DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

A COMPENDIUM OF
CITATION, INNOVATION & RESEARCH AWARDS

8th RESEARCH & INNOVATION EXCELLENCE AWARDS-2025

1st JANUARY, 2024 TO 31st DECEMBER, 2024

Admin Block, **DTU**

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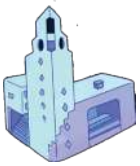
Auditorium, **DTU**



Research at the UNIVERSITY

The Delhi Technological University (DTU) was established through Act 6 of 2009 by the Legislative Assembly of the National Capital Territory (NCT) of Delhi, which provided for the reconstitution of the erstwhile Delhi College of Engineering. The institute itself traces its origins to 1941, when it was founded as Delhi Polytechnic, based on the recommendations of the Wood and Abott Committee (1938). Since then, DTU has been at the forefront of technical education, research, and innovation for over eight decades.

As a non-affiliating teaching-cum-research university, DTU is dedicated to imparting high-quality education at both undergraduate and postgraduate levels. The university strives to foster scientific inquiry using state-of-the-art research facilities, while also promoting intellectual property protection, technology business incubation, product innovation, and extension activities in science, technology, management, and allied fields.

Currently, DTU offers undergraduate programmes in fourteen engineering disciplines, along with programmes in Design (B.Des.), Business Administration (BBA), and Economics (B.A. Hons.). At the postgraduate level, the university runs twenty-five M.Tech programmes, five M.Des. programmes, six MBA programmes, and four M.Sc. programmes. From the academic year 2024–2025, DTU also introduced a five-year integrated B.Sc.–M.Sc. programmes in five disciplines.

DTU places strong emphasis on research engagement, beginning right at the undergraduate level. Its contributions are reflected in high-quality publications, intellectual property filings, and innovations emerging from incubation initiatives. In 2024 alone, the university published over 23 patents and was granted 19 patents.

Faculty members at DTU actively undertake consultancy and sponsored projects supported by government agencies such as AICTE, DST, ANRF, DBT, UGC, CSIR, ICMR, and DRDO, as well as by private organizations. To further enhance research output, the university launched several faculty research support schemes in 2024, including the Young Faculty Grant, Equipment Matching Grant, Faculty Interdisciplinary Research Project Grant, and Multi-Institutional Research Project Scheme. In addition, the university provides financial assistance for faculty and students to present research papers at national and international conferences and covers expenses related to patent filing.

DTU also nurtures student-led innovation through interdisciplinary teams engaged in product development and participation in international competitions. At the DTU Innovation and Incubation Foundation (DTU-IIF), around 115 startups are currently being incubated at various stages.

The university's thrust areas of research span a wide spectrum, including clean energy technologies, solar PV, electric vehicles, smart grids, material testing, fracture mechanics, rock and geo-mechanics, structural dynamics, computational fluid dynamics, environmental monitoring, advanced automobile solutions, metro technology and systems, nano-scale devices, biosensors, robotics and machine vision, quantum technologies, lithium-ion batteries, advanced materials and conducting polymers, CAD, plasma physics, VLSI design, embedded systems, machine learning, software testing, intelligent power systems, cybersecurity, network management, knowledge and innovation management, and other socially relevant technologies.

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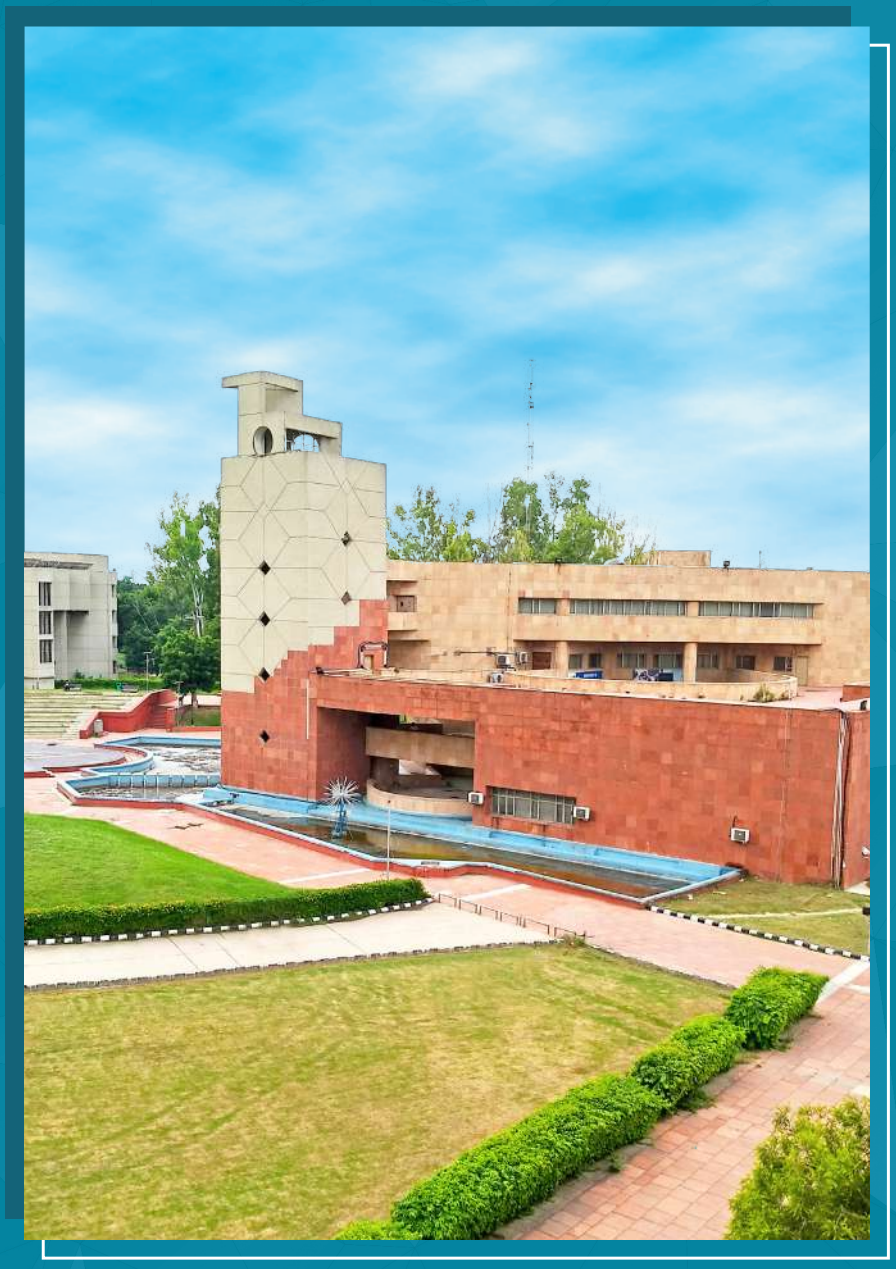

Open Air Theater, **DTU**

From the Desk of the VICE CHANCELLOR

Prof. Prateek Sharma
Vice Chancellor, DTU

Delhi Technological University (formerly Delhi College of Engineering) has an illustrious legacy spanning over 84 years. This premier institution is globally recognized for its outstanding contributions to education, research, and innovation. DTU offers a wide spectrum of interdisciplinary and industry-relevant programs in Science, Technology, Management, and allied areas at both undergraduate and postgraduate levels. By providing state-of-the-art infrastructure, research funding, and an enabling environment, DTU nurtures a culture of innovation and inquiry, empowering students and faculty to aspire toward global standards of excellence.

With this long-standing tradition of leadership in education, research, and innovation, DTU instituted the Research and Innovation Excellence Awards (RIEA) to recognize exceptional contributions in knowledge creation and in developing meaningful solutions to society's complex challenges. The awards celebrate research that is original, rigorous, and impactful, while also highlighting innovation that translates knowledge into creative applications, processes, and technologies. Together, these dimensions establish a strong foundation for progress by linking discovery with practice.

The motivation for research excellence and innovation stems from intellectual curiosity, the drive to solve pressing global and local problems, and the aspiration to contribute to sustainable and equitable growth. It is also guided by the need to remain globally competitive, uphold academic and ethical standards, and inspire future generations of thinkers, innovators, and leaders.

It is my privilege to report that the year 2024-25 witnessed 36 Citation Awards, 523 Published Paper Awards and 11 Innovation Awards. Also, it gives me immense pleasure to share that, in its continued pursuit of fostering a culture of research excellence and academic rigor, the University has this year instituted two new categories of awards – the "Sponsored Research Project Award" and the "Award for Submission of Ph.D. Thesis within the Stipulated Period". These recognitions are envisioned to inspire our scholars and faculty alike to strive for greater heights in innovation and timely accomplishment of academic milestones. The synergy between research and innovation has had a transformative impact on DTU's global reputation, contributing to rising university rankings and international recognition.

The outcomes of these efforts have helped in forming evidence-based policymaking, fuelled educational reforms, strengthened our industry-academia linkage, and enhanced the quality of life for diverse communities. From technological breakthroughs and advances in STEM fields to socially responsive research and cultural enrichment, DTU's contributions continue to touch every aspect of human life.

As we look ahead, let us march forward with renewed commitment to research excellence, aspiring to reach greater heights in education, innovation, and societal impact. I invite all students and faculty members of DTU to dedicate themselves wholeheartedly to fostering a vibrant culture of research and innovation, thereby strengthening our tradition of research excellence and shaping a better future for generations to come.

I heartily congratulate all the recipients in different award categories for their outstanding achievement in research and look forward to seeing how their contributions will excel our University and our Nation, in the years to come.

Dated: 19:09:2025

PROF. PRATEEK SHARMA

VICE CHANCELLOR
DTU

Prof. Narendra Kumar

REGISTRAR
DTU

Prof. Girish Kumar

DEAN
Research and Development, DTU

Prof. Anil Kumar Haritash

ASSOCIATE DEAN
Research and Development, DTU

Dr. Asmita Das

ASSOCIATE DEAN
Corporate Relations, DTU

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Coordinator (Awards/Outreach/Events)

Dr. Mohan Singh Mehta
Coordinator (Consultancy Projects)

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Coordinator (Govt., PSUs and Institutional Liaison)

Dr. Bharti Singh
Coordinator (Sponsored Research Projects)

Dr. Rahul Thakur
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Assistant Director (Industry Liaison and CSR)

Dr. Rajeev Kumar
Assistant Director (IPR and Technology Transfer)

Dr. Ankita Matta
Deputy Coordinator (Industry Liaison and CSR)

Ms. Anukriti Kaushal
Deputy Coordinator (IPR and Technology Transfer)

PREFACE

At Delhi Technological University, the pursuit of knowledge has always been more than an academic exercise—it is a journey of discovery, invention, and impact. With each passing year, our faculty and researchers reaffirm the university's standing as a hub of intellectual growth and transformative ideas. This volume is a reflection of that spirit, bringing together the accomplishments of our scholars and innovators who continue to push the boundaries of research and creativity.

Since their establishment, the Research and Innovation Excellence Awards have become a defining tradition at DTU. Conceived under the visionary leadership of Prof. Yogesh Singh, these awards have provided well-deserved recognition to those whose scholarly contributions shape the frontiers of science, technology, and society. By distinguishing contributions through Citation Awards, Innovation Award, Outstanding, Premier, and Commendable categories, the awards highlight varying degrees of academic excellence. Building on this strong foundation, and under the visionary leadership of Prof. Prateek Sharma, Vice Chancellor of DTU, the University broadened its horizons in 2024 with the introduction of the Innovation Awards, honoring entrepreneurial thinking, translational research, and impactful solutions. Further, this year marks the addition of two new categories – the Sponsored Research Project Award and the Award for Submission of Ph.D. Thesis within the Stipulated Period – reinforcing DTU's commitment to fostering excellence in research and timely academic achievement.

This compendium, a carefully curated archive of intellectual progress, reflects the prestige of DTU's academic community and its steadfast pursuit of excellence. Each recognition presented herein is founded on the pillars of merit, integrity, and rigor, ensured through the meticulous evaluation of nominations by distinguished faculty committees.

We extend our sincere gratitude to the scrutiny committee for Published Papers – Prof. Ram Singh, Prof. Shilpa Pal, Prof. Roli Purwar, Prof. Anjana Gupta, Prof. Nand Kumar, Prof. Dheeraj Joshi, Prof. Poornima Mittal, Prof. Pravin Kumar, Dr. Virendra Ranga, Dr. Mohan Singh Mehata, Dr. Lovleen Gupta, Dr. Sanjay Kumar, Dr. Divyashikha Sethia, Dr. Navneeta Bharadwaj, Dr. Nidhi Maheshwari, Dr. Bharti Singh, Dr. Anurag Goel, and Dr. Yashdeep Singh – for their rigorous evaluation and valuable insights. Their commitment has been central to upholding the credibility and prestige of these honors.

We are equally grateful to the scrutiny committee for Citation Awards – Prof. Alka Singh, Prof. Dinesh K. Vishwakarma, Prof. Anil Kumar (ME), Dr. M. Jayasimhadri, Dr. Asmita Das, Dr. Lovleen Gupta, Dr. Satyabrat Adhikari, Dr. Naval Garg, and Dr. Vikas Gupta – for their dedicated assessment of nominations.

Our thanks are also due to the scrutiny committee for Innovation Research Awards – Prof. C. P. Singh, Prof. Mini Sreejeth, Prof. Rahul Katarya, Dr. Lovleen Gupta, and Dr. Rajeev Kumar – for their thorough evaluation.

For the newly introduced categories, the Sponsored Research Project Award and the Award for Submission of Ph.D. Thesis within the Stipulated Period, we acknowledge with gratitude the contributions of Prof. Roli Purwar, Prof. Mini Sreejeth, Dr. Dhirender Kumar, Dr. Rajeev Kumar, and Dr. Lovleen Gupta in scrutinizing applications.

The achievements recorded in these pages highlight more than individual brilliance—they symbolize a collective commitment to academic excellence and innovation at DTU. They serve as an enduring source of inspiration for students, young researchers, and future leaders who will carry forward this legacy of inquiry and impact.

As we present this year's compendium, we do so with a sense of pride and anticipation. Pride in what has already been achieved, and anticipation of the discoveries and innovations yet to come. The Research and Innovation Excellence Awards embody DTU's unwavering resolve to nurture ideas that matter, knowledge that endures, and innovations that transform society.

Prof. Girish Kumar (Dean-R&D)

Prof. Anil Haritash (Associate Dean-R&D)

DELHI TECHNOLOGICAL UNIVERSITY

Established under Govt. of Delhi Act 6 of 2009
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BAWANA ROAD, SHAHBAD DAULATPUR, DELHI-42

F.DTU/Council/BOM-Notification/71/2025/565 Date : 22/01/2025

NOTIFICATION

The Board of Management of the Delhi Technological University in its 53rd meeting held on 11th December, 2024, vide supplementary agenda number 53.15, approved the following Guidelines for "Sponsored Research Project Award" for Principal Investigator of Delhi Technological University:

Guidelines for "Sponsored Research Project Award" for Principal Investigator of Delhi Technological University

Sponsored research project awards shall be given to principal investigator of Delhi Technological University (DTU) in the recognition to receive the sponsored research grant from any funding agency (National and International). The award aims to motivate and recognize individual excellence in research and development work. The award will be given for the sponsored project completed in each year (1st January - 31st December). Principal investigator from DTU can apply for the award. A notice will be circulated annually and the application form for getting the details of completed sponsored research project qualifying the selection criteria will be submitted to the concerned section.

Definitions

"University" shall mean Delhi Technological University (DTU), Delhi.

"Sponsored Research Project" means research projects sponsored by Government, national/international agencies. Generally, the project cost including expenditure towards manpower, equipment, consumables and support services of the University is borne by the sponsor and there is no honorarium/payment to principal investigator.

"Sponsor" means the organization that offers a Project to the University and provides necessary financial support for the successful completion of the project in time.

"Principal Investigator (P.I.)" means, a faculty/ scientist /emeritus fellow/ chair professor/ visiting professor at the University with the necessary expertise and competence to conduct a sponsored research work. Normally, the faculty/scientist/ emeritus fellow/chair professor/ visiting professor who submits the project proposal and is instrumental in getting the project funding is the Principal Investigator (PI).

"Co-Principal Investigator (Co-PI)" means a faculty/ scientist/ emeritus fellow/ chair professor/ visiting professor at the University with necessary expertise and competence to conduct a Sponsored Research work. A Co-PI may share equal responsibility with the PI for project oversight, budget management, and reporting as part of a multi-investigator team or may direct a particular portion of the project and retain limited administrative oversight over the grant.

Research Faculty Development Fund (RFDF) means a sub account created by the R&D Office under R&D account for individual academic staff (faculty/ scientist/ emeritus fellow/ chair professor/ visiting professor) where the Sponsored Research Project Award shall be credited. The University overhead charges/ share from research projects are also transferred to this account.

Prize Money and Selection Criteria

1. The award money shall be given after the successful completion of the project.

2. The award money shall be 10% the cost of fund utilization of the sanctioned project to DTU. The fund utilization shall exclude the overhead charges.

3. The maximum ceiling amount for the award money shall be Rs. 10 Lakh. Fifty percent (50%) of the award money shall be given as cash prize to Principle Investigator and Co-investigator(s). And remaining Fifty percent (50%) prize money shall be credited to RFDF account of Principal Investigator and Co-investigator(s).

4. For consortia project, award money distributed to member/PI shall be based on the amount utilized under sanctioned project to DTU.

5. Distribution of Award Money among PI and Co-PI

   (a) The PI will decide the distribution of award money among the Co-PI(s)

   (b) A minimum 25% and maximum 50% prize money shall be given to Co-PI(s)

   (c) The distribution of the award money of Co-PI shall be among the DTU faculty/scientist/emeritus fellow/chair professor/ visiting professor. In case if there is any Co-PI outside DTU, the part of the award money of external Co-PI will not be deducted from the award money of the Co-PI of DTU faculty/scientist/emeritus fellow/chair professor/ visiting professor.

(Prof. Madhusudan Singh)
Registrar

F.DTU/Council/BOM-Notification/71/2025/565 Date : 22/01/2025

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1. PA to V.C. for kind information of the Vice Chancellor
2. PA to Registrar for kind information of the Registrar
3. All Deans/ HODs
4. Guard file

(Madhuresh Kumar Jha)
Section Officer (Council)

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F.DTU/Council/BOM-Notification/71/2025/566 Date : 22/01/2025

NOTIFICATION

The Board of Management of the Delhi Technological University in its 53rd meeting held on 11th December, 2024, vide supplementary agenda number 53.17, approved the Guidelines for Incentivizing Students and their respective Supervisors for completing Ph.D within minimum stipulated period as below:

Guidelines for the Award for Submission of Ph.D Thesis within Stipulated Period

A. PREAMBLE:

In the recognition of importance of the research work and to motivate the individual excellence in research, the cash award will be given to Ph.D scholars and their respective supervisors for submitting the Ph.D thesis within the stipulated period as per the Ph.D Ordinance.

B. DEFINITIONS:

i. **"University"** shall mean Delhi Technological University (DTU), Delhi.
ii. **"Supervisor"**: An individual who is a regular faculty member approved by Academic Council to guide/supervise Ph.D candidate of the University.
iii. **"Ph.D Candidate"**: An individual who is registered for a Ph.D degree in the Delhi Technological University.
iv. **"DTU Ph.D Ordinance"**: The rules with which PhD candidate is governed during the Ph.D period.

C. NATURE OF THE AWARD:

The award will be granted to Ph.D students studying in various departments and their respective supervisors. The candidates will be awarded cash prize along with a certificate of merit.

D. ELIGIBILITY CRITERIA:

The award will be granted if the following conditions are satisfied:

i. The Ph.D thesis has been submitted by the candidate in the minimum period as per DTU Ph.D Ordinance.
ii. The Ph.D candidate has completed Course work, Comprehensive Examination and approval of Research Plan within the stipulated period as prescribed in DTU Ph.D Ordinance.
iii. **Three publications** have been made in SCI/SCIE/SSCI indexed journals.
iv. The Ph.D candidate has not made any mandatory publications (as per Ph.D Ordinance) in the journals which seeks Article Processing Fees/ Charges.

v. All the progress report of the candidate during the Ph.D duration must be satisfactory.
vi. The Ph.D thesis has been recommended by the both the examiners with/without minor revisions for the award of the degree.

E. AWARD AMOUNT AND DISTRIBUTION:

A cash prize of Rs. 50,000/- will be awarded to the Ph.D student and cash prize of Rs. 50,000/- will be awarded to the thesis supervisor/joint supervisor along with the certificate of merit.

i. When there is more than one supervisor, equal amount will be distributed to all the supervisors/joint supervisors.
ii. When there are external supervisors, then equal amount will be deducted from the total amount.

F. PROCEDURE FOR THE AWARD:

i. A notice will be circulated annually and the entry form will be circulated and a committee be constituted by Hon'ble Vice Chancellor to determine the eligibility of the entries.
ii. A certificate be obtained from the supervisor through DRC Chairperson regarding the completion of comprehensive examination within the stipulated period as per the DTU Ph.D Ordinance.
iii. A certificate be obtained from the supervisor through DRC Chairperson regarding the recommendation of thesis with/without minor revisions for the award of the degree.
iv. A certificate be obtained from the supervisor through DRC Chairperson declaring the satisfactory progress reports of the Ph.D candidate.

G. DISCLAIMER:

The DTU reserves the right to consider/reject the application, decide the date, and any other matter which is not specified in the guidelines. The decision of DTU in selecting the awardees is final and binding.

H. POWER TO REMOVE DIFICULTIES:

If any difficulty arises in giving effect to the provisions of these guidelines, the Vice Chancellor may, make such provisions, not inconsistent with the provisions in these guidelines, as appear to be necessary or expedient for removing the difficulty.

(Prof. Madhusudan Singh)
Registrar

F.DTU/Council/BOM-Notification/71/2025/566 Date : 22/01/2025

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(Madhuresh Kumar Jha)
Section Officer (Council)

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No.F. DTU/Council/BoM-Notification/66/2024/481 Date : 03/7/2024

NOTIFICATION

The Board of Management of the University in its 50th meeting held on 14.03. 2024, vide agenda number 50.32 approved the following Guidelines for Innovation Res earch Awards for the Inventors of Delhi Technological University as under:

Guidelines for Innovation Research Awards for the Inventors of Delhi Technological University

The cash award will be given to inventors in recognition of the grant of their Patent applications in India and/ or IP5. The IP5 refers to a group of the five largest intellectual property offices (IPOs) in the world, that includes the United States Patent and Trademark Office (USPTO), the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), and the State Intellectual Property Office of the People's Republic of China (SIPO, now CNIPA - China National Intellectual Property Administration). The awards are aimed to motivate and recognize individual excellence in innovation. The awards will be given for the patents granted in each year (1st January - 31st December). Inventors from DTU can apply for the award. A notice will be circulated annually and the application form for getting the details of granted patents qualifying the selection criteria will be submitted to the concerned section.

DEFINITIONS:

1. "University" shall mean Delhi Technological University (DTU), Delhi.
2. "Patent application": A document filed in a patent office for grant of exclusive rights pertaining to a novel invention, which has not been assigned a patent grant/ issue number but has an application number.
3. "Patent": A document appearing in a patent office journal having both patent application number and corresponding grant/ issuance number, providing exclusive rights on an invention and its processes to its applicant(s).
4. "Faculty Member of the University": An individual who is a regular faculty member of the University.
5. "University Student": An individual who is registered for any degree in the Delhi Technological University.
6. "Inventor": An individual who is either a faculty member of the university or a university student and his/ her name appears in the list of inventors on either the certificate of Patent Grant or equivalent.
7. "Applicant": The person/ organization who has the right to file the patent application for the protection in the patent office.
8. "Patentee": The person/ organization/ entity to whom a patent is granted.

PRIZE MONEY:

A cash prize of Rs. 1,00,000/ - (one lakh) will be awarded along with the certificate of merit.

SELECTION CRITERIA:

(i) The patent application must have been GRANTED by either the Indian patent office or any of the offices of IP5.

(ii) One of the patentees must be 'Delhi Technological University' with a minimum of 20% of financial share in case of mortgage/ commercialization/ monetization of the granted patent.

(iii) The original term of the granted patent must be 20 years from the date of the filing.

(iv) The followed up inventions (either in the same country or foreign filings) linked to a particular priority date, for which award has already been granted, will only be considered for the certificate and not for the prize money.

REGULATIONS FOR DIVISION & DISTRIBUTION OF AWARD PRIZE:

Case 1: Equal distribution of the prize money amongst the inventors from the University.

Case 2: If one (or more) of the inventor(s) is/ are external to the university and university is one of the applicants, then the prize amount will be proportional to the financial share of University (i<=Financial_share<=100) as decided in NoC/ MoU at the time of filing patent application.

POWER TO REMOVE DIFFICULTIES:

If any difficulty arises in giving effect to the provisions of these guidelines, the Vice Chancellor may make such provisions, not inconsistent with the provisions in these guidelines, as appear to be necessary or expedient for removing the difficulty.

The guidelines shall be implemented for the period of 1st January to 31st December of the respective calendar year.

(Prof. Madhusudan Singh)
Registrar

No.F. DTU/Council/BoM-Notification/66/2024/481 Date : 03/7/2024

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2. PA to Registrar
3. All Deans
4. Associate Dean, IRD
5. HODs for vide circulation among the faculty and students of their department
6. Head, Computer Centre (with a request to upload on website)
7. Guard file

(Dr. Lokesh Garg)
Assistant Registrar (Council)

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No. F.DTU/IRD/Award/2021/01 Date: 22.01.2021

NOTIFICATION

In exercise of the powers conferred under sub-section (1) of Section 23 of the Delhi Technological University Act, 2009 (Delhi Act 6 of 2009), the Board of Management of Delhi Technological University in its 40th meeting held on 22.01.2021 vide agenda number 40.6 approved the Constitution of Award consisting of a Certificate/Citation for impact and influence measured in terms of citations earned by the researchers of Delhi Technological University for their published research work. The guidelines are as under:

The certificate of merit shall be awarded to the researchers of Delhi Technological University in the recognition of the impact and influence of the published research work and to motivate individual excellence in research.

1. Definitions:

i. **"University"** shall mean Delhi Technological University (DTU), Delhi.
ii. **Faculty Member of the University:** An individual who is a full-time faculty member of the University.
iii. **University Student:** An individual who is registered for any degree in the Delhi Technological University.
iv. **Researcher:** An individual who is either a faculty member of the university or a student involved in the research.
v. **Call of applications:** first week of January each year
vi. **Assessment year:** year for which the researchers will be assessed
vii. **Citation year:** year for which the citations shall be counted (assessment year**-2)
viii. **Referred years:** shall be (assessment year -1) & (assessment year -2)

2. Cumulative Citation Award

The cumulative citation award shall be considered annually by a committee constituted for the purpose of evaluation of the proposals from the eligible researchers of the university. The awards in each of the following categories shall be considered once in the lifetime of the researcher.

1. Category 1: Platinum

Any researcher of the university obtaining cumulative citations as reported upto 31st December of the citation year *(assessment year-2**)* either more than 5000* or, 10%* of the total cumulative citations of the university in referred years (cumulative sum of citations in citation year & citation year+1), whichever is higher, on Scopus.

2. **Category 2: Gold**

   Any researcher of the university obtaining cumulative citations as reported upto 31st December of the citation year either more than 2500* or, 5%* of the total cumulative citations of the university in referred years, whichever is higher, on Scopus.

3. **Category 3: Silver**

   Any researcher of the university obtaining cumulative citations as reported upto 31st December of the citation year either more than 1250* or, 2.5%* of the total cumulative citations of the university in referred years, whichever is higher, on Scopus.

If a researcher receives an award in any of the above categories, he/she may be awarded in the next higher category as and when he/she becomes eligible for the same. In one calendar year, the faculty will receive only a higher category award corresponding to maximum citations. Once a researcher has received an award in a higher category, he/she will not be eligible for an award in the lower category.

3. Highly Cited Paper Award

This award shall be granted annually to the papers published in journals by the researchers satisfying the following conditions:

1. The paper should be in affiliation with DTU as first/second/corresponding author and,
2. Any researcher of the university obtaining cumulative citations as reported upto 31st December of the assessment year minus one with citations more than twice* the h-index of DTU, on Scopus, as on 31st December of the assessment year minus one and,
3. The paper should be SCI/SCIE/SSCI indexed and,
4. There are no Article Processing Charges (APC) paid for publishing the paper. This excludes journals that charge extra page charges and colour print charges.

A particular paper shall be awarded once in the lifetime of a researcher.

4. Yearly Citation Award

The yearly citation award shall be considered annually by a committee constituted for the purpose of evaluation of the proposals from the eligible researchers of the university.

Early Research Impact and Influence Award

1. Any researcher of the university, obtaining total citations *(assessment year-2**)* above 200* in the citation year as reported on Scopus and,
2. The researcher should be on the roll of the university in the citation year (i.e. assessment year-2).

* ***The number may change from time-to-time as approved by Vice Chancellor and recommended by Dean IRD.***

** ***For example, the award is to be granted in the year 2021, then the assessment year will be 2021 and the citation year shall be 2019 and the period shall be 1st January 2019 to 31st December 2019. The referred years shall be 2020 & 2019.***

NOTES:

i. All the publications considered for the count of total citations must be authored by the researcher claiming the award, otherwise, he/she will be debarred for participation in the award for three years.

ii. All information will be taken from Scopus (or any other agency as decided by the university from time-to-time) for evaluation of the citations.

iii. In case of Highly Cited Paper Award, if there are multiple corresponding authors in a given journal publication and the applicant is neither first nor second author, then the author occurring first amongst the corresponding authors shall be considered for this award.

iv. In case of Highly Cited Paper Award, if multiple applications for the same journal paper are received, then the application of author occurring first in the author list shall be considered for this award. However, other authors affiliating to Delhi Technological University shall be eligible for the certificate of merit.

v. The current/present impact factor, indexing (SCI, SCI expanded & SSCI) and similar information will be taken from Clarivate analytics for evaluation of the papers. Further, the undertaking regarding Article Processing Charges levied by the journal shall be taken by the applicant.

vi. Power to remove difficulties: If any difficulty arises in giving effect to the provisions of these guidelines, the Vice Chancellor may make such provisions, not inconsistent with the provisions in these guidelines, as appear to be necessary or expedient for removing the difficulty.

(Prof. Samsher)
Registrar

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5. Associate Dean, IRD
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DELHI TECHNOLOGICAL UNIVERSITY

Established under Govt. of Delhi Act 6 of 2009
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BAWANA ROAD, SHAHBAD DAULATPUR, DELHI-42

No. F.DTU/IRD/2020/09/2534 Date: 21.07.2020

NOTIFICATION

In exercise of the powers conferred under sub-section (1) of Section 23 of the Delhi Technological University Act, 2009 (Delhi Act 6 of 2009), the Board of Management of Delhi Technological University in its 37th meeting held on 29.05.2020 vide agenda number 37.5 approved the revision in the Guidelines of Award to the Researchers of Delhi Technological University notified vide notification no: F.DTU/Council/BOM-AC/Notification/31/2018/2443 dated 12.09.2018. The revised guidelines are as under:

Guidelines for the Award for Published Paper of the Researchers of Delhi Technological University

The cash awards will be given to researchers in the recognition of importance of the published research work and to motivate the individual excellence in research. The publications considered must be listed in Science Citation Index (SCI) or SCI expanded. The awards will be granted for the journal papers published in each year (1st January – 31st December, published along with Digital Object Identifier (DOI), pagination and year of publication). Only the first author and/ or the corresponding author shall be eligible to apply for the award. A notice will be circulated annually and the entry form consisting published research papers qualifying the selection criteria will be submitted to concern section. The publication made in the journals, which seeks publication fee (article processing charges or open access charges), shall not be considered for cash awards (irrespective of the listing in the publication societies/ houses/ presses specified in the following lists). Amongst the researchers, if one or more of the authors are found with zero contribution, the paper shall not be considered for the award.

1. DEFINITIONS:

i. "University" shall mean Delhi Technological University (DTU), Delhi.
ii. Paper: Any publication appearing in journal entitled "....." excluding letters to the editor and the editorials. The publication must be electronically available online with Digital Object Identifier (DOI).
iii. Faculty Member of the University: An individual who is a regular faculty member of the University.
iv. University Student: An individual who is registered for any degree in the Delhi Technological University.
v. Researcher: An individual who is either a faculty member of the university or a student involved in the research.

vi. Author: An individual who conforms to all of the following criteria:

a) Made a significant intellectual contribution to the theoretical development, system or experimental design, prototype development, and/or the analysis and interpretation of data associated with the work contained in the article;
b) Contributed to drafting the article or reviewing and/or revising it for intellectual content;
c) Approved the final version of the article as accepted for publication, including references.
d) Contributors who do not meet all of the above criteria (a to c) may be present in the acknowledgment section of the article.
e) Omitting an author who contributed to the article or including a person who did not fulfill all of the above requirements is considered a breach of publishing ethics.
f) First Author: An individual who is either a faculty member of the university or a university student and his name appears first in the list of authors on the title page of the paper.
g) Corresponding Author: An individual who is either a faculty member of the university or a university student and his name appears first in the list of corresponding authors on the title page of the paper. As a proof of corresponding author, the researcher must provide the screen shot of the tool box of the paper submission system (say, Editorial Manager/ Scholar One) where the name of the author appears on the login page and the title of the paper claimed is listed. If there are more than one corresponding authors then the author whose name appears first on the paper submission system, shall be treated as the corresponding author for the purpose of the award.

2. AWARD CATEGORIES & SELECTION CRITERIA:

A) Outstanding Research Awards

A cash prize of Rs. 5,00,000/- will be awarded along with the certificate of merit.

Selection Criteria: The paper must be a Science Citation Index (SCI)/ Social Science Citation Index (SSCI)/ SCI expanded journal paper of impact factor at least two, and published in the following:

- Nature Journal
- Science
- Harvard Business Review

B) Premier Research Awards

A cash prize of Rs. 1,00,000/- will be awarded along with the certificate of merit.

Selection Criteria: The paper must be a journal paper of impact factor at least 3.0, for Institute of Electrical and Electronics Engineers (IEEE) Transactions and one for all others indexed in SCI/ SSCI or SCI expanded and published in the following:

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1. Proceedings of Royal Society
2. American Mathematical Society
3. American Physical Society
4. American Society for Civil Engineers (ASCE)
5. American Society for Mechanical Engineers (ASME)
6. IEEE Transactions (TRIF≥3.0)
7. Association for Computing Machinery (ACM) Transactions
8. Institute of Civil Engineering Publishing, London
9. Institute of Mechanical Engineering, London
10. American Society of Testing Materials (ASTM)
11. Nature Publishing Group

In addition to the above list, the journals with impact factor equal to or more than thirty (30) will be also be considered for the award.

C) Commendable Research Awards

A cash prize of Rs. 50,000/- will be awarded along with the certificate of merit.

Selection Criteria: The paper must be a journal paper of impact factor at least one, indexed in SCI/ SSCI or SCI expanded and published in the following:

1.IEEE Transactions (TRIF<3)
2.IEEE Journals
3.Springer
4.Elsevier (Science Direct)
5.Oxford University Press
6.Pergamon-Elsevier Science Ltd
7.Cambridge University Press
8.Wiley-Blackwell
9. Blackwell Publishing
10.John Wiley & Sons
11.Institute of Engineering and Technology (IET)
12.Biomedical Central Ltd
13.Massachusetts Institute of Technology (MIT) Press
14.Indiana University Press
15.American Meteorological Society
16.American Physiological Society
17.American Society for Microbiology
18.American Chemical Society
19.American Institute of Physics
20.Institute of Physics (IOP) Publishing Ltd.
21.Massachusetts Medical Society
22.IOS Press
23.Princeton University Press
24.Society of Industrial and Applied Mathematics
25.Proceedings of National Academy of Sciences of USA

In the commendable award category, an author shall be eligible for the cash prize for not more than three papers however the university authors of all the papers shall be eligible for the certificate.

In addition to the above list, SCI/SSCI and SCI expanded indexed journal not included in the above list having impact factor equal to or more than five shall also be considered for the award.

Approved in 37th Meeting of the Board of Management held on 29.05.2020

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3. REGULATIONS FOR DIVISION & DISTRIBUTION OF AWARD PRIZE

Case 1: If all the authors are amongst faculty member of the university, then first author will decide the individual author's contribution for the purpose of distribution of prize amount.

Case 2: If the authors are amongst the faculty member of the university and the university students, then faculty member of the university (whose name appears first in the paper) will decide the individual author's contribution for the purpose of distribution of prize amount.

Case 3: If the first author, corresponding author and other authors are the university students, then the Head of Departments of the first/ corresponding student's department (whose name appears first in the paper) will decide the individual author's contribution in consultation with the first author for the purpose of distribution of prize amount.

Case 4: If one (or more) of the author/s is/are external to the university, then the prize amount will be divided by total number of authors and the equal part (one share) of the total prize amount will be disbursed to the university contributors. The prize amount of the external author will be subtracted from the total prize amount.

Case 5: A faculty member of the university or a university student shall be permitted to claim cash prize for a maximum of three papers as author or co-author in the category of commendable research award.

Annexure 1 will be referred for evaluating the research papers for granting of award to the researchers of DTU and Annexure 2 will be referred for calculation of cash prize for distribution amongst researchers/authors of DTU.

Power to remove difficulties: If any difficulty arises in giving effect to the provisions of these guidelines, the Vice Chancellor may, make such provisions, not inconsistent with the provisions in these guidelines, as appear to be necessary or expedient for removing the difficulty.

The guidelines shall be implemented for the period of 1st January to 31st December of the respective calendar year.

(Prof. Samsher)
Registrar

Copy to:

1. PS to the Hon'ble Vice Chancellor, DTU for kind information
2. All Deans
3. Registrar DTU
4. Associate Dean, IRD
5. All HoDs for vide circulation among the faculty and students of their department
6. Head Computer Centre with a request to upload on website
7. Guard File

Approved in 37th Meeting of the Board of Management held on 29.05.2020

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Annexure 1

Guidelines for Evaluation of Published Paper for Research Award

1. The current/present impact factor, indexing (SCI, SCI expanded & SSCI) and other information will be taken from Clarivate analytics for evaluation of the papers. Thus, the current/present statistics including payment and indexing information of the journals will be taken for the purpose of verification by the screening/scrutiny committee.
2. The final publication date of the paper with volume and issue number (acceptance date or date on which the paper was published online will not be considered) will be considered for verifying the year of publication and pagination of the research paper under consideration.

Approved in 37th Meeting of the Board of Management held on 29.05.2020

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Annexure 2

Formula for Distribution of Awards to the Authors/Researchers

The Research Excellence Awards have been constituted in the university recently and have been effective from AY 2017. The competent authority is pleased to approve the formula for distribution of Award Money for Research Excellence Awards (F.No. DTU/IRD/597/2018/1865 dated 18/12/2018) from 2018 onwards to the Authors/Researchers of the DTU as under:

A is the total award money and there are N authors. The value of Z shall be decided by the principal author and shall be such that $0.5 \leq Z \leq 1$,

- Case 1: When there is no external author, then the minimum amount credited to each of the author shall be as,

  A*Z/N

- Case 2: When there are external authors, then the minimum amount credited to each of the author shall be as,

  (A-Y*(A/N))*Z/(N-Y)

  Where Y number of authors are external to the university

Calculations sheets are enclosed.

