13-6416-7_28
66	Chawla, S., Agrawal, S., Singari, R.M.	Integrated topsis-moora model for prioritization of new bike selection	2019	Lecture Notes in Mechanical Engineering	10.1007/978-981-13-6469-3_70
67	Khanchi, A., Sandhu, H., Singh, M.K., Sehgal, S.S., Bajaj, B.	Identification and inquisition of thermoelectric generator unit for efficient waste heat recovery	2019	Lecture Notes in Mechanical Engineering	10.1007/978-981-13-6416-7_29
68	Dharamveer, Samsher, Singh, D.B., Singh, A.K., Kumar, N.	Solar distiller unit loaded with nanofluid—A short review	2019	Lecture Notes in Mechanical Engineering	10.1007/978-981-13-6577-5_24
69	Agrawal, P., Anand, V., Tripathi, S., Pandey, S., Kumar, S.	A Solution for Successful Routing in Low–Mid-Density Network Using Updated Azimuthal Protocol	2019	Lecture Notes in Networks and Systems	10.1007/978-981-13-2324-9_34
70	Chouksey, A., Dev, N., Kumari, S.	Review paper on utilization potential of rice husk ash as supplementary cementitious material	2019	Lecture Notes in Civil Engineering	10.1007/978-981-13-3317-0_60
71	Kumar, P., Juneja, P., Garg, R.	Reliability of PMU using fuzzy markov dynamic method	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_5
72	Kumar, S., Pandouria, A.K., Tiwari, V.	Investigating dynamic fracture parameters for Al7075-T651 using modified hopkinson pressure bar (MHPB)	2019	Conference Proceedings of the Society for Experimental Mechanics Series	10.1007/978-3-319-95879-8_3
73	Shuaib, M., Haleem, A., Kumar, L., Rohan, Sharma, D.	Design and analysis of steering knuckle joint	2019	Lecture Notes in Mechanical Engineering	10.1007/978-981-13-6469-3_38
74	Gaur, M.K., Tiwari, G.N., Kushwah, A., Kumar, A., Saxena, G.	Integrated PVT hybrid active solar still (HASS) with an optimized number of collectors	2019	Green Energy and Technology	10.1007/978-981-13-6887-5_10
75	Kaviti, A.K., Kumar, A., Prakash, O.	Effect of design parameters on productivity of various passive solar stills	2019	Green Energy and Technology	10.1007/978-981-13-6887-5_3
76	Pandey, P., Prakash, O., Kumar, A.	Desalination and solar still: Boon to earth	2019	Green Energy and Technology	10.1007/978-981-13-6887-5_1
77	Nagpal, N., Nagpal, H., Bhushan, B., Agarwal, V.	Tracking control of 4-DOF robotic arm using krill herd-optimized fuzzy logic controller	2019	Advances in Intelligent Systems and Computing	10.1007/978-981-13-1822-1_59
78	Kumar, D., Pandey, A., Prakash, O., Kumar, A., DevRoy, A.	Simulation, modeling, and experimental studies of solar distillation systems	2019	Green Energy and Technology	10.1007/978-981-13-6887-5_6
79	Kant, R., Prakash, O., Tripathi, R., Kumar, A.	Exergy analysis of active and passive solar still	2019	Green Energy and Technology	10.1007/978-981-13-6887-5_12
80	DevRoy, A., Prakash, O., Singh, S., Kumar, A.	Application of software in predicting thermal behaviours of solar stills	2019	Green Energy and Technology	10.1007/978-981-13-6887-5_5

16. ANNEXURE

DTU RANKINGS 2019

TIMES ENGINEERING

TIMES TOP 155 Engineering Institute Rankings 2020

Optimal Media Solutions

Partnered with Market Xcel Data Matrix to conduct its sixth Engineering Institute 2020 survey to determine the top engineering institutes in India.

RANK	ENGINEERING INSTITUTES
1	**DELHI TECHNOLOGICAL UNIVERSITY, DELHI**
2	Birla Institute of Technology and Science, Pilani
3	SRM Institute of Science and Technology, Chennai
4	National Institute of Technology Karnataka, Surathkal, Mangalore
5	Indian Institute of Technology, Bhubaneswar
6	College of Engineering, Pune
7	PSG College of Technology, Coimbatore
8	BMS College of Engineering, Bengaluru
9	Institute of Technology, Nirma University, Ahmedabad
10	Koneru Lakshmaiah Education Foundation(KLEF) Deemed To Be University, Vijayawada
11	Sathyabama Institute of Science & Technology, Chennai
12	Nitte Meenakshi Institute of Technology, Bangalore
13	Institute of Engineering & Management (IEM), Kolkata
14	KJ Somaiya College of Engineering, Mumbai
15	MIT World Peace University (Faculty of Engineering and Technology), Pune
16	Faculty of Engineering & Technology (Manav Rachna International Institute of Research & Studies), Faridabad
17	JIS College of Engineering Kalyani West Bengal
18	Bharati Vidyapeeth (Deemed To Be University) College of Engineering, Pune
19	Vishwakarma Institute of Technology, Pune
20	REVA University, Bengaluru

DELHI TECHNOLOGICAL UNIVERSITY

INDIA TODAY RANKING 2020

TOP 10 INDIA'S BEST TECHNICAL UNIVERSITIES

1	INDIAN INSTITUTE OF TECHNOLOGY DELHI, New Delhi
2	INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, Kharagpur
3	INDIAN INSTITUTE OF TECHNOLOGY BOMBAY, Mumbai
4	INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI, Guwahati
5	**DELHI TECHNOLOGICAL UNIVERSITY** New Delhi
6	INDIAN INSTITUTE OF TECHNOLOGY MANDI, Mandi
7	BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, Pilani
8	INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR, Bhubaneswar
9	INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY HYDERABAD, Hyderabad
10	INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY BANGALORE, Bengaluru

TOP 10 GOVERNMENT COLLEGES

1	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-DELHI	New Delhi
2	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-BOMBAY	Mumbai
3	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-KHARAGPUR	Kharagpur
4	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-KANPUR	Kanpur
5	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-ROORKEE	Roorkee
6	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-GUWAHATI	Guwahati
7	NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI	Tiruchirappalli
8	**DELHI TECHNOLOGICAL UNIVERSITY (DTU)**	New Delhi
9	INDIAN INSTITUTE OF INFORMATION TECHNOLOGY (IIIT)	Allahabad
10	INDIAN INSTITUTE OF TECHNOLOGY (IIT)-ROPAR	Ropar

BATCH-2019

BMH

CVR

BCH

JCB

HJB

VVS

DTU Lake

Sports Complex

Night Canteen

Library

Auditorium

Smart classrooms

Academic Block

Admin Block

Computer Center

Nescafe

Science Block

OAT

Mechanical Workshop

Electrical Dept

Mechanical and Biotech Dept

Electronics Dept

Mech C

SNH Girls Hostel

Civil Dept

Delhi School of Management

KCH Girls Hostel

Aryabhatta Hostel

Transit Hostel

State Bank of India

Mall Road

Main Gate

EDITORIAL MEMBERS

दिल्ली प्रौद्योगिकी विश्वविद्यालय
DELHI TECHNOLOGICAL UNIVERSITY