Approved in 37th Meeting of the Board of Management held on 29.05.2020

Sample Calculation 1

A	N	Z	Min Amount	Min Percentage
100000	1	1	100000	100
100000	2	1	50000	50
100000	2	0.5	25000	25
100000	2	0.6	30000	30
100000	2	0.7	35000	35
100000	2	0.8	40000	40
100000	2	0.9	45000	45
100000	2	1	50000	50
100000	3	0.5	16666.67	16.66667
100000	3	0.6	20000	20
100000	3	0.7	23333.33	23.33333
100000	3	0.8	26666.67	26.66667
100000	3	0.9	30000	30
100000	3	1	33333.33	33.33333
100000	4	0.5	12500	12.5
100000	4	0.6	15000	15
100000	4	0.7	17500	17.5
100000	4	0.8	20000	20
100000	4	0.9	22500	22.5
100000	4	1	25000	25

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100000	5	0.5	10000	10
100000	5	0.6	12000	12
100000	5	0.7	14000	14
100000	5	0.8	16000	16
100000	5	0.9	18000	18
100000	5	1	20000	20
100000	6	0.5	8333.333	8.333333
100000	6	0.6	10000	10
100000	6	0.7	11666.67	11.66667
100000	6	0.8	13333.33	13.33333
100000	6	0.9	15000	15
100000	6	1	16666.67	16.66667
100000	7	0.5	7142.857	7.142857
100000	7	0.6	8571.429	8.571429
100000	7	0.7	10000	10
100000	7	0.8	11428.57	11.42857
100000	7	0.9	12857.14	12.85714
100000	7	1	14285.71	14.28571
100000	8	0.5	6250	6.25
100000	8	0.6	7500	7.5
100000	8	0.7	8750	8.75
100000	8	0.8	10000	10
100000	8	0.9	11250	11.25

100000	8	1	12500	12.5
100000	9	0.5	5555.556	5.555556
100000	9	0.6	6666.667	6.666667
100000	9	0.7	7777.778	7.777778
100000	9	0.8	8888.889	8.888889
100000	9	0.9	10000	10
100000	9	1	11111.11	11.11111
100000	10	0.5	5000	5
100000	10	0.6	6000	6
100000	10	0.7	7000	7
100000	10	0.8	8000	8
100000	10	0.9	9000	9
100000	10	1	10000	10

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Sample Calculation 2

A	N	Z	Min Amount	Min Percentage
50000	1	1	50000	100
50000	2	1	25000	50
50000	2	0.5	12500	25
50000	2	0.6	15000	30
50000	2	0.7	17500	35
50000	2	0.8	20000	40
50000	2	0.9	22500	45
50000	2	1	25000	50
50000	3	0.5	8333.333	16.66667
50000	3	0.6	10000	20
50000	3	0.7	11666.67	23.33333
50000	3	0.8	13333.33	26.66667
50000	3	0.9	15000	30
50000	3	1	16666.67	33.33333
50000	4	0.5	6250	12.5
50000	4	0.6	7500	15
50000	4	0.7	8750	17.5
50000	4	0.8	10000	20
50000	4	0.9	11250	22.5
50000	4	1	12500	25

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50000	5	0.5	5000	10
50000	5	0.6	6000	12
50000	5	0.7	7000	14
50000	5	0.8	8000	16
50000	5	0.9	9000	18
50000	5	1	10000	20
50000	6	0.5	4166.667	8.333333
50000	6	0.6	5000	10
50000	6	0.7	5833.333	11.66667
50000	6	0.8	6666.667	13.33333
50000	6	0.9	7500	15
50000	6	1	8333.333	16.66667
50000	7	0.5	3571.429	7.142857
50000	7	0.6	4285.714	8.571429
50000	7	0.7	5000	10
50000	7	0.8	5714.286	11.42857
50000	7	0.9	6428.571	12.85714
50000	7	1	7142.857	14.28571
50000	8	0.5	3125	6.25
50000	8	0.6	3750	7.5
50000	8	0.7	4375	8.75
50000	8	0.8	5000	10
50000	8	0.9	5625	11.25

50000	8	1	6250	12.5
50000	9	0.5	2777.778	5.555556
50000	9	0.6	3333.333	6.666667
50000	9	0.7	3888.889	7.777778
50000	9	0.8	4444.444	8.888889
50000	9	0.9	5000	10
50000	9	1	5555.556	11.11111
50000	10	0.5	2500	5
50000	10	0.6	3000	6
50000	10	0.7	3500	7
50000	10	0.8	4000	8
50000	10	0.9	4500	9
50000	10	1	5000	10

LIST OF **AWARDEES**

List of awardees for **"SPONSORED RESEARCH PROJECT AWARD"**

S. No.	Name of the PI/Co-PI	Department	Title of the Sponsored Research Project	Sponsoring Agency
1	Dr. Mayank Kumar	Electrical Engineering	Development of Fault Tolerant Power Converters for Solar PV fed Hybrid Electric Vehicles (PVHEVs)	Department of Science & Technoology (DST), Govt of India
2	Prof. S Indu / Dr. N Jayanthi	Electronics & Communication Engineering	Development Of Framework For Imaging, Restoring And Archiving Inscriptions And Manuscripts	Department of Science & Technoology (DST), Govt of India
3	Prof. Mini Sreejeth/ Prof. S. Indu	Electrical Engineering/ Electronics & Communication Engineering	Development & Deployment of Motor Controller for Low to Medium Power Electric Vehicles	Ministry of Electronics and Information Technology (MeitY), Govt. of India

List of awardees for **"Ph.D. THESIS SUBMISSION WITHIN MINIMUM STIPULATED PERIOD AWARD"**

S. No.	Name of the scholar	Department	Name of Supervisor(s) from DTU	Thesis Title
1.	Palak Handa	Electronics and Communication Engineering	Prof. S. Indu	Medical Image Analysis of Wireless Capsule Endoscopy Data
2.	Anand Kushwah	Mechanical Engineering	Prof. Anil Kumar; Prof. Amit Pal	Experimental Performance Analysis of Heat Exchanger-Evacuated Tube Assisted Drying System (HE-ETADS) under Various Operation Conditions

List of awardees for **"INNOVATION AWARD"**

S. No.	Name of Inventor(s) from DTU	Department	Patent Number	Patent Title
1	Dr. Raminder Kaur; Ravinderjit Singh Walia; Anuja Agrawal	Applied Chemistry	516877	Bio-based Rigid Polyurethane Foam Composition And Method Thereof

S. No.	Name of Inventor(s) from DTU	Department	Patent Number	Patent Title
2	Prof. Roli Purwar; Dr. Chandra Mohan Srivastava	Applied Chemistry	504734	Process For Preparation of Silk Fibroin Felxible Films By Hydrogel Particles And Films Made Thereof
3	Dr. Mohan Singh Mehata	Applied Physics	529469	Apparatus And Method For Detecting Electric Field Modualated Absorption And PhotoLuminescence Of A Sample
4	Dr. Mohan Singh Mehata; Vineet Sharma; Abhinav Tandon	Applied Physics	531913	Light Emitting Metal And Dual Meta Doped Zinc Selenide Quantum Dots And Method Thereof
5	Prof. Rahul Katarya; Anunay Gupta; Shreyansh Gupta; Kartikeya Singh Chauhan; Harsh Mittal; Dr. Anjum	Computer Science & Engineering	529534	Precision Agriculture Rover For Plant Disease Detection And Control
6	Prof. Rahul Katarya; Vedant Gupta; Aditya Rai; Harsh Mittal; Dr. Anjum	Computer Science & Engineering	556819	An Autonomously Operating Surface Water Robot And Method Thereof
7	Dr. Mayank Kumar; Prof. Madhusudhan Singh	Electrical Engineering	554604	A High Gain Fault Tolerant Multiport DC-DC Converter
8	Prof. Mini Sreejeth; Prof. S. Indu; Prof. Madhusudhan Singh	Electrical Engineering / Electronics & Communication Engineering	544481	Motor Controller For Light Mobility Vehicles in India
9	Dr. Dheeraj Joshi; Ashutosh	Electrical Engineering.	552095	A Converter And Method Thereof For Topology Selection Of Z-Source DC-DC Single Input Output (SIDO)
10	Bhawna Rawat; Prof. Poornima Mittal	Electronics and Communication Engineering.	524265	Reconfigurable Static Random Access Memory (SRAM) and Method Thereof
11	Prof. Qasim Murtaza; Prof. Ranganathan MS; Parvesh Ali,	Mechanical Engineering	531306	Thermal Additive Centrifual Abrasive Flowmachining and Method Therof

LIST OF **AWARDEES**

Cumulative Citation Award **(GOLD)**

S. No.	Name of Researcher	Name of Department
1	Prof. Ravindra Kumar Sinha	Applied Physics

Cumulative Citation Award **(SILVER)**

S. No.	Name of Researcher	Name of Department
1	Dr. Asmita Das	Bio-Technology
2	Prof. M. Rizwan	Electrical Engineering
3	Dr. Manjeet Kumar	Electronics & Communication Engineering

YEARLY CITATION AWARD

S. No.	Name of Researcher	Name of Department
1	Prof. Devender Kumar	Applied Chemistry
2	Prof. Roli Purwar	Applied Chemistry
3	Prof. Rishu Chaujar	Applied Physics
4	Dr. M. Jayasimhadri	Applied Physics
5	Dr. Mohan Singh Mehata	Applied Physics
6	Prof. Ravindra Kumar Sinha	Applied Physics
7	Prof. A. S. Rao	Applied Physics
8	Prof. Pravir Kumar	Bio-Technology
9	Dr. Navneeta Bhardvaja	Bio-Technology
10	Dr. Asmita Das	Bio-Technology
11	Prof. Raju Sarkar	Civil Engineering
12	Dr. Rajeev Kumar	Computer Science & Engineering
13	Prof. Rahul Katarya	Computer Science & Engineering

S. No.	Name of Researcher	Name of Department
14	Dr. Sanjay Kumar	Computer Science & Engineering
15	Dr. Saurabh Agrawal	Delhi School of Management
16	Prof. S. Indu	Electronics & Communication Engineering
17	Prof. O. P. Verma	Electronics & Communication Engineering
18	Dr. Manjeet Kumar	Electronics & Communication Engineering
19	Dr. Chhavi Dhiman	Electronics & Communication Engineering
20	Prof. Neeta Pandey	Electronics & Communication Engineering
21	Prof. Poornima Mittal	Electronics & Communication Engineering
22	Prof. Dinesh Kumar	Electronics & Communication Engineering
23	Dr. Sachin Taran	Electronics & Communication Engineering
24	Prof. Anil Kumar Haritash	Environmental Engineering
25	Dr. Virender Ranga	Information Technology
26	Prof. Dinesh Vishwakarma	Information Technology
27	Prof. Seba Susan	Information Technology
28	Prof. Qasim Murtaza	Mechanical Engineering
29	Prof. Pravin Kumar	Mechanical Engineering
30	Prof. Anil Kumar	Mechanical Engineering
31	Prof. Ruchika Malhotra	Software Engineering

HIGHLY CITED PAPER AWARD

S. No.	Name of Researcher	Name of Department	Journal with Publication Details
1	Prof. Dinesh Vishwakarma	Information Technology	Highly Cited Paper Award Details: Kunal Chaturvedi, Dinesh Kumar Vishwakarma, Nidhi Singh. "COVID-19 and its impact on education, social life and mental health of students: A survey. Children and Youth Services Review, Volume 121, 2021, 105866, ISSN: 0190-7409

PREMIER RESEARCH AWARDS

S. No	Authors and Year	Title, Journal, Vol., Issue, Pages and Impact Factor
	DEPARTMENT OF APPLIED MATHEMATICS	
1	**Kaushik, A**., & Jain, S. (2024).	A posteriori error analysis of defect correction method for singular perturbation problems with discontinuous coefficient and point source. *Journal of Computzational and Nonlinear Dynamics*, 19(9), 091005.
2	**Singh, C.P**., Khatri V. (2024)	Viscous fluid dynamics with decaying vacuum energy density, *Physical Review D (APS)* 109, 023508 DOI:10.1103/PhysRevD.109.023508 **IF: 5.3**
3	**Aggarwal S,** Adhikari S., Majumdar A.S., (2024).	Entanglement detection in arbitrary-dimensional bipartite quantum systems through partial realigned moments. *Physical Review A*, 109 (012404), 1-14. **Impact Factor: 2.9**
	DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
1	**Sharma, A.,** & Kumar, A. (2024)	DREAM: Deep Learning-based Recognition of Emotions from Multiple Affective Modalities using consumer-grade body sensors and video cameras. *IEEE Transactions on Consumer Electronics,* 70(1), 1434-1442. **Impact Factor: 10.9**
2	**Ankur,** Kumar, R., & Sharma, A. K. (2024)	Bit-plane based reversible data hiding in encrypted images using multi-level blocking with quad-tree. *IEEE Transactions on Multimedia*, 26, 4722-4735. **Impact Factor: 9.7**
3	S. Kumar, **D. Kurchaniya (2024)**	D-SCAN: Dual Stream Spatiotemporal Channel-Wise Attention Network With Point-Wise ConvBi-LSTM for Activity Recognition, *IEEE Transactions on Consumer Electronics*, 70(4), 7244-7251, 2024 **(IF-4.3)**
4	Akshi Kumar, **Dipika Jain**, and Rohit Beniwal (2024)	Hindipersonalitynet: Personality Detection In Hindi Conversational Data Using Deep Learning With Static Embedding. ACM Trans. Asian Low-Resour. Lang. Inf. Process. 23, 8, Article 117 (August 2024), 13 pages.
5	**Jain M.**, Jain S., Jain A., Garg B. (2024)	CDME-GAT: Context-Aware Depression Detection Using Multi-embedding and Graph Attention Networks in Social Media Text. *IEEE Transactions on Computational Social Systems*, 11 (6), 7212-7222 **Impact Factor: 4.9**
6	**Kumar, S.,** Kumar, A., Mallik, A., & Singh, R. R. (2023)	Optnet-fake: Fake news detection in socio-cyber platforms using grasshopper optimization and deep neural network. *IEEE Transactions on Computational Social Systems*, 11(4), 4965-4974. **Impact Factor: 5.0**
7	Kumar, A., Mallik, A., & **Kumar, S.** (2024).	TLP-NEGCN: Temporal Link Prediction via Network Embedding and Graph Convolutional Networks. *IEEE Transactions on Computational Social Systems*, 11(3), 4454-4464. **Impact Factor: 5.0**
8	**Kumar, S.** (2024).	Negative stances detection from multilingual data streams in low-resource languages on social media using BERT and CNN-based transfer learning model. *ACM Transactions on Asian and Low-Resource Language Information Processing*, 23(1), 1-18. **Impact Factor: 2.0**

S. No	Authors and Year	Title, Journal, Vol., Issue, Pages and Impact Factor
9	Kumar, A., Mallik, A., & **Kumar, S**. (2024).	HumourHindiNet: Humour detection in Hindi web series using word embedding and convolutional neural network. *ACM Transactions on Asian and Low-Resource Language Information Processing*, 23(7), 1-21. **Impact Factor: 2.0**
	DEPARTMENT OF DESIGN	
1	**Kumari, A.**, Singh, R., & Das, L. K. (2024).	A Conceptual Model to Assess the Effectiveness of Frugal Product Design Frameworks. *IEEE Transactions on Engineering Management*,vol. 71, pp. 11734-11745, 2024, doi: 10.1109/ TEM.2024.3429159.**Impact factor: 5.2**
	DEPARTMENT OF ELECTRICAL ENGINEERING	
1	**Rai, K. B**., Kumar, N., & Singh, A. (2024)	Three-Phase Grid Connected Shunt Active Power Filter Based on Adaptive Q-LMF Control Technique. *IEEE Transactions on Power Electronics*, 39(8), 10216–10225.
2	**M. Kumar,** (2024)	Multiple Open Switch Fast Fault Detection and Localization Algorithm for Tolerant CHB-MLI. *IEEE Transactions on Transportation Electrification*, 10 (3), 6789-6800. **Impact factor: 8.3**
3	**M. Kumar,** (2024)	Detection and Localization of Open Switch Faults for Level-Shifted PWM Cascaded H-Bridge Inverter. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 71 (4), 2409-2413. **Impact factor: 4.9**
4	A. K. Gupta, **M. Kumar**, (2024)	Characterization and Localization of Open Circuit Faults for n-Phase Interleaved Buck Converter. *IEEE Transactions on Industry Applications*, 60 (2), 3273-3283. **Impact factor: 4.5**
5	**Ranjeet Singh**, Vinod Kumar Yadav, and Madhusudan Singh(2024)	An Improved Hot Spot Mitigation Approach for Photovoltaic Modules Under Mismatch Conditions," in *IEEE Transactions on Industrial Electronics*, vol. 71, no. 5, pp. 4840-4850. **Impact Factor = 7.7**
6	**S. Mishra**, B. Singh and A. Varshney, (2024)	Adaptive Flux Based Speed Estimation of Syn-Rel Motor Drive for Electric Vehicle with Solar-PV Assistance," I*EEE Transactions on Industry Applications*, vol. 60, no. 4, pp. 6634-6644. **Impact Factor: 4.5**
	DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING	
1	**Dahiya, A**., Mittal, P., & Rohilla, R. (2024)	Realizing in-memory computing using reliable differential 8T SRAM for improved latency. *ACM Transactions on Design Automation of Electronic Systems*, *29* (6), 1–15. **Impact Factor: 2.2**
2	A. Antil, **C. Dhiman** (2024)	MF2ShrT: Multi-Modal Feature Fusion using Shared layered Transformer for Face Anti-Spoofing, *ACM Transactions on Multimedia Computing, Communications and Applications,* Volume 20, Issue 6, Article No.: 172, Pages 1 – 21, https://doi.org/10.1145/3640817, **Impact Factor: 5.2**
3	D. Sharma, **C. Dhiman** and D. Kumar (2024)	Control With Style: Style Embedding-Based Variational Autoencoder for Controlled Stylized Caption Generation Framework," in *IEEE Transactions on Cognitive and Developmental Systems*, vol. 16, no. 6, pp. 2032-2042, Dec. 2024, doi: 10.1109/TCDS.2024.3405573. **Impact Factor: 5**

S. No	Authors and Year	Title, Journal, Vol., Issue, Pages and Impact Factor
4	**Soni, L**., & Pandey, N. (2024)	A single bitline highly stable, low power with high speed half-select disturb free 11T SRAM cell. *ACM Transactions on Design Automation of Electronic Systems*, *29*(4), 1-13.
	DEPARTMENT OF INFORMATION TECHNOLOGY	
1	Choudhry, A., Khatri, I., Jain, M., & **Vishwakarma, D. K.** (2024).	An emotion- aware multitask approach to fake news and rumor detection using transfer learning. *IEEE Transactions on Computational Social Systems*, 11(1), 588-599.
	DEPARTMENT OF MECHANICAL ENGINEERING	
1	Yadav, A. K., **Kumar, A.**, & Sinha, S. (2024).	Techno-economic and environmental analysis of a hybrid power system formed from solid oxide fuel cell, gas turbine, and organic rankine cycle. *Journal of Energy Resources Technology*, 146(7), 072101.
2	Almatrafi, E., **Siddiqui, M.A.** (2024).	Thermodynamic investigation of a hydrogen enriched natural gas fueled HCCI engine for the efficient production of power, heating, and cooling. *International Journal of Hydrogen Energy, 82*, 111-122. **Impact Factor: 8.3**
3	**Sunil Kumar Gupt**a, B.B. Arora, Akhilesh Arora (2024).	Thermodynamic performance assessment of air conditioner combining evaporative and passive cooling. *J. Thermal Sci. Eng. Appl.*, 16 (5): 051003 (12 pages). **Impact Factor: 1.4**
4	Yadav, R. D., & **Gautam, V.** (2024).	Effect of magnetic field on deformation behavior of a steel sheet in uniaxial tension. Journal of Testing and Evaluation, 52(1), 141-164.
	UNIVERSITY SCHOOL OF MANAGEMENT AND ENTREPRENEURSHIP	
1	**Mishra, D.**, & Maheshwari, N. (2023).	Effective governance through crowdsourcing: A strategic framework for empowered participation. *IEEE Transactions on Engineering Management,* 71(1), 4647–4664. https://doi.org/10.1109/TEM.2022.3218188 **Impact Factor: 5.2** | CiteScore: 9.7

COMMENDABLE RESEARCH AWARDS

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
		DEPARTMENT OF APPLIED CHEMISTRY
1	**Yadav, A.**, Garima, Meena, P., Warkar, SG. (2024)	Synthesis and Assessment of Acacia Gum-Based Hydrogel as a Promising Novel Biopolymeric Matrix for Delivery of Ciprofloxacin. *ChemistrySelect,* 9 (34), e202401639. **Impact Factor: 2**
2	**Tiwari, A. K.**, & Jain, M. (2024).	A novel process for rutin recovery from model solutions using nanofiltration: Experimental study, mathematical modeling, and scale-up design. *Journal of Food Process Engineering*, *47*(3), e14592. **Impact Factor: 2.9**
3	**Tiwari, A. K.**, & Jain, M. (2024).	Concentration of betanin from model beetroot extracts by using nanofiltration: Parameter estimation and sensitivity analysis. *Journal of Chemical Technology & Biotechnology*, *99*(9), 1976–1983. **Impact Factor: 2.4**
4	Hooda D., **Kumar D.** (2024).	Molecularly imprinted polypyrrole decorated $Ti_3C_2T_x$ electrochemical sensor for highly selective and sensitive detection of levofloxacin, *Journal of Materials Science 59*(47), 21684–21695. **Impact Factor: 3.9**
5	Sweety, **Kumar D.** (2024)	Development of Ti3C2Tx-based novel immunosensor for cancer biomarker detection, *Applied Organometallic Chemistry* 38(8) e7570 **Impact Factor: 6.5**
6	Paneru, S., Sweety, **Kumar D.** (2024).	CeO_2 and PEDOT:PSS modified conducting paper for organophosphate pesticide detection, *Journal of Applied Electrochemistry 54*(8) 1875-1885. **Impact Factor: 3.0**
7	**Goel, D.**, Santhiya, D., Kumar, S., Mahapatro, AK. (2024).	Synthesis of Mesoporous Core Shell Magnetite Bioactive Glass Nanoparticles for Magnetic Hyperthermia Treatment of Cancer. *ChemistrySelect, 9 (4)*, e202302119. **Impact Factor: 2.0**
8	**Goel, D.**, Santhiya, D. (2024).	Tunable structural, optical, and bioactive properties of magnesium and bismuth co-doping on bioactive glass nanoparticles for biomedical applications. *Journal of Materials Research*, 39, 2889–2906. **Impact Factor: 2.9**
9	**Varshney, G**., Singh, P., Yadav, S., & Kaur, R. (2024).	A review on unleashing the potential solution of thermal comfort: Exploring the cutting-edge progress of advanced engineering application of phase change materials integrated textiles. *Sustainable Energy Technologies and Assessments, 72*, 104089. **Impact Factor: 7.0**
10	**I. Rani**, S.G. Warkar, A. Kumar, (2024).	A Silver Nanoparticle-Embedded Tamarind Kernel Gum/Poly (Sodium Acrylate) Nanocomposite for Sustainable Release of Doxycycline," *ChemistrySelect Journal, Volume 9, issue 14, e202400168,* **Impact Factor 2.0**
11	**I. Rani**, S.G. Warkar, A. Kumar, (2024).	Synthesis and characterization of novel carboxymethyl tamarind kernel gum - Poly (vinyl alcohol)/guar gum-based hydrogel film loaded with ciprofloxacin for biomedical applications." *International Journal of Biological Macromolecules*, Volume 282, 136766, **Impact Factor 8.5.**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
12	E. Yadav, K. Pandey, Khusbhu, **I. Rani**, S.G. Warkar, (2024).	Synthesis and Application of Zinc-loaded Carboxymethyl Tamarind Kernel Gum and Xanthan gum based superabsorbent based hydrogels to investigate the effect on sesame plant growth. *Polymer Bulletin, Volume 81, Pages 9009-9030,* **Impact Factor 4.0.**
13	**Pathak, J.**, & Singh, P. (2024).	Layered double hydroxides–polymer matrix composites: nexus mat materials for energy storage applications. *Chemical Papers*, 78(13), 7375–7393. **Impact Factor: 2.5**
14	**Kumar, J.**, Purwar, R. (2024).	Self-Healing, Biocompatible Injectable Hydrogel Based on Multialdehyde Moringa oleifera Gum and Carboxymethyl Chitosan: A Suitable Platform for Drug Delivery in Wound Healing Application. *Chemistry Select, 9*(9), e202400309. **Impact Factor: 2.**
15	**Kumar, J.**, Purwar, R. (2024).	Injectable mesquite gum and carboxymethyl chitosan hydrogel using Schiff base crosslinks: a versatile platform for drug delivery in wound care, Macromolecular *Research*, *32* (12), 1237–1254. **Impact Factor: 3.4.**
16	**Kumar, J.**, Purwar, R. (2024).	A Schiff Base Hydrogel of Oxidized Okra Gum and Carboxymethylated Chitosan: A Biocompatible and Biodegradable Injectable System for Drug Delivery in Wound Care, *Colloid and Polymer Science, 302* (12), 1923–1938. **Impact Factor: 2.2**
17	**Jyoti**, An J, Kim D., Churchill D G and Kumar A., (2024)	Cobalt corroles: Synthesis and applications", *Coordination Chemistry Reviews* Volume 511, 215869, **Impact Factor 23.5**
18	**Jyoti**, Kubba, R., Kumar, S., Fridman, N., Warkar, S. G., Churchill, D. G., & Kumar, A. (2024)	Hydrogen evolution activity of cobalt corroles. *Inorganica Chimica Acta*, *562*, 121878. **Impact Factor 3.2**
19	**Khatreja, K.,** & Santhiya, D. (2024).	Physicochemical characterization of novel okra mucilage/hyaluronic acid-based oral disintegrating films for functional food applications. International *Journal of Biological Macromolecules*, 278, 134633. **Impact Factor: 8.5**
20	**Ruzvidzo, K.H.**, Kaur, R., Jain, M. (2024)	Novel polyelectrolyte-glycol ether ternary phase-separating draw solutions for desalination using forward osmosis. *Desalination*, *586*, 117897. **Impact Factor: 9.8**
21	**Ruzvidzo, K.H.**, Kaur, R., Jain, M. (2024)	Enhanced forward osmosis desalination of brackish water using phase-separating ternary organic draw solutions of hydroxypropyl cellulose and propylene glycol propyl ether. *Water Environment Research*, *96(8)*, e11110. **Impact Factor: 1.9**
22	**Leela Gautam**, Manish Jain, Sudhir G Warkar, (2024	Crosslinking of polyvinyl alcohol with di, tri, and tetracarboxylic acids: an experimental investigation, *Colloid and Polymer Science, 2024/8/30*, 1-13. **Impact Factor: 2.3**
23	**Leela Gautam**, Sudhir G Warkar, Manish Jain, (2024)	Physicochemical evaluation of polyvinyl alcohol films crosslinked with saturated and unsaturated dicarboxylic acids: A comparative study. *Polymer Engineering & Science, 64* (8) 3703-3715. **Impact Factor: 3.2**
24	**Leela Gautam**, Sudhir G Warkar, Manish Jain, (2024)	Influence of the odd-even effect of dicarboxylic acids as crosslinker on the physicochemical properties of polyvinyl alcohol. *Journal of Applied Polymer Science, 141*(40) e56046. **Impact Factor: 2.8**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
25	P. K. Meena, J. G. Sharma, **Manish Jain**, (2024).	Recovery of Whey Protein by Using Microfiltration: Artificial Neural Network–Based Modeling and Effects of Different Operating Parameters. *Journal of Food Process Engineering*, 47(10) e14756. **Impact Factor: 2.9.**
26	**Kaur, M.**, Santhiya, D., Goel, T., & Srivastava, P. (2024)	In-Vivo GIT Distribution Study On 99mTc-Functionalized Bioactive Glass Through an Oral Route for Biomedical Applications. *ChemistrySelect,* 9(26), e202401209
27	**Manu**, Kumar, D. & Gupta, R. K. (2024).	Novel Formulations of Humic acid, Lignin, and Lignite Grafted Hydrogels for the Slow Release of Thiamethoxam. *ChemistrySelect,* 9(26), e202304939. **Impact Factor:2**
28	**Shrila, M.,** Ananya, Meena, P., Warkar, SG. (2024).	Preparation and Characterization of Sodium Alginate-Based Hydrogel for Delivery of Hydrophilic Drug Metformin Hydrochloride. *ChemistrySelect* 9 (29), e202401773. **Impact Factor: 2**
29	**Tanwar, M.**, Rani, A., Gautam, N., Talegaonkar, S., & Gupta, R. K. (2024).	Essential oils loaded carboxymethylated Cassia fistula gum-based novel hydrogel films for wound healing. *International Journal of Biological Macromolecules*, 278(3), 134682. **Impact Factor: 7.7**
30	**Verma, M.**, Kumar, J., Pradhan, A. A., Majumder, N., Ghosh, S., & Purwar, R. (2024)	Assessing rheological properties of oxidized Moringa oleifera gum and carboxymethyl chitosan-based self-healing hydrogel for additive manufacturing applications. *Polymer Engineering & Science*, 64(10), 5229–5238. **Impact Factor: 3.2**
31	**Narjes I. K.**, Deenan S. (2024).	Multifunctional poly(allylamine hydrochloride)/bioactive glass layer by layer surface coating on magnesium alloy for biomedical applications, *Progress in Organic Coatings*, 186, 108059. **Impact Factor: 7.3**
32	**Singh, P.,** Priti & Kaur, R. (2024).	Synthesis and Rheological Analysis of Non-Isocyanate Polyurethanes Blended with Poly(Vinyl Alcohol), *Journal of Industrial and Engineering Chemistry*, 139, 225–236. **Impact Factor: 6**
33	Jigyasa Pathak and **Poonam Singh** (2024).	Zinc-Copper-Nickel Mixed Metal Oxide as Heterogeneous Catalytic Material for the Reductive Degradation of Nitroarene and Azo Dye. *Catalysis Letters* 154, 5280–5293. **(Impact Factor 2.4)**
34	**Meena, P.**, Singh, P., Warkar, SG. (2024).	Tailoring pH-Sensitive Carboxymethyl Tamarind Kernel Gum-Based Hydrogel for an Efficient Delivery of Hydrophobic Drug Indomethacin. *International Journal of Biological Macromolecules*, 280 (3), 136029. **Impact Factor: 8.5**
35	**Meena, P.**, Singh, P., Warkar, SG. (2024).	Fabrication and Evaluation of Stimuli-Sensitive Xanthan Gum-Based Hydrogel as a Potential Carrier for a Hydrophobic Drug Ibuprofen. *Colloid and polymer science*, 302 (3), 377-391. **Impact Factor: 2.3**
36	**Yadav, P.**, Warkar, S. G., & Kumar, A. (2024).	A comparative analysis of carboxymethyl tamarind kernel gum-based hydrogels for ciprofloxacin delivery. *International Journal of Biological Macromolecules*, 282(P1), 136569. **Impact Factor: 8.5**
37	**Yadav, P.**, Warkar, S. G., & Kumar, A. (2024).	Biopolymer-CMTG and m-BPDM Based Hydrogel Composite for Promising Sensing of Zinc, Cadmium, and Mercury in Aqueous Medium. *Journal of Inorganic and Organometallic Polymers and Materials, Cd*. **Impact Factor: 4.9**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
38	**Yadav, P.**, Warkar, S. G., & Kumar, A. (2024).	Development of graphene oxide-incorporated biopolymer-carboxymethyl tamarind kernel gum-based hydrogel as an effective adsorbent for the sequestration of dye pollutants. *Polymer Engineering and Science*, 64(10), 1–18. **Impact Factor: 3.2**
39	Manu, Kumar, D. & **Gupta, R. K.** (2024).	Natural polymers-humic acid and lignin based hydrogels: In agriculture, environment and energy storage. *Industrial Crops and Products*, 219, 119029. **Impact Factor:6.2**
40	Prashar, V., Nandal, M., **Gupta, R. K.** & Tyagi, Y. K. (2024).	Novel Synthesis, and Application of Carboxymethylated Cassia fistula - Based Hydrogel for Extended-Release of Dinotefuran. *ChemistrySelect,* 9(46). **Impact Factor:2**
41	Prakash, C.; **Singh, R.** (2024).	Synthesis of Fluorinated 6-Membered Nitrogen Heterocycles Using Microwave Irradiation. *Chemistry of Heterocyclic Compounds*, *60*(5/6), 216–229. **Impact Factor: 1.4**
42	Prakash, C.; **Singh, R.** (2024).	Microwave-Assisted Synthesis of Fluorinated 5-Membered Nitrogen Heterocycles. *ChemistrySelect*, 9(23), e202401376. **Impact factor: 2.307**
43	G. Varshney, **R. Kaur,** Md. Zulfequar (2024).	Fabrication and evaluation of eicosane/poly(styrene-co-butylacrylate) microencapsulated phase change materials through ultrasonicated mini-emulsion technique, *Chemical Engineering Journal*, 500, 156994, **Impact Factor: 13.2**
44	Singh, P., & **Kaur, R.** (2024).	Fructose-Based Non-Isocyanate Polyurethane/Poly (Sodium Acrylate) Hydrogels: Design, Synthesis and Environmental Applications. *Journal of Polymers and the Environment*, 32(6), 2897–2911. **Impact Factor: 5.3**
45	**Kubba, R.**, Jyoti, Yadav, O., Kumar, A. (2024).	Phosphorus corroles: Synthesis and applications. *Journal of Molecular Structure*, 1301, 137364. **Impact Factor: 4.7**
46	**Sharma, R.**, Kumar, D., & Gupta, R. K. (2024).	Bioactive profiling of two varieties of Indian legumes: Adzuki and mung beans. *International Journal of Food Science & Technology*, 59, 6218-6230. **Impact Factor: 2.6**
47	Sachan, R., **Purwar, R.**, (2024)	Effect of PCL chain length on rheological and mechanical properties of PCL-PDMS-PCL triblock copolymer films, *Journal of Applied Polymer Science*, 141, e55542. **Impact Factor:2.8**
48	**Garg, R**., Kumar, R., Srivastava, R., & Srivastava, R. (2024).	Garg, R., Kumar, R., Srivastava, R., & Srivastava, R. (2024). Exploring nucleoside analogs: key targets in the viral life cycle - advancing strategies against SARS-CoV-2. *Medicinal Chemistry Research*, 33(6), 869–884. **Impact Factor: 3.1**
49	**Verma, S**., Pandey, C. M., & Kumar, D. (2024)	Non-enzymatic electrochemical biosensor based on MgO@ rGO-MoS2 nanohybrid for phenolic compounds detection. *Applied Organometallic Chemistry*, 38(1), e7325. **Impact Factor: 3.7**
50	**S. Kumar,** R. Kubba, N. Agasti, A. Selvaraj, A. Kumar. (2024).	Potassium tertbutoxide promoted a direct one-pot synthesis of nitriles from aldehydes at room temperature. *Journal of Chemical Sciences*, 136 (39), 1-6 **Impact Factor- 2.0**
51	**Chatterjee, S.,** Singh, H., Hudda, D., Sweety, and Kumar, D. (2024).	A Novel Acetylcholinesterase-Based Electrochemical Biosensor Using g-C3N4@MoS2 Nanohybrid for the Detection of Trichlorfon. *Applied Organometallic Chemistry*, 38 (12), e7721, **Impact Factor: 3.7**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
52	**SG Warkar** (2024), S.K. Juikar	Fabrication and assessment of carboxymethyl guar gum-based sustainable flms for packaging application
53	**SG Warkar** (2024), R. Malik, Khatri K., R. Saxena	Fabrication of carboxymethyl tamarind kernel gum-based hydrogel and its applicability in different types of soils for agronomy
54	**Shivangi Dwivedi,** Richa Srivastava, Prasun Kumar Roy (2024).	Exploring the potential of dual metallized PET towards improving the efficiency of outermost reflective layer in Fire proximity clothing. *Fire and materials Journal*, 48(7), 765-777. **2.0**
55	**Sweety**, Paneru, S., Kumar, D. (2024).	CuS modified PEDOT:PSS grafted paper-based electrochemical immunosensor for EpCAM biomarker detection. *Materials Chemistry and Physics*, 313, 128687, **Impact Factor: 4.3**
56	**Singh, T.**, Tanwar, M., & Gupta, R. K. (2024).	Carboxymethyl guar gum-based bioactive and biodegradable film for food packaging. *Polymer Science Series A*, 66 (2), 202–215. **Impact Factor: 1.1**
	DEPARTMENT OF APPLIED MATHEMATICS	
1	**Abhay Srivastava**, Nilam (2024)	Optimal control of a fractional order SEIQR epidemic model with non-monotonic incidence and quarantine class
2	**Anuma Garg**, Satyabrata Adhikari (2024).	Estimation of Power in the Controlled Quantum Teleportation through the Witness Operator. Estimation of power in the controlled quantum teleportation through the witness operator, 78 (64), 1-15. 1.5.
3	**Goel, K.**, Nilam (2024)	A nonlinear SAIR epidemic model: Effect of awareness class, nonlinear incidences, saturated treatment and time delay, 73, 2713–2747. **Impact Factor: 1.1**
4	**Tomar, M.**, & Deo, N. (2024).	Theoretical Validation and Comparative Analysis of Higher Order Modified Bernstein Operators. *Iranian Journal of Science*, 48(5), 1313-1327. **Impact Factor: 1.4**
5	**Yadav, M.,** Das, L. (2024).	Formulation and evaluation of the radius of maximum wind of the tropical cyclones over the North Indian Ocean basin. Theor Appl Climatol 155, 4521–4534. DOI: https://doi.org/10.1007/s00704-024-04895-w, **Impact Factor: 2.8**
6	**Punetha, N.,** & Jain, G. (2024)	Recommendation framework for products using optimization algorithms. *National Academy Science Letters*, Page no. 1-4. **Impact Factor: 1.3.**
7	**Punetha, N.,** & Jain, G. (2024)	Optimizing sentiment analysis: A cognitive approach with negation handling via mathematical modelling. *Cognitive Computation*, 16(2), Page no. 624-640. **Impact Factor : 4.3.**
8	**Chauhan, P.**, Gupta, A. (2024).	Probabilistic multiplicative unbalanced linguistic game using linguistic cloud model. *The Journal of Supercomputing*, 80, 20346-20377. **Impact Factor: 2.5**
9	**Pal, Puneet Kumar**, Kumar, Dhirendra. (2024).	Zirili map-based image encryption method for healthcare, military and personal data security. *Physica Scripta*, 99(12), 125228. **IF-2.6**
10	**Pal, Puneet Kumar**, Kumar, Dhirendra. (2024).	The coupled Kaplan-Yorke-Logistic map for the image encryption applications. *Computers and Electrical Engineering*, 120, 109850. **IF-4.9**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
11	**Kavra, R.**, Gupta, A., & Kansal, S. (2024).	Dual-interference minimization routing techniques in wireless sensor networks. *Wireless Networks*, 30(3), 1539-1551. **Impact Factor: 2.1**
12	**Jain, R.,** Adhikari, S., (2024)	Modified six-state cryptographic protocol with entangled ancilla states, *The European Physical Journal D*, 78 (145). **Impact Factor: 1.5**
13	**S. Sivaprasad Kumar**., S. Banga. (2024)	On a Special Type of Ma-Minda function, Applied Mathematics- *A Journal of Chinese Universities*, 39(4): 654-673. **Impact Factor: 1.2**
14	Giri, S., **S. Sivaprasad Kumar**, (2024)	Toeplitz determinants in one and higher dimensions. *Acta Math Sci* 44, 1931–1944. **Impact Factor: 1.0**
15	**S. Sivaprasad Kumar**., Yadav, P. (2024)	On a Class of Certain Non-univalent Functions. *Iran J Sci*, 48, 785–793. **Impact Factor: 1.4**
16	**Aggarwal S,** Adhikari S., (2024).	Theoretical proposal for the experimental realization of realignment operation. *Quantum Information Processing*, 23 (223), 1-21. **Impact Factor: 2.2**
17	Sudhakar Yadav, **Vivek Kumar** (2024),	Study of Prey–Predator System with Additional Food and Effective Pest Control Techniques in Agriculture, *Iranian Journal of Science*, Vol. 48, 193-211, **Impact Factor – 1.4**
18	**Sharma, Y**., and Arora, A. (2024).	PHIGrader: Evaluating the effectiveness of Manifest file components in Android malware detection using Multi Criteria Decision Making techniques. *Journal of Network and Computer Applications*, 232, 104021 **Impact Factor – 8**
19	**Sharma, Y**., and Arora, A. (2024).	A comprehensive review on permissions-based Android malware detection. *International Journal of Information Security*, 23(3), 1877-1912. **Impact Factor – 3.2**
20	**Bhardwaj, Y**., & Singh, C. P. (2024).	Constraining the variable generalized Chaplygin gas model in matter creation cosmology. *Communications in Theoretical Physics*, 76(10), 105403. https://doi.org/10.1088/1572-9494/ad7b2d. **Impact Factor: 2.9**
21	**Bhardwaj, Y**., & Singh, C. P. (2024).	Matter creation cosmology with generalized Chaplygin gas. *Astrophysics and Space Science*, 369(1), https://doi.org/10.1007/s10509-023-04364-3. **Impact Factor: 1.5**
	DEPARTMENT OF APPLIED PHYSICS	
1	Seema., **Rao A.S.** (2024).	Photoluminescence and energy transfer studies in the Sm^{3+} and Eu^{3+} co-doped $Sr_2ZnSi_2O_7$ red-emitting phosphors, *Journal of Luminescence* 275, 120742. **Impact Factor 3.6**
2	Anu., **Rao, A.S.** (2024).	Temperature sensing materials based on the fluorescence intensity ratio in $Li_2Ba_5W_3O_{15}:Dy^{3+}$ phosphors, *Sensors and Actuators A: Physical,* 372, 115336. **Impact Factor 4.9**
3	Anu., **Rao, A.S**. (2024).	Synthesis, Structural and Fluorescence Investigations of Novel Li2Ba5W3O15:Sm3+ Phosphors for Photonic Device Applications, Journal of Fluorescence, 43, 2391-2403. **Impact Factor 3.1**
4	Singh, G., Sharma, S., **Kumar, A.** (2024)	Design and simulation of solid-core octagonal photonic crystal fiber for terahertz wave propagation. Microwave and Optical Technology Letters, 66, (5), e34173. Impact Factor: 1.2

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
5	Singh, J., Khamaru, A. **Kumar, A.** (2024)	Spiral shaped highly sensitive rectangular PCF-based cancer cells detector in terahertz regime. *Physica Scripta 99* (11), 115546. **Impact Factor: 2.6.**
6	N. Singh, A. Khamaru & **A. Kumar** (2024)	Design and analysis of a rectangular core refractive index-based PCF sensor for bio-sensing application, Optical and Quantum Electronics, 56, article number 1133, Impact Factor: Impact Factor: 4.0
7	**Khamaru, A.,** & Kumar, A. (2024).	Ge-Se-Te based penrose photonic quasi-crystal fiber for SCG covering 2–21 μm MIR regime. *Optical Materials*, *155*, 115849. **Impact Factor:** 4.2
8	**Khamaru, A.,** & Kumar, A. (2024).	$As_{38}Se_{62}$ based segmented clad-graded index photonic crystal fiber for supercontinuum generation covering 3–9.5 μm with moderate peak power. *Optical and Quantum Electronics*, *56*(7), 1246. **Impact Factor:** 4.0
9	Rajput S., **Panwar A.K.**, Gupta A. (2024),	Facile synthesis and electrochemical studies of Mn-Zn ferrite as anode for Li-ion batteries, *Journal of Alloys and Compounds*, 976(6), 173145. **(Impact Factor: 6.3)**
10	**Verma, A.**, Sahu, M.K., Deepali, Pandey, M., Rao, P.K., Jayasimhadri, M. (2024).	Structural and photoluminescent features of Eu3+ activated single phase niobate phosphor for lighting applications, *International Journal of Applied Ceramic Technology* 21(1), 485-492. **Impact Factor: 1.8**.
11	**Ankit**, Kishor, K., Sinha, R.K. (2024).	Design, fabrication, and characterization of epsilon negative and near-zero index metasurface, *Applied Physics A, 130,* 98. **Impact Factor: 2.8.**
12	**Ankit**, Kishor, K., Sinha, R.K. (2024).	SOI Based metasurface for broadband perfect reflection in visible spectrum, *Journal of Optics, 26,* 045101. **Impact Factor: 2.7.**
13	**Ankit**, Baitha, M.N., Kishor, K., Sinha, R.K. (2024).	Quadrupole mode plasmon resonance enabled dual-band metamaterial for refractive index sensing application, *Journal of Applied Physics, 136,* 023104. **Impact Factor: 2.5.**
14	**Banwal A.**, Kumar B., Verma M., Shandilya A., Singh B., Bokolia R. (2024).	Improved optical characteristics in $BaBi_2Nb_2O_9$ ferroelectric ceramic infused with transition metal ion (W^{6+}) and rare earth ions (Er^{3+}/Yb^{3+}). *Journal of Luminescence, 275*, 120809. **Impact Factor:** 3.6
15	**Banwal A.**, Verma M., Singh B., Bokolia R. (2024).	Temperature stability and improved energy storage efficiency of $BaBi_2Nb_2O_9$: Er/Yb relaxor ferroelectric ceramic under moderate electric fields. *Applied Physics A, 130*, 334. **Impact Factor:** 2.8
16	**Anshu**, Sharma, J., Sharma, S.C. (2024).	Analytical Modelling of Inhomogeneous Energy Density Driven (IEDD) Instability in a Magnetized Dusty Plasma Cylinder, *Brazilian Journal of Physics 54. 1,8.* **Impact Factor:** 1.5.
17	**Anshu**, Sharma, J., Sharma, S.C. (2024).	Kinetic treatment of lower hybrid waves excitation in a magnetized dusty plasma by electron beam, *Indian Journal of Physics 98.3,1147-1153.* **Impact Factor:** 1.6.
18	**Anshul**, Chaujar, R. (2024).	Semi-empirical DFT based investigation of electronic and quantum transport properties of novel GS-AGNR (N) FET. *IEEE Transactions on Nanotechnology*, 23, 400–407. **Impact Factor**: 2.5
19	**Anu**, Sheetal Kumari, Nisha Deopa and A S Rao (2024)	Spectral studies of thermally stable Dy^{3+}/Sm^{3+} co-doped $Li_2Ba_5W_3O_{15}$ phosphors for warm white LEDs, *Journal of Physics D: Applied Physics*, *57*, 315107 (14pp). **Impact Factor: 3.1.**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
20	**Anu**, Seema, A. Kumar, Nisha Deopa, Mukesh K. Sahu, Aman Prasad, A.S. Rao (2024)	A single phase $Li_2Ba_5W_3O_{15}$:Dy^{3+}/Eu^{3+} phosphor for color tunable devices and non-contact optical thermometry, *Journal of Luminescence*, *269*, 120444. **Impact Factor: 3.3.**
21	**Kumar, A.**, V.N. Thakur, A. Kumar, V. Singh, A. Dhaka, R.S. Dhaka, (2024).	Dielectric behavior and impedance spectroscopy of Niobium substituted Lanthanum based orthovanadates at high temperatures. *Ceramics International*, 50 (4), 6735-6744. **Impact Factor: 5.1**
22	Komal, K., Singh, M., **Singh, B.** (2024).	A flexible memory device made of SnO_2-hBN nanocomposite exhibits stable resistive switching application. *Journal of Materials Sci*ence, *59,* 13508–13531. **Impact Factor: 3.9**
23	Komal, K., Singh, M., & **Singh, B.** (2024).	Effect of rGO weight percentage on structural, optical, and electrical properties of rGO-SnO_2 nanocomposite for resistive memory device applications. *Materials Science and Engineering: B*, *303*, 117274. **Impact Factor: 4.6**
24	Singh, V., Rana, S., Bokolia, R., Panwar, A. K., Meena, R., & **Singh, B.** (2024).	Electrospun PVDF-$MoSe_2$ nanofibers based hybrid triboelectric nanogenerator for self-powered water splitting system. *Journal of Alloys and Compounds*, *978*, 73416. **Impact Factor: 6.3**
25	**Kumar, B.**, Pradhan, L.K., Kumar, N., Panwar, A.K., Kar, M. (2024)	Study on Multiferroic Properties of (0.5) Bi0.5Na0.5TiO3(0.5) LaFeO3 Particulate Composite, *Journal of Superconductivity and Novel Magnetism*. **Impact Factor: 1.7**
26	**Garg, D.,** Khamaru, A., & Kumar, A. (2024)	Ge-As-Se-Te chalcogenide based rib-waveguide for highly coherent on-chip mid-infrared supercontinuum generation: design and analysis, *Optical and Quantum Electronics*, 56, 1643, **Impact Factor: 4.0**
27	**Garg, D.** & Kumar, A. (2024)	CMOS compatible TeO2—coated Si3N4 inverse parabolic rib waveguide for on-chip supercontinuum generation and high resolution OCT, *Optical and Quantum Electronics*, 56, 1904, **Impact Factor: 4.0**
28	**Garg, D.**, Khamaru A., & Kumar, A. (2024).	Supercontinuum generation in Ga-Sb-S chalcogenide-based PCF using optofluidic approach. *Microwave and Optical Technology Letters*, 66, 9, e34316. **Impact Factor**: **1.2**
29	**Deepti**, Sandip Maurya, Sheetal Kumari, Pooja Rohilla, Aman Prasad, & A. S. Rao (2024).	Dy^{3+} doped $KCa(PO_3)_3$ phosphor for white light generation: Structural and luminescent studies. *Physica Scripta*, 99 (6), 065573. **Impact Factor: 2.6**
30	**Meena, D.,** Jain, M., Bhatnagar, M.C. (2024).	Resistive gas sensors based on nanostructured ternary metal oxide: a review. *J. Mater. Sci*. 59, 12177–12218. **Impact Factor**: **3.9**
31	**Tomer, D.S.**, & Kumar, A. (2024).	Design and numerical modeling of chalcogenide parabolic-core waveguide for on-chip supercontinuum generation extending from near-IR region to mid-IR region", *Microwave and Optical Technology Letters*, 66(3), p.e34105. **Impact Factor: 1.2**
32	**Arora**, **H.K.**, Nikita Jain, Sunil Kumar, and Nitin K. Puri (2024)	Vertically Aligned 2D Tin Sulfide (SnS) Nanoplates for Selective Detection of Ethanol Gas at Room Temperature, *Semiconductor Science and Technology* 39, no. 10 (2024): 105002. **Impact Factor: 2.1**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
33	**Indrajeet Maurya**, M. Jayasimhadri (2024).	Structural and spectroscopic features of single-phase Dy3+ activated BiYWO6 phosphor for luminescent device applications" *Applied Physics* A 130, 748. **Impact Factor: 2.5**
34	**Jyoti**, Suresh C. Sharma, and R. P. Sharma, (2024)	Coherent structures of Beam-driven whistler mode in the presence of magnetic islands in magnetopause. *Physica Scripta* 99 (2024) 035610. **Impact Factor: 2.6**
35	**Jyoti**, Suresh C. Sharma, and R. P. Sharma, (2024)	Nonlinear propagation of Whistler-mode in the presence of Magnetic Islands in the Magnetopause. *The European Physical Journal Plus* 139, 270. **Impact Factor: 2.9**
36	**Verma, K.**, & Chaujar, R. (2024).	Optimization and analysis of Si/SiGe strained vertically stacked heterostructure on insulator FeFinFET for high performance analog and RF applications. *Physica Scripta*, 99(11), 115960. **Impact Factor: 2.6**
37	**Sharma, K.**, Puri, N. K., & Singh, B. (2024).	Fabrication of rGO-decorated hBNNS hybrid nanocomposite via organic–inorganic interfacial chemistry for enhanced electrocatalytic detection of carcinoembryonic antigen. *Analytical and Bioanalytical Chemistry*, 416(21), 4789-4805. **Impact Factor – 3.8**
38	**Verma, K.,** Sharma, R., (2024)	Development of KNNLTS-PVDF-based flexible piezoelectric generator for energy-harvesting application", *Bulletin of Materials Science*, 47: 38, **Impact Factor: 2.1**
39	**Km. Komal**, M. Singh, B. Singh, (2023)	Flexible SnO2-MoS2 based memristive device exhibiting stable and enhanced memory phenomenon. *Journal of Physics D: Applied Physics*, 57, 105107. **Impact Factor: 3.2**
40	Vikas Sangwan, **M. Jayasimhadri**, D. Haranath. (2024)	Colour tunable and warm white light emitting thermally stable Dy3+/Sm3+ co-activated tungstate-tellurite glasses for photonic applications. *Journal of Luminescence*, 266, 120276. **Impact Factor: 3.6**
41	Indrajeet Maurya, **M. Jayasimhadri** (2024).	Comprehensive study on thermal, structural, and luminescent properties of BiYWO6:Eu3+ phosphors synthesized by various methods. *Journal of Materials Science: Materials in Electronics*, 35, 2106. **Impact Factor: 2.8**
42	Vedika Dubey, Vikas Sangwan, Indrajeet Maurya, Tannavi, **M. Jayasimhadri**. (2024)	Investigation of structural and luminescent aspects of Sm3+ activated yittrium niobium titanate phosphor for optoelectronic applications. *Journal of Electronic Materials*, 53, 7967-7978. **Impact Factor: 2.5**
43	**Narwan M**, Banwal A, Sharma R, Bokolia R. (2024)	Non-invasive thermal sensing and improved recoverable energy storage density of $Bi_{0.5}Na_{0.5}TiO_3$: Er^{3+} doped multifunctional ferroelectric ceramic", *Journal of Luminescence* 265, 120236. **Impact Factor: 3.28**
44	Sangeeta and **Singh M.** (2024).	Computational study of the thermoelectric properties and lattice dynamics of Li_2MN_2 (M = Zr or Hf). *Mater. Res. Bull., 172*, 112650. **Impact Factor: 5.7**
45	Kumar R. and **Singh M.** (2024).	Topological phase transition and tunable surface states in YBi. *J. Phys.: Condens. Matter 36*, 345601. **Impact Factor: 2.6**
46	Mathew S.S. Sangeeta, Kumar R. **Singh M.**, K. Kashyap M.K. (2024).	Optimizing carrier concentration for enhanced thermoelectric performance in $AgSbS_2$ monolayer, *Ionics 30*, 8647. **Impact Factor: 2.6**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
47	**Neha Pathak**, Suresh C. Sharma, Garima Patel, R. P. Sharma, (2024)	Role of nonlinear structures and associated turbulence generation dayside magnetosphere reconnection sites Free, *Phys. Plasmas* 31, 022104. **Impact Factor: 1.9**
48	Jain, N., & **Puri, N. K.** (2024)	A proposed device based on $MoSe_2$-ZnO heterojunctions on rGO for enhanced ethanol gas sensing performances at room temperature. *Nanotechnology*, *35*(40), 405502. **Impact Factor: 2.9**
49	Kumar, Sunil, and **N.K. Puri**. (2024)	Highly selective sustainable ethanol gas sensor based on p-p heterojunction of SnS/$MoSe_2$ nanocomposite at room temperature. *Materials Chemistry and Physics,* 326, 129802. Impact factor: 4.3
50	Aggarwal, A., Seabroke, G. M., & **Puri, N. K.** (2024).	Feasibility of gallium nitride for astronomical charge-coupled devices. *Journal of Electronic Materials*, *53*(10), 6456-6462. **Impact factor: 2.2**
51	Naima, **Pawan K Tyagi,** Vinod Singh (2024).	Potential application of p-type diamane as back surface field layer in silicon-based heterojunction solar cells, *Semiconductor Science and Technology* 39 (12), 125021. **Impact Factor: 2.1**
52	Naima, **Pawan K Tyagi,** V Singh (2024)	Doped diamane: An efficient electron/hole collection layer in HIT solar cell, *Materials Science and Engineering: B* 310, 117754. **Impact Factor: 4.6**
53	**Pooja Rohilla**, Aman Prasad, A. S. Rao, (2024).	Structural and Luminescence studies on Bi^{3+} activated Ba_3MoTiO_8 phosphor for near UV pumped w-LED applications. International Journal of Applied Ceramic Technology, 21 (2), 1208-1219. **Impact Factor: 2.3**
54	**Pooja Rohilla**, K. Sheetal, Ravita, S. Diwakar, R. A. Talewar, A. Shandilya, K. Maheshwari, M. Venkateswarlu, A. Prasad, A.S. Rao, (2024).	Colour tuning in Sm^{3+} activated and Sm^{3+}/Eu^{3+} co-activated $SrBi_4Ti_4O_{15}$ phosphors for w-LED applications. *Journal of Molecular Structure*, 1312, 138521. **Impact Factor: 4.7**
55	**Kundara, R.**, & Baghel, S. (2024).	Performance analysis of LaFeO3 perovskite solar cells: a theoretical and experimental study. *Solid State Communications*, 389, 115590. **Impact Factor: 2.4**
56	**Kundara, R.**, & Baghel, S. (2024).	Predictive design of KSnI3-based perovskite solar cells using SCAPS and machine learning model. *Materials Science and Engineering*: B, 307, 117536. **Impact Factor: 4.6**
57	**Rajesh Kumar**, Mukhtiyar Singh, Ankush Vij. (2024).	Unraveling the effect of pressure on structural phase transition, electronic, and optical properties of Hf1-xSixO2 (x = 0, 0.03, 0.06,0.09): A first-principles investigation, *J. Phys. Chem. Solid*. 185, 111773. **Impact Factor: 4.9**
58	**Mann, R.,** Chaujar, R. (2024).	DFT-based Atomic Modeling and Temperature Analysis on the RF and VTC curve of high-k dielectric layer-assisted NCFET," *Physica Scripta* vol. 99, pp. 015029. **(Impact Factor: 2.6)**
59	**Mann, R.**, Chaujar, R. (2024).	Self-Consistent LCAO Based DFT Analysis of High-k Spacers and its Assessment on Gate-Stacked NCFET for Improved Device-Circuit Performance," *Silicon*, pp. 5185-5197. **(Impact Factor: 2.8)**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
60	V. Sherawat, R. Bokolia and **R. K. Sinha** (2024).	Pressure-dependent bandgap characteristics in photonic crystals with sensing applications", *Journal of Optics*, Vol 26 (8). **Impact Factor: 2.5**
61	L Ahlawat, K Kishor, **R. K. Sinha** (2024)	Photonic spin Hall effect-based ultra-sensitive refractive index sensor for haemoglobin sensing applications", *Optics and Laser Technology*, Vol 170, 110183. **Impact Factor: 5.0**
62	S. P. Singh, **R. K. Sinha**, U. Tiwari (2024)	"Flexible Metal-Dielectric metasurface for 3-Tesla MRI image enhancement", *Journal of Magnetism and Magnetic Materials*, Vol 15, 171650. **Impact Factor: 3.0**
63	Narwan M., Sharma R., **Bokolia R.** (2024)	Optical temperature sensing and upconversion luminescence in Er3+/ Yb3+ co-doped BNT ferroelectric ceramic. *Applied Physics A*. 130, 854. **Impact Factor: 2.8**
64	Basith A., Singh S., Banwal A., Narwan M., Verma M., **Bokolia R.** (2024).	Regulating novel tunable green to red upconversion luminescence in Er3+/ Yb3+ co-doped SrBi2Nb2O9 ferroelectric ceramic. *Ceramics International*. 50, (24) A, 52344-52355. **Impact Factor: 5.6**
65	Varshney M., Soni S., Banwal A., Narwan M., Verma M., **Bokolia R. (2024)**.	Effect of Er3+ ion incorporation on the structural, photoluminescence, and ferroelectric properties of K0.5Na0.5NbO3 ceramic for optoelectronic applications. *Applied Physics A.* 130, 267. **Impact Factor: 2.8**
66	Kumar, A., **Sharma, R.** (2024)	Piezoelectric flexible generator based on Mn-doped ZnO/PVDF composite films for energy harvesting application. *Current Applied Physics,* 68, 159–168. **Impact Factor:** 3.1
67	Verma, K., Kumar, A., **Sharma, R.** (2024).	Development of flexible piezoelectric nanogenerator based on PVDF/ KNN/ZnO nanocomposite film for energy harvesting application. *Journal of Materials Science: Materials in Electronics,* 35 (26), 1732-. **Impact Factor:** 2.8
68	Verma, K., Kumar, A., **Sharma, R.** (2024).	Fabrication of Lead-Free PVDF/KNNLTS/MWCNT Piezoelectric Nanogenerator: Role of MWCNT in the Piezoelectric Performance of Nanogenerator for Energy-Harvesting Application. *Journal of Electronic Materials,* 53 (11), 7574–7592. **Impact Factor:** 2.5
69	Priyanka and **Rinku Sharma** (2024)	Thermodynamic properties of InxGa1-xN double quantum wire in the presence of impurity and Rashba spin-orbit interaction, *Physica B: Condensed Matter*, 691, 416305. **Impact Factor: 2.8.**
70	R. Mann and **R. Chaujar** (2024)	DFT-based Atomic Calculation of Si-doped HfO2 and Effect of its Negative Capacitance on Analog/RF, and VTC Parameters of MOSFET, *Silicon*, Vol.16, pp.1237-1252.
71	M. Getnet and **R. Chaujar** (2024)	Investigation of Gate-Stack Gate-All-Around Junctionless Nanowire Field Effect Transistor for Oxygen Gas Sensing, *Journal of Electronic Materials*, volume 53, issue 4, pages 2191-2201.
72	M. Sharma and **R. Chaujar** (2024)	Device Optimization of T-shaped gate and polarized doped buffer engineered InAlN/GaN HEMT for improved RF/ microwave performance, *Arabian Journal for Science and Engineering*, Volume 49, pages 9983–9994.

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
73	**Sharma, S.**, Madan, J., & Chaujar, R. (2024).	Exploring tunable arsenide/ antimonide tunneling interfaced junctionless TFET for gas sensing applications. *Materials Science and Engineering: B*, 305, 117450. **Impact Factor: 4.6**
74	**Sangeeta**, Kumar R., Singh M. (2024)	In-silico realization of YX (X = N, P, As) pnictide monolayers as highly efficient thermoelectric materials, *Surface and Interfaces* 55, 105442. **Impact Factor: 6.3**
75	**S.K. Jha**, S. Yadav, M. Sharma, N.K. Puri, B.K. Kuanr (2024)	Reciprocal and non-reciprocal electromagnetic wave propagation in sub-100 nm epitaxial YIG thin films deposited under different oxygen growth pressure, *Journal of Magnetism and Magnetic Materials*, 596, 171972, **Impact Factor: 5.3**
76	**Gupta, S.**, Vishwakarma, D. K., & Puri, N. K. (2024).	A human activity recognition framework in videos using segmented human subject focus. *The Visual Computer*, 40 (12), 6983–6999. **Impact Factor: 2.9**
77	**S Kumari**, AS Rao, RK Sinha (2024).	Green Emission of Erbium Doped SYW Phosphors for Optical Thermometry And Solid-State Lighting, *ChemPhotoChem* 8 (6), e202300226, **Impact Factor: 3.0**
78	**S Kumari,** AS Rao, RK Sinha (2024).	Investigations on photoluminescence and energy transfer studies of Sm^{3+} and Eu^{3+} ions doped $Sr_9Y_2W_4O_{24}$ red emitting phosphors with high color purity for w-LEDs. *Journal of Molecular Structure 1295, 136507*, *307*, 117536. **Impact Factor: 4.7**
79	**S Kumari,** P Rohilla, A Prasad, A.S Rao, RK Sinha (2024)	Structural characterization and luminescence characteristics of Dy^{3+} doped $Sr_9Y_2W_4O_{24}$ phosphor for application in white-LEDs, *Journal of Luminescence* 275, 120791 **Impact Factor: 3.6**
80	**Rana, S.,** Singh, B. (2024)	rGO-Embedded Polymer Nanocomposite Layer for Improved Performance of Triboelectric Nanogenerator. *Journal of Electronic Material*. 53, 6640–6649. **Impact Factor: 2.5**
81	**Sangwan, S.**, Meena, R., Bokolia, R., Singh, V., & Meena, D. (2024).	Exploration of structural and dielectric properties of orthorhombic Ta_2O_5 nanoplatelets towards the potential optoelectronic devices. *Materials Today Communications*, 38, 108468. **Impact Factor: 3.7**
82	**Shristy Malik**, A.S. Rao, Surendra K. Dhaka, Ryoichi Imasu, H.Y. Chun (2024).	Solar Cycle Influence on Wind, Temperature, and Surface Pressure During 1981–2021 Over Indian Region. *Journal of the Indian Society of Remote Sensing*, 52 (4), 2389-2400. **Impact Factor:2.4**
83	**S. Sharma** and Suresh C Sharma 2024 Phys. Scr. 99 075918	Analytical modeling of nucleation and growth of graphene layers on CNT array and its application in field emission of electrons, *Phys. Scr.* 99 075918. **Impact Factor: 2.6**
84	**Yadav, S.**, Rao, A. S., & Meena, D. (2024).	Optical characteristics, Judd-Ofelt analysis of enhanced luminescence by flux in thermally stable, novel Eu3+- doped BaZr(PO4)2 phosphor for indoor lighting applications. *Physica B: Condensed Matter*, 695 (September), 416522. **Impact Factor: 2.8**
85	**Sumandeep Kaur**, A.S. Rao, Simran Arora (2024).	Comparative study of luminescence in alkali-metal-based yttrium fluoride nanophosphor for biophotonic applications, *International Journal of Applied Ceramic Technology*, 21 (5), 3700-3712, **Impact Factor: 1.8**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
86	**Sumandeep Kaur**, Harpreet Kaur, A.S. Rao, G. Vijaya Prakash (2024).	A review on photoluminescence phosphors for biomedical, temperature sensing, photovoltaic cell, anti-counterfeiting and white LED applications, Physica B: *Condensed Matter*, 690, 416224. **Impact Factor: 2.8**
87	**Sumandeep Kaur**, Harpreet Kaur, A.S. Rao (2024).	UV and blue excited tunable emission of thermally stable Bi3+ sensitized Eu3+ doped calcium aluminozincate phosphor for photonic applications, Spectrochimica Acta Part A: *Molecular and Biomolecular Spectroscopy*, 305, 123524, **Impact Factor: 4.3**
88	S. K. Singh, Ishu Sharma, and **S. C. Sharma**	Plasma Assisted Carbon Nanotube for Solar cell application, *Journal of Computational Electronics* 23(4) 884-898 (2024) **(IF 2.1)**
89	Jyoti, **S. C. Sharma**, R.P. Sharma,	Localization of Beam Generated whistler wave and turbulence generation in reconnection region of magnetopause, *Phys. Plasmas* 31**,** 022902 (2024) **(IF 2.023).**
90	**V. Siwach**, M. Jayasimhadri. (2024).	Warm white light emitting thermally stable Dy3+ activated antimony fluoroborate glasses for n-UV based white LEDs". *Phys. Scr.*, Vol. 99, pp. 105009. **Impact Factor: 2.6**
91	**Vikas**, Mula Jayasimhadri and Divi Haranath. (2024).	Color-tunable features in thermally stable Tb3+/Eu3+ co-doped telluro tungstate glasses for photonic applications. *Journal of Physics D:* Applied Physics, Vol. 57(19), pp. 195301. **Impact Factor: 3.2**
92	**Vikas**, Mula Jayasimhadri and Divi Haranath. (2024).	Optical and luminescent characteristics of thermally stable new Eu3+ doped potassium tungstate tellurite glasses for epoxy-free luminescent devices. *Current Applied Physics*, Vol. 58, pp. 11-20. **Impact Factor: 3.1**
93	P.P. Kumar & **V. Singh** (2024)	Enhanced dual gas sensing performance of MoS2/MoO3 nanostructures for NH3 and NO2 detection, *Ceramics International*, 50, Pages 21978-21988, **Impact Factor: 5.6**
94	**Pathak, Y.**, Mishra, P., Sharma, M., Solanki, S., Agarwal, V. V., Chaujar, R., & Malhotra, B. D. (2024).	Experimental circuit design and TCAD analysis of ion sensitive field effect transistor (ISFET) for pH sensing. *Materials Science and Engineering: B*, 299, 116951. **(Impact Factor: 4.6)**
95	**Yashika Saraswat**, Chitrangi Bhardwaj, Sheetal Kumari, Aman Prasad, & A. S. Rao. (2024).	Study of Structural and Spectroscopic properties of Dy^{3+} ions doped potassium magnesium molybdate single phase phosphor for white lighting
96	A. Aggarwal, A. Mittal and **Y. Kalra** (2024)	Design of silicon slab waveguides based all-optical logic gates. *Microwave and Optical Technology Letters* 66 (1), e33981. **Impact Factor:1.2**
97	V. Sharma, **Y. Kalra** and R. K. Sinha (2024)	Modelling and design of human eye inspired concentric cylindrical metalens, *Optics Communications* 565 (15), 130627. **Impact Factor: 2.5**
98	V. Sharma, **Y. Kalra** and **R. K. Sinha** (2024)	Chiral perovskite based metasurface for linear and circular dichroism, *Journal of Optics*, 26 125103. **Impact Factor:2.7**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
99	**Himank Sagar**, S.C. Sharma (2024)	Radially polarized femtosecond laser interaction with unmagnetized plasma slab and symmetric modes for enhanced terahertz field generation, *CPP*, 64 (10), e202400020. **Impact Factor 1.36**
	DEPARTMENT OF BIOTECHNOLOGY	
1	Amit Mathur, Ritu, Prakash Chandra and **Asmita Das** (2024)	Autophagy: a necessary evil in cancer and inflammation. *3 Biotech*, 14, 3. (87), **Impact factor:2.8**
2	**Bhargavi Sharma**, Shivani Yadav, Sonam Rewari, and Yasha Hasija (2024)	DM-PA-CNTFET Biosensor for Breast Cancer Detection: Analytical Model, *ECS Journal of Solid State Science and Technology* 13, 087004(2024) **(Impact Factor : 1.8).**
3	**Bhowal, B.**, Hasija, Y., & Singla-Pareek, S. L. (2024).	Tracing the intraspecies expansion of glyoxalase genes and their expanding roles across the genus Oryza. *Functional & integrative genomics*, 24(6), 220. **Impact Factor: 3.1**
4	**Advani, D.**, & Kumar, P. (2024).	Uncovering Cell Cycle Dysregulations and Associated Mechanisms in Cancer and Neurodegenerative Disorders: A Glimpse of Hope for Repurposed Drugs. *Molecular neurobiology*, 61(11), 8600–8630 **Impact Factor: 5.59**
5	S. Jain, S. Srivastava, I. Gulati, and **K. Bhandari** (2024).	Shaking Hands with Streptococcal Antibody-Degrading Enzymes for Clinical Use (Review). *Applied Biochemistry and Microbiology*, volume 60, ISSN:0003-6838, pp. 503-513. **Impact Factor: 1.1.**
6	**Singh, M.**, Sharma, J. G., & Giri, B. (2024).	Augmentative role of arbuscular mycorrhizal fungi, Piriformospora indica, and plant growth-promoting bacteria in mitigating salinity stress in maize (Zea mays L.). *Journal of Plant Growth Regulation*, 43(4), 1195–1215 **Impact Factor: 3.9**
7	**Sahu, M.**, Rani, N., & Kumar, P. (2024).	Simulation and computational study of RING domain mutants of BRCA1 and Ube2k in AD/PD pathophysiology. *Molecular Biotechnology*, 66(5), 1095–1115. **Impact Factor: 3.3**
8	Manju, & **Bharadvaja, N.** (2024).	Exploring the potential therapeutic approach using ginsenosides for the management of neurodegenerative disorders. *Molecular Biotechnology*, 66(7), 1520-1536. **Impact Factor: 2.5**
9	**Rani, N.**, Sahu, M., Ambasta, R. K., & Kumar, P. (2024).	Triaging between post-translational modification of cell cycle regulators and their therapeutics in neurodegenerative diseases. *Ageing Research Reviews*, 94, 102174. https://doi.org/10.1016/j.arr.2023.102174 **Impact Factor : 12.5**
10	**N. Kukreti**, P. Kumar and R. Kataria,	Conversion of Corn Stover for Microbial Enzymes Production by Phanerochaete chrysosporium, *Applied Biochemistry and Biotechnology*, vol. 196, pp. 5144-5160, 2023. **Impact Factor: 3.0**
11	**Neha Tiwari,** Deenan Santhiya, Jai Gopal Sharma	Significance of landfill microbial communities in biodegradation of polyethylene and nylon 6,6 microplastics, *Journal of Hazardous Materials*, Volume 462, 2024

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
12	Sahu, M., Ambasta, R.K., Das, S.R., Mishra, M., Shanker, A., **Kumar, P.** (2024)	Harnessing brainwave entrainment: a non-invasive strategy to alleviate neurological disorder symptoms, *Ageing Research Reviews*, Volume 101, (102547) **Impact Factor: 12.4**
13	**Priya Rai**, Yasha Hasija	Ionic liquids for stability of ker6, a potential keratinase for human hair keratin extraction, *Journal of Molecular Liquids*, Volume 415, Part B, 2024,
14	**Kardam, S.**, Ambasta, R. K., & Kumar, P. (2024).	Overview of pro-inflammatory and pro-survival components in neuroinflammatory signalling and neurodegeneration. *Ageing Research Reviews*, 100, 102465 **Impact Factor: 12.4**
15	**Vashishth, S.**, Ambasta, R. K., & Kumar, P. (2024).	Deciphering the microbial map and its implications in the therapeutics of neurodegenerative disorder. *Ageing Research Reviews*, 100, 102466. https://doi.org/10.1016/j.arr.2024.102465. **Impact Factor: 12.4**
16	**Rastogi Verma, S.**, Saha, R., Chauhan, A. (2024).	Machine learning: An advancement in biochemical engineering. *Biotechnology Letters*, 46(4), 497-519. **Impact Factor: 2.1**
17	**Kag, S.**, Kumar, P. & Kataria, R. (2024).	Potato Peel Waste as an Economic Feedstock for PHA Production by Bacillus circulans. *Applied Biochemistry and Biotechnology*, volume 196, page range 2451-2465. **Impact Factor: 3.0**
18	**Mann, S.**, Sharma, J. G., & Kataria, R. (2024).	Microbial accumulation of bioplastics from waste stream: recent advancements and applications. *International Journal of Environmental Science and Technology*, 21(2), 2279-2306. **Impact Factor 3.4.**
19	Tanwar, N., & **Hasija, Y.** (2024).	Explicate molecular landscape of combined pulmonary fibrosis and emphysema through explainable artificial intelligence: a comprehensive analysis of ILD and COPD interactions using RNA from whole lung homogenates. *Medical & Biological Engineering & Computing*, 62(8), 2557-2570. **Impact Factor- 2.6**
20	Kumari, N., Bhavesh, N. S., & **Hasija, Y.** (2024).	Elucidating the Effects of Aromatic Mutations on the RNA Binding Efficacy of CELF2 Protein. *Molecular Biology*, 58(6), 1293-1311. **Impact Factor- 1.2**
21	Sharma, K., Saini, N., & **Hasija, Y.** (2024).	Identifying the mitochondrial metabolism network by integration of machine learning and explainable artificial intelligence in skeletal muscle in type 2 diabetes. *Mitochondrion*, 74, 101821. **Impact Factor- 4.5**
	DEPARTMENT OF CIVIL ENGINEERING	
1	**Agarwal, J.**, Sarkar, R. (2024)	Greenfield settlements due to tunnelling using tunnel boring machine (TBM) in layered soils: a parametric study. *Sādhanā,* 49(1), 75. **Impact Factor: 1.4**
2	**Aggarwal, M.**, Anbukumar, S., & Vijaya Kumar, T. (2024)	Measurement of heavy metals content in suspended sediment of Ganges river using atomic absorption spectrometry. *Mapan*, 39(4), 913-930. **Impact Factor: 1.3**
3	**Reddy, N. D. K.**, Diksha, Gupta, A. K., & Sahu, A. K. (2024)	Evaluation of soil liquefaction potential using ensemble classifier based on grey wolves optimizer (GWO). *Soil Dynamics and Earthquake Engineering*, 182, 108750. **Impact Factor: 4.6**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
4	**Ramteke, P.C.**, Sahu, A.K. (2024)	Soil-slope stability investigation using different nail inclinations: a comprehensive LSD, FEM and experimental approach. *Sādhanā Academy Proceedings in Engineering and Sciences*, 49 (62). **Impact Factor: 1.4**
5	**Kumar, Y.**, Trivedi, A., & Shukla, S. K. (2024)	Deflections governed by the cyclic strength of rigid pavement subjected to structural vibration due to high-velocity moving loads. *Journal of Vibration Engineering & Technologies*, 12(3), 3543-3562. **Impact Factor - 2.4**
6	**Kumar, Y.**, Trivedi, A., & Shukla, S. K. (2024)	Investigating the Influence of Frequency on Piezo-dynamics of Polyvinylidene Fluoride (PVDF) Films Embedded in Confined Geomaterials. *Journal of Vibration Engineering & Technologies*, 12(7), 8867-8886. **Impact Factor - 2.4**
	DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
1	Kavinder Singh, and **Anil Singh Parihar** (2024)	BFF: Bi-Stream Feature Fusion for Object Detection in Hazy Environment, *Signal, Image and Video Processing*, Volume 18, pp. 3097-3107, June 2024. **(IF: 2.3)**
2	Kavinder Singh, and **Anil Singh Parihar** (2024)	Illumination Estimation for Nature Preserving low-light image enhancement, *The Visual Computer*, Volume 40, pp. 121-136, January 2024. **(IF: 3.5)**
3	**Khurana, A.**, & Verma, O. P. (2024)	Optimal heterogeneous domain adaptation for text classification in transfer learning. *Computers and Electrical Engineering*, 116, 109192. **Impact Factor: 4.9**
4	**Malhotra, A.**, Jindal, R. (2024).	Xai transformer based approach for interpreting depressed and suicidal user behavior on online social networks. *Cognitive Systems Research*, 84, 101186. **Impact Factor: 3.9**
5	Jyoti Maggu, **Anurag Goel** (2024),	K-BEST subspace clustering: kernel-friendly block-diagonal embedded and similarity-preserving transformed subspace clustering, *Pattern Analysis and Applications*, 27 (119). **Impact Factor: 3.7**
6	**Anurag Goel**, Angshul Majumdar (2024)	Sparse subspace clustering incorporated deep convolutional transform learning for hyperspectral band selection, *Earth Science Informatics,* 17, 2727-2735. **Impact Factor: 2.8**
7	**Anurag Goel**, Angshul Majumdar (2024)	Contrastive Deep Convolutional Transform K-Means Clustering, *Information Sciences*, 661 (120191). **Impact Factor: 8.23**
8	**Chawla, D**., & Mehra, P. S. (2024)	QAKA: A novel quantum authentication and key agreement (QAKA) protocol using quantum entanglement for secure communication among IoT devices. *Transactions on Emerging Telecommunications Technologies*, 35(3), e4957. https://doi.org/10.1002/ett.4957, **Impact Factor:2.5**
9	**Nandanwar, H.**, & Katarya, R. (2024).	TL-BILSTM IoT: transfer learning model for prediction of intrusion detection system in IoT environment. *International Journal of Information Security*, 23(2), 1251-1277. **Impact Factor: 3.2**
10	**I.Singh,** R.Jindal	Outlier based intrusion detection in databases for user behaviour analysis using weighted sequential pattern mining", *International Journal of Machine Learning and Cybernetics*, Vol-15, pp.2573-2593, (2024). **Impact Factor :- 2.7**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
11	**I.Singh,** D.P. Kothari, S.Aditya, M.Rajora, C.Agarwal, V.Gautam (2024)	A hybrid metaheuristic optimised ensemble classifier with self organizing map clustering for credit scoring", *Operational Research*, Vol-24, pp.1-42, (2024). **Impact Factor :- 2.7**
12	**Sharma, J**., & Mehra, P. S. (2024).	HCFAIUN: A novel hyperelliptic curve and fuzzy extractor-based authentication for secure data transmission in IoT-based UAV networks. *Vehicular Communications*, 49, 100834. https://doi.org/10.1016/j.vehcom.2024.100834. **Impact Factor: 6.5**
13	**Khan, K., Kainat,** ., & Katarya, R. (2024).	AFF-BPL: An adaptive feature fusion technique for the diagnosis of autism spectrum disorder using Bat-PSO-LSTM based framework. *Journal of Computational Science*, 83, 102447. **Impact Factor: 3.1.**
14	**Kavinder Singh**, and Anil Singh Parihar (2024)	MRN-LOD: Multi-exposure Refinement Network for Low-light Object Detection, *Journal of Visual Communication and Image Representation*, Volume 99, pp. 104079, March 2024 **(IF: 2.6)**
15	**Yadav, M.**, Katarya, R. (2024)	Stacked Denoising Variational Auto Encoder Model for Extractive Web Text Summarization. *Iran J Sci Technol Trans Electr Eng* 48, 1501–1518 (2024).
16	**Jain M.,** Jindal R., Jain A. (2024)	Code-mixed Hindi-English text correction using fuzzy graph and word embedding. *Expert Systems* 41 (7), e13328. **Impact Factor: 2.3**
17	**Jain M.,** Jindal R., Jain A. (2024)	Lexical Semantics Identification Using Fuzzy Centrality Measures and BERT Embedding. *National Academy Science Letters* 47 (3), 329-333 **Impact Factor: 1.3**
18	**Kumar, N.**, & Beniwal, R. (2024).	A multi-constrained green routing protocol for IoT-based software-defined WSN. Concurrency and Computation: *Practice and Experience,* 36(28), e8306. **Impact Factor: 1.5**
19	**Ranjan, P**., Girdhar, A., Ankur, & Kumar, R. (2024).	A novel spectral-spatial 3D auxiliary conditional GAN integrated convolutional LSTM for hyperspectral image classification. *Earth Science Informatics*, 17(6), 5251–5271.
20	Beniwal, R., & **Saraswat, P. (**2024)	A hybrid BERT-CNN approach for depression detection on social media using multimodal data. *The Computer Journal,* 67(7), 2453-2472. **Impact Factor: 1.5**
21	**Dahiya, P**., Kumar, V., (2024).	An Optimized Multi-kernal Based Extreme Learning Machine for Authentication Threat Detection with Feature Reduction Scheme in IoT. *Wireless Personal Communications*, 139, 1451-1475. **Impact Factor: 2.2**
22	**Shambharkar, P.G**., Sharma, N. (2024)	Deep learning-empowered intrusion detection framework for the Internet of Medical Things environment, *Knowledge and Information Systems*, 2024, 66(10), pp. 6001–6050
23	Himanshu Nandanwar, **Rahul Katarya** (2024)	Deep Learning Enabled Intrusion Detection System for Industrial IoT Environment, *Expert Systems with Applications*, **(Impact Factor: 8.665)**
24	Garima Gupta, **Rahul Katarya** (2024)	A Computational Approach Towards Food-Wine Recommendations", *Expert Systems with Applications*, **(Impact Factor: 8.665)**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
25	Anjum, **Rahul Katarya** (2024)	Hate speech, Toxicity detection in online social media: A recent survey of state-of-the-art, and opportunities, *International Journal of Information Security*, **(Impact Factor: 3.2)**
26	Ankur, **Kumar, R**., & Sharma, A. K. (2024).	Link chain driven reversible data hiding in encrypted images for high payload. *Signal, Image and Video Processing*, 18, 5841–5856. **Impact Factor:2.1**
27	**Mishra, R.K**., Yadav, R.K. & Nath, P. (2024)	Access Control Models and Frameworks for the IoT Environment: Review, Challenges, and Future Direction (2024). *Wireless Personal Communication* 138, 1671–1701. **Impact Factor: 2.2**
28	Seniaray S., **Jindal R**. (2024)	Performance Analysis of Anomaly-Based Network Intrusion Detection Using Feature Selection and Machine Learning Techniques. *Wireless Personal Communications*, 138, 2321–2351. **Impact Factor: 2.2**
29	**Beniwal, R**., & Saraswat, P. (2024)	A hybrid BERT-CPSO model for multi-class depression detection using pure hindi and hinglish multimodal data on social media. *Computers and Electrical Engineering*, 120, 109786. **Impact Factor: 4.0**
30	**Beniwal, R.**, & Kumar, N. (2024).	Energy optimized artificial hummingbird algorithm for routing in IoT-based software-defined WSN. *International Journal of Communication Systems*, 37(8), e5748. **Impact Factor: 1.7**
31	Sharma, V., **Beniwal, R**., & Kumar, V. (2024).	Multi-level trust-based secure and optimal IoT-WSN routing for environmental monitoring applications. *the Journal of Supercomputing*, 80(8), 11338-11381. **Impact Factor: 2.5**
32	**Mehraban, Samiullah**, and Rajesh Kumar Yadav. (2024)	Traffic engineering and quality of service in hybrid software defined networks, *China Communications* 21.2: 96-121. **Impact Factor: 3.1**
33	Mahajan, E., Mahajan, H., & **Kumar, S.** (2024).	EnsMulHateCyb: Multilingual hate speech and cyberbully detection in online social media. *Expert systems with applications*, 236, 121228. **Impact Factor: 7.5**
34	Kumar, A., Jain, D. K., Mallik, A., & **Kumar, S.** (2024).	Modified node2vec and attention based fusion framework for next POI recommendation. *Information Fusion*, 101, 101998. **Impact Factor: 15.5**
35	Ashish Kumari, **Shailender Kumar,** Ram Shringar Raw (2024)	Advancing VANET stability: enhanced cluster head selection with iTTM and weighted CRITIC, *The Journal of Supercomputing*, Volume 80, Issue 11, 16133 - 16172
36	Ashish Kumari, **Shailender Kumar,** Ram Shringar Raw (2024)	Modified clustering and incentivized stable CH selection for reliable VANET communication. *Cluster Comput* 27, 11983–12005 (2024)
37	**Sharma, V.,** Beniwal, R., & Kumar, V. (2023).	Towards secure IoT system from a smart city perspective: An optimized algorithm and implementation. *Transactions on Emerging Telecommunications Technologies*, 35(4). **Impact Factor: 2.5**
38	**Dubey, V.,** & Katarya, R. (2024).	SSR-GAN: super resolution-based generative adversarial networks model for flood image enhancement. *Signal Image and Video Processing*, 18(8–9), 5763–5773. https://doi.org/10.1007/s11760-024-03269-z. **Impact Factor: 2.1**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
	DELHI SCHOOL OF MANAGEMENT	
1	**Jain, A.**, Thukral, S., & Paul, J. (2024)	Foreign market entry modes of family firms: A review and research agenda. *Journal of Business Research*, 172, 114407. **Impact Factor: 9.8**
2	**Beniwal, M.**, Singh, A., & Kumar, N. (2024)	Forecasting multistep daily stock prices for long-term investment decisions: A study of deep learning models on global indices. *Engineering Applications of Artificial Intelligence*, 129, 107617. **Impact Factor: 8**
	DEPARTMENT OF ELECTRICAL ENGINEERING	
1	**Nandawadekar, A.,** Singh, M. & Kar, S. (2024)	Study of power diodes used for MRI applications. J. Power Electron. 24, 316–323 **Impact Factor:1.56**
2	**Arora A**, Singh A. (2024).	Fractional delay Newton structure for Lagrangian interpolation in PV integrated grid connected system. *Int J Circ Theor Appl*., 52(3),1095-1115. **Impact Factor: 1.6**
3	**Anupama**, Rewari, S., & Pandey, N. (2024).	Numerical simulation and characterization of high-power Gallium Nitride based Junctionless Accumulation Mode Nanowire FET (GaN-JAM-NWFET) for small signal high frequency terahertz applications. *AEU - International Journal of Electronics and Communications*, 174, 155032. **Impact Factor: 3**
4	**Anupama**, Rewari, S., & Pandey, N. (2024).	Numerical simulation of core shell dual metal gate stack junctionless accumulation mode nanowire FET (CS-DM-GS-JAMNWFET) for low power digital applications. *Micro and Nanostructures*, 196, 207995. **Impact Factor: 2.7**
5	**Goswami, A.**, Sreejeth, M., Singh, M. (2024)	Investigation and mitigation of unbalanced hall sensor signal faults in sensored brushless DC motor drives. *Electrical Engineering*, 106, 4835–4850. **Impact Factor: 1.9**
6	**Goswami, A.**, Sreejeth, M., Singh, M. (2024)	DC link current based commutation delay compensation method for sensored brushless DC motor drives. *Journal of Power Electronics*, 24(4), 897–905. **Impact Factor: 1.3**
7	**Avasthi, A.**, Garg, R., & Mahajan, P. (2024)	Comparative analysis of bifacial and monofacial floating solar power plants: Performance evaluation and economic analysis. Iranian Journal of Science and Technology, *Transactions of Mechanical Engineering*, 48(4), 2167-2185. **Impact Factor: 1.7**
8	Anand, P., **Sharma, B.**, & Rizwan, M. (2024)	Size optimization of grid-tied hybrid energy system by employing forecasted meteorological data. *Mapan*, 39(3), 739-750. **Impact Factor: 1.3**
9	**Tomar B.**, Kumar N., Sreejeth M. (2024)	Augmentation in performance of real-time balancing and position tracking control for 2-DOF ball balancer system using intelligent controllers. *Wireless Personal Communications*, vol. 138, pp. 2227-2257.**Impact Factor: 2.2**
10	**Tomar B.**, Kumar N., Sreejeth M. (2024)	PLC and SCADA based temperature control of heat exchanger system through fractional order PID controller using metaheuristic optimization techniques. *Heat and Mass Transfer*, vol. 60, pp. 1585 1602. **Impact Factor: 2.0**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
11	**Tomar B.**, Kumar N., Sreejeth M. (2024)	Robust control of rotary inverted pendulum using metaheuristic optimization techniques based PID and fractional order PIAD^ controller. *Journal of Vibration Engineering & Technologies*, vol. 12, pp. 1-20. **Impact Factor: 2.4**
12	**Sangar, B.**, Singh, M., & Sreejeth, M. (2024)	An improved ANFIS model predictive current control approach for minimizing torque and current ripples in PMSM-driven electric vehicle. *Electrical Engineering*, 106(5), 5897-5907. **Impact Factor: 1.9**
13	**Kumar,C** & Chittora, P. (2024)	Secure and privacy preserving framework for IoT-Enabled smart grid environment. *Arabian Journal for Science and Engineering,* Volume 49,3063-3078. **Impact Factor: 2.9**
14	**Kumar,C** & Chittora, P. (2024)	Deep learning and blockchain empowered secure data sharing for smart grid infrastructure. *Arabian Journal for Science and Engineering*, Volume 49,16155-16168. **Impact Factor: 2.9**
15	**Gusain, C.**, Nangia, U., & Tripathi, M. M. (2024)	Optimal sizing of standalone hybrid renewable energy system based on reliability indicator: A case study. *Energy Conversion and Management*, 310, 118490. **Impact Factor: 10.9**
16	**Chaudhry Indra Kumar**, Abhishek Chaudhary, Shreyansh Upadhyaya (2024)	Design of high performance energy efficient CMOS voltage level shifter for mixed signal circuits, applications. *Integration*, Volume 95, March 2024, 102133. **Impact Factor: 2.**5
17	**Bhaskar, D. R.**, Shrivastava, M., Raj, A., & Kumar, P. (2024).	Floating parallel lossy inductance, parallel lossy capacitance, parallel C-D, and lossless capacitance multiplier circuits using current feedback operational amplifiers. *International Journal of Circuit Theory and Applications*, 52(3), 1489-1517.
18	**Bhaskar, D. R.,** Bhagat, R., Raj, A., & Kumar, P. (2024)	Grounded synthetic series lossy inductor simulator circuits employing single current differencing buffered amplifier. *International Journal of Circuit Theory and Applications*, 52(6), 3081-3098.
19	**Prasad, D.**, Valluru, S. K., & Rayguru, M. M. (2024)	Filter based saturated controller design for a class of nonlinear singularly perturbed systems. *Sadhana*, 49(2), 184. **Impact Factor: 1.4**
20	**Rai, K. B.**, Kumar, N., & Singh, A. (2024b)	Design and control of DVR based on adaptive Batman Polynomial for power quality improvement. *International Journal of Circuit Theory and Applications.*
21	**Saini, K.**, Kumar, N., Bhushan, B., & Kumar, R. (2024)	Artificial neural network-based adaptive control for nonlinear dynamical systems. *International Journal of Adaptive Control and Signal Processing*, 38(8), 2693-2715. **Impact Factor: 3.9**
22	**Baranwal, K.**, Prakash, P., & Yadav, V. K. (2025)	Optimizing bypass diode performance with modified hotspot mitigation circuit. *Solar Energy Materials and Solar Cells*, 280, 113281. **Impact Factor: 6.3**
23	**Agarwal, L.**, Jaint, B., & Mandpura, A. K. (2024)	Reducing overfitting in deep learning intrusion detection for power systems with CTGAN. *Chaos Solitons & Fractals*, 188, 115603. **Impact Factor: 5.6**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
24	**Mishra, M.**, Mahajan, P. & Garg, R. (2024)	Implementation and comparison of metaheuristically modified ANN MPPT controllers under varying solar irradiance conditions. *Electrical Engineering*, 106, 3427-3443.**IMPACT FACTOR: 1.9**
25	**Shrivastava, M.**, Kumar, P., Raj, A., & Bhaskar, D. R. (2024)	Single current follower differential-input transconductance amplifier based grounded lossy capacitance multiplier with large multiplication factor. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, 37 (1), e3139. **Impact Factor: 1.6**
26	Raj, A., **Shrivastava, M.**, Bhaskar, D. R., & Kumar, P. (2024)	Enhancement of multiplication factor of capacitor using single current-follower differential-input transconductance amplifier. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, 37 (4), e3279. **Impact Factor: 1.6**
27	**Kansal, P.**, Mandpura, A. K., & Kumar, N. (2024)	A dual band CPW-fed MIMO antenna for fifth generation application. *Physica Scripta*, 99(5), 1-10. **Impact Factor: 2.6**
28	**Kansal, P.**, Mandpura, A. K., & Kumar, N. (2024)	Triple band self-decoupled MIMO antenna pair for 5G communication. *Physica Scripta*, 99(9), 1-11. **Impact Factor: 2.6**
29	**Kansal, P.**, Mandpura, A. K., & Kumar, N. (2024)	Investigation of circularly polarized MIMO antenna with enhanced isolation for sub-6 GHz application. *Physica Scripta*, 99(10), 1-10. **Impact Factor: 2.6**
30	**Dhaka, P.**, Sreejeth, M., & Tripathi, M. M. (2024).	A survey of artificial intelligence applications in wind energy forecasting. Archives of Computational Methods in Engineering, 31(8), 4853-4878.
31	**Ranjeet Singh**, Vinod Kumar Yadav, and Madhusudan Singh (2024)	A Comprehensive Shade Resilient Approach for Enhanced PV Array Performance Under Irradiance Mismatch Conditions," *in IEEE Journal of Photovoltaics*, vol. 14, no. 3, pp. 549-556 (**Impact Factor** = **2.5**)
32	**Ranjeet Singh,** Vinod Kumar Yadav, and Madhusudan Singh (2024)	Performance Enhancement of a Novel Reduced Cross-Tied PV Arrangement Under Irradiance Mismatch Scenarios", *in Applied Energy*, vol. 376, Part A, 124185 (**Impact Factor** = **10.1**)
33	S. Kushwaha, **Ranjeet Singh**, R. Yadav, V.K. Yadav, T. Yadav, and S. Singh	Reconfiguration of PV Array for Improved Performance Under Different Partial Shading Conditions Using Roulette Barrel Shifter Approach", *in Energy Conversion and Management*, vol. 322, 119151(**Impact Factor** = **9.9**)
34	**Shobana, R.**, Jaint, B., & Kumar, R. (2024)	Design of a novel robust recurrent neural network for the identification of complex nonlinear dynamical systems. Soft Computing-A Fusion of Foundations, Methodologies & Applications, 28(3).
35	**Shobana, R.**, Kumar, R., & Jaint, B. (2024)	Nonlinear dynamical system approximation and adaptive control based on hybrid-feed-forward recurrent neural network: Simulation and stability analysis. Expert Systems, 41(9), e13619.
36	**Shruti Prajapati**, Rachana Garg, and Priya Mahajan (2024)	Novel adaptive MPPT technique for enhanced performance of grid integrated solar photovoltaic system." *Computers and Electrical Engineering* 120 : 109648.**Impact factor:4.9**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
37	**Shruti Prajapati**, Rachana Garg, and Priya Mahajan (2024)	Modified control approach for MPP tracking and DC bus voltage regulation in a hybrid standalone microgrid." *Electric Power Systems Research* 236 : 110935. **Impact factor:4.2**
38	**Gupta, S.**, Yadav, V. K., Singh, M., & Giri, A. K. (2025)	Decision-making in multi-objective DG planning for distribution system via Shannon's entropy. Electrical Engineering, 107(7), 8995-9007.
39	**Chaturvedi, S.**, Kumar, N., & Kumar, R. (2024)	A PSO-optimized novel PID neural network model for temperature control of jacketed CSTR: Design, simulation, and a comparative study. *Soft Computing*, 28(12), 4759–4773. **Impact Factor: 2.5**
40	**Kundu, S.**, Singh, M., & Giri, A. K. (2024)	Synchronization and control of WECS-SPV-BSS-based distributed generation system using ICCF-PLL control approach. *Electric Power Systems Research*, 226, 109919. https://doi.org/10.1016/j.epsr.2023.109919. (**IF-4.2**)
41	**Kundu, S.**, Singh, M., & Giri, A. K. (2024)	SPV-wind-BES-based islanded electrical supply system for remote applications with power quality enhancement. *Electrical Engineering*, 106(1), 279–294. https://doi.org/10.1007/s00202-023-01979-0. (**IF-1.8**)
42	**Mittal, S.**, Singh, A., & Chittora, P. (2024)	Power quality enhancement in single phase two level/five level converters using adaptive-RBFNN algorithm. *Electrical Engineering*, 106(6), 7565-7578. **Impact Factor: 1.9**
43	**Mittal, S.**, Singh, A., & Chittora, P. (2024)	Design and development of leaky least mean fourth control algorithm for single-phase grid-connected multilevel inverter. *International Journal of Circuit Theory and Applications*, 52(1), 328-345. **Impact Factor: 1.6**
44	**Singh, S.**, & Rai, J. N. (2024)	Implementation of an adaptive control approach in a single-phase grid-tied solar photovoltaic system for power quality improvement. *International Journal of Circuit Theory and Applications*, 52(11), 5916–5931. https://doi.org/10.1002/cta.4032. (**IF-1.6**).
45	**Singh, S.**, & Rai, J. N. (2025)	Enhancement of power quality in three-phase GC solar photovoltaics. *Electrical Engineering*, 107, 8413–8431. https://doi.org/10.1007/s00202-024-02304-z. (**IF-1.8**).
46	**Mittal, U.**, Nangia, U., Jain, N. K., & Shukla, B. (2024)	Optimal power flow solution using a learning-based sine–cosine algorithm. *The Journal of Supercomputing*, 80, 15974–16012. https://doi.org/10.1007/s11227-024-06043-7. **Impact Factor: 2.4**
47	**Saxena, V.**, Kumar, N., & Nangia, U. (2024)	Computation and optimization of BESS in the modeling of renewable energy based framework. *Archives of Computational Methods in Engineering*, 31(5), 2385–2416. **Impact Factor: 12.1**.
48	**Kumar, C. I.**, Chaudhary, A., & Upadhyaya, S. (2024)	Design of high performance energy efficient CMOS voltage level shifter for mixed signal circuits applications
49	**Bhaskar, D. R.**, Shrivastava, M., Raj, A., & Kumar, P. (2024)	Floating parallel lossy inductance, parallel lossy capacitance, parallel C-D, and lossless capacitance multiplier circuits using current feedback operational amplifiers

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50	**Bhaskar, D. R.**, Bhagat, R., Raj, A., & Kumar, P. (2024).	Grounded synthetic series lossy inductor simulator circuits employing single current differencing buffered amplifier
51	**Yadav, G.**, & Singh, M. (2025)	Real-time investigation of grid-interactive EV charger with two-stage bidirectional converter under wide voltage range scenarios
52	**Dhaka, P.**, Sreejeth, M., & Tripathi, M. M. (2024)	A Survey of Artificial Intelligence Applications in Wind Energy Forecasting
53	**Shobana, R.**, Jaint, B., & Kumar, R. (2024)	Design of a novel robust recurrent neural network for the identification of complex nonlinear dynamical systems
54	**Shobana, R.**, Kumar, R., & Jaint, B. (2024).	Nonlinear dynamical system approximation and adaptive control based on hybrid-feed-forward recurrent neural network: Simulation and stability analysis
55	**Gupta, S.**, Yadav, V. K., Singh, M., & Giri, A. K. (2024)	Decision-making in multi-objective DG planning for distribution system via Shannon's entropy
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING		
1	**Kaul, A.**, Rewari, S., & Nand, D. (2024).	Hetero-dielectric macaroni channel cylindrical gate all around field effect transistor (HD-MC CGAA FET) for reduced gate leakage analog applications. *Microsystem Technologies, 30(5), 599-611.* **Impact Factor: 1.8**
2	**Kaul, A.**, Rewari, S., & Nand, D. (2024).	Double metal gate macaroni nanowire FET (DMGM-NFET) for improved performance and off-state leakage reduction. *ECS Journal of Solid State Science and Technology, 13(10), 103010.* **Impact Factor: 2.2**
3	**Kaul, A**., Yadav, S., Rewari, S., & Nand, D. (2024).	Computational modelling of cylindrical-ferroelectric-dual metal-nanowire field effect transistor (C-FE-DM-NW FET) using landau equation for gate leakage minimization. *Micro and Nanostructures, 191, 207851.* **Impact Factor: 3.0**
4	**Mann, A**., Pandey, N., & Gupta, M. (2024).	Novel high speed low power comparators imbibing self-cascode preamplifier technique. *AEU - International Journal of Electronics and Communications, 185, 155429.* **Impact Factor: 3.2**
5	**Kumar Dwivedi**, A., Prakash Verma, O., & Taran, S. (2024).	Adaptive Flexible Analytic Wavelet Transform for EEG-Based Emotion Recognition. *IEEE Sensors Journal*, 24(18), 28941–28951, Sep. 2024, doi: 10.1109/JSEN.2024.3429523. **Impact Factor: 4.5**
6	**Raturi, A.**, Mittal, P., & Choudhary, S. (2024).	Enhanced absorption in SnS/SnSe, SnS/ZnS, and SnS/ZnSe vdW heterostructures for optoelectronic applications: DFT insights. *Physica Scripta, 99*(12), 125508. **Impact Factor: 2.6.**
7	Bharti, **Mittal, P.** (2024)	Oppositely-Doped Core-Shell Junctionless Nanowire FET: Design and Investigation. *ECS Journal of Solid State Science and Technology*, *13* (1), 013004. **Impact Factor: 1.8**
8	**Bharti,** Mittal, P. (2024)	Investigating the Effect of Scaling and Temperature on the Performance of Improved Junctionless Nanowire FET Through Simulation Analysis. *Physica Scripta*, *99* (8), 086103. **Impact Factor: 2.6**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
9	**C. Dhiman**, A. Varshney, & V. Vyapak (2024)	AP-TransNet: a polarized transformer based aerial human action recognition framework. *Machine Vision and Applications* 35, 52 (2024). https://doi.org/10.1007/s00138-024-01535-1, **Impact Factor: 2.4**
10	**D. Sharma**, C. Dhiman, D. Kumar (2024)	FDT-Dr2T: A Unified Dense Radiology Report Generation Transformer Framework for X-Ray Images, *Machine Vision and Applications, 35, 68 (2024).* https://doi.org/10.1007/s00138-024-01544-0, **Impact Factor: 2.4.**
11	**Bhayana**, D. A., & Verma, O. P. (2024)	Triplet attention-based deep learning model for hierarchical image classification of household items for robotic applications. *Signal, Image and Video Processing*, *18*(Suppl 1), 489-498. **Impact Factor: 2.1**
12	**Sharma, B.**, & Panda, J. (2024)	Spatiotemporal features representation with dynamic mode decomposition for hand gesture recognition using deep neural networks. Signal, Image and Video Processing, 18(4), 3745-3759.
13	**C. Dhiman**, A. Antil, A. Anand	et al. A deep face spoof detection framework using multi-level ELBPs and stacked LSTMs. Signal, Image and Video Processing , 18 (Suppl 1), 499–512 (2024). https://doi.org/10.1007/s11760-024- 03169-2, **Impact Factor: 2.1**
14	Chugh, H., & **Singh, S.** (2024)	Efficient co-planar adder designs in quantum dot cellular automata: Energy and cost optimization with crossover elimination. *Integration*, *94*, 102103. **Impact Factor: 2.5**
15	**Chugh, H.**, & Singh, S. (2024)	Systematic exploration of N-bit Vedic multipliers: A roadmap of technological approaches in pursuit of future trends. *Nano Communication Networks*, *42*, 100529. **Impact Factor: 4.7**
16	**Sharma, I.**, Kumar, R., & Darak, S. J. (2024)	Online-learning-based multi-RIS-aided wireless systems. *IEEE Systems Journal, 18*(2), 1174–1185, Impact Factor: [4.4]
17	**Rautela, K.**, Kumar, D., & Kumar, V. (2024).	Improved GAN for image resolution enhancement using ViT for breast cancer detection. *International Journal of Imaging Systems and Technology*, *34*(2), e22998.
18	**Dalal, K.,** and Sharma, Y. (2024)	Plasmonic switches based on VO_2 as the phase change material. *Nanotechnology, 35*(14), 142001. **Impact Factor:** 2.8
19	**Dalal, K.**, and **Sharma, Y.** (2024)	Multi-wavelength and broadband plasmonic switching with V-shaped plasmonic nanostructures on a VO_2 coated plasmonic substrate. *Nanotechnology, 35*(39), 395203. **Impact Factor:** 2.8
20	**Soni, L.**, & Pandey, N. (2024)	A low power Schmitt-trigger driven 10T SRAM Cell for high speed applications. *Integration*, 97, 102187.
21	Soni, L., & Pandey, N. (2024)	A Reliable and high performance Radiation Hardened Schmitt Trigger 12T SRAM cell for space applications. *AEU-International Journal of Electronics and Communications*, 176, 155161.
22	**Ganesh, M.**, Raghava, N. S., Sabapathy, T., & Sharma, Y. (2024).	*A compound reconfigurable electronically switched parasitic monopole antenna for sub 6 GHz wireless and vehicular applications.* AEU - *International Journal of Electronics and Communications, 179,* 155335. https://doi.org/10.1016/j.aeue.2024.155335 IF:3.2

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
23	Pankaj, Kumar, A., **Kumar**, **M.,** and Komaragiri, R., (2024)	Edge-based computation of super-resolution Superlet spectrograms for real-time estimation of heart rate using an IoMT based reference signal less PPG sensor*", IEEE Internet of Things Journal,* Volume 11, Issue 5, Pages 8647-8657. (**Impact factor: 8.9**)
24	Singhal, S., and **Kumar**, **M.**, (2024)	Group Sparse Mode Decomposition and Superlet Transform Based Technique for Multi-Level Classification and Detection of Cardiac Arrhythmia*", IEEE Sensors Journal*, Volume 24, Issue 6, Pages 8160-8169. (**Impact factor: 4.5**)
25	**Kushwaha, R.**, Kumar, M., and Kumar, D., (2024)	VRFNet-ASLiT: Fusion of Deep CNN Model based on Adaptive Super Resolution Transform for Recognition of Hand Gestures*", IEEE Sensors Journal,* Volume 24, Issue 18, Pages 28931-28940. (**Impact factor: 4.5**)
26	**Singhal, S.**, and Kumar, M., (2024)	SPTDMD-WST: Arrhythmia Classification from Spatiotemporal Modes of Dynamic Mode Decomposition Using Wavelet Scattering Transform*", Biomedical Signal Processing and Control (Elsevier),* Volume 92 (**Impact factor: 4.9**)
27	**Singh, K. R.**, Chaudhry, R., Rishiwal, V., & Yadav, M. (2024)	Model-Free QoE-Aware seamless handoff in heterogeneous wireless networks. *Mobile Networks and Applications*, 1-13.
28	**Mishra, A. K.**, Kumar, M., and Choudhry, M. S., (2024)	Fusion of Multiscale Gradient Domain Enhancement and gamma correction for Underwater Image/Video Enhancement and Restoration*", Optics and Lasers in Engineering (Elsevier),* Volume 178, (**Impact Factor: 3.7**)
29	Kumar, N., **Kumar, M.**, Pandey, N., and Minaei, S., (2024)	Second generation current conveyor based capacitorless floating memristor emulator*", International Journal of Circuit Theory and Applications, (Wiley's),* Volume 53, Issue 3, Pages 1775-1794. (**Impact factor: 1.6**)
30	Mohit Tyagi, **Poornima Mittal**, Parvin Kumar, (2024**)**	Performance Optimization of SAR ADC using Dynamic Controlled Comparator at 45 nm Technology for Biomedical and IoT Applications**.** *Wireless & Personal Communications*, vol. 134, pp. 1035-1057. **Impact Factor:** 2.2.
31	**Mohit Tyagi,** Poornima Mittal, Parvin Kumar, (2024)	Design of a low-power dynamic latched comparator for biomedical applications. *Physica Scripta*, vol. 100, pp. 016103. **Impact Factor:** 2.6.
32	Gupta,OK, P**andey, N**, Gupta, M,(2024),	Improved frequency compensation technique of three stage amplifier using class AB flipped voltage follower and slew rate enhancer circuit, *AEU- International Journal of Electronics and Communications,*177, 155173, **Impact Factor: 3.2**
33	**Gupta, S.**, Pandey, N., Gupta, RS, (2024)	Non-uniform doping dependent electrical parameters of dual-metal gate all around junctionless accumulation-mode nanowire FET (DMGAA-JAM-NWFET), *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields,*37, e3203, **Impact Factor: 1.7**
34	**Sharma, N.,** & Rohilla, R. (2024).	Scalable and cost-efficient PoA consensus-based blockchain solution for vaccination record management. *Wireless Personal Communications, 135*(2), 1177–1207. **Impact Factor:** 2.2 https://doi.org/10.1007/s11277-024-11115-1

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
35	**Sharma, N**., & Rohilla, R. (2024).	A multilevel authentication-based blockchain-powered medicine anti-counterfeiting for reliable IoT supply chain management. *The Journal of Supercomputing, 80*(4), 4870–4913. **Impact Factor:** 3.3 https://doi.org/10.1007/s11227-023-05654-w
36	**Handa, P**., Goel, N., Indu, S., & Gunjan, D. (2024).	Comprehensive evaluation of a new automatic scoring system for cleanliness assessment in video capsule endoscopy. *International Journal of Imaging Systems and Technology*, *34*(3), e23097. **Impact Factor: 3.94**
37	**Handa, P.**, Goel, N., Indu, S., & Gunjan, D. (2024)	A multi-label dataset and its evaluation for automated scoring system for cleanliness assessment in video capsule endoscopy. *Physical and Engineering Sciences in Medicine*, *47*(3), 1213-1226. **Impact Factor: 2**
38	**Chamola P.,** Mittal P. (2024).	Zinc telluride material properties for solar cell application: Absorber layer. *Main Group Chemistry*, *vol. 23*, pp. 251-270.
39	**Chamola P.**, Mittal P., Kumar B. (2024)	Organic Solar Cells: Structural Variety, Effect of Layers, and Applications. *ECS Journal of Solid State Science and Technology*, *vol. 13,* pp. 035001. **Impact Factor: 1.8**
40	Yadav, S., **Mittal, P**., Negi, S. (2024).	Covid-19 Detection Using Organic LED and Photo Diode Based Sensor Device. *IEEE Sensors Journal*, *24* (24), 40678-40684, **Impact Factor:** 4.3
41	**Yadav, S.**, Mittal, P., Negi, S. (2024).	High-k Dielectric Based High Performance Vertical Organic Thin Film Transistor for Flexible Low Power Applications. *Physica Scripta*, *99* (2), 025940. **Impact Factor: 2.6**
42	**Yadav, S.**, Mittal, P., Negi, S. (2024).	Impact of Varying Position and Ratio of Charge Generation Layer on Performance Parameters of Organic Photodiode. *ECS Journal of Solid State Science and Technology*, *13* (2), 026001. **Impact Factor: 1.8**
43	**Yadav, S.**, Mittal, P., Negi, S. (2024).	Architectural Design, Fabrication Techniques, Characteristics Parameters and Different Applications for OLED along with Some OTFT Driven Oleds: A Review. *Main Group Chemistry*, *23* (1), 1-16. **Impact Factor: 1.3**
44	**Chopra, Y.**, Mittal, P. (2024)	Design of Dual port 9T SRAM cell with Parallel Processing and High Performance Computing. *Physica Scripta*, *99* (9), 095015. **Impact Factor: 2.6**
45	**Tripathi, A.**, Dahiya, A., **Mittal, P.** (2024).	A Low-Power Single Ended Half-Select Free 7T SRAM Cell with Improved Write Margin at 32nm Technology Node. *Physica Scripta*, *100* (1), 015015. **Impact Factor: 2.6**
46	**Gupta, R. K.**, Choudhry, M. S., Saxena, V, Taran, S (2024)	A Single MOS-Memristor Emulator Circuit. *Circuits Systems and Signal Processing, 43, 54-73, https://doi.org/10.1007/s00034-023-02500-5zz.* **Impact Factor: 2.0**
47	**Thakur, R.**, & Rohilla, R. (2024).	An effective framework based on hybrid learning and kernel principal component analysis for face manipulation detection. *Signal, Image and Video Processing*, 18(5), 4811-4820. **Impact Factor: 2.1**
48	**Rani, R.**, Jayanthi, N., & Mandpura, A. K. (2024).	Performance Analysis of Free Space Optical System Over Inverse Gaussian Gamma Turbulence Channel. *Transactions on Emerging Telecommunications Technologies*, *35*(11), e70009. **Impact Factor: 2.5**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
49	**Tripathi, R.**, Indu, S., & Kumar, R. (2024)	ERCU-Net: segmentation of road potholes using enhanced residual convolutional block based on U-Net for ADAS. *Signal, Image and Video Processing*, *18*(Suppl 1), 385-394. **Impact Factor – 2.1**
50	**Yadav, S.**, Rewari, S (2024)	Dual metal dual layer GAA NW–FET (DMDL–GAA–NW–FET) biosensor for label free SARS-CoV-2 detection. *Microsystem Technology* 30, 565–582 (2024). https://doi.org/10.1007/s00542-023-05560-4. **Impact Factor: 1.6**
51	**Yadav, S.,** Das, A., and Rewari, S (2024)	Dielectrically-Modulated GANFET Biosensor for Label-Free Detection of DNA and Avian Influenza Virus: Proposal and Modeling. *ECS Journal of Solid State Science and Technology*, vol. 13, no. 4, p. 047001, 2024, doi: 10.1149/2162-8777/ad3364. **Impact Factor: 1.8**
52	**Yadav, S.,** Rewari, S., Pandey, R. (2024)	Gate Engineered Ferroelectric Junctionless BioFET for LabelFree Detection of Biomolecules. *Journal of Electronic Materials, 53,* 683–692. **Impact Factor: 2.2**.
53	**Yadav, S.,** Rewari, S., Pandey, R. (2024).	Physics based analytical model for trap assisted biosensing in dual cavity negative capacitance junctionless accumulation mode FET. *Microelectronics Journal, 143,* 1-10. **Impact Factor: 2.3**.
54	**Yadav, S**., Rewari, S., Pandey, R. (2024).	Surface potential and mobile charge based drain current modeling of double gate junctionless accumulation mode negative capacitance field effect transistor. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 37*(2), 1-17. **Impact Factor: 1.6**.
55	Kumar, A., Thakur, V., Kumar, S., **Kale, S.**, Singh, K. (2024).	Sensitivity Investigation of Underlap Gate Cavity-Based Reconfigurable Silicon Nanowire Schottky Barrier Transistor for Biosensor Application, *Silicon*, *16,* 5877–5889. **Impact Factor: 3.3.**
56	**Kumar, A.**, Kale, S. (2024).	Analytical modeling of silicon nanowire dielectric modulated Schottky barrier reconfigurable FET biosensor, *ECS Journal of Solid-State Science and Technology, 13(11), 113005.* **Impact Factor: 2.2.**
57	**Kumar, A.**, Kale, S. (2024).	Noise and sensitivity analysis of the dielectric modulated reconfigurable SiNW-SBT for biosensor applications, *Micro and Nanostructures, 193, 207923.* **Impact Factor: 3.**
58	**Garg, T.**, Kale, S. (2024).	Optimization of structural parameters in Omega(Ω)-Shaped gate p-GaN MIS-HEMT for performance improvement, *Micro and Nanostructures, 188, 207793.* **Impact Factor: 3.**
59	**Kumar, A.**, **Kale, S.** (2024).	Spacer-engineered reconfigurable silicon nanowire Schottky barrier transistor as a label-free biosensor, *Silicon*, *16,* 2023–2036. **Impact Factor: 3.3**
60	**Thakur, V.**, Kumar, A., Kale, S., (2024).	Analytical modeling of spacer-engineered reconfigurable silicon nanowire Schottky barrier transistor for biosensing applications, *Micro and Nanostructures, 188, 207799.* **Impact Factor: 3.**
61	**Thakur, V.**, Kumar, A., Kale, S. (2024),	Numerical modeling and performance analysis of underlap gate cavity-integrated reconfigurable silicon nanowire Schottky barrier transistor biosensors, *Applied Physics A*, *130,* 846. **Impact Factor: 2.8.**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
62	**Angadi, S.**, Sharma, Y., Raghava, N. S., & Sabapathy, T. (2024).	A low profile circularly polarized metasurface-based ultra-wideband 4x4 MIMO antenna for 5G NR band FR2 frequencies. *AEU-International Journal of Electronics and Communications*, *178*, 155282. **Impact Factor: 3.2.**
63	**Angadi, S.**, Sharma, Y., Raghava, N. S., & Sabapathy, T. (2024).	A metasurface based close-proximity two-port circularly polarized MIMO antenna for mid-band sub-6 GHz 5G applications. *AEU-International Journal of Electronics and Communications*, *183*, 155379. **Impact Factor: 3.2.**
64	**Sorot, R.**, Goel, A., & Rewari, S. (2024)	Novel hybrid-CMOS inverter utilizing phase transition material for enhancing digital logic performance at lower operating voltages. Physica Scripta, 99(3), 035024.
65	**Kumari, S.,** Nand, D. & Kant, S. (2025).	MOS-based electronically tunable current-mode dual-output full-wave rectifier using single DDCCTA. *Electrical Engineering 107*, 4203–4213. https://doi.org/10.1007/s00202-024-02736-7. **Impact Factor: 1.9**
66	**Chaudhary, V.**, Singh, S., Chaudhary, V. S., & Kumar, D. (2024).	Design and optimization of terahertz based D-shaped photonic crystal fiber for blood component detection. *IEEE Sensors Journal, 24*(18), 28768–28775. **[Impact Factor: 4.5]**
67	**Kumar, V.,** Kumar, R., & Prakriya, S. (2024).	Performance of an intelligent reflecting mirror-aided uplink lightwave communication system. *IEEE Wireless Communications Letters*, *13*(4), 954-958. **Impact Factor: 5.5**
68	**Ravi** and Taran, S., 2024.	A novel decomposition-based architecture for multilingual speech emotion recognition. *Neural Computing and Applications*, 36(16), pp.9347-9359. **Impact Factor: 4.6**
69	**Mishra, A. K.**, Kumar, M., & Choudhry, M. S. (2024)	Underwater image enhancement by using transmission optimization and background light estimation via principal component analysis fusion. *Signal, Image and Video Processing*, *18*(4), 3855-3865.
	DEPARTMENT OF ENVIRONMENTAL ENGINEERING	
1	Al-Sari', M. I., & **Haritash, A. K**. (2024)	Municipal organic solid wastemanagement in the concept of urban mining and circular economy: a model from Palestine. *Journal of Material Cycles and Waste Management*, 26(5),2980-2995.
2	**Tyagi, A.,** & Haritash, A. K. (2024)	Geophysical electrical survey for aquifer detection, and carbon footprinting for groundwater abstraction in India. *Rendiconti Lincei. Scienze Fisichee Naturali,* 35(1), 263-272. **Impact Factor: 2.7**
3	**Deepika,** Haritash, A.K. (2024)	Phytoremediation of chromium (VI)- contaminated soil by euphorbia tithymaloides l. and metagenomic analysis of rhizospheric bacterial community. *Water Air Soil Pollut* 235, 512**. Impact factor: 3**
4	Nibedita Verma, **Geeta Singh,** Naved Ahsan(2024)	"Water quality modelingbased assessment for the scope of wastewater treatment of the urban reach of River Yamuna at Delhi, India" *Environment Monitoring Assessment*, volume196, 155. **Impact Factor: 3.0.**
5	**Rajagopal K**, Ramachandran S, Mishra RK (2024)	Size resolved particle contribution to vehicle induced ultrafine particle number concentration in a metropolitan curbside region. *Atmospheric Environment* 337, **(IF 3.7).**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
6	**Rajagopal K**, Ramachandran S, Mishra RK (2024)	Traffic-induced nanoparticle emissions and associated respiratory risk analysis using measurements conducted in a roadside environment. *Air Quality Atmosphere and Health*. **(IF 2.9)**
7	**Patel, K.**, & Singh, S. K. (2024)	Environmental sustainability, energy efficiency and uncertainty analysis of agricultural residue-based bioethanol production: A comprehensive life cycle assessment study. *Biomass and Bioenergy*, 191, 107439. **Impact Factor: 5.8**, https://doi.org/10.1016/j.biombioe.2024.107439
8	Kumar, R., **Patel, K.**, & Singh, S. K. (2024)	Biological wastewater treatment: a comprehensive sustainability analysis using life cycle assessment. *Environmental Monitoring and Assessment*, 196(5), 416. **Impact Factor: 3.0**, https://doi.org/10.1007/s10661-024-12578-2
9	**Vashist, M.**, Kumar, T. V., & Singh, S. K. (2024)	Assessment of air quality benefits of vegetation in an urban-industrial region of India by integrating air monitoring with i-Tree Eco model. *CLEAN–Soil, Air, Water*, 52(7), 2300198.
10	**Sharma M**, Khare M, Mishra RK (2024)	Air quality changes in Delhi due to open waste burning: an accidental fire in Bhalswa landfill. *International Journal of Environmental Science and Technology* 21 (1), 655-664. **(IF 3.4)**
11	Kanagaraj Rajagopal, Vignesh Mohan, **Rajeev Kumar Mishra** (2024).	Are Delhi residents exposed to lesser particle number concentration due to the firework ban in the city? *Air Quality, Atmosphere and Health*, **(IF: 2.9)**
12	Abhinav Pandey, Govind Pandey, **Rajeev Kumar Mishra** (2024)	Evaluating exhaust emissions from heterogeneous car fleet through real-time field-generated dataset. *Atmospheric Pollution Research*, **(IF: 3.9).**
13	Vignesh Mohan, Vijay Kumar Soni, **Rajeev Kumar Mishra** (2024)	Geographical variability of ultrafine particle concentrations in urban and background regions in India. *Urban Climate*, Vol. 56, No. 102066, **(IF: 6).**
14	Noori, A. R., & **Singh, S. K**. (2024)	Delineation of optimal locations for artificial groundwater recharge utilizing MIF and GIS in a semi-arid area. *Environmental Earth Sciences*, 83(1), 33.
15	Noori, A. R., & **Singh, S. K.** (2024)	Assessment of seasonal groundwater quality variation employing GIS and statistical approaches in Kabul basin, Afghanistan. *Environment, Development & Sustainability*, 26(2).
16	**Taneja, S.**, Karaca, Ö., Haritash, A.K. (2024)	Electrokinetic remediation: Past experiences and future roadmap for sustainable remediation of metal-contaminated soils. *Journal of Geochemical Exploration*, 259, 107437. **Impact Factor: 3.4**
17	**Vignesh Mohan**, Vijay Kumar Soni, Rajeev Kumar Mishra (2024)	Analysing the impact of day-night road traffic variation on ultrafine particle number size distribution and concentration at an urban site in the megacity Delhi. *Atmospheric Pollution Research*, 102065. **(IF 3.9).**
18	**Mohan, V.**, Mishra, R. K., & Soni, V. K. (2024)	Air Quality Analysis in Desert Region in the Northern State of India: GIS Based Approach. *Journal of the Indian Society of Remote Sensing*, 1-10.

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
		DEPARTMENT OF INFORMATION TECHNOLOGY
1	**Verma, A.,** Ranga, V., & Vishwakarma, D. K. (2024)	BREATH-Net: A novel deep learning framework for NO2 prediction using bi-directional encoder with transformer. *Environmental Monitoring and Assessment*, 196, 340. https://doi.org/10.1007/s10661-024-12455-y **Impact Factor: 3.0**
2	**Pandey, A.,** & Vishwakarma, D. K. (2024)	Progress, achievements, and challenges in multimodal sentiment analysis using deep learning: A survey. *Applied Soft Computing*, 152, 111206. **Impact Factor: [6.6]**
3	**Thakur, A.,** Ranga, V., & Agarwal, R. (2024)	Workload dynamics implications in permissioned blockchain scalability and performance. *Cluster Computing*, 27(8), 11569-11593. **Impact Factor: 4.1**
4	**Yadav, A**., & Vishwakarma, D. K. (2024)	AW-MSA: Adaptively weighted multi-scale attentional features for DeepFake detection. Engineering *Applications of Artificial Intelligence*, 127, 107443. https://doi.org/10.1016/j. engappai.2023.107443. **Impact Factor - 8.0**
5	**Yadav, A**., & Vishwakarma, D. K. (2024)	Toward effective image forensics via a novel computationally efficient framework and a new image splice dataset. *Signal, Image and Video Processing*, 18(4), 3341-3352. **Impact Factor – 2.1**
6	**Yadav, A**., Gupta, D., & Vishwakarma, D. K. (2024)	Uncovering visual attention-based multi-level tampering traces for face forgery detection. *Signal, Image and Video Processing*, 18(2), 1259-1272. **Impact Factor – 2.1**
7	**Bajaj, A**., & Vishwakarma, D. K. (2024)	Non-Alpha-Num: a novel architecture for generating adversarial examples for bypassing NLP-based clickbait detection mechanisms. Int*ernational Journal of Information Security.* Vol.23 (Issue 4) Pages 2711-2737 https://doi.org/10.1007/s10207-024-00861-9 **(Impact Factor-3.2)**
8	Tripathi, R., & **Verma, B.** (2024)	Survey on vision-based dynamic hand gesture recognition. *The Visual Computer*, 40(9), 6171-6199.
9	**Nidhi,** & Verma, B. (2024)	A lightweight convolutional swin transformer with cutmix augmentation and CBAM attention for compound emotion recognition. *Applied Intelligence*, 54(17), 7793-7809.
10	**D. Dagar** and D. K. Vishwakarma(2024)	Shallowfake and deepfake image manipulation localization using noise and RGB-based dual branch method, *Signal Image and Video Processing*, vol. 18, pp. 7065-7077, 2024. **Impact Factor:**
11	**D. Dagar** and D. K. Vishwakarma(2024)	Tex-Net: texture-based parallel branch cross-attention generalized robust Deepfake detector," *Multimedia Systems*, vol. 30, p. 233. **Impact Factor: 3.1 2.1**
12	Gupta, V., Yadav, A., & **Vishwakarma, D. K.** (2024)	HumanPoseNet: An all-transformer architecture for pose estimation with efficient patch expansion and attentional feature refinement. *Expert Systems with Applications*, 244, 122894.
13	Yadav, A., & **Vishwakarma, D. K**. (2024)	Datasets, clues and state-of-the-arts for multimedia forensics: An extensive review. *Expert Systems with Applications,* 249, 123756.

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
14	Chaturvedi, K., Dhiman, C., & **Vishwakarma, D. K**. (2024)	Fight detection with spatial and channel wise attention-based ConvLSTM model. *Expert systems*, 41(1), e13474.
15	**Narula, M.**, Meena, J., & Vishwakarma, D. K. (2024)	A comprehensive review on federated learning for data-sensitive application: Open issues & challenges. *Engineering Applications of Artificial Intelligence*, 133, 108128.
16	**Tripathi, R.**, & Verma, B. (2024)	Motion feature estimation using bi-directional GRU for skeleton-based dynamic hand gesture recognition. *Signal, Image and Video Processing*, 18(Suppl 1), 299–308. **Impact Factor: 2**
17	**Aggarwal, S.**, & Vishwakarma, D. K. (2024)	Exposing the Achilles' heel of textual hate speech classifiers using indistinguishable adversarial examples. *Expert Systems with Applications*, 254, 124278. **Impact Factor: 7.5**
18	**Susan, S.** (2024)	Neuroscientific Insights about Computer Vision Models: A Concise Review. *Biological Cybernetics*, 118(5), 331-348 **Impact Factor: 1.6**
19	**Mehra, S.**, Ranga, V., & Agarwal, R. (2024)	A deep learning approach to dysarthric utterance classification with BiLSTM-GRU, speech cue filtering, and log mel spectrograms. *The Journal of Supercomputing*, 80(10), 14520– 14547. **Impact Factor: 2.7.**
20	**Mehra, S.**, Ranga, V., & Agarwal, R. (2024)	Multimodal integration of mel spectrograms and text transcripts for enhanced automatic speech recognition: Leveraging extractive transformer-based approaches and late fusion strategies. *Computational Intelligence*, 40(6), e70012**. Impact Factor:1.7.**
21	**Mehra, S.**, Ranga, V., & Agarwal, R. (2024)	Improving speech command recognition through decision-level fusion of deep filtered speech cues. *Signal, Image and Video Processing*, 18(2), 1365–1373. **Impact Factor: 2.1.**
22	**Sharma, V**., Kumar, A., & Sharma, K. (2024)	Digital twin application in women's health: Cervical cancer diagnosis with CervixNet. *Cognitive Systems Research*, 87, 101264. **Impact Factor: 2.4**
	DEPARTMENT OF MECHANICAL ENGINEERING	
1	**Ansari, A. K**., & Kumar, P. (2024)	Vibration and acoustics analyses of tapered roller bearing. *Journal of Vibration Engineering & Technologies*, 12(2), 2467-2484. I**mpact Factor: 2.7**
2	**Ansari, A. K**., & Kumar, P. (2024)	Vibro-acoustic analysis of defective taper roller bearings. *Tribology International*, 199, 110044. **Impact Factor: 6.9**
3	**Bhardwaj, A**., Srinivas, K., & Chaudhary, R. (2024)	Morphology of finished brass surface by thermal additive centrifugal abrasive flow machining process using novel electrode. *JOM*, 76(1), 510-521.
4	**Bhardwaj, A**., Srinivas, K., & Chaudhary, R. (2024)	Development and Characterization of Novel Engine-Oil-Based Media Gel for Thermal Additive Centrifugal Abrasive Flow Machining. *National Academy Science Letters*, 1-4.
5	Singh, V., & **Kumar, A**. (2024)	A Systematic and Comprehensive Review on 2-D and 3-D Numerical Modelling of Stirling Engine. *Archives of Computational Methods in Engineering*, 31(6), 3255-3266. **Impact factor 12.1**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
6	Yadav, A. K., Sinha, S., & **Kumar, A.** (2024)	Advancements in composite cathodes for intermediate-temperature solid oxide fuel cells: A comprehensive review. *International Journal of Hydrogen Energy*, 59, 1080-1093. **Impact factor 8.3**
7	Kumar, R., & **Kumar, A**. (2024)	Recent advances of biogas reforming for hydrogen production: Methods, purification, utility and techno-economics analysis. *International Journal of Hydrogen Energy*, 76, 108-140. **Impact factor 8.3**
8	**Dubey, A**., & Arora, A. (2024)	Effect of promoters in hydrates based carbon dioxide capture: *A review. Gas Science and Engineering*, 131, 205459.
9	**Dubey, A**., & Arora, A. (2024)	Effect of various energy storage phase change materials (PCMs) and nano-enhanced PCMs on the performance of solar stills: a review. *Journal of Energy Storage*, 97, 112938.
10	**Kumar, A**., Singh, V. P., Mallik, A., Sahoo, B. K., Singh, R. C., & Chaudhary, R. (2024)	The utilization of agricultural and industrial waste in the synthesis of AA7075-based novel lightweight composite. *Journal of Materials Science*, 59(3), 915-931. **Impact Factor: 3.9**
11	**Kumar, A.,** Singh, V. P., Singh, R. C., Chaudhary, R., Kumar, D., & Mourad, A. H. I. (2024)	A review of aluminum metal matrix composites: fabrication route, reinforcements, microstructural, mechanical, and corrosion properties. *Journal of Materials Science*, 59(7), 2644-2711. **Impact Factor: 3.9**
12	**Kumar, A**., Singh, V. P., Singh, R. C., Chaudhary, R., & Kumar, D. (2024)	Enhancing microstructural, tribological and corrosion responses of Al–Zn–Mg–Cu alloy via nano-/micro-Al2O3 particulates. *Journal of Materials Science*, 59(17), 7235-7257. **Impact Factor: 3.9**
13	**Mishra, A.,** Arora, B. B., & Arora, A. (2024)	Exergy-based sustainability analysis of combined cycle gas turbine plant integrated with double-effect vapor absorption refrigeration system. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 46(1), 20. **Impact factor: 2.1**
14	**Mehmood, A**., Zunaid, M., & Madan, A. K. (2024)	Multi-objective optimization and performance improvement of CD nozzle design parameters for cold spray coating process using RSM, ANN and GA. *Materials Today Communications*, 40, 109446. https://doi.org/10.1016/j.mtcomm.2024.109446. **Impact Factor: 4.5**
15	**Prasad B.**, Gautam V. (2024)	Experimental and Numerical Investigations of Formability of Two-Ply Clad Sheet of Stainless Steel and Aluminium Alloy. *MAPAN - Journal of Metrology Society of India*, 39(4):887–900. **Impact Factor: 1.3**
16	**Sharma, D.**, Kumar, P., & Singh, R. K. (2024)	Framework for evaluating sustainability index of a manufacturing system: A case illustration. *Operations Management Research*, 17(2), 569-595. https://doi.org/10.1007/s12063-023-00438-0 **Impact Factor: 5.3**
17	**Kumar, D.,** Agrawal, S., Singh, R. K., & Singh, R. K. (2024).	IoT-enabled coordination for recommerce circular supply chain in the industry 4.0 era. *Internet of Things*, 26, 101140.
18	**Yadav, D**., Singh, R. K., & Kumarswamy, M. (2024)	Numerical simulation of inter-stage of multistage centrifugal pump by varying number of blades. *The Canadian Journal of Chemical Engineering*, 102(8), 2921-2935. **Impact factor: 1.9**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
19	**Yadav, D.**, Singh, R. K., & Manjunath, K. (2025)	Response surface method-based hydraulic performance optimization of a single-stage centrifugal pump. *International Journal for Numerical Methods in Fluids*, 97(1), 20-43.
20	Abdullah Naji, **Fadia Ahmed,** Qasim Murtaza, and M. S. Niranjan. 2024.	Challenges and Opportunities in Nano Finishing of Titanium Alloys for Biomedical Applications: *A Review. Precision Engineering* 88 (January): 81–99. **Impact Factor: 3.7**
21	**Kumar, G**., & Singh, R. K. (2024)	Numerical simulation of thermal hydraulics of supercritical pressure water with 2× 2 rod assembly wrapped differently with a wire. *Progress in Nuclear Energy*, 168, 105029. **Impact Factor: 3.2**
22	Tyagi, A., Singh, P., Rao, A., **Kumar, G.**, & Singh, R. K. (2024)	A novel framework for optimizing Gurney flaps using RBF surrogate model and cuckoo search algorithm. *Acta Mechanica*, 235(6), 3385-3404.
23	**Kumar, G**., James, A. T., Kumar, G., Rajput, R., & Choudhary, S. (2024)	Evaluation of sustainability indicators of machine tools: a hybrid Fuzzy DEMATEL approach. *Environment, Development and Sustainability*, 26(7), 18593-18624.
24	James, A. T., Khan, A. Q., Asjad, M., **Kumar, G.,** & Arya, V. (2024)	Identification and evaluation of challenges in commercial vehicle transport business in India post-implementation of BS-VI emission norms. *Research in Transportation Business & Management*, 54, 101122
25	**Mehdi, H.**, Mishra, R.S., (2024)	Modification of Microstructure and Mechanical Properties of AA6082/ ZrB2 Processed by Multipass Friction Stir Processing. *Journal of Material Engineering and Performance* 33, 2050 (2024). **Impact Factor: 2.0** https://doi.org/10.1007/s11665-023-08880-8.
26	**Singh, I. J.,** Murtaza, Q., & Kumar, P. (2024)	Effect of welding speed on metallurgical characterization of CMT welding of dissimilar aluminium alloys of AA6061 and AA8011. *Silicon*, 16(7), 3891–3903. https://doi.org/10.1007/s12633-024-02961-6, **Impact Factor:3.3**
27	**Vishnu, K.,** Chatterjee, D., Goel, A., & Kumar, R. (2024)	Deep convolutional architectures for optimizing multi-element airfoil systems. *Physics of Fluids*, 36(11).
28	Bhardwaj, Anant; **Srinivas, Krovvidi;** Chaudhary, Rajiv. (2024)	Enhancing material removal of TACAFM process through improved electrode geometry. *Sādhanā* 49:110. https://doi.org/10.1007/s12046-024-02474-3 , **Impact Factor- 1.4.**
29	**Kumar, M.,** Gautam, R., & Ansari, N. A. (2024)	Optimisation of an experimental and feasibility research on a CRDI diesel engine based on a blend of waste cooking oil and waste plastic oil using RSM: A value addition for disposed waste oil. *Journal of the Energy Institute*, vol.117, p-101564. **Impact factor: 6.2.**
30	**Singhal, M.,** Kumar, R., Walia, R. S., & Pandey, S. K. (2024)	Evaluation of tribological and cooling performance of TiN and DLC-coated pistons for miniature stirling cryocooler. *MAPAN*, 39(4), 851-862. **Impact Factor: 1.3**
31	**Siddiqui, M.A.** (2024)	Thermodynamic Analysis and Performance Assessment of a Novel Solar-Based Multigeneration System for Electricity, Cooling, Heating, and Freshwater Production. *Journal of Solar Energy Engineering (ASME)*, 146 (2), 021007. **Impact Factor:** 1.9

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
32	**Vishnoi, M.,** Murtaza, Q., & Kumar, P. (2024)	Assessment of Mechanical and Slurry Erosive Behavior on Laser-Textured Stainless Steel (SS410). *Journal of Materials Engineering and Performance*, 33(24), 13924-13940.I**mpact Factor: 2.3.**
33	**Vishnoi, M.,** Murtaza, Q., & Kumar, P. (2024)	Mechanical and surface wettability analysis of rare earth modified composite coating developed using metal spraying. *Arabian Journal for Science and Engineering*, 49(2), 2065-2076. **Impact Factor: 2.9.**
34	**Vishnoi, M.,** Murtaza, Q., Kumar, P., Bansal, A., & Singh, V. (2024)	Rare earth-doped ceramic coatings: Analysis of microstructure, mechanical properties, and slurry Erosion resistance using high pressure-high velocity oxy-liquid fuel deposition. *International Journal of Refractory Metals and Hard Materials*, 125, 106873. **Impact Factor: 4.6.**
35	**Vishnoi, M.,** Singh, V., Bansal, A., Murtaza, Q., & Kumar, P. (2024)	Effect of laser ablation over cavitation, slurry erosion, and surface properties of 86WC-10Co-4Cr based ceramic coating developed using HP-HVOLF. *Surface and Coatings Technology*, 492, 131230.
36	**Iqbal, M.,** & Madan, A. K. (2024).	Bearing fault diagnosis in CNC machine using hybrid signal decomposition and gentle AdaBoost learning. *Journal of Vibration Engineering & Technologies*, *12*(2), 1621-1634.
37	**Baghel, N.,** Manjunath, K., & Kumar, A. (2024)	Assessment of solar-biomass hybrid power system for decarbonizing and sustainable energy transition for academic building. *Process Safety and Environmental Protection*, 187, 1201-1212.
38	**Budhraja, N**., Pal, A., Mishra, R.S. (2024)	Parameter optimization for enhanced biodiesel yield from Linum usitatissimum oil through solar energy assistance. *Biomass Conversion and Biorefinery*, 14, 15335–15350. **Impact Factor: 4.1**
39	**Budhraja, N**., Pal, A., Mishra, R.S. (2024)	Simulation and Optimization of Biohydrogen Production from Biomass Feed via Anaerobic Digestion. *Chemical Engineering & Technology,* 47 (4), 706-715. **Impact Factor:** 1.6
40	**Budhraja, N.** (2024)	Simulation and optimization for biohydrogen production potential of various organic waste via anaerobic digestion. *Fuel*, 360, 130563. **Impact Factor:** 7.5
41	**Singh, P**., Singari, R. M., & Mishra, R. S. (2024)	Enhanced mechanical properties of MWCNT reinforced ABS nanocomposites fabricated through additive manufacturing process. *Polymers for Advanced Technologies*, 35(2), e6308.
42	**Rani, P**., Agrawal, A.K. (2024)	Fatigue Life Evaluation of a Low-Pressure Stage Steam Turbine Blade. *Journal of Vibration Engineering & Technologies*, 12(4), 5431–5443, **Impact Factor: 2.2**
43	**Rani, P**., Agrawal, A.K. (2024)	Lifetime Assessment of a Low-Pressure Steam Turbine Blade. *Journal of Vibration Engineering & Technologies* 12 (1), 221–231. **Impact Factor: 2.2**
44	**Meena, P. K**., Pal, A., & Samsher. (2024)	Characterization, utility, and interrelationship of household organic waste generation in academic campus for the production of biogas and compost: A case study. *Environment, Development and Sustainability*, 26(3), 2687–2713. https://doi.org/10.1007/s10668-022-02747-z **Impact Factor: 4.7**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
45	**Pradeep Kumar Mouria,** Ranganath. M. Singari, Reeta Watta (2024)	Impact of Tool Pin Profile on Mechanical and Microstructural Properties of Friction Stir Welded Joints of AA2024 and AZ91D", *Journal of Materials Engineering and Performance*, Vol. 33, 14513–14524. **Impact Factor: 2.3**
46	**Kumar, P**., Singh, R.K. & Shahgholian, A. (2024)	Learnings from COVID-19 for managing humanitarian supply chains: systematic literature review and future research directions. *Ann Oper Res* 335, 899–935. https://doi.org/10.1007/s10479-022-04753-w
47	**Shanker Yadav, P.,** Said, Z., Gautam, R., Caliskan, H., & Wu, H. (2024)	Impact of hydrogen induction on atomization combustion performance and emissions in diesel engines fueled with heated biodiesel blends. *Energy*, 313, 134026. **(IF: 9.4)**
48	**Yadav, P. S.,** Gautam, R., Le, T. T., Khandelwal, N., Le, A. T., & Hoang, A. T. (2024)	A comprehensive analysis of energy, exergy, performance, and emissions of a spark-ignition engine running on blends of gasoline, ethanol, and isoamyl alcohol. *Energy*, 307, 132548. **(IF: 9.4)**
49	**Meena, R.P.,** Yuvaraj, N. & Vipin (2024)	Investigations and Optimization of Cold Metal Transfer-based WAAM Process Parameters for Fabrication of Inconel 718 Samples using Response Surface Methodology. *Arabian Journal of Science and Engineering* 49 (11), 15177–15191. https://doi.org/10.1007/s13369-024-08947-1 **Impact factor: 2.9**
50	**Prasad, R.,** Yuvaraj, N., Vipin (2024)	Experimental investigation of process parameters of cold metal transfer welding-based wire arc additive manufacturing of aluminum 4047 alloy using response surface methodology. *Welding in the World* 68(11), 2837–2852. https://doi.org/10.1007/s40194-024-01817-2 **Impact factor:2.5**
51	**Kumar, R.**, Zunaid, M., & Mishra, R. S. (2024)	Multi-objective optimization of hydrothermal performance of a porous minichannel heat sink using RSM and NSGA-II algorithm. International *Journal of Heat and Fluid Flow*, 110, 109600. https://doi.org/10.1016/j.ijheatfluidflow.2024.109600. **Impact Factor: 3.1**
52	**Maurya, R.K.**, Niranjan, M.S. (2024)	Optimization of Residual Stresses, Tool Wear, and Material Removal Rate of Tempered EN-36C Alloy Steel in CNC Turning Using Response Surface Methodology. *Journal of Materials Engineering and Performance* 33, (23), P 3871–3884 . https://doi.org/10.1007/s11665-023-09053-3. **(Impact Factor-2.30). (SCIE).**
53	**Singh, R. K**., & Singh, R. C. (2024)	Property investigation of functionally graded materials leaf spring plate fabricated through stir casting process by using new gradient evaluation method. *Materialwissenschaft und Werkstofftechnik*, 55(9), 1297-1309. **Impact Factor: 1.1**
54	**Singh, R. K**., & Singh, R. C. (2024)	Evaluation of the mechanical and microstructural properties of an Al7075/B4C/Gr FGM plate fabricated using a stir casting process. *Journal of Mechanical Science and Technology*, 38(10), 5389-5398. **Impact Factor: 1.7**
55	**Khera, R**., Arora, A., & Arora, B. B. (2024)	Energy, exergy, environmental (3E) analyses and multi-objective optimization of vortex tube coupled with transcritical refrigeration cycle. *International Journal of Refrigeration*, 167, 137-151. **Impact Factor: 3.8**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
56	**R. Gupta,** R.C. Singh. (2024)	Development and experimental investigations of squeeze film damper setup for high rotational speeds and oil pressure,volume-12, pages 5475-5494 *Journal of Vibration Engineering & Technologies*. DOI:10.1007/s42417-023-01186-y. IF=**2.7**
57	**R. Gupta,** R.C. Singh. (2024)	Comprehensive Experimental Analysis of a Squeeze Film Damper for Flexible Rotor Applications: Utilizing Box-Behnken Design with Desirability Optimization, volume-12, pages 5267-5290, *Journal of Vibration Engineering & Technologies*. DOI:10.1007/s42417-023-01197-9. IF=**2.7**
58	**R. Gupta,** R.C. Singh. (2024)	Optimizing High-Speed Rotating Shaft Vibration Control: Experimental Investigation of Squeeze Film Dampers and a Comparative Analysis using Artificial Neural Networks (ANN) and Response Surface Methodology (RSM).volume 249, (part-B), Expert Systems with Applications. *Elsevier*, **IF=8.5**
59	**Kumar, R.**, Kumar, A., & Pal, A. (2024)	Simulation modelling of hydrogen production from steam reforming of methane and biogas. *Fuel*, 362, 130742. **Impact Factor: 7.5**
60	**Singh, S.**, Yuvaraj, N., Wattal, R. (2024)	Measurement of mechanical properties of friction stir welding of Al–Li alloy under different environmental conditions. Mapan: *Journal of Metrology Society of India*, 39(3), 525-534. **Impact Factor: 1.0**
61	**Shailendra Kumar Gaur**, Qasim Murtaza , R.S. Mishra. (2024)	Analysis of structural, morphological and nano-mechanical properties of vacuum evaporated nanoscale CdTe and ZnS films. *Optical Materials*, 154 , 115764- 115774. **Impact Factor:** 4.2
62	**Mishra, S.**, Singh, R.K. (2024)	Performance evaluation of absorption cooling system for air conditioning-based novel trigeneration system using solar energy. Journal of the Brazilian Society of Mechanical Sciences and Engineering 46, 354 (2024). **Impact Factor: 1.8**. https://doi.org/10.1007/s40430-024-04943-6
63	**Garg, S.,** & Murtaza, Q. (2024)	Effect of filler paste's mixing ratio on the properties of Al-64430 dip-brazed joints. Welding in the World, 68(9), 2459–2471. https://doi.org/10.1007/s40194-024-01772-y **Impact Factor: 2.5.**
64	**Garg, S**., Bansal, S., & Murtaza, Q. (2024)	Failure investigation of an elbow pipe used in sewage water treatment facility. *Materials and Corrosion,* 75(9), 1185–1192. https://doi.org/10.1002/maco.202414336 **Impact Factor: 2.0.**
65	**Kesarwani, S.,** Yuvaraj, N., & Niranjan, M. S. (2024)	Impact of depositional direction and current on microstructure and mechanical properties of the bimetallic wall of ER5356/ER4043 fabricated by cold metal transfer based wire arc additive manufacturing. *CIRP Journal of Manufacturing Science and Technology, 53*, 17-33. **Impact Factor:5.4**
66	**Kesarwani, S.,** Yuvaraj, N., & Niranjan, M. S. (2024)	CMT-based WAAM: A comprehensive review of process parameters, their effects, challenges, and future scope. *Journal of the Brazilian Society of Mechanical Sciences and Engineering, 46*(699). **Impact Factor:2.1**
67	**Sunil Kumar Gupta**, B.B. Arora, Akhilesh Arora (2024)	Thermo-economic assessment of air conditioner utilizing direct evaporative cooling: A comprehensive analysis. *International Journal of Refrigeration*, 158 (February 2024), 68–88. **Impact Factor: 3.8**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
68	**Rani, S.** (2024)	Parametric Evaluation and Dynamic Analysis of Turbine Blades–Damper Assembly Using Bond Graph Technique. *Journal of Vibration Engineering & Technologies*, 12(1), 681-693.
69	**Mishra, V.,** Yuvaraj, N., & Vipin. (2024)	Tribological Behaviour of Austenitic Stainless Steel-Clad Surface Over Low Carbon Steel Produced by Cold Metal Transfer Welding Process. *Transactions of the Indian Institute of Metals*, *77*(6), 1639-1650. **Impact Factor:** 1.6
70	**Singh, V.**, Murtaza, Q., Niranjan, M.S. (2024)	Analyzing the synergistic effects of hard ceramic TiB_2 and rare earth oxide La_2O_3 on mechanical behaviour, wear resistance, and residual stress of AA6061-T6 hybrid composite fabricated via ultrasonic-assisted stir casting. *Materials Chemistry and Physics*, *325*, 129727.**Impact Factor:4.7**
71	Yadav, R. D., & **Gautam, V**. (2024)	Effect of magnetic field on mechanical properties of an advanced high strength steel sheet. *Materials Letters*, *361*, 136087.
	DEPARTMENT OF SOFTWARE ENGINEERING	
1	Malhotra, R., **Bansal, A.**, & Kessentini, M. (2024)	Deployment and performance monitoring of docker based federated learning framework for software defect prediction. *Cluster Computing*, 27(5), 6039-6057. **Impact Factor: 4.1**
2	**Gahlan, N.,** & Sethia, D. (2024)	Federated learning inspired privacy sensitive emotion recognition based on multi-modal physiological sensors. *Cluster Computing*, 27(3), 3179-3201. **Impact Factor: 4.1.**
3	**Gahlan, N.,** & Sethia, D. (2024)	AFLEMP: Attention-based federated learning for emotion recognition using multi-modal physiological data. *Biomedical Signal Processing and Control,* 94, 10635. **Impact Factor: 4.9.**
4	**Sharma, P.**, & Sharma, A. (2024)	A novel plant disease diagnosis framework by integrating semi-supervised and ensemble learning. *Journal of Plant Diseases and Protection*, 131(1), 177-198.
5	Sharma, A., & **Sharma, P.** (2024)	S2AM: a sustainable smart agriculture model for crop protection based on deep learning. *Journal of Plant Diseases and Protection*, 131(6), 2181-2205.
6	**Malhotra, R.,** Khan, K. (2024)	A novel software defect prediction model using two-phase grey wolf optimisation for feature selection. *Cluster Computing*, 27(9), 12185-12207. **Impact Factor: 4.1**
7	**Malhotra, R.,** Bansal, A., Kessentini, M. (2024)	A systematic literature review on maintenance of software containers. *ACM Computing Surveys*, 56(8), 1-38. **Impact Factor: 28**
8	**Malhotra, R.,** Meena, S. (2024)	Empirical validation of machine learning techniques for heterogeneous cross-project change prediction and within- project change prediction. *Journal of Computational Science*, 76, 102230. **Impact Factor: 3.7**
9	**Patidar, S.,** Kumar, N., & Jindal, R. (2024)	IoT Data Stream Handling, Analysis, Communication and Security Issues: A Systematic Survey. *Wireless Personal Communications*, 1-50.
10	**Jain, S**., Sethia, D., & Tiwari, K. C. (2024)	A critical systematic review on spectral-based soil nutrient prediction using machine learning. *Environmental Monitoring and Assessment*, 196(8), 699. **Impact Factor: 3.0.**

S. No.	Authors and Year	Title, Journal, Vol, Issue, Pages and Impact Factor
11	**Jain, S.,** Sethia, D., & Tiwari, K. C. (2024)	Developing novel spectral indices for precise estimation of soil pH and organic carbon with hyperspectral data and machine learning. *Environmental Monitoring and Assessment*, 196(12), 1255. I**mpact Factor: 3.0**
UNIVERSITY SCHOOL OF MANAGEMENT AND ENTREPRENEURSHIP		
1	**Aashima,** & Sharma, R. (2024)	A systematic review of the world's largest government sponsored health insurance scheme for 500 million beneficiaries in India: Pradhan Mantri Jan Arogya Yojana. *Applied Health Economics and Health Policy*, Vol no. 22(1), pp. 17-32. **Impact Factor: 3.1.**
2	**Aashima**, & Sharma, R. (2024)	Is health insurance really benefitting Indian population? Evidence from a nationally representative sample survey. *The International Journal of Health Planning and Management*, Vol no. 39(2), pp. 293-310. **Impact Factor: 1.9.**
3	**Mishra, D**., & Maheshwari, N. (2024)	Crowdsourcing-based social linkage and organizational innovation competence: Knowledge transfer effectiveness and absorptive capacity as serial mediators. *Journal of Knowledge Management*, 28(7), 2013–2037. https://doi.org/10.1108/JKM-07-2023-0583 **Impact Factor: 9.5** I CiteScore: 14.8
4	**Kaur, H.** and Verma, H.V. (2024)	Brand pride: concept and measurement, *Journal of Product & Brand Management*, Vol. 33 No. 6, pp. 668-683. https://doi.org/10.1108/JPBM-06-2023-4555. **Impact Factor: 5.7 (5 year impact factor 7.1)**
5	**Garg, N.** (2024)	Gratitude research: Review and future agenda using bibliometric analysis of the studies published in the last 20 years. *Asian Journal of Social Psychology*, 27 (4), 639-656 (**Impact Factor: 1.6**)
6	Verma, S. and **Garg, N.** (2024)	Validation and confirmation of the equanimity scale-16 in India and its relationship with well-being. *Mindfulness*, 15 (3), 689-699 (**Imapct Factor: 3.5**)
7	**Kumar, V.**, and Dua, P. (2024)	What explains foreign portfolio investment inflows to BRICS countries?. *Economic Analysis and Policy*, 82 (June), 32-46. (**Impact Factor: 8.7**)

Department of

Applied Chemistry

ANSHUL

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Anshul is currently pursuing a B.Ed. from Indira Gandhi University (IGU), Meerpur and, alongside her studies, she is also undertaking courses in Machine Learning and Artificial Intelligence. She has received her M.Sc. degree in Chemistry from Delhi Technological University (DTU) in 2024 and her B.Sc. degree in Life Science from Kirori Mal College, University of Delhi in 2022. Her research interests include hydrogels, biopolymers, and drug delivery. She has published 01 research paper in international journal and presented her work at international conferences. She was selected as an Assistant Lecturer during campus placements by Aakash Institute. Recently, she also received a prestigious Ph.D. offer letter from Shiv Nadar University with a full scholarship, reflecting her strong academic foundation and research potential.

Publication Details

1. **Yadav, A.**, Garima, Meena, P., Warkar, SG. (2024). Synthesis and Assessment of Acacia Gum-Based Hydrogel as a Promising Novel Biopolymeric Matrix for Delivery of Ciprofloxacin. *ChemistrySelect, 9 (34), e202401639*. **Impact Factor: 2**

ASHWANI KUMAR TIWARI

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Ashwani Kumar Tiwari is a research scholar in the Department of Applied Chemistry, who recently submitted his thesis titled “Application of membrane-based operations in separation of natural phenolic compounds,” supervised by Dr. Manish Jain. He holds a B.Tech degree in Plastic Engineering from CIPET Lucknow, and an M.Tech in Polymer Technology from DTU. His doctoral research has resulted in publications in reputable journals and presentations at international conferences. Currently, he is serving as an Examiner of Patents and Designs (Group A, Gazetted) in the office of CGPDTM, DPIIT, Ministry of Commerce and Industry, Government of India.

Publication Details

1. **Tiwari, A. K.**, & Jain, M. (2024). A novel process for rutin recovery from model solutions using nanofiltration: Experimental study, mathematical modeling, and scale-up design. *Journal of Food Process Engineering*, *47*(3), e14592. **Impact factor**: **2.9**
2. **Tiwari, A. K.**, & Jain, M. (2024). Concentration of betanin from model beetroot extracts by using nanofiltration: Parameter estimation and sensitivity analysis. *Journal of Chemical Technology & Biotechnology*, *99*(9), 1976–1983. **Impact factor**: **2.4**

D. KUMAR

Department of Applied Chemistry

AWARD SUMMARY

Yearly Citation Award

03 Commendable Research Award

D. Kumar is working as Professor in the Department of Applied Chemistry, Delhi Technological University, Delhi w.e.f. 05/03/2010. He has worked as Head of the Department of Biotechnology and Department of Applied Chemistry at Delhi Technological University, Delhi. He has received several fellowships and awards including UGC Research Award. Prof. Kumar has visited countries namely United Kingdom, Belgium, Malaysia and Japan for Research & Development activities. He has been awarded national/international projects including the International Project, viz, India–Japan Collaborative Research Project twice under DST-JSPS bilateral programme. He has guided 19 Ph.Ds, 95 M.E./M.Tech/M.Sc projects, published 07 chapters/books and over 150 papers in the journals of international repute including Biomaterials, Sensors and Actuators, Synthetic Metals, Canadian Journal of Chemistry, European Polymer Journal, Journal of Applied Polymer Science, International Journal of Adhesion & Adhesives and Materials Science & Engineering C etc. in the areas of conducting polymers, sensors, conductive adhesives, smart hydrogels, helical materials and organic solar cells, toughening of thermosetting polymers, self-healing and blast mitigating polymer coatings. Prof. Kumar is a life member of Indian Science Congress Association, India and former member of societies like American Chemical Society, USA and Royal Society of Chemistry, London etc.

Publication Details

1. Hooda D., **Kumar D.** (2024). Molecularly imprinted polypyrrole decorated Ti3C2Tx electrochemical sensor for highly selective and sensitive detection of levofloxacin, *Journal of Materials Science 59*(47), 21684–21695. **Impact Factor: 3.9**
2. Sweety, **Kumar D.** (2024). Development of Ti3C2Tx-based novel immunosensor for cancer biomarker detection, *Applied Organometallic Chemistry 38*(8) e7570 **Impact Factor: 6.5**
3. Paneru, S., Sweety, **Kumar D.** (2024). CeO2 and PEDOT:PSS modified conducting paper for organophosphate pesticide detection, *Journal of Applied Electrochemistry 54*(8) 1875-1885. **Impact Factor: 3.0**

DIVYA GOEL

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Divya Goel is a chemistry research scholar who has recently completed their Ph.D. viva, specializing in biomedical applications within the field of nanobiotechnology. With a strong academic foundation in chemistry, I have dedicated my doctoral research to exploring the design, synthesis, and characterization of nanomaterials for potential medical and therapeutic applications. The work bridges the gap between chemistry, biology, and nanoscience, focusing on innovative solutions for targeted drug delivery, diagnostics, and disease treatment. Through rigorous experimentation and interdisciplinary collaboration, we have contributed valuable insights to the rapidly evolving field of nanomedicine. In addition to research achievements, we actively engage in academic discussions, conferences, and publications, aiming to inspire future scientists in the intersection of chemistry and biotechnology.

Publication Details

1. **Goel, D.**, Santhiya, D., Kumar, S., Mahapatro, AK. (2024). Synthesis of Mesoporous Core Shell Magnetite Bioactive Glass Nanoparticles for Magnetic Hyperthermia Treatment of Cancer. *ChemistrySelect, 9 (4)*, e202302119. **Impact Factor: 2.0**
2. **Goel, D.**, Santhiya, D. (2024). Tunable structural, optical, and bioactive properties of magnesium and bismuth co-doping on bioactive glass nanoparticles for biomedical applications. *Journal of Materials Research, 39*, 2889–2906. **Impact Factor: 2.9**

GUNJAN VARSHNEY

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Gunjan Varshney received her Bachelor of Science (B.Sc. in Chemistry Hon.) and Master of Science (M.Sc. in Applied Chemistry) degrees from Amity University, Noida, India. She is currently pursuing her Ph.D. in Applied Chemistry at Delhi Technological University (DTU), New Delhi, under the supervision of Dr. Raminder Kaur, Associate Professor at DTU, and Prof. Mohammad Zulfequar, Professor at Jamia Millia Islamia. Her doctoral research is centered on the development and characterization of micro and nanoencapsulated phase change materials (PCM) for advanced thermal energy storage applications. Her work involves the synthesis of novel PCM systems using polymer-based encapsulation techniques, with a particular focus on enhancing thermal performance, stability, and energy efficiency for use in smart textiles, building materials, and thermal management systems.

Publication Details

1. **Varshney, G.**, Singh, P., Yadav, S., & Kaur, R. (2024). A review on unleashing the potential solution of thermal comfort: Exploring the cutting-edge progress of advanced engineering application of phase change materials integrated textiles. *Sustainable Energy Technologies and Assessments*, *72*, 104089. **Impact Factor: 7.0**

INDU RANI

Department of Applied Chemistry

AWARD SUMMARY

03 Commendable Research Award

Indu Rani was a research scholar at Delhi Technological University; Delhi and completed my Ph.D. in the Department of Applied Chemistry in December, 2024. Before this, I had completed my Master's in Chemistry from Hansraj College, Delhi University in the year 2016 and Bachelor of Science from Sri Venkateswara college, Delhi University in the year 2014. I had qualified NET- JRF, and GATE exams in 2018. I was a recipient of a Junior Research Fellowship (JRF) and Senior Research fellowship (SRF) from the Council of Scientific and Industrial Research (CSIR), India. I was also a recipient of Innovation in Science Pursuit for Inspired Research (INSPIRE) scholarship during her graduation and post-graduation period. My research interest includes the development of biopolymers-based hydrogels for various applications. Currently, I am working as PGT Chemistry (Lecturer) in Haryana Government.

Publication Details

1. **Indu Rani**, Sudhir G. Warkar, Anil Kumar, (2024). A Silver Nanoparticle-Embedded Tamarind Kernel Gum/Poly (Sodium Acrylate) Nanocomposite for Sustainable Release of Doxycycline, *ChemistrySelect Journal, Volume 9, issue 14, e202400168,* **impact factor 2.0**
2. **Indu Rani**, Sudhir G. Warkar, Anil Kumar, (2024). Synthesis and characterization of novel carboxymethyl tamarind kernel gum - Poly (vinyl alcohol)/guar gum-based hydrogel film loaded with ciprofloxacin for biomedical applications. International Journal of Biological Macromolecules, Volume 282, 136766, **impact factor 8.5.**
3. E. Yadav, K. Pandey, Khusbhu, **Indu Rani,** Sudhir G. Warkar, (2024). Synthesis and Application of Zinc-loaded Carboxymethyl Tamarind Kernel Gum and Xanthan gum based superabsorbent based hydrogels to investigate the effect on sesame plant growth. *Polymer Bulletin, Volume 81, Pages 9009-9030,* **impact factor 4.0.**

JIGYASA PATHAK

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Jigyasa Pathak is currently pursuing her Ph.D. in the Department of Applied Chemistry at Delhi Technological University, under the supervision of Dr. Poonam Singh. Her research focuses on layered materials and their catalytic applications, with a broader interest in nanoscience and materials chemistry. Through her work, she aims to advance the fields of inorganic synthesis and environmental remediation. She holds a Bachelor's degree in Chemistry from Daulat Ram College, University of Delhi, and a Master's degree from Jamia Millia Islamia. Her research findings have been published in several international peer-reviewed journals and presented at prominent scientific conferences.

Publication Details

1. **Pathak, J.**, & Singh, P. (2024). Layered double hydroxides–polymer matrix composites: nexus materials for energy storage applications. *Chemical Papers, 78*(13), 7375–7393. **Impact Factor: 2.5**

JITENDRA KUMAR

Department of Applied Chemistry

AWARD SUMMARY

03 Commendable Research Award

Jitendra Kumar received his Bachelor of Science (H) in Polymer Science from Bhaskaracharya College of Applied Science, University of Delhi. He further pursued his academic journey at University College of Sciences, Mohanlal Sukhadiya University, Udaipur, Rajasthan, where he earned a Master's in Polymer Science. Then he worked for an NABL-accredited lab in Delhi (3 years). After receiving the prestigious DTU fellowship, he started his Ph.D. journey in August 2020 under the supervision of Prof. Roli Purwar at the Department of Applied Chemistry, DTU. His research focuses on natural gum-based injectable hydrogel for wound healing applications.

Publication Details

1. **Kumar, J.**, Purwar, R. (2024). Self-Healing, Biocompatible Injectable Hydrogel Based on Multialdehyde Moringa oleifera Gum and Carboxymethyl Chitosan: A Suitable Platform for Drug Delivery in Wound Healing Application. *Chemistry Select, 9*(9), e202400309. **Impact Factor: 2.**

2. **Kumar, J.**, Purwar, R. (2024). Injectable mesquite gum and carboxymethyl chitosan hydrogel using Schiff base crosslinks: a versatile platform for drug delivery in wound care, Macromolecular *Research*, *32* (12), 1237–1254. **Impact Factor: 3.4.**
3. **Kumar, J.**, Purwar, R. (2024). A Schiff Base Hydrogel of Oxidized Okra Gum and Carboxymethylated Chitosan: A Biocompatible and Biodegradable Injectable System for Drug Delivery in Wound Care, *Colloid and Polymer Science, 302* (12), 1923–1938. **Impact Factor: 2.2**

JYOTI

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Jyoti, is currently working as a Postdoctoral Researcher at the Institute of Chemistry, Academia Sinica, Taiwan. She is a recipient of the prestigious **Academia Sinica Postdoctoral Fellowship**. Her research focuses on the design and synthesis of macrocyclic systems and their applications in electrocatalysis, particularly in hydrogen evolution reaction (HER) and CO_2 reduction reaction (CO_2RR). She was a **CSIR fellowship** holder and completed her doctoral degree under the supervision of **Prof. S. G. Warkar** and **Prof. Anil Kumar**. During PhD she published eight peer-reviewed research articles and one book chapter. She also actively participated in several national and international conferences and workshops, presenting her research and engaging with the global scientific community.

Publication Details

1. **Jyoti**, An J, Kim D., Churchill D G and Kumar A., 2024 Cobalt corroles: Synthesis and applications, *Coordination Chemistry Reviews* Volume 511, 215869, **Impact Factor 23.5**
2. **Jyoti**, Kubba, R., Kumar, S., Fridman, N., Warkar, S. G., Churchill, D. G., & Kumar, A. (2024). Hydrogen evolution activity of cobalt corroles. *Inorganica Chimica Acta*, *562*, 121878. **Impact Factor 3.2**

KRIZMA KHATREJA

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Krizma Khatreja is a Ph.D. student from the department of Applied Chemistry, Delhi Technological University, working under the guidance of Dr. Deenan Santhiya. She holds a B.Sc. and M.Sc. in Chemistry from Panjab University, Chandigarh, graduating at the top of her class in both programs. Her research focuses on fortified functional foods and their applications in improving human health. She is interested in developing food-based systems that can deliver nutrients and provide biomedical benefits. Krizma has published her research work and continues to contribute to this growing field. She aims to combine chemistry and food science to create innovative solutions for better nutrition and wellness.

Publication Details

1. **Khatreja, K.,** & Santhiya, D. (2024). Physicochemical characterization of novel okra mucilage/hyaluronic acid-based oral disintegrating films for functional food applications. *International Journal of Biological Macromolecules*, *278*, 134633. **Impact Factor:** 8.5

KUDZAI HAMISH RUZVIDZO

Department of Applied Chemistry

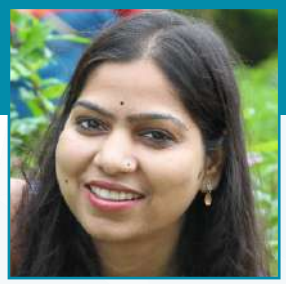
AWARD SUMMARY

02 Commendable Research Award

Kudzai Hamish Ruzvidzo is a Zimbabwean scholar who recently completed his Ph.D. in Chemical Engineering with thesis titled "Studies on water desalination using osmotic pressure-driven processes," supervised by Dr. Manish Jain and co-supervised by Dr. Raminder Kaur. Ruzvidzo serves as a lecturer in the Department of Polymer Technology and Engineering at Harare Institute of Technology (H.I.T.), where he teaches analytical chemistry, rubber processing operations, and polymer rheology while supervising undergraduate research projects. He holds a B. Tech degree in Chemical and Process Systems Engineering from H.I.T. Zimbabwe, and an M. Tech in Polymer Science and Technology from Amity University Gurgaon, India, where he graduated as the top student, receiving both medal and trophy recognition. His doctoral research has resulted in publications in reputable journals and presentations at international conferences. Currently, Ruzvidzo focuses on addressing endemic cholera in Zimbabwe and sub-Saharan Africa through the implementation of membrane-based water treatment systems.

Publication Details

1. **Ruzvidzo, K.H**., Kaur, R., Jain, M. (2024), Novel polyelectrolyte-glycol ether ternary phase-separating draw solutions for desalination using forward osmosis. *Desalination*, *586*, 117897. **Impact Factor**: 9.8
2. **Ruzvidzo, K.H.**, Kaur, R., Jain, M. (2024). Enhanced forward osmosis desalination of brackish water using phase-separating ternary organic draw solutions of hydroxypropyl cellulose and propylene glycol propyl ether. *Water Environment Research*, *96(8)*, e11110. **Impact Factor**: 1.9



LEELA GAUTAM

Department of Applied Chemistry

AWARD SUMMARY

03 Commendable Research Award

Leela Gautam is an Assistant Professor in the Department of Chemistry at Zakir Husain Delhi College, University of Delhi, with teaching experience at the undergraduate level since 2013. She completed her Ph.D. in Chemistry from Delhi Technological University (DTU) in April 2025. Her doctoral research was supervised by Prof. Sudhir G. Warkar and Dr. Manish Jain, DTU. She completed her M.Sc. and B.Sc. degrees in Chemistry from the University of Delhi. Her research interests include, Synthesis of Polymeric films, Crosslinking of polymers and Dye adsorption. She has published six research papers in international journals. and has presented her work at various international conferences. In recognition of her research contributions, she received the "Research Excellence Award" from DTU in 2023.

Beyond her academic and research roles, Dr. Leela serves as a member of the Academic Council at the University of Delhi.

Publication Details

1. **Leela Gautam**, Manish Jain, Sudhir G Warkar, (**2024**). Crosslinking of polyvinyl alcohol with di, tri, and tetracarboxylic acids: an experimental investigation, *Colloid and Polymer Science, 2024/8/30*, 1-13. **Impact Factor: 2.3**
2. **Leela Gautam**, Sudhir G Warkar, Manish Jain, (**2024**). Physicochemical evaluation of polyvinyl alcohol films crosslinked with saturated and unsaturated dicarboxylic acids: A comparative study. *Polymer Engineering & Science, 64* (8) 3703-3715. **Impact Factor: 3.2**

3. **Leela Gautam**, Sudhir G Warkar, Manish Jain, (**2024**) Influence of the odd-even effect of dicarboxylic acids as crosslinker on the physicochemical properties of polyvinyl alcohol. *Journal of Applied Polymer Science, 141*(40) e56046. **Impact Factor:** 2.8

MANISH JAIN

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Manish Jain is an Assistant Professor in the Department of Applied Chemistry, in the discipline of Polymer Science and Chemical Technology, Delhi Technological University, Delhi. He received his master's degree (in Polymer Science and Technology) and doctorate degree (in Chemical Engineering) from the Indian Institute of Technology, Delhi. He has 15 years of research experience as a research scholar, postdoctoral fellow, and assistant professor. His area of interest is membrane-based separation processes and their applications in the fields of water treatment, petroleum processing, renewable energy production, and as a novel separation process. He has in-depth knowledge of mathematical modeling, designing, optimization, scale-up, and feasibility analysis of membrane-based processes. Dr. Manish has 27 publications in reputed and high-impact journals, and also presented his work at several national and international conferences. Dr. Manish is currently handling one funded research project as Principal Investigator and supervising four Ph.D. students. He is a fellow of the Indian Institute of Chemical Engineers, and an invitee member of its Executive Committee for Northern Regional Centre.

Publication Details

1. Prafful Kumar Meena, Jai Gopal Sharma, **Manish Jain**, (2024). Recovery of Whey Protein by Using Microfiltration: Artificial Neural Network–Based Modeling and Effects of Different Operating Parameters. *Journal of Food Process Engineering, 47*(10) e14756. **Impact Factor:** 2.9.

MANJOT KAUR

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Manjot Kaur is a distinguished Associate Professor at Guru Tegh Bahadur 4th Centenary Engineering College, GGSIPU, with a PhD in Chemical Engineering. Her research expertise spans biomaterials, active packaging, functional food, biopolymers, oral drug delivery, nanotechnology, and health and nutrition. A gold medalist in M.Tech, Dr. Kaur has been recognized for her outstanding work, including being awarded a DST project under the Women Scientist Scheme. She has also showcased her exceptional presentation skills, being acknowledged as the Best Presenter at the international conference ICNC-2020. Additionally, her innovative ideas have earned her the Best Pitching Idea award at IIT Guwahati's IDE Bootcamp 2023. Her contributions to the field of chemical engineering and her commitment to advancing research make her a notable figure in her academic community.

Publication Details

1. **Kaur, M.**, Santhiya, D., Goel, T., & Srivastava, P. (2024). In-Vivo GIT Distribution Study On 99mTc-Functionalized Bioactive Glass Through an Oral Route for Biomedical Applications. *ChemistrySelect, 9(26),* e202401209.

MANU

Department of Applied Chemistry

Manu is pursuing a Ph.D. in the area of Natural Polymers-based hydrogel from the Department of Applied Chemistry. Delhi Technological University, Delhi, India, under the supervision of Prof. D. Kumar and Prof. Rajinder K. Gupta. She graduated with a Bachelor's degree in science and a Master's in Chemistry from Maharshi Dayanand University, Rohtak and DCRUST, Murthal, respectively. She joined the Ph.D. in DTU in August 2020 and has also qualified CSIR-UGC NET JRF (AIR-41). So far, she has published eight research papers in reputed international journals and has attended several international conferences.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Manu**, Kumar, D. & Gupta, R. K. (2024). Novel Formulations of Humic acid, Lignin, and Lignite Grafted Hydrogels for the Slow Release of Thiamethoxam. *ChemistrySelect*, *9*(26), e202304939. **Impact Factor:2**

MANYA SHRILA

Department of Applied Chemistry

Manya Shrila completed her B.Tech. in Chemical Engineering from Delhi Technological University (DTU) in 2024. She is currently working as a Process Engineer at Samsung Heavy Industries, a role she secured through on-campus placement. Her research interests include hydrogels, biopolymers, and drug delivery

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Shrila, M.**, Ananya, Meena, P., Warkar, SG. (2024). Preparation and Characterization of Sodium Alginate-Based Hydrogel for Delivery of Hydrophilic Drug Metformin Hydrochloride. *ChemistrySelect 9* (29), e202401773. **Impact Factor: 2.**

MEENAKSHI TANWAR

Department of Applied Chemistry

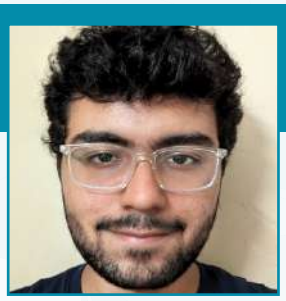
Meenakshi Tanwar is serving as an Assistant Professor of Chemistry at Indraprastha Engineering College, Ghaziabad. She recently completed her Ph.D. in Chemistry from Delhi Technological University (2020–2024), where her research focused on the synthesis and applications of natural polymer-based hydrogels for biomedical, environmental, and sustainable packaging purposes. Her work has been recognized with the Research Excellence Award (2024, DTU). With a strong interest in green chemistry and innovative biomaterials, she continues to contribute actively to teaching and research in polymer science and sustainable materials.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Tanwar, M.**, Rani, A., Gautam, N., Talegaonkar, S., & Gupta, R. K. (2024). Essential oils loaded carboxymethylated Cassia fistula gum-based novel hydrogel films for wound healing. *International Journal of Biological Macromolecules, 278(3)*, 134682. **Impact Factor:** 7.7



MEHUL VERMA

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Mehul Verma, a Bachelor of Technology (B.Tech) graduate from the Department of Applied Chemistry at Delhi Technological University (DTU), Delhi, India, completed his undergraduate degree with a major in Chemical Engineering and a minor specialization in Polymer Technology. Under the academic guidance and supervision of Professor Roli Purwar, he developed a strong foundation in polymer science, materials engineering, and applied chemistry. Throughout his undergraduate studies, he actively pursued research opportunities, completing two foreign research internships, and presented his findings at an international conference, that allowed him to gain international exposure and hands-on experience in advanced laboratory techniques and interdisciplinary research.

Publication Details

1. **Verma, M.**, Kumar, J., Pradhan, A. A., Majumder, N., Ghosh, S., & Purwar, R. (2024). Assessing rheological properties of oxidized *Moringa oleifera* gum and carboxymethyl chitosan-based self-healing hydrogel for additive manufacturing applications. *Polymer Engineering & Science, 64*(10), 5229–5238. **Impact Factor: 3.2**

NARJES IBRAHEM KHALED

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Narjes Ibrahem Khaled is a lecturer and researcher in the field of chemical and materials engineering. I'm originally from Basra, Iraq, where I completed my B.Sc. in Engineering and M.Sc. in Materials Engineering at the University of Basra. My academic journey has always been driven by curiosity and a desire to solve real-world problems through science. Currently, I work at the Technical Engineering College, part of Southern Technical University in Basra, head of chemical and petrochemical department, where I've been teaching and conducting research since 2011. My work focuses on corrosion science, nanocomposite coatings, and the mechanical behaviour of materials, with a special interest in biomedical applications. I recently completed my Ph.D. in Nanotechnology at Delhi Technological University in India, which has expanded my vision and skills as a researcher.

Publication Details

1. **Narjes I. K.**, Deenan S. (2024). Multifunctional poly(allylamine hydrochloride)/ bioactive glass layer by layer surface coating on magnesium alloy for biomedical applications*, Progress in Organic Coatings, 186,* 108059. **Impact Factor: 7.3**

POOJA SINGH

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Pooja Singh graduated from Shyam Lal College, University of Delhi, with a Bachelor's degree in Chemistry (Hons) and completed her Master's degree in Chemistry with distinction from Sharda University. She went on to earn her Ph.D. in Applied Chemistry from Delhi Technological University under the supervision of Dr. Raminder Kaur. Her doctoral work focused on developing sustainable non-isocyanate polyurethane (NIPU) materials from renewable resources, reflecting her interest in green chemistry and eco-friendly polymers. Her work focuses on the synthesis and applications of NIPU in different forms such as foams, porous materials, hydrogels and blends. Currently, she is working as an Assistant Professor at GL Bajaj Institute of Technology and Management, where she strives to combine her passion for teaching with her commitment to advancing research in sustainable materials.

Publication Details

1. **Singh, P.**, Priti & Kaur, R. (2024). Synthesis and Rheological Analysis of Non-Isocyanate Polyurethanes Blended with Poly(Vinyl Alcohol), *Journal of Industrial and Engineering Chemistry*, 139, 225–236. **Impact Factor:** 6

POONAM SINGH

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Poonam Singh is presently working as an Assistant Professor in the Department of Applied Chemistry at Delhi Technological University (DTU), Delhi. She is actively involved in various academic and administrative roles and is currently serving as the Coordinator of the departmental fest TATVA, as well as the M.Tech and Ph.D. Co-Coordinator at DTU. Dr. Singh received her Bachelor's and Master's degrees in Chemistry from Maitreyi College and Kirori Mal College, University of Delhi, in 2009 and 2011, respectively. She has completed her Ph.D. in Chemistry in 2016 under the supervision of Professor R. Nagarajan in the Department of Chemistry, Materials Chemistry Group, University of Delhi.

Her research expertise lies in the field of Materials Chemistry and Nanochemistry, with a specific focus on the design and development of novel nanomaterials for energy applications, catalysis, and multifunctional purposes. Dr. Poonam Singh's work further extends into process optimization through modelling techniques such as Response Surface Methodology (RSM), Central Composite Design (CCD), Box-Behnken Design (BBD), and statistical analysis using Minitab software.

She has authored and co-authored more than 37 research articles published in SCI and SCIE-indexed journals and contributed 05 book chapters in Scopus-indexed and Springer publications. Dr. Poonam Singh has successfully research project funded by the University Grants Commission (UGC).

She is a Lifetime Member of several prestigious scientific organizations including the Association of Chemistry Teachers (ACT), Indian Science Congress Association (ISCA), Materials Research Society of India (MRSI), Society of Materials Chemistry (SMC), and Indian Society of Analytical Scientists (ISAS). She has also served as a Member of the Scientific Committee of the Nepal Scientific Committee.

Publication Details

1. Jigyasa Pathak and **Poonam Singh** (2024). Zinc-Copper-Nickel Mixed Metal Oxide as Heterogeneous Catalytic Material for the Reductive Degradation of Nitroarene and Azo Dye. *Catalysis Letters 154,* 5280–5293. **(Impact Factor 2.4)**

PRIYANKA MEENA

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Priyanka Meena is a Guest Faculty in the Department of Applied Chemistry, Delhi Technological University (DTU). She received her doctorate in Chemistry from DTU in 2024. She has received her M.Sc. degree in Chemistry from the Indian Institute of Technology Roorkee (IIT Roorkee) and her B.Sc. degree in Chemistry from Ramjas College, University of Delhi. She was awarded a CSIR NET Junior Research Fellowship in 2019. Her research interests include hydrogels, biopolymers, and drug delivery. She has published 10 research papers in national and international journals and presented her work at several international conferences. She has received the "Research Excellence Award" from DTU in 2024. She is also the reviewer of many internationally reputed journals.

Publication Details

1. **Meena, P.**, Singh, P., Warkar, SG. (2024). Tailoring pH-Sensitive Carboxymethyl Tamarind Kernel Gum-Based Hydrogel for an Efficient Delivery of Hydrophobic Drug Indomethacin. *International Journal of Biological Macromolecules, 280* (3), 136029. **Impact Factor: 8.5**
2. **Meena, P.**, Singh, P., Warkar, SG. (2024). Fabrication and Evaluation of Stimuli- Sensitive Xanthan Gum-Based Hydrogel as a Potential Carrier for a Hydrophobic Drug Ibuprofen. *Colloid and polymer science, 302* (3), 377-391. **Impact Factor: 2.3**

PRIYANKA YADAV

Department of Applied Chemistry

AWARD SUMMARY

03 Commendable Research Award

Priyanka Yadav received her B.Sc. in Physical Sciences from the University of Delhi and M.Sc in Chemistry from NIT Sikkim, Currently, she is pursuing her Ph.D. with the supervision of Prof. Sudhir G. Warkar and Prof. Anil Kumar at Delhi Technological University (DTU). Her research focuses on material chemistry and polymer chemistry, with an emphasis on developing innovative materials for advanced applications in various fields of applications. She has published 6 research articles in reputed SCI/SCIE journals and 1 book chapter.

Publication Details

1. **Yadav, P.**, Warkar, S. G., & Kumar, A. (2024). A comparative analysis of carboxymethyl tamarind kernel gum-based hydrogels for ciprofloxacin delivery. *International Journal of Biological Macromolecules*, *282*(P1), 136569. **Impact Factor: 8.5**
2. **Yadav, P.**, Warkar, S. G., & Kumar, A. (2024b). Biopolymer-CMTG and m-BPDM Based Hydrogel Composite for Promising Sensing of Zinc, Cadmium, and Mercury in Aqueous Medium. *Journal of Inorganic and Organometallic Polymers and Materials*, *Cd*. **Impact Factor: 4.9**
3. **Yadav, P.**, Warkar, S. G., & Kumar, A. (2024c). Development of graphene oxide-incorporated biopolymer-carboxymethyl tamarind kernel gum-based hydrogel as an effective adsorbent for the sequestration of dye pollutants. *Polymer Engineering and Science*, *64*(10), 1–18. **Impact Factor: 3.2**

RAJINDER K. GUPTA

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Rajinder K. Gupta is a Professor in the Department of Applied Chemistry at Delhi Technological University. He holds dual PhDs—one in Organic Chemistry of Natural Products from Delhi University and another in Microbiology/Biotechnology from the University of Idaho, USA. A recipient of the prestigious Alexander von Humboldt Fellowship, he has conducted advanced research on phytochemicals, marine bioactive agents, and actinomycetes at leading institutions in Germany and the USA. With over four decades of academic and industry experience across pharmaceuticals, agrochemicals, polymers, and testing services, Prof. Gupta has published 250 papers, 5 book chapters, and holds 9 Indian patents. He has guided 14 PhD scholars, over 150 MTech/BTech/MSc theses, and established a NABL- and ISO-certified food quality testing facility for the Delhi Government. He also launched the MTech (Food Processing Technology) program for GGSIP University. His current research focuses on hydrogels, nutraceuticals, functional foods, and drug discovery from natural sources.

Publication Details

1. Manu, Kumar, D. & **Gupta, R. K.** (2024). Natural polymers-humic acid and lignin based hydrogels: In agriculture, environment and energy storage. *Industrial Crops and Products*, *219*, 119029. **Impact Factor:6.2**
2. Prashar, V., Nandal, M., **Gupta, R. K.** & Tyagi, Y. K. (2024). Novel Synthesis, and Application of Carboxymethylated Cassia fistula-Based Hydrogel for Extended-Release of Dinotefuran. *ChemistrySelect*, *9*(46). **Impact Factor:2**

RAM SINGH

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Ram Singh belongs to a village Chandauli of the Sitamarhi district, Bihar, India. He did his schooling from Sainik School Tilaiya. He received his B.Sc., M.Sc., and Ph.D. from University of Delhi in 1996, 1998, and 2003 respectively. He worked at CEMDE and Department of Chemistry, University of Delhi, before joining Delhi Technological University (DTU) in July 2010. At present, he is Professor in the Department of Applied Chemistry, DTU. He is working at the interface of chemistry, biology, and biomaterials science. He has published over 112 research papers in refereed journals, authored 18 books, 28 book chapters, 31 Modules for ePG Pathshala and contributed in more than 100 conferences. He has supervised 08 PhDs and more than 20 PG students. His research has been funded by DST, CSIR, and DRDO. He is on Editorial Advisory Board of various journals of repute and Life Member of various societies.

Publication Details

1. Prakash, C.; **Singh, R.** (2024). Synthesis of Fluorinated 6-Membered Nitrogen Heterocycles Using Microwave Irradiation. *Chemistry of Heterocyclic Compounds, 60*(5/6), 216–229. **Impact Factor: 1.4**
2. Prakash, C.; **Singh, R.** (2024). Microwave-Assisted Synthesis of Fluorinated 5-Membered Nitrogen Heterocycles. *ChemistrySelect, 9*(23), e202401376. **Impact factor: 2.3**

RAMINDER KAUR

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

01 Innovation Award

Raminder Kaur is Associate Professor in the Department of Polymer Science and Chemical Technology (Applied Chemistry), Delhi Technological University, Delhi. She earned her Ph.D. in Chemical Engineering from IIT Delhi, M.Tech in Polymer Technology from Panjab University, Chandigarh, and B.Tech in Chemical Engineering from Beant College of Engineering and Technology, Gurdaspur. Her research focuses on reaction engineering, bio-based polymeric materials, composites, phase change materials for energy conservation, conducting polymers, and pollution abatement technologies. She has contributed significantly to the field with one patent, over 60 international journal publications, 03 book chapters, and around 100 national and international conference papers. Dr. Kaur has worked on projects funded by CSIR, DRDO, and DTU, and has been honored with the Research Excellence Award from DTU multiple times (2017–2023). A distinguished member of several scientific societies, she also actively serves as a reviewer for reputed international journals.

Publication Details

1. Varshney, G., **Kaur, R.**, & Zulfequar, M. (2024). Fabrication and evaluation of eicosane/poly (styrene-co-butylacrylate) microencapsulated phase change materials through ultrasonicated mini-emulsion technique. *Chemical Engineering Journal*, *500*, 156994. **Impact Factor: 13.2**
2. Singh, P., & **Kaur, R.** (2024). Fructose-Based Non-Isocyanate Polyurethane/ Poly (Sodium Acrylate) Hydrogels: Design, Synthesis and Environmental Applications. *Journal of Polymers and the Environment*, *32(6)*, 2897–2911. **Impact Factor: 5.3**

RITIKA KUBBA

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Ritika Kubba, holds a Ph.D. degree in the area of Porphyrin Chemistry from Department of Applied Chemistry, Delhi Technological University, Delhi, India. She has done her graduation and post-graduation in Chemistry from Hindu College, University of Delhi and Miranda House, University of Delhi respectively. She has qualified GATE 2018 in Chemical Sciences and joined Ph.D. in DTU in the year 2018, under the supervision of Prof. Anil Kumar. So far, she has published eight research papers and three book chapters in reputed international journals and has attended several national and international conferences. She is currently working as Assistant Professor at Department of Chemistry, School of Basic Sciences, Galgotias University, Uttar Pradesh, India.

Publication Details

1. **Kubba, R.**, Jyoti, Yadav, O., Kumar, A. (2024). Phosphorus corroles: Synthesis and applications. *Journal of Molecular Structure*, 1301, 137364. **Impact Factor: 4.7**

RITU SHARMA

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Ritu Sharma is a researcher with a strong academic foundation, holding a Bachelor's and Master's degree in Chemistry from the University of Delhi. She is currently pursuing her doctoral degree in Chemistry with a specialization in Food Science at Delhi Technological University. Her research focuses on unlocking the potential of underutilized cereals, legumes, and millets of India by studying their secondary metabolites and biological activities, with a particular emphasis on anti-obesity effects. With a vision to create nutritionally rich, health-promoting solutions, Ritu is committed to addressing global health challenges while promoting the sustainable use of underutilized crops.

Publication Details

1. **Sharma, R.**, Kumar, D., & Gupta, R. K. (2024). Bioactive profiling of two varieties of Indian legumes: Adzuki and mung beans. *International Journal of Food Science & Technology, 59*, 6218-6230. **Impact Factor:** 2.6

ROLI PURWAR

Department of Applied Chemistry

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

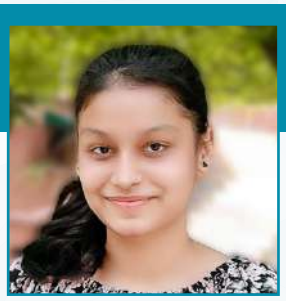
01 Commendable Research Award

01 Innovation Award

Roli Purwar is working as Professor in the discipline of Polymer Science and Chemical Technology, Department of Applied Chemistry, Delhi Technological University (DTU). In addition to academics, currently, she is holding the position of Associate Dean-Planning and Recruitment. She obtained her Bachelor of Engineering in Textile Technology from DAVV, Indore in the year 2000. She did M.Tech in Fiber Science and Technology in the year 2001 from IIT Delhi and completed her PhD from IIT Delhi in the year 2006. From 2006 to 2010, she worked as Research Associate at IIT Delhi on projects funded by Department of Biotechnology, Govt. of India and M/S Lockheed Matrin, USA. She joined Delhi Technological University as Assistant Professor in the year 2010 and was promoted as Professor in 2021. Prof. Purwar has published 75 SCI/SCIE research papers and book chapters in Indian and International peer reviewed journals & books. Three patents (2 Indian, 1 US patent) are in her Credit. She has transferred two technologies to Indian Industries. She has completed two sponsored projects funded by SERB-DST govt. of India. She has guided 9 PhD, 11 M.Tech and 35 B .Tech thesis projects. Currently she is working on Sponsored project under prestigious POWER Scheme, SERB, Govt. of India. She is an expert member for National Technical Textile Mission (NTTM), Ministry of Textile, Govt. of India and ANRF, Govt of India. Her current research area includes self-healing biopolymers, injectable hydrogel, biopolymer for electronic devices, Anion exchange membranes for green hydrogen.

Publication Details

1. Sachan, R., **Purwar, R.**, (2024), Effect of PCL chain length on rheological and mechanical properties of PCL-PDMS-PCL triblock copolymer films, Journal of Applied Polymer Science, 141, e55542. **Impact Factor:2.8**



ROOPAL GARG

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Roopal Garg was born and raised in Delhi, India. She completed her Bachelor of Science (Honours) in Chemistry from Delhi University in 2022, where she gained a solid foundation in chemical principles and laboratory techniques. She then pursued a Master's in Chemistry at Delhi Technological University, graduating in 2024. During her postgraduate studies, she worked on the synthesis of deep eutectic solvents and explored their application in the eco-friendly production of nucleoside analogs, especially those relevant to treating SARS-CoV-2. Her research focused on sustainable approaches and the role of green chemistry in advancing medical treatments. At present, she is pursuing a Bachelor of Education to combine her scientific background with her passion for teaching.

Publication Details

1. **Garg, R.**, Kumar, R., Srivastava, R., & Srivastava, R. (2024). Exploring nucleoside analogs: key targets in the viral life cycle - advancing strategies against SARS-CoV-2. *Medicinal Chemistry Research*, *33*(6), 869–884. **Impact Factor: 3.1**

SAURAV KUMAR

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Saurav Kumar is currently serving as a Guest Faculty Member in the Department of Applied Chemistry at Delhi Technological University (DTU), Delhi. Dr. Kumar hails from Meerut, Uttar Pradesh, India. Dr. Kumar obtained his Bachelor of Science (Honours) in Chemistry from Rajdhani college, University of Delhi in 2016. He subsequently completed his Master of Science in Organic Chemistry in 2018, the same year he qualified for the prestigious CSIR-NET Junior Research Fellowship (JRF). Dr. Kumar was awarded the degree of Doctor of Philosophy (Ph.D.) in Chemistry in 2024 by Delhi Technological University, under the supervision of Professor Anil Kumar. His doctoral research focused on the development of transition-metal-free methodologies for the synthesis of biologically important organic compounds, contributing to the field of sustainable organic synthesis. He has published three research papers in peer-reviewed national and international journals and has presented his work at various academic conferences and seminars. In recognition of his research contributions, Dr. Kumar received the Commendable Research Excellence Award from DTU in 2024. Dr. Kumar currently resides in Delhi with his wife, Ms. Deepika Poswal, and his paternal aunt, Ms. Geeta Devi.

Publication Details

1. **Saurav Kumar**, Ritika Kubba, Nityananda Agasti, Anitha Selvaraj, Anil Kumar. (2024). Potassium tertbutoxide promoted a direct one-pot synthesis of nitriles from aldehydes at room temperature. *Journal of Chemical Sciences*, 136 (39), 1-6 **Impact Factor- 2.0**

SRIJITA CHATTERJEE

Department of Applied Chemistry

Srijita Chatterjee has completed her graduation from Pt. Jawaharlal Nehru Government College, Maharshi Dayanand University, Delhi, India, and post–graduation from Delhi Technological University, Delhi, India. Her research interests include the development of biosensors based on 2D nanomaterials.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Chatterjee, S.**, Singh, H., Hudda, D., Sweety, and Kumar, D. (2024). A Novel Acetylcholinesterase-Based Electrochemical Biosensor Using g-C_3N_4@MoS_2 Nanohybrid for the Detection of Trichlorfon. *Applied Organometallic Chemistry*, *38* (12), e7721, **Impact factor: 3.7**

SHIVANGI DWIVEDI

Department of Applied Chemistry

I am currently working as a Senior Researcher at Centre for Fire Explosives and Environment Safety (CFEES) DRDO. I am pursuing Ph.D. in Chemical Engineering on part time basis with a focus on protective suits and flame-retardant (FR) adhesives. My academic journey has been fuelled by a deep passion for understanding polymers, fibers, and textile technology, particularly its application in specialized fire proximity suits. Throughout my career, I have had the privilege of contributing to research and innovation in the areas of fiber dyeing and textile chemistry.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Shivangi Dwivedi,** Richa Srivastava, Prasun Kumar Roy (2024). Exploring the potential of dual metallized PET towards improving the efficiency of outermost reflective layer in Fire proximity clothing. *Fire and materials Journal*, 48(7), 765-777. **2.0**

SUDHIR G. WARKAR

Department of Applied Chemistry

AWARD SUMMARY

02 Commendable Research Award

Dr. Sudhir G. Warkar is Professor in the Department of Applied Chemistry, and Dean (Student Welfare) Delhi Technological University, Delhi. He received his Doctorate Degree in Chemistry from Delhi Technological University and Master's Degree in Chemistry from Postgraduate Department of Chemistry, Nagpur University. He has over 30 years of teaching experience at UG and PG levels. His areas of interest are biopolymer-based superabsorbent hydrogels and their applications in the fields of agriculture, water enrichment, metal ion sensing and drug delivery and biodegradable polymers for packaging. He has published 65+ research papers in SCI Journals and 4 Book Chapters. He has received the Commendable Research Excellence Award for 7 consecutive years since the inception of the award in DTU. He has also delivered an Online Guest Lecture for a Global Classroom Session at the University of Malaysia on "Recent Advances in Polymers". He has also delivered a Scientific talk in an Online Seminar on the Scientific Academic Institute of India, as a Special Speaker organized by DDE Science Branch, Directorate of Education, GNCT of Delhi. He is a Life member of the Indian Society of Technical Education, the Association of Carbohydrate Chemists and Technocrats (India), and the Indian Society of Analytical Scientists - Delhi Chapter. He is an Editorial Board Member of Indian Journal of Chemical Technology published by CSIR NISCAIR. He is also the Reviewer of many journals of international repute. He has worked as Member Coordinator in NAAC Peer Team visits. He has also served as Subject Expert in various selection committees and Public service commissions. He is a Member of the Research and Development Committees of various Universities. Dr. Warkar has handled various responsibilities in DTU as Head of the Department of Applied Chemistry, Chairman of the Board of Studies, Member of the Academic Council, Associate Dean (Student Welfare), Associate Dean (Continuing Education), Chairman of the Department Research Committee, Chairman of the Board of Studies, Coordinator Admission B.Tech. Evening etc.

Publication Details

1. Juikar, S.K., **Warkar, S.G.** (2024). Fabrication and assessment of carboxymethyl guar gum-based sustainable films for packaging application. *Colloid and Polymer Science, 302*(7), 1137–1148. **Impact Factor: 2.3**
2. Malik, R., Khatri, K., Saxena, R., **Warkar, S.G.** (2024). Fabrication of carboxymethyl tamarind kernel gum-based hydrogel and its applicability in different types of soils for agronomy. *International Journal of Biological Macromolecules, 280*(P1), 135616. **Impact Factor: 8.5.**

SWEETY

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Sweety is currently serving as an Assistant Professor of Chemistry at Inderprastha Engineering College, Ghaziabad. She recently completed her Ph.D. in Chemistry from Delhi Technological University (2020–2025), where her research focused on the "Development of Electrochemical Immunosensor for Cancer Biomarker Detection". She has published 10 research papers during her Ph.D. tenure. Her work has been recognized with the Research Excellence Award (2024, DTU). With a strong interest in green synthesis of novel MXene-based hybrids, she continues to contribute actively to teaching and research in the field of biosensors.

Publication Details

1. **Sweety**, Paneru, S., Kumar, D. (2024). CuS modified PEDOT:PSS grafted paper-based electrochemical immunosensor for EpCAM biomarker detection. *Materials Chemistry and Physics*, *313*, 128687, **Impact Factor: 4.3**

TANVI SINGH

Department of Applied Chemistry

AWARD SUMMARY

01 Commendable Research Award

Tanvi Singh is a research scholar in the Department of Applied Chemistry at Delhi Technological University (DTU), working under the guidance of Prof. D. Kumar and Prof. Rajinder K. Gupta. Her research interests focus on the phytochemical profiling, nutraceutical potential, and medicinal applications of flowers. During her master's at DTU, she worked on developing biodegradable food packaging film, a dissertation project carried out under the supervision of Prof. Rajinder K. Gupta. Her academic work reflects a strong interest in integrating traditional knowledge with modern scientific approaches, aiming to develop eco-friendly and health-promoting applications of natural resources.

Publication Details

1. **Singh, T.**, Tanwar, M., & Gupta, R. K. (2024). Carboxymethyl guar gum-based bioactive and biodegradable film for food packaging. *Polymer Science Series A, 66* (2), 202–215. **Impact Factor: 1.1**

Department of
Applied Mathematics

ABHAY SRIVASTAVA

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

Abhay Srivastava is pursuing Ph.D. in the Department of Applied Mathematics at Delhi Technological University under the supervision of Dr. Nilam. I earned my B.Sc. (2015) and M.Sc. (2017) degrees from Purvanchal University, Jaunpur (U.P.). Thereafter, I worked for three years (2017–2020) on a SERB-funded research project at the Department of Mathematics and Statistics, Dr. Harisingh Gour Vishwavidyalaya, Sagar (M.P.). In August 2021, I joined DTU as a Ph.D. student. Over the course of my research journey, I have published three papers in reputed SCIE journals and have actively contributed to the academic community by presenting my work at five international conferences.

Publication Details

1. **Srivastava, A.**, Nilam (2024). Optimal Control of a Fractional Order SEIQR Epidemic Model with Non-monotonic Incidence and Quarantine Class. *Computers in Biology and Medicine*, 178, 108682. **Impact Factor: 6.3**

ADITYA KAUSHIUK

Department of Applied Mathematics

AWARD SUMMARY

01 Premier Research Award

Aditya Kaushik has been working as a Professor in the Department of Applied Mathematics at Delhi Technological University, Delhi. He obtained his PhD degree from Kurukshetra University, Kurukshetra. Before joining Delhi Technological University, he worked at Panjab University, Chandigarh, and Kurukshetra University, Kurukshetra. His research interest includes the development of finite difference methods and finite element methods for differential equations. He published fifty-two research articles and edited a volume in international journals of repute. He organized many international and national conferences and acquired academic/research funding from NBHM-DAE, INSA, DST and UGC. He received Mathematical Research Impact Centric Support from the Science and Engineering Research Board, Department of Science and Technology, Government of India, up to 2025. He guided many doctoral and M.Phil. students. He is on the editorial and advisory board of international journals of repute and a life member of many professional and learned societies.

Publication Details

1. **Kaushik, A.**, & Jain, S. (2024). A posteriori error analysis of defect correction method for singular perturbation problems with discontinuous coefficient and point source. *Journal of Computational and Nonlinear Dynamics*, *19*(9), 091005.

ANUMA GARG

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

Anuma Garg is currently working as a guest faculty in the Department of Applied Mathematics in Delhi Technological University, Delhi. She has completed her Ph.D. under the guidance of Dr. Satyabrata Adhikari in Department of Applied Mathematics, Delhi Technological University, Delhi. She has completed her B.Sc. (Hons.) Mathematics from Indraprastha College for Women, Delhi University and M.Sc. Applied Mathematics from South Asian University, Delhi. Her research area is quantum information theory.

Publication Details

1. **Anuma Garg**, Satyabrata Adhikari (2024). Estimation of Power in the Controlled Quantum Teleportation through the Witness Operator. *Estimation of power in the controlled quantum teleportation through the witness operator, 78* (64), 1-15. 1.5.

CHANDRA PRAKASH SINGH

Department of Applied Mathematics

AWARD SUMMARY

01 Premier Research Award

Chandra Prakash Singh is Professor & Associate Head in Mathematics in the Department of Applied Mathematics. He received his Ph.D. in theoretical cosmology from Indian Institute of Technology, Banaras Hindu University, Varanasi. His research work spans a wide array of topics in early universe cosmology, inflationary cosmology, cosmological perturbations, dark energy and dark matter, modified gravity and observation cosmology. He has published 95 research papers in National and International SCI journals and delivered many invited talks in conferences. He is also the reviewer of many journals. He has the life membership of professional society like, Astronomical Society of India, IAGRG, Indian Mathematical Society, Tensor Society of India. He has 25 years of teaching experience in pure and Applied Mathematics. He has supervised 6 PhD students till date and 5 are under supervision. He is Fellow of Royal Astronomical Society (FRAS), UK. He has received Commendable and Premier Research Excellent Awards of Delhi Technological University from 2018 onwards.

Publication Details

1. **Singh, C.P.**, Khatri V. (2024) Viscous fluid dynamics with decaying vacuum energy density, *Physical Review D* (APS) 109, 023508 DOI:10.1103/PhysRevD.109.023508 **IF: 5.3**

KANICA GOEL

Department of Applied Mathematics

Kanica Goel holds a Ph.D. in Applied Mathematics from Delhi Technological University. She has served as an Assistant Professor at Shyama Prasad Mukherji College for Women, University of Delhi, where she contributed significantly to teaching and research in Mathematics. Her primary research interests lie in Mathematical Epidemiology, with a focus on developing and analyzing mathematical models to study the dynamics of infectious diseases. Dr. Goel has published 10 research papers in reputed SCI journals. With a strong academic and research background, Dr. Goel continues to contribute to advancing the field of applied mathematics, particularly in the intersection of mathematics and public health.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Goel, K.**, Nilam (2024). *A nonlinear SAIR epidemic model: Effect of awareness class, nonlinear incidences, saturated treatment and time delay, 73, 2713–2747.* **Impact Factor: 1.1**

MAHIMA TOMAR

Department of Applied Mathematics

Mahima Tomar is pursuing her Ph.D. under the supervision of Prof. Naokant Deo in the Department of Applied Mathematics at Delhi Technological University (DTU), Delhi. She holds a B.Sc. (Hons.) in Mathematics from Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, and a M.Sc. in Mathematics from the Department of Applied Mathematics, Delhi Technological University. Her research interests lie in the area of Approximation Theory.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Tomar, M.**, & Deo, N. (2024). Theoretical Validation and Comparative Analysis of Higher Order Modified Bernstein Operators. *Iranian Journal of Science*, *48*(5), 1313-1327. **Impact Factor:** 1.4

MONU

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

Monu is currently working as a Post-Doctoral Fellow at the Indian Institute of Science Education and Research, Bhopal. He submitted his Ph.D. thesis in the Department of Applied Mathematics at Delhi Technological University, New Delhi, India. He received his Bachelor's degree from Rajdhani College, University of Delhi, in 2019 and a Master's degree from the Department of Applied Mathematics, Delhi Technological University, in 2021. His research interests include Data Assimilation and Extreme Weather Events. He has already published/accepted five research papers in joint authorship with his supervisor, Prof. Laxminarayan Das. He has presented his research work at national and international conferences.

Publication Details

1. **Yadav, M.**, Das, L. (2024). Formulation and evaluation of the radius of maximum wind of the tropical cyclones over the North Indian Ocean basin. *Theor Appl Climatol* 155, 4521–4534. DOI: https://doi.org/10.1007/s00704-024-04895-w, I**mpact Factor: 2.8**

NEHA PUNETHA

Department of Applied Mathematics

AWARD SUMMARY

02 Commendable Research Award

Neha Punetha, completed Ph.D. in Applied Mathematics from Delhi Technological University in 2024. My doctoral research focused on developing unsupervised sentiment analysis frameworks that integrate game theory, mathematical optimization, and machine learning. I have published SCIE/ESCI-indexed research papers in reputed international journals, including Scientific Reports (Nature), Expert Systems with Applications (Elsevier), and Cognitive Computation (Springer). My work has led to the creation of innovative models such as the Hawk-Dove Sentiment Tagger (HDST), LESTG, and EOT-NH. Alongside research, I have over five years of teaching experience in applied mathematics. I have taught courses on Data Structures, Algorithms, Engineering Mathematics, and Statistics. My research interests lie in NLP, interpretable AI, multimodal learning, and sentiment analysis applications, with a strong focus on building practical and impactful AI solutions.

Publication Details

1. **Punetha, N.**, & Jain, G. (2024). Recommendation framework for products using optimization algorithms. *National Academy Science Letters*, Page no. 1-4**. Impact factor: 1.3.s**
2. **Punetha, N.**, & Jain, G. (2024). Optimizing sentiment analysis: A cognitive approach with negation handling via mathematical modelling. *Cognitive Computation*, 16(2), Page no. 624-640. **Impact factor : 4.3.**

PARUL CHAUHAN

Department of Applied Mathematics

Parul Chauhan has completed her Ph.D. under the guidance of Prof. Anjana Gupta in Department of Applied Mathematics, Delhi Technological University, Delhi. She has completed her B.Sc. (Hons.) Mathematics from Indraprastha College for Women, Delhi University and M.Sc. Mathematics from Delhi University, Delhi. Her research area is optimization.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Chauhan, P.**, Gupta, A. (2024). Probabilistic multiplicative unbalanced linguistic game using linguistic cloud model. *The Journal of Supercomputing, 80*, 20346-20377. **Impact Factor: 2.5**

PUNEET KUMAR PAL

Department of Applied Mathematics

Puneet Kumar Pal is a dedicated researcher currently pursuing a Doctor of Philosophy (Ph.D.) at Delhi Technological University (DTU). His academic journey reflects a strong foundation in mathematics and its applications in modern cryptographic techniques. He began his higher education by completing a Bachelor of Science (B.Sc.) in Mathematics from Chhatrapati Shahu Ji Maharaj (CSJM) University, where he developed a deep interest in the theoretical and applied aspects of mathematics. To further strengthen his expertise, he pursued a Master of Science (M.Sc.) in Mathematics from the prestigious Indian Institute of Technology (IIT) Roorkee, one of India's leading institutions.

Currently, as a doctoral researcher at DTU, Puneet is working in the field of chaos-based image cryptography, an emerging domain that combines advanced mathematical concepts with cryptographic algorithms. His research focuses on leveraging the unpredictable and highly sensitive nature of chaotic systems to design secure and efficient image encryption techniques. Through this work, he aims to address the growing need for robust security in digital communication, particularly in protecting sensitive visual information from cyber threats. With a strong background in mathematics and a keen interest in its practical applications, Puneet's research stands at the intersection of theory and real-world challenges, contributing to the advancement of cryptographic systems.

AWARD SUMMARY

02 Commendable Research Award

Award Summary and Publication Details

1. **Pal, Puneet Kumar**, Kumar, Dhirendra. (2024). Zirili map-based image encryption method for healthcare, military and personal data security. *Physica Scripta*, 99(12), 125228. **IF-2.6**
2. **Pal, Puneet Kumar**, Kumar, Dhirendra. (2024). The coupled Kaplan-Yorke-Logistic map for the image encryption applications. *Computers and Electrical Engineering*, 120, 109850. **IF-4.9**

RADHIKA KAVRA

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

Radhika Kavra is working as an Assistant Professor (Mathematics) in the School of Engineering and Technology, Vivekananda Institute of Professional Studies-Technical Campus, Delhi, India. She holds Bachelor's degree in Mathematics Honours from Vivekananda College, University of Delhi and Master's degree in Mathematics from IIT Roorkee. She has completed her Ph.D. from Department of Applied Mathematics, Delhi Technological University, New Delhi, India. Her Research area is Graph Algorithms and Optimization Techniques. She has achieved 3 research excellence awards for her publications by Delhi Technological University. Moreover, She is Gate Qualified with 95.92 percentile in 2019. She has been consistently working towards her academic goals in teaching and research.

Publication Details

1. **Kavra, R.**, Gupta, A., & Kansal, S. (2024). Dual-interference minimization routing techniques in wireless sensor networks. *Wireless Networks*, *30*(3), 1539-1551. **Impact Factor**: 2.1

RASHI JAIN

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

Rashi Jain is pursuing a Ph.D. in Quantum Information Theory at the Department of Applied Mathematics, Delhi Technological University, since 2023. She holds a Bachelor's degree in Applied Mathematics from Amity University, Noida, and a Master's degree in Mathematics from Delhi Technological University, Delhi. Her research focuses primarily on quantum key distribution and quantum secure direct communication protocols. To date, she has published two research papers in reputed SCI journals and has presented her work at several international conferences.

Publication Details

1. **Jain, R.**, Adhikari, S., (2024) Modified six-state cryptographic protocol with entangled ancilla states, *The European Physical Journal D*, 78 (145). **Impact Factor: 1.5**

S. SIVAPRASAD KUMAR

Department of Applied Mathematics

AWARD SUMMARY

03 Commendable Research Award

S. Sivaprasad Kumar is a Professor of Mathematics at Delhi Technological University (DTU) and served as Head of the Department of Applied Mathematics from 2021 to 2023. He holds an M.Phil. from the University of Madras and a Ph.D. in Mathematics from the University of Delhi. With three decades of teaching and research experience, his primary area of expertise lies in Complex Analysis, particularly in Geometric Function Theory. He has actively organized and participated in numerous workshops, symposiums, and conferences of national and international standing, and has delivered invited talks at various academic and training programs. A prolific researcher, he has authored over 70 papers in reputed international journals, supervised nine Ph.D. scholars (with one thesis under evaluation), and is currently guiding six more. Widely recognized for his contributions, he serves as a referee for several peer-reviewed journals and has been honored with DTU's Research Excellence Award every year since 2020.

Publication Details

1. **S. Sivaprasad Kumar.,** S. Banga. (2024) On a Special Type of Ma-Minda function, *Applied Mathematics-A Journal of Chinese Universities*, **39**(4): 654-673. **Impact Factor:** 1.2
2. Giri, S., **S. Sivaprasad Kumar**, (2024) Toeplitz determinants in one and higher dimensions. *Acta Math Sci* **44**, 1931–1944. **Impact Factor:** 1.0
3. **S. Sivaprasad Kumar.**, Yadav, P. (2024) On a Class of Certain Non-univalent Functions. *Iran J Sci*, **48**, 785–793. **Impact Factor:** 1.4

SHRUTI AGGARWAL

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

01 Premier Research Award

Shruti Aggarwal, PhD in Quantum Information Theory from the Department of Applied Mathematics, Delhi Technological University. I earned my B.Sc. and M.Sc. in Mathematics from the University of Delhi and joined DTU in 2019 under CSIR fellowship. My research focuses on characterizing entanglement in higher-dimensional bipartite and multipartite quantum systems, bridging theory and experimental feasibility. I have publications in reputed SCI journals and have presented my work in various national and international conferences. Passionate about advancing quantum technologies, I aim to pursue rigorous, implementable methods to transform theoretical insights into practical innovations.

Publication Details

1. **Aggarwal S**, Adhikari S., (2024). Theoretical proposal for the experimental realization of realignment operation. *Quantum Information Processing, 23* (223), 1-21. **Impact Factor:** 2.2
2. **Aggarwal S**, Adhikari S., Majumdar A.S., (2024). Entanglement detection in arbitrary-dimensional bipartite quantum systems through partial realigned moments. *Physical Review A, 109* (012404), 1-14. **Impact Factor:** 2.9

VIVEK KUMAR AGGARWAL

Department of Applied Mathematics

AWARD SUMMARY

01 Commendable Research Award

Vivek Kumar Aggarwal is an Associate Professor at the Department of Applied Mathematics, Delhi Technological University, Delhi, India. He received his master's and doctorate (in Mathematics) degree from the Indian Institute of Technology, Roorkee, India and the Indian Institute of Technology, Kanpur, India, respectively. He has published more than 40 research papers in national, international journals and conferences. He has guided 06 PhD students and currently, he is supervising 05 PhD students. He has received full funding from the Brazilian Govt. to attend ICM 2018 during Aug. 1-9, 2018 held in Rio, Brazil. Also, he got a visiting position in Friedrich-Alexander-Universität Erlangen-Nürnberg during June - Sept. 2017, 2019, 2020. His research interests are in computational methods for differential equations

Publication Details

1. Sudhakar Yadav, **Vivek Kumar** (2024), Study of Prey–Predator System with Additional Food and Effective Pest Control Techniques in Agriculture, *Iranian Journal of Science,* Vol. 48, 193-211, **Impact Factor – 1.4**

YASH SHARMA

Department of Applied Mathematics

AWARD SUMMARY

02 Commendable Research Award

Yash Sharma is currently a doctoral student specializing in Android Security in the Department of Applied Mathematics at Delhi Technological University, Delhi, India. He holds a postgraduate degree in Mathematics from the same institution and has conducted research in Network Security as part of his academic work. He has published papers in the field of Android Security in SCIE journals, including the Journal of Network and Computer Applications (Elsevier), Multimedia Tools and Applications, International Journal of Information Security (Springer). He is the reviewer of several renowned journals, such as Scientific Reports, The Journal of Supercomputing. etc

Publication Details

1. **Sharma, Y.**, & Arora, A. (2024). PHIGrader: Evaluating the effectiveness of Manifest file components in Android malware detection using Multi Criteria Decision Making techniques. *Journal of Network and Computer Applications*, *232*, 104021. **Impact Factor – 8**
2. **Sharma, Y.**, & Arora, A. (2024). A comprehensive review on permissions-based Android malware detection. *International Journal of Information Security*, *23*(3), 1877-1912. **Impact Factor – 3.2**

YOGESH BHARDWAJ

Department of Applied Mathematics

AWARD SUMMARY

02 Commendable Research Award

Yogesh Bhardwaj is a Research Fellow at Delhi Technological University, Delhi, pursuing his Ph.D. in General Relativity and Cosmology. His research explores the universe's large-scale structure, origins, and dynamical evolution, with a particular emphasis on modified gravity theories, matter creation cosmology, and generalized Chaplygin gas models. He integrates advanced mathematical modeling with computational and statistical techniques, utilizing tools such as Python, Mathematica, and machine learning for the analysis of cosmological datasets. His scholarly contributions have been published in leading international journals, including *Annals of Physics*, *Astrophysics and Space Science*, and *Communication in Theoretical Physics*. He also holds an M.Sc. in Applied Mathematics from DTU, where he developed a strong foundation in problem-solving and mathematical analysis. Actively engaged in academic exchange, he has presented his work at several international conferences and workshops. His research embodies a commitment to advancing rigorous, interdisciplinary inquiry at the frontiers of mathematics and cosmology.

Publication Details

1. **Bhardwaj, Y.**, & Singh, C. P. (2024). Constraining the variable generalized Chaplygin gas model in matter creation cosmology. *Communications in Theoretical Physics, 76*(10), 105403. https://doi.org/10.1088/1572-9494/ad7b2d. **Impact Factor: 2.9**
2. **Bhardwaj, Y.**, & Singh, C. P. (2024). Matter creation cosmology with generalized Chaplygin gas. *Astrophysics and Space Science*, 369(1), https://doi.org/10.1007/s10509-023-04364-3. **Impact Factor: 1.5**

Department of
Applied Physics

A. S. RAO

Department of Applied Physics

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

03 Commendable Research Award

A.S. Rao is a Professor of Applied Physics at Delhi Technological University, New Delhi, currently on deputation as Vice-Chancellor of Vikrama Simhapuri University, Nellore, and holding additional charge of Yogi Vemana University, Kadapa. He earned his Ph.D. in Physics from Sri Venkateswara University and has over 30 years of teaching and research experience. Prof. Rao has guided 25 Ph.D., 4 M.Phil., and 6 M.Tech students, and currently supervises 10 Ph.D. scholars. He has handled sponsored projects worth ₹3 crore and published over 270 SCI-indexed papers and 180 conference papers. Recognized among the world's top 2% scientists by Stanford University (2021–2024), he holds an h-index of 52 and has received DTU's Commendable Research Award seven times. His research focuses on photoluminescence of rare-earth doped materials, nanophosphors, and atmospheric studies related to climate change.

Publication Details

1. Seema., **Rao A.S.** (2024). Photoluminescence and energy transfer studies in the Sm^{3+} and Eu^{3+} co-doped $Sr_2ZnSi_2O_7$ red-emitting phosphors, *Journal of Luminescence* 275, 120742 **(Impact Factor 3.6)**
2. Anu., **Rao, A.S.** (2024). Temperature sensing materials based on the fluorescence intensity ratio in $Li_2Ba_5W_3O_{15}:Dy^{3+}$ phosphors, Sensors and Actuators A: Physical, 372, 115336 **(Impact Factor 4.9)**
3. Anu., **Rao, A.S.** Synthesis, Structural and Fluorescence Investigations of Novel $Li_2Ba_5W_3O_{15}:Sm^{3+}$ Phosphors for Photonic Device Applications, Journal of Fluorescence, 43, 2391-2403 **(Impact Factor 3.1)**

AJEET KUMAR

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Ajeet Kumar was born in 1983 in India. He received the B.Sc. degree from Deen Dayal Upadhayay Gorakhpur University, Gorakhpur, India, in 2002, the M.Sc. degree from the Indian Institute of Technology Roorkee, Roorkee, India, in 2004, and the Ph.D. degree from the Indian Institute of Technology Roorkee, Roorkee, India, in 2009. He was a Postdoctoral Fellow in the Gwangju Institute of Science and Technology (GIST), Korea. In July 2010, he joined the Delhi Technological University, Delhi, where he is currently an Associate Professor. He has published more than 140 research articles in journals and conference proceedings. His current research interests include novel large mode area single-mode fibers, segmented cladding fibers, fiber optic sensors, nonlinear fiber, and waveguide long period gratings. Dr. Kumar has recipient of Young Scientist Award by Uttarakhand Government, India. He is a Life member of Optical Society of India (OSI), Indian Laser association (ILA) and The Indian Science Congress Association (ISCA) and member of OPTIKA (also known as OSA).

Publication Details

1. Singh, G., Sharma, S., **Kumar, A.** (2024) Design and simulation of solid- core octagonal photonic crystal fiber for terahertz wave propagation. *Microwave and Optical Technology Letters*, 66, (5), e34173. **Impact Factor: 1.2**
2. Singh, J., Khamaru, A. **Kumar, A.** (2024) Spiral shaped highly sensitive rectangular PCF-based cancer cells detector in terahertz regime. *Physica Scripta* 99 (11), 115546. **Impact Factor: 2.6.**

3. Tomer, D., S., **Kumar, A.** (2024) Design and numerical modeling of chalcogenide parabolic-core waveguide for on-chip supercontinuum generation extending from near-IR region to mid-IR region. *Microwave and Optical Technology Letters*, 66 (3) e34105. **Impact Factor: 1.2**

AKASH KHAMARU

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Akash Khamaru was born in 1999 in Delhi, India. He received Bachelor's degree in Physical Science from Maharaja Agrasen College, University of Delhi, India in 2020 and received Master's degree in Physics from Delhi Technological University, Delhi, India in 2022. He is currently working as Ph.D. scholar in the field of fiber and integrated optics from Delhi Technological University, Delhi, India. His area of interest lies in Specialty Photonic Crystal Fiber and Waveguides for high power applications, Supercontinuum Generation, Optical Fiber Sensors, Surface Plasmon Resonance etc. Since 2023, he has authored and co-authored 13 SCIE indexed journal research papers. He is a Student Member of the OSA and SPIE.

Publication Details

1. **Khamaru, A.**, & Kumar, A. (2024). Ge-Se-Te based penrose photonic quasi-crystal fiber for SCG covering 2–21 μm MIR regime. *Optical Materials*, 155, 115849. **Impact Factor: 4.2**
2. **Khamaru, A.**, & Kumar, A. (2024). As38Se62 based segmented clad-graded index photonic crystal fiber for supercontinuum generation covering 3–9.5 μm with moderate peak power. *Optical and Quantum Electronics*, 56(7), 1246. **Impact Factor: 4.0**

AMRISH K. PANWAR

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Amrish K. Panwar is an Associate Professor in Applied Physics at Delhi Technological University, where he has served since 2010. He holds a Ph.D. in Condensed Matter Physics from IIT Roorkee and previously worked at IIT Kharagpur and JUET, Guna. His research focuses on energy storage devices, batteries, supercapacitors, multiferroics, and thermoelectric materials. He has led several sponsored projects (including Young Scientist Fast Track Project funded by SERB-DST), received multiple DTU Commendable Research Awards (2017–2024), supervised 7 Ph.D. and numerous postgraduate and undergraduate students, and published over 96 papers in reputed journals and conferences.

Publication Details

1. Rajput S., **Panwar A.K.,** Gupta A. (2024), "Facile synthesis and electrochemical studies of Mn-Zn ferrite as anode for Li-ion batteries" *Journal of Alloys and Compounds*, 976(6), 173145. **(Impact Factor: 6.3)**

ANIMESH VERMA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Animesh Verma is currently working in Sensor Devices & Metrology Group, CSIR- NPL, New Delhi, as a Project-SRF (BRICS project). He did his M.tech in Nanotechnology (Gold Medalist) from Panjab University, Chandigarh and B.tech in Engineering Physics with specialization in Electronics from Delhi Technological University, New Delhi. He started his research in luminescent materials during his bachelor thesis work at, LMRL Lab, at Department of Applied Physics, DTU, Delhi. After his bachelors he continued his research in 2D materials and do his masters thesis at Nanotechnology division, SSPL, DRDO, New Delhi and his work was presented in "Materials for Energy & sustainable Development 2023", JNU, New Delhi and communicated to fullerenes, nanotubes and carbon nanostructures. He has qualified GATE 2019 and awarded scholarship from CBSE for meritorious result in 10^{th} and 11^{th} exams and provisionally awarded DST-Inspire Fellowship after his Masters. Currently, he has published one research paper in SCI/SCIE journal also presented his research work in conferences.

Publication Details

1. **Verma, A.**, Sahu, M.K., Deepali, Pandey, M., Rao, P.K., Jayasimhadri, M. (2024). Structural and photoluminescent features of Eu^{3+} activated single phase niobate phosphor for lighting applications, *International Journal of Applied Ceramic Technology* 21(1), 485-492. **Impact Factor: 1.8.**

ANKIT

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Ankit earned his Ph.D. in "Metamaterial-based Optical Devices: Design & Analysis" from Delhi Technological University (DTU), Delhi, in April 2025. He was awarded the DTU JRF (Aug 2020–Feb 2024) and SRF (Feb–July 2024) Fellowships. He holds an M.Sc. (2018) and B.Sc. (2016) in Physics from Maharishi Dayanand University, Haryana. His research focuses on metamaterials, metasurfaces, frequency-selective surfaces, photonic devices, and antennas, with applications across infrared, microwave, and visible spectra. He specializes in the design, fabrication, and experimental validation of metamaterials in microwave and optical regimes. Dr. Ankit has published seven Scopus-indexed SCI journal papers and presented at national and international conferences. A member of SPIE and OPTICA since 2020, he received OPTICA Travel Grants in 2023 and 2024 to attend Student Leadership Programmes in the USA. His Google Scholar profile reports an h-index of 5, i10-index of 1, and 42 citations.

Publication Details

1. **Ankit**, Kishor, K., Sinha, R.K. (2024). Design, fabrication, and characterization of epsilon negative and near-zero index metasurface, *Applied Physics A, 130*, 98. **Impact Factor: 2.8**
2. **Ankit**, Kishor, K., Sinha, R.K. (2024). SOI Based metasurface for broadband perfect reflection in visible spectrum, *Journal of Optics, 26*, 045101. **Impact Factor: 2.7**
3. **Ankit**, Baitha, M.N., Kishor, K., Sinha, R.K. (2024). Quadrupole mode plasmon resonance enabled dual-band metamaterial for refractive index sensing application, *Journal of Applied Physics, 136, 023104*. **Impact Factor: 2.5**

ANKITA BANWAL

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Ankita Banwal is a PhD awardee in the Department of Applied Physics at Delhi Technological University (DTU), under the supervision of Dr. Renuka Bokolia. Her research specializes in the upconversion luminescence and optical temperature sensing of Er3+/Yb3+/W6+ doped BaBi2Nb2O9 ferroelectric ceramic, contributing towards the multifunctional optoelectronic next generation smart devices. Her M.Sc. is from Panjab University Chandigarh and B.Sc. from Himachal Pradesh University. She has qualified NET-JRF and Gate Physics exam. With a strong academic background and a passion for innovation, she has experimental dimensions of material science and device physics. Her research portfolio includes 12 research publications-5 SCI journal papers as first author, 4 SCI journal papers in collaboration, and 3 conference papers. In recognition of her research excellence, she has received the Commendable Research Award for two journal papers in 2022 and one journal paper in 2023 by DTU.

Publication Details

1. **Banwal A.**, Kumar B., Verma M., Shandilya A., Singh B., Bokolia R. (2024). Improved optical characteristics in $BaBi_2Nb_2O_9$ ferroelectric ceramic infused with transition metal ion (W^{6+}) and rare earth ions (Er^{3+}/Yb^{3+}). *Journal of Luminescence*, 275, 120809. **Impact Factor: 3.6**
2. **Banwal A.**, Verma M., Singh B., Bokolia R. (2024). Temperature stability and improved energy storage efficiency of $BaBi_2Nb_2O_9$: Er/Yb relaxor ferroelectric ceramic under moderate electric fields. *Applied Physics A*, 130, 334. **Impact Factor: 2.8**

ANSHU

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Anshu is a Postdoctoral Fellow at the Institute for Plasma Research (IPR), Gujarat, focusing on RF heating of plasma (ECRH) for fusion devices. She earned her Ph.D. in Applied Physics from Delhi Technological University in 2024, with research on wave dynamics in magnetized dusty plasmas. Her interests span plasma wave modelling, simulations, and experiments, including work on Aditya-U Tokamak. She holds a Master's in Physics and a B.Sc. (Hons.) in Physics from the University of Delhi.

Publication Details

1. **Anshu**, Sharma, J., Sharma, S.C. (2024). Analytical Modelling of Inhomogeneous Energy Density Driven (IEDD) Instability in a Magnetized Dusty Plasma Cylinder, *Brazilian Journal of Physics* 54. 1,8. **Impact Factor: 1.5**
2. **Anshu**, Sharma, J., Sharma, S.C. (2024). Kinetic treatment of lower hybrid waves excitation in a magnetized dusty plasma by electron beam, *Indian Journal of Physics* 98.3,1147-1153. **Impact Factor: 1.6**

ANSHUL

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Anshul is a full time Ph.D. student under the supervision of Prof. Rishu Chaujar in the Department of Applied Physics at Delhi Technological University, New Delhi. She has been pursuing her doctoral research since January 2021. Her research focuses on DFT-based modelling and simulation of graphene nanoribbon FETs, with an emphasis on developing low-power, high-performance nano-electronic devices for advanced nanoscale applications. She holds a Master of Science (Physics) degree with specialization in Atomic and Molecular Physics and Electronics from M.D. University, Rohtak (2019), where she ranked 7th in the university. She has published seven research articles to date, including four international conference papers published in the IEEE xplore proceedings and three articles in SCIE-indexed international journals. She is also a student member of IEEE.

Publication Details

1. **Anshul** and Chaujar, R. (2024). Semi-empirical DFT based investigation of electronic and quantum transport properties of novel GS-AGNR (N) FET. *IEEE Transactions on Nanotechnology*, 23, 400–407. **Impact Factor: 2.5**

ANU

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Anu completed her Ph.D. in Applied Physics at Delhi Technological University in 2024, specializing in rare-earth-doped phosphor materials for photonic applications. A recipient of CSIR JRF and SRF fellowships, she has published 28 SCI-indexed papers and presented at national and international conferences, winning awards including Best Student Paper (SPIE Optics, Prague) and Best Oral Presentation (ICAMS-2021). Her research interests include photonics, LEDs, lasers, optoelectronic devices, and optical thermometry.

Publication Details

1. **Anu**, Sheetal Kumari, Nisha Deopa and A S Rao (2024), Spectral studies of thermally stable Dy^{3+}/Sm^{3+} co-doped $Li_2Ba_5W_3O_{15}$ phosphors for warm white LEDs, *Journal of Physics D: Applied Physics, 57*, 315107 (14pp). **Impact Factor: 3.1.**
2. **Anu**, Seema, A. Kumar, Nisha Deopa, Mukesh K. Sahu, Aman Prasad, A.S. Rao (2024), A single phase $Li_2Ba_5W_3O_{15}:Dy^{3+}/Eu^{3+}$ phosphor for color tunable devices and non-contact optical thermometry, *Journal of Luminescence*, 269, 120444. **Impact Factor: 3.3.**

ASHOK KUMAR

Department of Applied Physics

Ashok Kumar is working as an Associate Professor in Physics at Atma Ram Sanatan Dharma College, University of Delhi. He is currently pursuing Ph.D. (Part Time) in Applied Physics at Delhi Technological University, under the able and joint supervision of Prof. Vinod Singh (Dept of Applied Physics, DTU) and Prof. Rajendra S. Dhaka (Dept of Physics, IIT Delhi). His research focuses on the "Physical Properties of Transition Metal Substituted Orthovanadates," a field that explores novel materials with potential applications in electronics, magnetism, and energy technologies.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Ashok Kumar**, Vikas N. Thakur, Ajay Kumar, Vinod Singh, Anita Dhaka, Rajendra S. Dhaka, (2024). Dielectric behavior and impedance spectroscopy of Niobium substituted Lanthanum based orthovanadates at high temperatures. *Ceramics International*, 50 (4), 6735-6744. **Impact Factor: 5.1**

BHARTI SINGH

Department of Applied Physics

Bharti Singh is an Assistant Professor of Applied Physics at Delhi Technological University since 2017. She previously worked as a postdoctoral fellow at the Max Planck Institute for Polymer Research, Germany, specializing in 2D materials and graphene. A recipient of several fellowships and research grants, including DST-Inspire and SERB-SURE, she earned her Ph.D. from IIT Delhi, receiving "Distinction in Doctoral Research." She has published extensively, authored book chapters, guided over 20 students, and currently supervises 5 Ph.D. scholars. Her research focuses on two-dimensional materials and heterostructures for energy harvesting applications.

AWARD SUMMARY

03 Commendable Research Award

Publication Details

1. Komal, K., Singh, M., **Singh, B.** (2024). A flexible memory device made of SnO_2-hBN nanocomposite exhibits stable resistive switching application. *Journal of Materials Science*, 59, 13508–13531. **Impact Factor: 3.9**
2. Komal, K., Singh, M., & Singh, B. (2024). Effect of rGO weight percentage on structural, optical, and electrical properties of rGO-SnO_2 nanocomposite for resistive memory device applications. *Materials Science and Engineering: B, 303*, 117274. **Impact Factor: 4.6**
3. Singh, V., Rana, S.' Bokolia, R., Panwar, A. K., Meena, R., & **Singh, B.** (2024). Electrospun PVDF-$MoSe_2$ nanofibers based hybrid triboelectric nanogenerator for self-powered water splitting system. *Journal of Alloys and Compounds*, 978, 173416. **Impact Factor: 6.3**

BINEET KUMAR

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Bineet Kumar is PhD research scholar (Part time) in Department of Applied Physics, Delhi Technological University (DTU), Delhi. He is presently working as Senior Assistant Professor in Department of Physics at S. D College, Kaler (MU) Bihar. Prior to join S D college in 2017, he has worked as Assistant Professor in Department of Physics, Acharya Narendra Dev College, University of Delhi, Delhi during 2009 to 2017. He received MSc degree in Physics from University Department of Physics, TMBU, Bhagalpur, Bihar. He has published two research papers in international repute journal during PhD work. Before that two research papers are also to his credit. His research area is Multiferroic Materials.

Publication Details

1. **Kumar, B.,** Pradhan, L.K., Kumar, N., Panwar, A.K., Kar, M. (2024) Study on Multiferroic Properties of (0.5) Bi0.5Na0.5TiO3-(0.5) LaFeO3 Particulate Composite, *Journal of Superconductivity and Novel Magnetism*. **Impact factor: 1.7**

DEEPAK GARG

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Deepak Garg received his B.Sc. (Hons.) degree in Physics from Ramjas College, University of Delhi, India, in 2021, and his M.Sc. degree in Physics from Delhi Technological University (DTU), New Delhi, India, in 2024. He is currently pursuing a Ph.D. in Physics under the supervision of Dr. Ajeet Kumar in the Department of Applied Physics at DTU (formerly Delhi College of Engineering). His research focuses on photonic waveguides and specialty optical fibers, with an emphasis on theoretical modelling and computational analysis for applications in nonlinear optics and optical sensing technologies. He is a student member of Optica (formerly OSA) and SPIE.

Publication Details

1. **Garg, D.**, Khamaru, A., & Kumar, A. (2024), Ge-As-Se-Te chalcogenide based rib-waveguide for highly coherent onchip mid-infrared supercontinuum generation: design and analysis, *Optical and Quantum Electronics*, 56, 1643, **Impact Factor: 4.0**
2. **Garg, D.** & Kumar, A. (2024), CMOS compatible TeO2—coated Si3N4 inverse parabolic rib waveguide for on-chip supercontinuum generation and high resolution OCT, *Optical and Quantum Electronics*, 56, 1904, **Impact Factor: 4.0**
3. **Garg, D.**, Khamaru A., & Kumar, A. (2024). Supercontinuum generation in Ga-Sb-S chalcogenide-based PCF using optofluidic approach. *Microwave and Optical Technology Letters*, 66, 9, e34316. **Impact Factor: 1.2**

DEEPTI

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Deepti is a postgraduate in Applied Physics from Delhi Technological University (DTU) with a specialization in the structural and photoluminescence properties of rare–earth–doped phosphors. She has completed her M.Sc. dissertation under the guidance of Prof. A. S. Rao, focusing on advanced material characterization and optical analysis for lighting and display applications. Her work combined structural analysis techniques with photoluminescence studies to evaluate material efficiency, stability, and performance. She is deeply interested in materials science, optics, and photonics, and she is passionate about applying her expertise to develop sustainable, high-performance materials. Her goal is to make meaningful contributions to both academic research and industrial innovations in advanced functional materials.

Publication Details

1. **Deepti,** Sandip Maurya, Sheetal Kumari, Pooja Rohilla, Aman Prasad, & A. S. Rao. (2024). Dy^{3+} doped $KCa(PO_3)_3$ phosphor for white light generation: Structural and luminescent studies. *Physica Scripta*, 99 (6), 065573. **Impact Factor: 2.6.**

DESHRAJ MEENA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Deshraj Meena has been serving as an Assistant Professor in the Department of Applied Physics since 10th February 2017. He earned his M.Sc. and Ph.D. in Physics from IIT Delhi, receiving a Merit-Cum-Means scholarship during his master's program. He has supervised over 30 B.Tech and 6 M.Sc. projects and is currently guiding 4 Ph.D. scholars. His research focuses on experimental condensed matter physics, including the synthesis of metal oxide nanostructures and nanocomposites for applications in gas sensing, dye degradation, and green hydrogen generation. He also works on fabricating PVDF-based flexible thin films and oxide/polymer nanocomposites for advanced dielectric, energy storage, and thermoelectric applications, particularly in wearable self-powered devices.

Publication Details

1. **Meena**, D., Jain, M., Bhatnagar, M.C. (2024). Resistive gas sensors based on nanostructured ternary metal oxide: a review. *J. Mater. Sci. 59*, 12177–12218. **Impact Factor: 3.9**

DRISHTI SINGH

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Drishti Singh Tomer has received her Bachelors degree in Physical Sciences from Maiteryi college, University of Delhi, New Delhi in 2014 and her Masters degree in Physics from D.C.R.U.S.T., Murthal, Haryana in 2017. She is currently doing her Ph.D. under the supervision of Dr. Ajeet Kumar (Associate Professor) in the Department of Applied Physics at Delhi Technological University (formerly Delhi College of Engineering), New Delhi, India. She has authored or co-authored around 9 papers in reputed international journals and conferences. Her current research focuses on investigating on the modeling and design of specialty optical fibers and waveguides for supercontinuum generation. These speciality optical fibers and waveguides finds applications in various fields like biomedical, military and sensing technologies. She is a student member of SPIE and Optica.

Publication Details

1. **Tomer, D.S.**, & Kumar, A. (2024). Design and numerical modeling of chalcogenide parabolic-core waveguide for on-chip supercontinuum generation extending from near-IR region to mid-IR region", *Microwave and Optical Technology Letters*, 66(3), p.e34105. **(Impact Factor: 1.2).**

HEMANT K. ARORA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Hemant K. Arora, hold a B.Tech in Electronics and Communication Engineering and M.Tech in Nanoscience and Technology with expertise in material synthesis and advanced characterization. My research interests include gas sensing, green energy harvesting using Hydroelectric Cells, and hydrogen production, with a strong focus on developing sustainable energy materials. With over nine years of techno-commercial experience, I specialize in bridging scientific innovation with industrial applications, enabling practical deployment of advanced technologies. I have worked extensively with nanomaterials, device fabrication, and performance optimization. Passionate about sustainability, I aim to contribute toward impactful solutions in renewable energy, hydrogen production, and next-generation sensor technologies, while fostering collaborations that merge science with real-world applicability.

Publication Details

1. **Hemant K. Arora**, Nikita Jain, Sunil Kumar, and Nitin K. Puri (2024), Vertically Aligned 2D Tin Sulfide (SnS) Nanoplates for Selective Detection of Ethanol Gas at Room Temperature, *Semiconductor Science and Technology* 39, no. 10 (2024): 105002. **Impact Factor: 2.1**

INDRAJEET MAURYA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Indrajeet Maurya is a full-time research scholar in the Department of Applied Physics, Delhi Technological University. He has completed his graduation (B.Sc.) from the University of Allahabad (2012-2015), and post-graduation (M.Sc.) specialized in advanced nuclear and particle physics from the Department of Physics, University of Allahabad (2015-2017). He qualified for CSIR-NET in December 2018. He completed a CSIR project (19/07/2019 to 10/01/2021) on multiferroic material in the Department of Physics, ARSD College, University of Delhi. Currently, his thesis focuses on the wavelength-dependent multicolor emitting rare-earth activated tungstate material with various micro/nanomaterials synthesis routes, and with different characterization techniques to utilize these in the real world, like photonic devices, anti-counterfeiting applications, FIR sensing, and solar cells in the Luminescent Material Research Lab (LMRL), Department of Applied Physics, Delhi Technological University.

Publication Details

1. Indrajeet Maurya, M. Jayasimhadri (2024). Structural and spectroscopic features of single-phase Dy^{3+} activated $BiYWO_6$ phosphor for luminescent device applications" *Applied Physics A* 130, 748. **Impact Factor: 2.5**

JYOTI

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Jyoti is a senior research fellow in the Department of Applied Physics at Delhi Technological University (DTU). Her research work focuses on Plasma Physics, particularly Non-Linear Wave phenomena. Whistler mode turbulence, and Magnetic Reconnection. She has published several papers contributing to the understanding of space and laboratory plasma dynamics. She has authored eight papers in various reputed SCI-Indexed journals.

Publication Details

1. **Jyoti**, Suresh C. Sharma, and R. P. Sharma, (2024), Coherent structures of Beam-driven whistler mode in the presence of magnetic islands in magnetopause, *Physica Scripta* 99 (2024) 035610. **Impact Factor: 2.6**
2. **Jyoti**, Suresh C. Sharma, and R. P. Sharma, (2024), Nonlinear propagation of Whistler-mode in the presence of Magnetic Islands in the Magnetopause", *The European Physical Journal Plus* 139, 270. **Impact Factor: 2.9**

KAJAL VERMA

Department of Applied Physics

Kajal Verma is a Ph.D. scholar in Applied Physics at Delhi Technological University, focusing on modeling and simulation of advanced semiconductor devices, including multigate FETs and ferroelectric materials. A CSIR-SRF fellow, she holds M.Sc. and B.Sc. (Hons.) degrees in Physics from the University of Delhi, has qualified CSIR-UGC NET (twice) and GATE, and has published six SCI/SCIE papers and presented at international conferences.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Verma, K.**, & Chaujar, R. (2024). Optimization and analysis of Si/SiGe strained vertically stacked heterostructure on insulator FeFinFET for high performance analog and RF applications. *Physica Scripta, 99*(11), 115960. **Impact Factor: 2.6**

KANIKA SHARMA

Department of Applied Physics

Kanika Sharma is a Ph.D. scholar in Applied Physics at Delhi Technological University, working under Prof. Nitin K. Puri and Dr. Bharti Singh. Her research focuses on nanostructure engineering and two-dimensional materials for nano-biosensing and point-of-care diagnostic devices. With expertise in hydrothermal synthesis, chemical functionalization, and hybrid composites, she has published 7 papers with 50 citations and is advancing materials-based solutions for healthcare applications.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Sharma, K.**, Puri, N. K., & Singh, B. (2024). Fabrication of rGO-decorated hBNNS hybrid nanocomposite via organic–inorganic interfacial chemistry for enhanced electrocatalytic detection of carcinoembryonic antigen. *Analytical and Bioanalytical Chemistry, 416*(21), 4789-4805. **Impact factor: 3.8**

KOMAL VERMA

Department of Applied Physics

Komal Verma earned her B.Sc. (Hons.) and M.Sc. in Physics from the University of Delhi and is currently pursuing a Ph.D. in Applied Physics at Delhi Technological University. She has published five papers in reputed journals, received three Best Oral Presentation Awards, and focuses on developing flexible generators using KNN ceramics and polymers for energy harvesting applications.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Verma, K.**, Sharma, R., (2024), Development of KNNLTS-PVDF-based flexible piezoelectric generator for energy-harvesting application, *Bulletin of Materials Science, 47*: 38, **Impact Factor: 2.1**

KM. KOMAL

Department of Applied Physics

Km. Komal is an Assistant Professor (OCFD) at Gautam Buddha University, Greater Noida. She earned her Ph.D. in Applied Physics from Delhi Technological University in 2024, focusing on metal oxide–2D material composites for memory devices and photocatalysis. A CSIR-NET JRF and SRF awardee, she holds an M.Sc. from JNU and has received DTU's Commendable Research Award (2023, 2024) with several conference presentations to her credit.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Km. Komal**, M. Singh, B. Singh, (2023), Flexible SnO2-MoS2 based memristive device exhibiting stable and enhanced memory phenomenon, *"Journal of Physics D: Applied Physics", 57*, 105107. **Impact Factor: 3.2.**

JAYASIMHADRI MUAL

Department of Applied Physics

Jayasimhadri Mula is an Associate Professor in the Department of Applied Physics at Delhi Technological University, with over 20 years of teaching and research experience. He earned his M.Sc. and Ph.D. from Sri Venkateswara University, Tirupati, and pursued postdoctoral research in South Korea at Pohang University of Science and Technology and Changwon National University. Recognized among the world's Top 2% Scientists by Stanford University for six consecutive years (2020–2025), he has received numerous awards, including the SERB-DST Young Scientist Award, Brain Korea Fellowship, and DTU's Commendable Research Award for seven consecutive years. Dr. Mula has supervised 9 PhD scholars, led sponsored projects worth over INR 50 lakhs, and published more than 150 papers in reputed international journals. His research focuses on optical/fluorescent spectroscopy and rare-earth-doped materials for optoelectronic and luminescent applications.

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

03 Commendable Research Award

Publication Details

1. Vikas Sangwan, **M. Jayasimhadri**, D. Haranath. (2024). Colour tunable and warm white light emitting thermally stable Dy3+/Sm3+ co-activated tungstate-tellurite glasses for photonic applications. *Journal of Luminescence, 266,* 120276. **Impact Factor: 3.6**
2. Indrajeet Maurya, **M. Jayasimhadri**. (2024). Comprehensive study on thermal, structural, and luminescent properties of BiYWO6:Eu3+ phosphors synthesized by various methods. *Journal of Materials Science: Materials in Electronics, 35*, 2106. **Impact Factor: 2.8**
3. Vedika Dubey, Vikas Sangwan, Indrajeet Maurya, Tannavi, **M. Jayasimhadri**. (2024). Investigation of structural and luminescent aspects of Sm3+ activated yittrium niobium titanate phosphor for optoelectronic applications. *Journal of Electronic Materials, 53*, 7967-7978. **Impact Factor: 2.5**

MEGHA NARWAN

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Megha Narwan is a researcher in materials science and engineering with a Ph.D. in Applied Physics from Delhi Technological University. She holds a B.Tech. in Engineering Physics (DTU) and an M.Tech. in Nanoscience & Technology (GGSIPU). Her work focuses on nanomaterials, ceramics, and polymer composites for energy harvesting and electronics, with several conference presentations and journal contributions. Alongside her research, she has actively engaged in teaching, mentoring, and collaborative projects, reflecting her dedication to both knowledge creation and dissemination. With her strong technical expertise, Megha continues to explore innovative material systems with the aim of developing sustainable solutions for modern technological challenges.

Publication Details

1. **Narwan M**, Banwal A, Sharma R, Bokolia R. (2024) "Non-invasive thermal sensing and improved recoverable energy storage density of $Bi_{0.5}Na_{0.5}TiO_3$: Er^{3+} doped multifunctional ferroelectric ceramic", *Journal of Luminescence 265*, 120236. **Impact Factor: 3.28**

MOHAN SINGH MEHATA

Department of Applied Physics

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

02 Innovation Award

Mohan Singh Mehata, an Associate Professor of Engineering Physics, earned his Ph.D. from Kumaun University (1995–2002). He has been recognized with several prestigious fellowships and awards throughout his career, including a research fellowship from Michigan Technological University, USA (2003), the DST Young Scientist Fellowship (2004), and postdoctoral fellowships at Hokkaido University, Japan (2004 & 2005). He was also awarded the Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellowship (2007–2009) and served as a Research Associate at Carnegie Mellon University, USA (2009–2010). Dr. Mehata has held visiting Professorships at the Chinese Academy of Sciences (CAS), China (2014 & 2015), and at National Chiao Tung University, Taiwan (2019). Since 2018, he has been consistently honoured with the Research Excellence Award at Delhi Technological University (DTU), along with Silver Citation and Innovation Research Awards. With over 140 publications in peer-reviewed journals and conference proceedings, including 10 as a sole author and three in journals of the Nature Publishing Group. He is also the principal inventor on four granted patents. Dr. Mehata has supervised 9 Ph.D. scholars and 41 Master's students. His research initiatives have attracted over - 2 crore in funding, supporting five major projects from DST (2004–2007, 2012–2017), DAE-BRNS (2012–2016), DST-RFBR (2017–2019) and SERB-DST (2016–2020). Dr. Mehata has delivered over 41 invited talks worldwide and regularly participates in international conferences and symposiums. He is a screening committee member for the MEXT Fellowship (Govt. of Japan) and a jury member/reviewer for the INSPIRE-MANAK Award program under the National Innovation Foundation, Govt. of India. His current research focuses on the synthesis and application of semiconductor and metal nanoparticles, quantum dots, and two-dimensional (2D) materials. His work aims to advance their utility in environmental applications, particularly as optical sensors and photocatalysts, and in optoelectronic devices, including quantum dot light-emitting diodes (QLEDs).

MUKHTIYAR SINGH

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Mukhtiyar Singh is an Assistant Professor in the Department of Applied Physics at Delhi Technological University, specializing in condensed matter physics and computational materials science. His research focuses on 2D materials, spintronics, superconductivity, topological phases, and AI-assisted discovery of novel materials. He has published 55 SCI-indexed papers in reputed international journals and contributed to conferences and book chapters. Actively involved in mentoring, he has supervised 4 PhD scholars, 15 M.Sc. dissertations, and several B.Tech. projects. Dr. Singh has successfully completed a UGC-funded project and is currently leading an ANRF-sponsored project worth ₹28 lakhs, along with an equipment grant from DTU. His work advances knowledge in quantum materials, energy harvesting, and next-generation computational approaches.

Publication Details

1. Sangeeta and **Singh M.** (2024). Computational study of the thermoelectric properties and lattice dynamics of Li_2MN_2 (M = Zr or Hf). *Mater. Res. Bull., 172,* 112650. **Impact Factor: 5.7**
2. Kumar R. and **Singh M.** (2024). Topological phase transition and tunable surface states in YBi. *J. Phys.: Condens. Matter 36*, 345601. **Impact Factor: 2.6**
3. Mathew S.S. Sangeeta, Kumar R. **Singh M.**, K. Kashyap M.K. (2024). Optimizing carrier concentration for enhanced thermoelectric performance in $AgSbS_2$ monolayer, *Ionics 30*, 8647. **Impact Factor: 2.6**

NITIN K. PURI

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Nitin Kumar Puri is a Professor of Engineering Physics in the Department of Applied Physics at Delhi Technological University (DTU), where he has been associated for over 15 years and also served as Associate Dean of Outreach and Extension Activities and Chairperson of NSS. With more than 20 years of teaching and research experience, he earned his Ph.D. in Experimental Atomic Physics from Panjab University, Chandigarh, and has worked at IUAC Delhi, IOP Bhubaneswar, HongHua Company Ltd. (China), and state laboratories in the USA. He has successfully executed funded projects worth nearly -1 crore from SERB-DST, BRNS, and UGC-DAE, Govt. of India. Prof. Puri has guided 10 Ph.D. scholars, 37 M.Tech., and 10 M.Sc. students, and is currently supervising 8 Ph.D. candidates. He has published more than 150 papers, delivered invited talks worldwide, and filed a patent on an AI-based portable cancer detection device. Recognized with several Research Excellence Awards at DTU (2018–2024), he received the Gurukul Academy Award 2022 for Teaching and Research Excellence and the Jharkhand Excellence Award 2025 for digital literacy initiatives. In 2024, he was appointed as Executive Director (ED) in the Ministry of Electronics and Information Technology (MeitY), GoI, and represented India at IAEA, Vienna, as Vice-Chairman and Chairman of Working Group-III, INSEN. His current research interests include accelerator physics, 2D nanomaterial-based devices, and energy harvesting.

Publication Details

1. Jain, N., & **Puri, N. K.** (2024). A proposed device based on $MoSe_2$-ZnO heterojunctions on rGO for enhanced ethanol gas sensing performances at room temperature. *Nanotechnology, 35*(40), 405502. **Impact factor: 2.9**
2. Kumar, Sunil, and **Nitin K. Puri.** (2024). Highly selective sustainable ethanol gas sensor based on p-p heterojunction of SnS/$MoSe_2$ nanocomposite at room temperature. *Materials Chemistry and Physics, 326*, 129802. **Impact factor: 4.3**
3. Aggarwal, A., Seabroke, G. M., & **Puri, N. K.** (2024). Feasibility of gallium nitride for astronomical charge-coupled devices. *Journal of Electronic Materials, 53*(10), 6456-6462. **Impact factor: 2.2**

PAWAN KUMAR TYAGI

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Pawan Kumar Tyagi is an Associate Professor in the Department of Applied Physics at Delhi Technological University. From September 2018 to August 2020, he also worked as an Associate Professor at Central University of Haryana. After that, he spent a year working as a research scientist in Mumbai at Plamsatech LLP. Prior to joining DTU, Dr. Pawan Tyagi worked as a Senior Postdoctoral Fellow at the Institute of Physics in Bhubaneswar, India, the IPCMS in France, and the Department of Electrical Engineering at Korea University in South Korea. He earned his B.Sc., M.Sc., and Ph.D. degrees from Allahabad University, Banaras Hindu University, and Indian Institute of Technology Mumbai, respectively. His research activity is mainly focused towards the development of multifunctional applications of carbon nanomaterials such as in nanoelectronics and photovoltaic. He has published one patent, one invited review articles and 80 peer reviewed articles and 10 conference proceeding articles. At numerous national and international conferences, he has given lectures and chaired in sessions. He is involved in five projects with a total budget of $1 million, with support from DBT, UGC-IUAC, and other organisations. 16 M.Tech. Students and 6 PhD. students have been under his guidance.

Publication Details

1. Naima, **Pawan K Tyagi**, Vinod Singh (2024), Potential application of p-type diamane as back surface field layer in silicon-based heterojunction solar cells, *Semiconductor Science and Technology 39* (12), 125021. **Impact Factor: 2.1**
2. Naima, **Pawan K Tyagi**, V Singh (2024), Doped diamane: An efficient electron/hole collection layer in HIT solar cell, *Materials Science and Engineering: B 310*, 117754. **Impact Factor: 4.6**

POOJA ROHILLA

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Pooja Rohilla have completed her doctoral degree in the Department of Applied Physics at Delhi Technological University (DTU), Delhi, India. She graduated from Maharishi Dayanand University (MDU), Rohtak, and her Master's degree from DCRUST, Murthal. She has got DST- INSPIRE scholarship for her bachelor's and master's degrees. Her area of interest includes rare earth-doped phosphors and glasses for photonic applications. She has published 20 research papers and attended various national and international conferences related to her research.

Publication Details

1. **Pooja Rohilla,** Aman Prasad, A. S. Rao, (2024). Structural and Luminescence studies on Bi^{3+} activated Ba_3MoTiO_8 phosphor for near UV pumped w-LED applications. *International Journal of Applied Ceramic Technology, 21* (2), 1208-1219. **Impact Factor: 2.3**
2. **Pooja Rohilla**, Kumari Sheetal, Ravita, Samarthya Diwakar, Rupesh A. Talewar, Ankur Shandilya, Kartika Maheshwari, M. Venkateswarlu, Aman Prasad, A.S. Rao, (2024). Colour tuning in Sm^{3+} activated and Sm^{3+}/Eu^{3+} co-activated $SrBi_4Ti_4O_{15}$ phosphors for w-LED applications. *Journal of Molecular Structure, 1312*, 138521. **Impact Factor: 4.7**

RAHUL KUNDARA

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Rahul Kundara is a research scholar in Department of Applied Physics, Delhi Technological University (DTU) working under the supervision of Dr. Sarita Baghel zworking on Semiconductor materials such as Perovskites and Double perovskites for their application in solar cells. The solar device structure optimized by using SCAPS-1D simulation software. The effect of different parameters (thickness of absorber layer, operating temperature and defect density etc.) on the device efficiency also analysed. The material synthesis done by using low-cost solution-based process and device fabrication incorporates Spin-coater and Doctor blade techniques for uniform thin film coatings.

Publication Details

1. **Kundara, R.**, & Baghel, S. (2024). Performance analysis of $LaFeO_3$ perovskite solar cells: a theoretical and experimental study. *Solid State Communications, 389*, 115590. **Impact Factor: 2.4**
2. **Kundara, R.**, & Baghel, S. (2024). Predictive design of $KSnI_3$-based perovskite solar cells using SCAPS and machine learning model. *Materials Science and Engineering: B, 307*, 117536. **Impact Factor: 4.6**

RAJESH KUMAR

Department of Applied Physics

Rajesh Kumar is currently working as full time research scholar in the Department of Applied Physics, Delhi Technological University. He has passed his masters from Department of Physics, Kurukshetra University, Kurukshetra. His research interest is in first principle based thermoelectric and optical properties of oxide materials. He has authored fifteen papers in various reputed journals.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Rajesh Kumar**, Mukhtiyar Singh, Ankush Vij. (2024). Unraveling the effect of pressure on structural phase transition, electronic, and optical properties of Hf_1-xSiO_2 (x = 0, 0.03, 0.06,0.09): A first-principles investigation, *J. Phys. Chem. Solid. 185*, 111773. **Impact Factor: 4.9**

RASHI MANN

Department of Applied Physics

Rashi Mann received her B.Sc. degree in Physics from Kurukshetra University, Kurukshetra, India, in 2015 and her M.Sc. degree in Physics from Deenbandhu Chhotu Ram University of Science and Technology, Haryana, India, in 2017. She completed her Ph.D. degree with the Department of Applied Physics at Delhi Technological University (Formerly Delhi College of Engineering), New Delhi, India. She has authored or co-authored around 12 papers in different reputed international journals and conferences. She is currently investigating new ferroelectric materials that can further improve the performance of NCFET devices and the effects of various structural properties on NCFET's overall performance and its application. Her research interests include modeling and simulation study of nanoscale semiconductor devices and their ULSI switching applications. She is a student member of IEEE.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Mann, R.**, Chaujar, R. (2024) DFT-based Atomic Modeling and Temperature Analysis on the RF and VTC curve of high-k dielectric layer-assisted NCFET," *Physica Scripta vol. 99*, pp. 015029. **(Impact Factor: 2.6)**
2. **Mann, R.**, Chaujar, R. (2024). Self-Consistent LCAO Based DFT Analysis of High-k Spacers and its Assessment on Gate-Stacked NCFET for Improved Device-Circuit Performance," *Silicon*, pp. 5185-5197. **(Impact Factor: 2.8)**

R. K. SINHA

Department of Applied Physics

AWARD SUMMARY

Cumulative Citation Award (Gold)

Yearly Citation Award (Early Research Impact and Influence Award)

03 Commendable Research Award

R.K. Sinha obtained his M.Sc. (Physics) from IIT Kharagpur and Ph.D. (Fiber Optics and Optical Communication) from IIT Delhi, followed by postdoctoral research at Osaka and Kobe Universities, Japan, and IISc Bangalore. He has served at BITS Pilani, NIT Hamirpur, and DCE/DTU Delhi, where he established the TIFAC-CORE in Fiber Optics and launched new academic programs. He has published 400+ research papers, 14 books/book chapters, holds 6 patents, supervised 22 sponsored projects, and guided 22 Ph.D. theses in Optics and Photonics. A Fellow of SPIE, IETE, and OSI, he served as Director of CSIR-CSIO Chandigarh and Vice Chancellor of Gautam Buddha University. Mentored 39 technology developments. His awards include the CSIR Technology Award, Gold-Skoch for Defense Technology, Outstanding Contribution to National Development (IITD), and recognition as top 2% scientist globally in Optoelectronics and Photonics. A Fulbright Scholar, he also received fellowships from RAEng (UK), JSPS (Japan), and EPFL (Switzerland).

Publication Details

1. Varnam Sherawat, Renuka Bokolia and **Ravindra Kumar Sinha**, Pressure-dependent bandgap characteristics in photonic crystals with sensing applications, *Journal of Optics, Vol 26 (8)*, 2024. **Impact Factor: 2.5**
2. L Ahlawat, K Kishor, **R K Sinha**, Photonic spin Hall effect-based ultra-sensitive refractive index sensor for haemoglobin sensing applications, *Optics and Laser Technology, Vol 170*, 110183, 2024. **Impact Factor: 5.0**
3. Satya Pratap Singh, **Ravindra Kumar Sinha**, Umesh Tiwari, Flexible Metal-Dielectric metasurface for 3-Tesla MRI image enhancement, *Journal of Magnetism and Magnetic Materials, Vol 15*, 171650, 2024. **Impact Factor: 3.0**

RENUKA BOKOLIA

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Renuka Bokolia is an Assistant Professor in the Department of Applied Physics at Delhi Technological University (DTU), Delhi. She completed her B.Sc. (Hons.) in Physics from Kirori Mal College, University of Delhi, followed by an M.Sc. in Physics with specialization in Laser and Spectroscopy from the Department of Physics and Astrophysics, University of Delhi. She earned her Ph.D. in 2018 under the supervision of Prof. K. Sreenivas at the same department. Her research interests span upconversion photoluminescence phosphors, ferroelectric ceramics, multiferroics, and magnetic materials, with applications in bio-imaging, 3D displays, solid-state lasers, and luminescence thermometry. She has published 42 research papers in reputed international journals and conferences. Dr. Bokolia has guided numerous B.Tech, M.Tech, and M.Sc. students, successfully supervised one Ph.D. scholar, and is currently mentoring five more. She remains committed to advancing experimental research and material characterization.

Publication Details

1. Narwan M., Sharma R., **Bokolia R.** (2024). Optical temperature sensing and upconversion luminescence in Er^{3+}/Yb^{3+} co-doped BNT ferroelectric ceramic. *Applied Physics A.* 130, 854. **Impact Factor: 2.8**

2. Basith A., Singh S., Banwal A., Narwan M., Verma M., **Bokolia R.** (2024). Regulating novel tunable green to red upconversion luminescence in Er^{3+}/Yb^{3+} co-doped SrBi2Nb2O9 ferroelectric ceramic. *Ceramics International*. 50, (24) A, 52344-52355. **Impact Factor: 5.6**
3. Varshney M., Soni S., Banwal A., Narwan M., Verma M., **Bokolia R.** (2024). Effect of Er^{3+} ion incorporation on the structural, photoluminescence, and ferroelectric properties of $K_{0.5}Na_{0.5}NbO_3$ ceramic for optoelectronic applications. *Applied Physics A*. 130, 267. **Impact Factor: 2.8**

AWARD SUMMARY

03 Commendable Research Award

RICHA SHARMA

Department of Applied Physics

Richa Sharma is currently working as an Assistant Professor in the Department of Applied Physics at Delhi Technological University, Delhi, India. She received her B.Sc. Degree in Physics (Hons.) from Kalindi College, University of Delhi, and her M.Sc. Degree in Physics with a specialization in Electronics from the Department of Physics and Astrophysics, University of Delhi. She obtained her Ph.D. from the Department of Physics and Astrophysics, University of Delhi in the year 2016 under the guidance of Prof. R. P. Tandon. She has authored or co-authored around 10 research papers in several reputed international journals and conferences. Presently, she has been guiding three Ph.D. students and has guided several B. Tech, M. Tech, and M. Sc. Students for projects and dissertation work. Her research interests include the development and characterization of ferroelectric and piezoelectric ceramics, multiferroics, and piezoelectric materials for potential application in area of energy harvesting.

Publication Details

1. Kumar, A., **Sharma, R.**, (2024). Piezoelectric flexible generator based on Mn-doped ZnO/PVDF composite films for energy harvesting application. *Current Applied Physics*, 68, 159–168. **Impact Factor: 3.1**
2. Verma, K., Kumar, A., **Sharma, R.** (2024). Development of flexible piezoelectric nanogenerator based on PVDF/KNN/ZnO nanocomposite film for energy harvesting application. *Journal of Materials Science: Materials in Electronics*, 35 (26), 1732-. **Impact Factor: 2.8**
3. Verma, K., Kumar, A., **Sharma, R.** (2024). Fabrication of Lead-Free PVDF/KNNLTS/MWCNT Piezoelectric Nanogenerator: Role of MWCNT in the Piezoelectric Performance of Nanogenerator for Energy-Harvesting Application. *Journal of Electronic Materials,* 53 (11), 7574–7592. **Impact Factor: 2.5**

RINKU SHARMA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Rinku Sharma, currently serving as Dean (Academics, PG) at Delhi Technological University (DTU), is an accomplished researcher recognized for her contributions to atomic and plasma physics. Her research focuses on atomic structure calculations for multi-electron atoms and ions using Configuration Interaction techniques, with applications spanning astrophysics, plasma physics, and nuclear fusion reactors. She has made significant advances in the study of electron impact excitation, collision strengths, rate coefficients, and photoionization of complex atoms and ions. Prof. Rinku Sharma expertise further extends to plasma physics and its applications, nanotechnology, and terahertz (THz) radiation emission. Over the years, she has published extensively in leading international journals and presented her work at reputed conferences. Through her academic leadership and research excellence, Prof. Sharma has contributed immensely to advancing knowledge in fundamental and applied physics, inspiring scholars and promoting interdisciplinary scientific progress.

Publication Details

1. Priyanka and **Rinku Sharma** (2024), Thermodynamic properties of $In_xGa_{1-x}N$ double quantum wire in the presence of impurity and Rashba spin-orbit interaction, *Physica B: Condensed Matter, 691*, 416305. **Impact Factor: 2.8.**

RISHU CHAUJAR

Department of Applied Physics

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

03 Commendable Research Award

Rishu Chaujar is a Professor in Applied Physics and serves as Director of the Vinod Dham Centre of Excellence for Semiconductors and Microelectronics and Associate Dean (Academics-UG) at Delhi Technological University. Elected as the youngest NASI Fellow in 2024, she specializes in modeling and simulation of advanced semiconductor devices and solar cells. Her doctoral research involves modeling, design and simulation of Sub-100nm gate engineered Grooved Gate/ Concave MOSFET for RFIC design and wireless applications, FinFETs, Tunnel FETs, Nanowires, HEMT structures modeling for high performance sensing, biomedical and wireless applications; and Solar Cell Modeling and Design. She has authored over 370 papers, guided 13 Ph.D. scholars (11 ongoing), led major research projects, and received multiple awards, including the SERB-POWER Fellowship (2022–2025) and DTU's Premier and Commendable Research Awards, Cumulative Citation Award (Silver), and Early Research Impact & Influence Award. She has supervised several National and International research projects. She is a reviewer of various reputed international journals. She is a Fellow of IETE, Fellow of OSI and members of various international professional societies.

Publication Details

1. Rashi Mann and **Rishu Chaujar** (2024) DFT-based Atomic Calculation of Si-doped HfO2 and Effect of its Negative Capacitance on Analog/RF, and VTC Parameters of MOSFET, *Silicon,* 1237-1252.
2. Mekonnen Getnet and **Rishu Chaujar** (2024) Investigation of Gate-Stack Gate-All-Around Junctionless Nanowire Field Effect Transistor for Oxygen Gas Sensing, *Journal of Electronic Materials, 53*, 2191-2201.

3. Megha Sharma and **Rishu Chaujar** (2024) Device Optimization of T-shaped gate and polarized doped buffer engineered InAlN/GaN HEMT for improved RF/ microwave performance, *Arabian Journal for Science and Engineering, 49*, 9983–9994.

SAMRITI SHARMA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Samriti Sharma received her Ph.D. in Applied Physics from Delhi Technological University, New Delhi, India, in 2022. During her doctoral research, she designed and optimized a novel charge-plasma-based arsenide/antimonide tunneling-interfaced junctionless TFET using advanced TCAD simulations, addressing fundamental challenges of conventional Si-CMOS technology and paving the way for multifunctional device applications. Currently, she is engaged in exploring emerging channel materials to enhance the performance of next-generation nanoscale devices with potential applications spanning industry and biomedical domains. She has authored multiple research publications in reputed international journals and conference proceedings, including those published by Elsevier, Springer, Wiley, IOP Science, and IEEE Transactions.

Publication Details

1. **Sharma, S.**, Madan, J., & Chaujar, R. (2024). Exploring tunable arsenide/antimonide tunneling interfaced junctionless TFET for gas sensing applications. *Materials Science and Engineering: B, 305*, 117450. **Impact Factor: 4.6**

SANGEETA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Sangeeta is currently working as a full-time research scholar in the Department of Applied Physics, Delhi Technological University, Delhi. She has completed her Bachelor of Science and Master of Science in Physics with specialization in Condensed Matter Physics from Kurukshetra University, Kurukshetra, Haryana. She does research in Theoretical and Computational Condensed Matter Physics with a primary focus on understanding the thermoelectric properties of Zintl compounds, Heusler alloys, and some low-dimensional materials using first-principles calculations. She has published 10 research papers in the International reputed journals.

Publication Details

1. **Sangeeta**, Kumar R., Singh M. (2024). I*n-silico realization of YX (X = N, P, As) pnictide monolayers as highly efficient thermoelectric materials, Surface and Interfaces 55*, 105442. **Impact Factor: 6.3**

SHAURYA GUPTA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Shaurya Gupta is a B.Tech. graduate in Engineering Physics from Delhi Technological University (2022). He has conducted research at DTU's Biometrics Research Lab, focusing on human biometrics, including activity recognition, human segmentation, sentiment analysis, and pose estimation. Currently, he works as an AI Research Engineer at Hyperverge AI, where he develops models for visual anomaly detection, deepfake identification, and AI-generated content detection. Recently, he has begun exploring Large Vision-Language Models to enhance anomaly detection capabilities. His research interests also include diffusion models and autoregressive modeling, with a strong focus on advancing the intersection of computer vision and artificial intelligence.

Publication Details

1. **Gupta, S.**, Vishwakarma, D. K., & Puri, N. K. (2024). A human activity recognition framework in videos using segmented human subject focus. *The Visual Computer, 40* (12), 6983–6999. **Impact Factor: 2.9**

SHEETAL KUMARI

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Sheetal Kumari, Research Scholar in Department of Applied Physics, Delhi Technological University (DTU) working under the joint supervision of Prof. A. S. Rao and Prof. R. K. Sinha. I am working on the material science with the specialization structural and photoluminescence properties of rare earth doped phosphor materials in upconversion and downconversion for solid state lighting applications. The research aims to develop efficient phosphor materials for next generation solid state lighting, focusing on material synthesis, structural analysis and luminescence characterization to improve optical performance and energy efficiency.

Publication Details

1. **S Kumari**, AS Rao, RK Sinha (2024). Green Emission of Erbium Doped SYW Phosphors for Optical Thermometry And Solid-State Lighting, *ChemPhotoChem* 8 (6), e202300226, **Impact Factor: 3.0**
2. **S Kumari**, AS Rao, RK Sinha (2024). Investigations on photoluminescence and energy transfer studies of Sm^{3+} and Eu^{3+} ions doped $Sr_9Y_2W_4O_{24}$ red emitting phosphors with high color purity for w-LEDs. *Journal of Molecular Structure 1295, 136507, 307*, 117536. **Impact Factor: 4.7**
3. **S Kumari**, P Rohilla, A Prasad, A.S Rao, RK Sinha (2024), Structural characterization and luminescence characteristics of Dy^{3+} doped $Sr_9Y_2W_4O_{24}$ phosphor for application in white-LEDs, *Journal of Luminescence* 275, 120791. **Impact Factor: 3.6**

SHILPA RANA

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Shilpa Rana is a research scholar in the Department of Applied Physics at Delhi Technological University (DTU), working under the supervision of Dr. Bharti Singh. Her research is primarily focused on the development of polymer–carbon-based nanocomposite materials for energy harvesting applications. She is actively involved in the design, synthesis, and characterization of piezoelectric and triboelectric nanogenerators (PENGs and TENGs) aimed at converting ambient mechanical energy into electrical energy. Her work explores the potential of these flexible nanogenerators in a range of applications, including biomechanical energy harvesting from human motion and the development of self-powered devices. By incorporating advanced carbon-based nanomaterials into polymer matrices, she aims to enhance the electrical output and overall efficiency of these devices. Shilpa has contributed to several peer-reviewed publications and book chapters in the field of energy harvesting and nanomaterials. Her research bridges materials science and applied physics, with a strong emphasis on developing practical, scalable solutions for next-generation sustainable energy technologies.

Publication Details

1. **Rana, S.**, Singh, B. (2024) rGO-Embedded Polymer Nanocomposite Layer for Improved Performance of Triboelectric Nanogenerator. *Journal of Electronic Material. 53*, 6640–6649. **Impact Factor: 2.5**

SHIVANI SANGWAN

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Shivani Sangwan is a dedicated research scholar pursuing her PhD from the Department of Applied Physics, DTU, specializing in advanced composites and dielectric materials for flexible electronics. Her research focuses on PVDF-based nanocomposites reinforced with different nanofillers for future energy storage and harvesting applications. She aims to develop innovative fabrication techniques to optimize both dielectric and mechanical properties, contributing to next-generation sustainable technologies.

Publication Details

1. **Sangwan, S.**, Meena, R., Bokolia, R., Singh, V., & Meena, D. (2024). Exploration of structural and dielectric properties of orthorhombic Ta_2O_5 nanoplatelets towards the potential optoelectronic devices. *Materials Today Communications, 38*, 108468. **Impact Factor: 3.7**

SHRISTY MALIK

Department of Applied Physics

Shristy Malik earned her PhD in Atmospheric Science from Delhi Technological University in 2024. Her research explores the influence of solar activity on meteorological parameters and aerosol–climate interactions across the Indian region, with a focus on urban air pollution and atmospheric dynamics. She has contributed to several peer-reviewed publications and presented her work at leading national and international conferences. Recently, one of her research papers was selected for a prestigious award, recognizing the significance of her scientific contribution. Dr. Malik is committed to advancing research in climate change and atmospheric sciences and is actively pursuing opportunities for collaborative postdoctoral research.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Shristy Malik,** A.S. Rao, Surendra K. Dhaka, Ryoichi Imasu, H.Y. Chun (2024). Solar Cycle Influence on Wind, Temperature, and Surface Pressure During 1981–2021 Over Indian Region. *Journal of the Indian Society of Remote Sensing, 52* (4), 2389-2400. **Impact Factor:2.4**

SHWETA YADAV

Department of Applied Physics

Shweta Yadav holds a Master's degree in Physics from the University of Delhi and an M.Tech in Nanotechnology from NIT Kurukshetra, providing her with expertise spanning fundamental physics and advanced nanotechnology. As a dedicated faculty member at Bhagini Nivedita College, University of Delhi Ms. Yadav has been mentoring undergraduate physics students since 2012. Her commitment to academic excellence extends beyond the classroom through her active research as a part-time research scholar in the Department of Applied Physics at Delhi Technological University (DTU). Her research focuses on solid-state spectroscopy and photonics, cutting-edge fields with significant applications in modern technology and materials science.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Yadav, S.**, Rao, A. S., & Meena, D. (2024). Optical characteristics, Judd-Ofelt analysis of enhanced luminescence by flux in thermally stable, novel Eu3+- doped BaZr(PO4)2 phosphor for indoor lighting applications. *Physica B: Condensed Matter, 695* (September), 416522. https://doi.org/10.1016/j.physb.2024.416522 **Impact Factor: 2.8**

SUMANDEEP KAUR

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Sumandeep Kaur is an Assistant Professor of Physics at C M Science College, Lalit Narayan Mithila University, Darbhanga. She earned her Ph.D. in Applied Physics from Delhi Technological University in 2019, specializing in rare-earth phosphors for lighting and bio-photonic applications, and later served as a CSIR-Research Associate (2020–2023). With over 49 SCI-indexed publications, six Commendable Research Excellence Awards, and NET and GATE qualifications, she has established herself as a dedicated researcher and academic

Publication Details

1. **Sumandeep Kaur,** A.S. Rao, Simran Arora (2024). Comparative study of luminescence in alkali-metal-based yttrium fluoride nanophosphor for biophotonic applications, *International Journal of Applied Ceramic Technology, 21 (5)*, 3700-3712, https://ceramics.onlinelibrary.wiley.com/doi/abs/10.1111/ijac.14805, **Impact Factor: 1.8**
2. **Sumandeep Kaur**, Harpreet Kaur, A.S. Rao, G. Vijaya Prakash (2024). A review on photoluminescence phosphors for biomedical, temperature sensing, photovoltaic cell, anti-counterfeiting and white LED applications, *Physica B: Condensed Matter, 690*, 416224. **Impact Factor: 2.8**
3. **Sumandeep Kaur**, Harpreet Kaur, A.S. Rao (2024). UV and blue excited tunable emission of thermally stable Bi3+ sensitized Eu3+ doped calcium aluminozincate phosphor for photonic applications, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 305*, 123524, **Impact Factor: 4.3**

SURESH C. SHARMA

Department of Applied Physics

AWARD SUMMARY

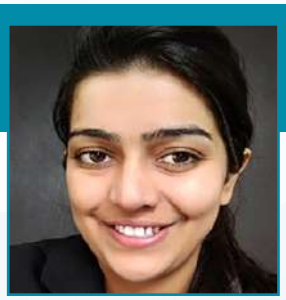
02 Commendable Research Award

Suresh C. Sharma has been working as Professor with the Department of Applied Physics, Delhi Technological University (DTU), Delhi, India since June 13, 2012 and also held administrative responsibility of Dean (Acad-PG) from September 2, 2019 to August 31, 2022 & HoD (Applied Physics) from August 1, 2012 to September 30, 2018. He was the Chairman, Department Research Committee (DRCs) (Applied Physics), DTU from November 29, 2017 to August 15, 2023. Prior to joining DTU, he has worked as Professor, Department of Physics, MAIT (GGS Indraprastha University, Delhi), Delhi from November 1, 2009 to June 12, 2012. He was awarded the Young Scientist project as a Principal Investigator by the Department of Science and Technology (DST), Govt. of India for 2 years (1997-99). He was a Monbusho Postdoctoral Fellow under Japanese Govt. fellowship, Department of Physics, Faculty of Science, Ehime University, Matsuyama, Japan from October 1997 to March 1999. In addition, he has been a JSPS (Invitation) Postdoctoral Fellow and visiting researcher from May 2004 to October 2005 with Centre for Atomic and Molecular Technologies (CAMT), Osaka University, Japan. Also, he was awarded Senior Research Associate under the Scientist's Pool Scheme by CSIR, Govt. of India for 3 years (1999-2002). He has guided 20 Ph.D. students and several M. Tech & B. Tech students. He has published 226 research papers in Journals of International & National repute and Proceedings of International & National Conferences. He has worked on several research projects in India and abroad. He has delivered several invited and oral talks in India and abroad. He was awarded commendable Research Award for

Excellence in Research by DTU, Delhi for 7 consecutive years i.e., March 2018, March 2019, March 2020, Feb 2021, March 2022, April 2023 and September 5, 2024. Prof. Sharma is a Member of the American Physical Society (APS), USA; Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), USA and many more.

Publication Details

1. Suraj Kumar Singh, Ishu Sharma, and **Suresh C. Sharma**, Plasma Assisted Carbon Nanotube for Solar cell application, *Journal of Computational Electronics 23*(4) 884-898 (2024) (IF 2.1)
2. Jyoti, **Suresh. C. Sharma**, R.P. Sharma, Localization of Beam Generated whistler wave and turbulence generation in reconnection region of magnetopause, Phys. *Plasmas 31*, 022902 (2024) (IF 2.023).



VERTIKA SIWACH

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Vertika Siwach is currently working as a full-time research scholar in the Department of Applied Physics at Delhi Technological University (DTU), Delhi. She completed her graduation (B.Sc. Physics Hons.) and post-graduation (M.Sc.) in Physics from University of Delhi (DU), Delhi in 2016 and 2021. Her research focuses on the development of advanced materials for photonic and optoelectronic applications, with particular interest in rare-earth-doped glass and glass ceramics. She explores their structural and optical properties to enhance light emission, energy conversion, and material stability for next-generation photonic devices.at Luminescent Material Research Lab (LMRL), DTU. She has published 01 research paper in different reputed international journals and attended various national and international conferences related to her research work.

Publication Details

1. **V. Siwach**, M. Jayasimhadri. (2024). “Warm white light emitting thermally stable Dy3+ activated antimony fluoroborate glasses for n-UV based white LEDs”. *Phys. Scr.*, Vol. 99, pp. 105009. **Impact Factor: 2.6**

VIKAS SANGWAN

Department of Applied Physics

AWARD SUMMARY

02 Commendable Research Award

Vikas Sangwan has served as a full-time Research Scholar in the Department of Applied Physics at Delhi Technological University (DTU), Delhi. His research thesis focused on the "Preparation and Spectroscopic Investigations of Rare Earth Ions Doped Tungstate-Tellurite Glasses for Photonic Applications." Currently, he is engaged in advanced research on rare-earth-activated inorganic luminescent materials, with a particular emphasis on solid-state lighting technologies, at the Luminescent Material Research Lab (LMRL), DTU. Dr. Vikas has published multiple research papers in reputed international journals and has actively participated in several national and international conferences aligned with his field of study.

Publication Details

1. **Vikas**, Mula Jayasimhadri and Divi Haranath. (2024). Color-tunable features in thermally stable Tb3+/Eu3+ co-doped telluro tungstate glasses for photonic applications. *Journal of Physics D: Applied Physics*, Vol. 57(19), pp. 195301. **Impact Factor: 3.2**
2. **Vikas**, Mula Jayasimhadri and Divi Haranath. (2024). Optical and luminescent characteristics of thermally stable new Eu3+ doped potassium tungstate tellurite glasses for epoxy-free luminescent devices. *Current Applied Physics*, Vol. 58, pp. 11-20. **Impact Factor: 3.1**

VINOD SINGH

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Vinod Singh is a Professor and Head of Department of Applied Physics, Delhi Technological University, Delhi. He is also the Convener of Institution's Innovation Council (IIC), DTU. He joined DCE as a Lecturer in Physics in 2003 at the age of 23 years and has the teaching, research and academic administrative experience of more than 22 years. He received his Ph.D. degree from Indian Institute of Technology (IIT) Delhi. He was honored with the University Gold Medal in both the B.Sc. and M.Sc. (Physics) and also honored with Bhamashah Award (Gold Medal), presented by Sir V.S. Naipaul, Nobel Laureate. He is an active researcher who has guided 4 Ph.D. thesis and currently supervising 14 Ph.D. scholars and has published a patent (granted) and more than 50 research publications. He has been awarded five-time the Research Excellence Awards for excellence in research by DTU. He has delivered more than 25 invited talks in international and national academic events. He is the Principal Investigator of the sponsored research projects. He was the convener of two International Conferences CAMNP-2019 and ICAMNOP-2023 and is the editor of Springer's proceedings in physics. His broad areas of research include material science, sensors, 2D materials, functional nanomaterials and their size dependent properties and applications.

Publication Details

1. Priya Pradeep Kumar, **Vinod Singh** (2024). Enhanced dual gas sensing performance of MoS2/MoO3 nanostructures for NH3 and NO2 detection. *Ceramics International,* Volume 50, Issue 12, Pages 21978-21988. **Impact Factor: 5.6**

YASH PATHAK

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Yash Pathak received his B.Sc. degree in Physics (Hons.) from Dr. Bhimrao Ambedkar University (DBRAU), Agra, Uttar Pradesh, India, in 2017, and his M.Sc. degree in Physics from the same university in 2019. He has completed his Ph.D. in the Department of Applied Physics at Delhi Technological University (formerly Delhi College of Engineering), New Delhi, India. He has authored or co-authored around 12 papers in reputed international journals and conferences. His current research focuses on investigating novel channel materials to enhance the performance of nanoscale devices, as well as analyzing the effects of various structural parameters on the performance of Negative Capacitance FETs (NCFETs). His work also involves applications of machine learning, density functional theory (DFT), and biosensing. His broader research interests include modeling and simulation of nanoscale semiconductor devices, experimental circuit design, ultra-large-scale integration (ULSI) switching applications, DFT, machine learning, and sensing technologies. He is a student member of IEEE.

Publication Details

1. **Pathak, Y.**, Mishra, P., Sharma, M., Solanki, S., Agarwal, V. V., Chaujar, R., & Malhotra, B. D. (2024). Experimental circuit design and TCAD analysis of ion sensitive field effect transistor (ISFET) for pH sensing. *Materials Science and Engineering: B*, 299, 116951. **(Impact Factor: 4.6)**

YASHIKA SARASWAT

Department of Applied Physics

AWARD SUMMARY

01 Commendable Research Award

Yashika Saraswat, a postgraduate in Applied Physics from Delhi Technological University (DTU) with a focus on the structural and photoluminescence features of rare-earth-doped phosphors. My M.Sc. dissertation, which focused on advanced material characterization and optical analysis for lighting and display applications, was finished under the supervision of Prof. A. S. Rao. My investigation assessed the performance, stability, and efficiency of materials by combining photoluminescence experiments with structural analysis techniques. I gained excellent proficiency in experimental design, data interpretation, and technical reporting as a result of this study. Materials science, optics, and photonics are fields that really fascinate me, and I am enthusiastic about using my knowledge to create high-performance, sustainable materials. My objective is to significantly promote both industry and scholarly advancements in advanced functional materials.

Publication Details

1. **Yashika Saraswat**, Chitrangi Bhardwaj, Sheetal Kumari, Aman Prasad, & A. S. Rao. (2024). Study of Structural and Spectroscopic properties of Dy^{3+} ions doped potassium magnesium molybdate single phase phosphor for white lighting applications. *Journal of Materials Science, 35:1869*. **Impact Factor: 2.8.**

YOGITA KALRA

Department of Applied Physics

AWARD SUMMARY

03 Commendable Research Award

Yogita Kalra is working as an Associate Professor with the Department of Applied Physics, Delhi Technological University (DTU), Delhi since 2010. Prior to joining DTU, she has worked as lecturer in Gargi College, University of Delhi in 2006-2007 and Bharti Vidyapeeth College of Engineering, Guru Gobind Singh Indraprastha University from 2008 to 2010. She did her M.Sc. in Physics from the Indian Institute of Technology (IIT), Delhi, India in 2001. In 2007, she received her Ph.D. degree from the Department of Applied Physics, University of Delhi, India. Her research interests mainly include design of all optical integrated devices, optical nano antennas and nanophotonic devices based on photonic crystals and meta-materials. She is the coordinator of the Technology Information, Forecasting and Assessment Council (TIFAC) – Centre of Relevance and Excellence (CORE) in Fiber Optics and Optical Communication, DTU under Mission Reach program of Technology Vision 2020.She has authored about eighty research publications in the leading national and international journals of repute and referred conference proceedings.

Publication Details

1. Anmol Aggarwal, Ashi Mittal and **Yogita Kalra** (2024), Design of silicon slab waveguides based all- optical logic gates. *Microwave and Optical Technology Letters 66 (1), e*33981. **Impact Factor:1.2**
2. Vishakha Sharma, **Yogita Kalra** and Ravindra K. Sinha (2024), Modelling and design of human eye inspired concentric cylindrical metalens, *Optics Communications 565 (15),* 130627**. Impact Factor: 2.5**
3. Vishakha Sharma, **Yogita Kalra** and Ravindra K. Sinha (2024), Chiral perovskite based metasurface for linear and circular dichroism, *Journal of Optics, 26* 125103. **Impact Factor:2.7**

Department of
Biotechnology

ASMITA DAS

Department of Biotechnology

AWARD SUMMARY

Cumulative Citation Award (Silver)

Yearly Citation Award (Early Research Impact and Influence Award)

01 Commendable Research Award

Asmita Das completed her PhD in Immunology from Jawaharlal Nehru University, New Delhi, India and thereafter did postdoctoral research in the Laboratory of Immunogenetics in National Institute of Allergy and Infectious Diseases (NIAID) at National Institutes of Health (NIH) for 5years. She has been engaged in extensive research in NK cell development and NK receptor modulation and signalling. Her research in "NK cell licensing", has now been accepted and included in textbooks as a dogma in NK cell development. Her extensive research in autophagy and NK receptor signalling has generated more than 65 research papers including high impact publications like Immunity (43.4), Autophagy (16.02), Life Sciences (6.7) and many more. Her research focus is on combinatorial immunotherapy for cancer and interplay of signals in tumour microenvironment and immune-informatics. Apart from her core area of research, she is also engaged in interdisciplinary research with Civil Engineering Department in the area of Bio-concrete and multi-institution research with IIT Delhi in the field of Computational Fluid Dynamics in Immune complex diagnostics and with JNU in the field of nanotherapeutics.

Publication Details

1. **Amit Mathur**, Ritu, Prakash Chandra and **Asmita Das*** (2024), Autophagy: a necessary evil in cancer and inflammation. *3 Biotech*, *14, 3. (87),* **Impact factor:2.8**

BHARGAVI SHARMA

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Bhargavi Sharma is pursuing her Doctorate degree under the supervision and guidance of Prof. Yasha Hasija, HoD, Department of Biotechnology, Delhi Technological University (DTU), Delhi, India and Dr. Sonam Rewari, Assistant Professor, Department of Electronics and Communication, Delhi Technological University (DTU), Delhi, India. Ms. Bhargavi Sharma received her Int (B.Tech.+M. Tech.) in Biotechnology from Gautam Buddha University, Greater Noida, UP. She has published 02 research papers in Journals of International repute and presented two posters in abroad. Bhargavi Sharma is a Member of the Association of Asia Pacific Physical Societies-Division of Plasma Physics (AAPPS-DPP) (Member ID-2224)- October 2023.

Publication Details

1. **Bhargavi Sharma**, Shivani Yadav, Sonam Rewari, and Yasha Hasija**,** DM-PA-CNTFET Biosensor for Breast Cancer Detection: Analytical Model, *ECS Journal of Solid State Science and Technology13*, 087004(2024) **Impact Factor:1.8**

BIDISHA BHOWAL

Department of Biotechnology

Bidisha Bhowal is a dedicated, passionate, and inquisitive researcher, someone who has a keen desire to understand the 'why' and 'how' of life. The life of plants interests me the most because, despite their lack of mobility, plants have evolved a sophisticated, intricate network of signals that are involved in a multitude of functions that help in their growth and development, and provide stress tolerance. I am a research scholar and my focus is on deciphering the role and regulation of glyoxalases in higher plants, in addition to understanding the role of the plant neurotransmitters serotonin and melatonin in plant growth, development, and stress tolerance. In due course of time, I would like to be a part of the scientific outreach and communication programs in India.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Bhowal, B.**, Hasija, Y., & Singla-Pareek, S. L. (2024). Tracing the intraspecies expansion of glyoxalase genes and their expanding roles across the genus Oryza. *Functional & integrative genomics*, 24(6), 220. https://doi.org/10.1007/s10142-024-01492-y. **Impact Factor: 3.1**

DIA ADVANI

Department of Biotechnology

Dia Advani is a highly motivated researcher specializing in the area of disease and therapeutics, with a focus on identifying new treatments for various diseases. Currently, she is working as a postdoc researcher in the field of genomics at the Centre for Applied and Translational Genomics, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai Health. Her scientific interest and PhD thesis work was focused on the identification of repurposed drugs for the treatment of various neurodegenerative disorders. During her research tenure, she gained experience in multiple disciplines, such as genomics, neurobiology, computational biology, network biology, molecular biology, integrated omics, and drug discovery and development. She published several first-author and co-authored publications in peer-reviewed journals. She has also presented her work in several national and international conferences. She is a passionate researcher and look forward to grab new scientific opportunities to contribute to the field of Research & Development.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Advani, D.**, & Kumar, P. (2024). Uncovering Cell Cycle Dysregulations and Associated Mechanisms in Cancer and Neurodegenerative Disorders: A Glimpse of Hope for Repurposed Drugs. *Molecular neurobiology*, 61(11), 8600–8630. https://doi.org/10.1007/s12035-024-04130-7. **Impact factor: 5.59**

KRITI BHANDARI

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Kriti Bhandari is working as an Assistant Professor in Department of Biotechnology in Delhi Technological University. She completed her Ph.D. in Biochemical Engineering from National Institute of Technology, Jaipur. She had qualified CSIR-JRF NET and GATE. She was awarded with Canadian Commonwealth Graduate Exchange Program fellowship and carried out her research work at University of Saskatchewan, Canada. Her research area of interest includes Bioprocess Engineering, Enzyme Technology and Bioenergy. She has published various research papers in International/ National journals and conferences.

Publication Details

1. S. Jain, S. Srivastava, I. Gulati, and **K. Bhandari** (2024). Shaking Hands with Streptococcal Antibody-Degrading Enzymes for Clinical Use (Review). *Applied Biochemistry and Microbiology*, *volume 60, ISSN:0003-6838, pp. 503-513.* **Impact Factor:** 1.1.

MADHULIKA SINGH

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Madhulika Singh is a Research Scholar in the Department of Biotechnology, Delhi Technological University (formerly Delhi College of Engineering), Delhi, India. She holds a Master's degree in Botany from the University of Delhi. She has recently been awarded a Ph.D. under the supervision of Prof. Jai Gopal Sharma and Prof. Bhoopander Giri, with her doctoral research focused on "The Role of Soil Microbes in Alleviating Abiotic Stresses in Economically Important Crop Plants." She has contributed to several research publications in reputed, high-impact journals associated with Delhi Technological University. Her primary research interests lie in the field of Environmental Biotechnology.

Publication Details

1. **Singh, M.**, Sharma, J. G., & Giri, B. (2024). Augmentative role of arbuscular mycorrhizal fungi, *Piriformospora indica*, and plant growth-promoting bacteria in mitigating salinity stress in maize (*Zea mays* L.). *Journal of Plant Growth Regulation,* ***43***(4), 1195–1215. https://doi.org/10.1007/s00344-023-11177-8 . **Impact Factor: 3.9**

MEHAR SAHU

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Mehar Sahu is a postdoctoral researcher at the MRC Protein Phosphorylation and Ubiquitylation Unit (MRC PPU), University of Dundee, Scotland, where she focuses on dissecting the LRRK2 signaling pathway in Parkinson's disease. She earned her B.Tech in Biotechnology from Amity University, Noida, followed by an M.Tech in Biomedical Engineering and a Ph.D. in Biotechnology (Neurobiology) from Delhi Technological University. Her doctoral research explored the BRCA1-BARD1 complex and its therapeutic implications in neurodegenerative disorders, integrating structural biology, post-translational modifications, and biochemical approaches. She possesses extensive expertise in molecular dynamics simulations, protein-protein and protein-drug interactions, and a wide range of bioanalytical techniques. Dr. Sahu has also contributed to teaching and mentoring postgraduate students in molecular and cellular techniques. Beyond her scientific pursuits, she is an accomplished practitioner of Kathak dance and a skilled Santoor player, blending scientific precision with artistic expression. Her work continues to bridge fundamental molecular insights with potential therapeutic strategies.

Publication Details

1. **Sahu, M.**, Rani, N., & Kumar, P. (2024). Simulation and computational study of RING domain mutants of BRCA1 and Ube2k in AD/PD pathophysiology. *Molecular Biotechnology, 66*(5), 1095–1115. **Impact Factor: 3.3**

NAVNEETA BHARDVAJA

Department of Biotechnology

AWARD SUMMARY

Yearly Citation Award

01 Commendable Research Award

Navneeta Bharadvaja is an Associate Professor in the Department of Biotechnology, Delhi Technological University, Delhi. She brings over 15 years of teaching and research expertise in medicinal plant culture and algal biotechnology for developing industrial and therapeutic metabolites. Her research spans secondary metabolites production, nutraceuticals, phytoremediation, and computational strategies focussing on the therapeutic and industrial applications of plants and algae. She has contributed extensively to reputed journals, and authored and edited several books with leading publishers. Dr. Bharadvaja has supervised numerous PhD and postgraduate and undergraduate students in plant biotechnology. Passionate about sustainability, she focuses on algae-based, nanomaterials, and plant-derived therapeutics, integrating traditional knowledge with modern biotechnological innovations.

Publication Details

1. Manju, & **Bharadvaja, N.** (2024). Exploring the potential therapeutic approach using ginsenosides for the management of neurodegenerative disorders. *Molecular Biotechnology*, *66*(7), 1520-1536. **Impact Factor:** 2.5

NEETU RANI

Department of Biotechnology

Neetu Rani is a researcher in the filed of molecular neuroscience with Ph.D. from Delhi Technological University, New Delhi. Her doctoral work focused on cell cycle regulation and ubiquitination biology in neurodegenerative diseases, aiming at therapeutic insights. She holds a Master's in Biotechnology and a Bachelor's in Life Sciences, and has qualified CSIR-JRF and SRF.

AWARD SUMMARY

01 Commendable Research Award

Her academic training, research experience, teaching assistance, and scientific training experience have provided her with excellent background on multiple discipline, such as computational biology, drug designing, drug discovery, proteomics studies, genetics, and molecular biology. She has published in reputed journals, presented at international forums, and mentored students at DTU. Her long-term goal is to drive translational research in neurobiology and drug discovery to advance treatments for complex neurological disorders.

Publication Details

1. **Rani, N.**, Sahu, M., Ambasta, R. K., & Kumar, P. (2024). Triaging between post-translational modification of cell cycle regulators and their therapeutics in neurodegenerative diseases. *Ageing Research Reviews*, 94, 102174. https://doi.org/10.1016/j.arr.2023.102174 **Impact Factor : 12.5**

NEHA KUKRETI

Department of Biotechnology

Neha Kukreti completed her Ph.D. in Biotechnology from Department of Biotechnology, Delhi Technological University in December 2024. Her doctoral research focused on the sustainable utilization of agricultural waste for the development of bioplastics and enzymes. She holds a Master's degree in Botany from the University of Delhi and Bachelor's in Botany (Hons.) from Gargi College, University of Delhi. Currently, she is serving as an Assistant Professor in Uttar Pradesh. She aims to advance green technologies that integrate waste management with renewable resource development for a sustainable future. Her research interests include biorefinery, biomass conversion, bio-fermentation, circular economy and the development of value-added products contributing to sustainable solutions in biotechnology and waste-to-resource innovations.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

N. Kukreti, P. Kumar and R. Kataria, "Conversion of Corn Stover for Microbial Enzymes Production by Phanerochaete chrysosporium", *Applied Biochemistry and Biotechnology,* vol. 196, pp. 5144-5160, 2023. **Impact Factor: 3.0**

PRAVIR KUMAR

Department of Biotechnology

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

01 Commendable Research Award

Pravir Kumar is a distinguished academician and researcher with over 22 years of experience in teaching and research, particularly in the areas of vascular biology, molecular neuroscience, and drug discovery. He currently serves as Professor in the Department of Biotechnology and Dean of International Affairs at Delhi Technological University (DTU). He has previously held several key academic positions, including Dean of Alumni Affairs and Head of the Department of Biotechnology at DTU. His research expertise encompasses protein aggregation, molecular chaperones, and ubiquitin E3 ligases in neurodegenerative disorders, along with investigations into aberrant cell cycle re-entry in aging neurons and muscle tissues. Prof. Kumar has an impressive academic record, with over 250 publications in peer-reviewed journals and conference proceedings, more than 6,750 citations, an h-index of 40, and an i10-index of 79. He has supervised more than 20 Ph.D. scholars and mentored over 120 Master's students. Prof. Kumar earned his M.S. in Molecular and Clinical Genetics from Banaras Hindu University (BHU), Varanasi, and completed his Ph.D. at J.W. Goethe University, Germany, focusing on coronary artery diseases and cardiovascular physiology. His postdoctoral research was conducted at the Department of Neurology, Tufts University School of Medicine, Boston, USA, where he also held a faculty position. Before joining DTU, he served as Associate Professor and Assistant Director at the Centre for Medical Engineering, Vellore Institute of Technology (VIT), an Institution of Eminence (IoE).

Publication Details

1. Sahu, M., Ambasta, R.K., Das, S.R., Mishra, M., Shanker, A., **Kumar, P.** (2024) Harnessing brainwave entrainment: a non-invasive strategy to alleviate neurological disorder symptoms, *Ageing Research Reviews*, Volume 101, (102547) **Impact Factor: 12.4** https://doi.org/10.1016/j.arr.2024.102547

SHEFALI KARDAM

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Shefali Kardam is a Ph.D. research scholar in Neuroscience at Delhi Technological University. My research focuses on exploring inflammatory biomarkers, drug screening, and understanding the molecular mechanisms involved in the treatment of neurodegenerative diseases such as Parkinson's, Alzheimer's, and Huntington's disease. I adopt a multidisciplinary approach, combining bioinformatics, molecular docking, and molecular dynamics simulations to identify and evaluate potential drug candidates. My goal is to uncover key molecular targets and pathways associated with neuroinflammation and neurodegeneration, contributing to developing effective therapeutic strategies. I am passionate about bridging the gap between computational research and clinical applications in neuroscience.

Publication Details

1. **Kardam, S.**, Ambasta, R. K., & Kumar, P. (2024). Overview of pro-inflammatory and pro-survival components in neuroinflammatory signalling and neurodegeneration. *Ageing Research Reviews, 100*, 102465. https://doi.org/10.1016/j.arr.2024.102465. **Impact Factor: 12.4**

SHRUTIKIRTI VASHISHTH

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Shrutikirti Vashishth is a Ph.D. research scholar in Neuroscience at Delhi Technological University. My research focuses on the therapeutic implications of the gut-brain axis in neurodegenerative diseases. I aim to understand how gut microbiota influences the progression and treatment of neurological disorders such as Parkinson's, Alzheimer's, and Huntington's disease. By integrating approaches from neurobiology, microbiology, and computational modeling, I explore the molecular mechanisms linking gut health and brain function. My work is driven by a passion for uncovering novel therapeutic targets within the gut-brain axis, ultimately contributing to more effective interventions for neurodegeneration. I am dedicated to bridging the gap between fundamental research and clinical application in neuroscience.

Publication Details

1. **Vashishth, S.**, Ambasta, R. K., & Kumar, P. (2024). Deciphering the microbial map and its implications in the therapeutics of neurodegenerative disorder. *Ageing Research Reviews, 100*, 102466. https://doi.org/10.1016/j.arr.2024.102465. **Impact Factor: 12.4**

SMITA RASTOGI VERMA

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Smita Rastogi Verma has 20 years of teaching and research experience. She specializes in molecular biology and genetic engineering. During her Ph.D. at Lucknow University, she raised lignin down-regulated transgenic plants and was awarded Smt. Guru Devi Gold Medal for her contribution. Prior to Ph.D., she completed M.Tech. from IET, Lucknow with I rank. She was the recipient of Prof. P.S. Krishnan Gold Medal for holding I position in M.Sc. from Lucknow University. Dr. Smita has authored a text-book on 'Genetic Engineering' published by Oxford University Press and has ~55 publications in reputed journals and conference proceedings to her credit. She has also contributed several chapters in nationally and internationally published books. She has supervised 6 Ph.D. students and ~50 postgraduate and undergraduate students for their projects. She has also handled a research project on 'Lignin-degrading microbes' funded by UPCST. She has qualified several national-level competitive exams, including UGC-CSIR NET & JRF, CSIR-Direct, and GATE and has been the recipient of DTU Research Excellence Award for the past two years.

Publication Details

1. **Rastogi Verma, S.**, Saha, R., Chauhan, A. (2024). Machine learning: An advancement in biochemical engineering. *Biotechnology Letters*, *46*(4), 497-519. **Impact Factor: 2.1**

SONIKA KAG

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Sonika Kag completed her Ph.D. in Biotechnology from Delhi Technological University in December 2024. She has maintained a strong academic and research record, securing an All-India Rank of 88 in the CSIR-JRF examination and qualifying both GATE and ARS-NET. She is currently working as an Assistant Professor at Shri Vaishnav Institute of Management and Science, Indore (M.P). Her contributions to the scientific community include two high-impact research articles published in SCI-indexed journals, one peer-reviewed review paper, and four book chapters with Springer Nature, reflecting the depth and relevance of her work in biotechnology. Her core research expertise lies in Bioprocess Engineering, with a focus on the development, optimization, and scale-up of innovative and sustainable bioprocesses. She specializes in microbial fermentation, enzyme technology, and bioreactor design. She also explores the valorization of industrial and agricultural waste into value-added bioproducts, thereby contributing to circular bioeconomy initiatives.

Publication Details

1. **Kag, S.**, Kumar, P. & Kataria, R. (2024). Potato Peel Waste as an Economic Feedstock for PHA Production by Bacillus circulans. *Applied Biochemistry and Biotechnology, volume 196* , page range 2451-2465. **Impact Factor: 3.0**

SWEETI

Department of Biotechnology

AWARD SUMMARY

01 Commendable Research Award

Sweeti is a Research Scholar at the Discipline of Biotechnology, Department of Biotechnology, Delhi Technological University (formerly Delhi College of Engineering), Delhi, India. She received her Master's degree from the Dept. of Zoology, Maharshi Dayanand University, Rohtak, Haryana. She cleared NET (JRF) Sponsored by CSIR-UGC. Currently, she pursued Ph.D. under the supervision of Prof. Jai Gopal Sharma and Dr. Rashmi Kataria, on the topic "Renewable chemicals production from aquatic weed: *Pistia stratiotes*". She has published papers in reputed and high impact factor journals affiliated with Delhi Technological University. Her research interests are in the field of Bioprocess Engineering and Environmental Biotechnology.

Publication Details

1. **Mann, S.**, Sharma, J. G., & Kataria, R. (2024). Microbial accumulation of bioplastics from waste stream: recent advancements and applications. *International Journal of Environmental Science and Technology*, *21*(2), 2279-2306. **Impact Factor 3.4.**

YASHA HASIJA

Department of Biotechnology

AWARD SUMMARY

03 Commendable Research Award

As a Professor, Head of the Department of Biotechnology and Associate Dean (Alumni Affairs) at Delhi Technological University (DTU), Dr. Yasha Hasija has dedicated her career to advancing biotechnology through teaching, research, and leadership. She has published over 150 research articles and review papers in esteemed national and international journals, with her work being cited 1,873 times, holding an h-index of 19, and an i10-index of 35. Dr. Hasija serves on the Editorial Board of numerous international journals including Springer Nature, and has made significant contributions to Biotechnology and Bioinformatics as an author and editor of notable books.

Her contributions have been recognized with several prestigious awards, including the Government of India's Department of Science and Technology Award for attending the Nobel Laureates' meeting in Lindau, Germany, and the Human Gene Nomenclature Award at the Human Genome Meeting in Montpellier, France. She has also received Research Excellence Awards at DTU for six consecutive years, each year since their inception at DTU.

As a Project Investigator, Dr. Hasija has led several sponsored research projects funded by DST, CSIR, and DBT. She has delivered over 20 invited talks at prestigious institutions and actively supervises B.Tech, M.Tech, M.Sc., and Ph.D. students at DTU. Her research areas include genome informatics, the integration of genome-scale data for systems biology, and machine learning applications in healthcare.

Publication Details

1. Tanwar, N., & **Hasija, Y.** (2024). Explicate molecular landscape of combined pulmonary fibrosis and emphysema through explainable artificial intelligence: a comprehensive analysis of ILD and COPD interactions using RNA from whole lung homogenates. *Medical & Biological Engineering & Computing*, *62*(8), 2557-2570. **Impact Factor- 2.6**
2. Kumari, N., Bhavesh, N. S., & **Hasija, Y.** (2024). Elucidating the Effects of Aromatic Mutations on the RNA Binding Efficacy of CELF2 Protein. *Molecular Biology*, *58*(6), 1293-1311. **Impact Factor- 1.2**
3. Sharma, K., Saini, N., & **Hasija, Y.** (2024). Identifying the mitochondrial metabolism network by integration of machine learning and explainable artificial intelligence in skeletal muscle in type 2 diabetes. *Mitochondrion*, *74*, 101821. **Impact Factor- 4.5**

Department of Civil Engineering

JYOTI AGARWAL

Department of Civil Engineering

AWARD SUMMARY

01 Commendable Research Award

Jyoti Agarwal is a geotechnical engineer with over nine years of combined experience in industry, research, and academia. She is currently pursuing a Ph.D. in Geotechnical Engineering at Delhi Technological University, focusing on tunnelling-induced ground movements and their effects on nearby urban structures, using advanced analytical techniques and finite element modelling tools such as PLAXIS 2D and MIDAS GTS-NX. She earned her M.Tech from IIT Roorkee and was awarded a prestigious DAAD scholarship to conduct research at Universität Stuttgart, Germany. Professionally, she has contributed to major metro tunnelling and infrastructure projects at AIMIL Ltd. and TYPSA India, working on geotechnical interpretive reports, underground structure design, slope stability, and structural risk assessments. Jyoti has published extensively in reputed journals and conferences and is passionate about bridging research with practice.

Publication Details

1. **Agarwal, J.**, Sarkar, R. (2024). Greenfield settlements due to tunnelling using tunnel boring machine (TBM) in layered soils: a parametric study. *Sādhanā*, 49(1), 75. **Impact Factor:** 1.4

MOHIT AGGARWAL

Department of Civil Engineering

AWARD SUMMARY

01 Commendable Research Award

Mohit Aggarwal holds a Ph.D. in Civil Engineering from Delhi Technological University, where he conducted research on the topic *"Assessment of Heavy Metal Pollution in the Ganga River from the Kanpur to Prayagraj Stretch, India"*, under the supervision of Prof. S. Anbukumar and Prof. T. Vijaya Kumar. He is currently serving as an Assistant Professor at Noida International University located in Greater Noida. Dr. Aggarwal earned M.Tech in Civil Engineering from Motilal Nehru National Institute of Technology (MNNIT), Allahabad, and his B.Tech from Bharati Vidyapeeth Deemed University, Pune. With nearly eight years of teaching experience, he has previously worked as an Assistant Professor under the Government of India's TEQIP project at Madhav Institute of Technology and Science, Gwalior, for three years. He has also held academic positions at Galgotias University, G.L. Bajaj Institute of Technology & Management, and Galgotias College of Engineering & Technology, all located in Greater Noida.

Publication Details

1. **Aggarwal, M.**, Anbukumar, S., & Vijaya Kumar, T. (2024). Measurement of heavy metals content in suspended sediment of Ganges river using atomic absorption spectrometry. *Mapan*, *39*(4), 913-930. **Impact Factor: 1.3**

NERUSUPALLI DINESH KUMAR REDDY

Department of Civil Engineering

AWARD SUMMARY

01 Commendable Research Award

Nerusupalli Dinesh Kumar Reddy successfully completed his Ph.D. in September 2024 at Delhi Technological University, Delhi, under the guidance of Professor Ashok Kumar Gupta and Professor Anil Kumar Sahu. He is currently serving as an Assistant Professor (Ratified) at ACE Engineering College, Hyderabad. His research expertise lies in soil liquefaction and the application of machine learning techniques in geotechnical engineering. He has published four SCIE papers, 2 Scopus, and one in ESCI. Following his doctoral work, he initiated a new project on the dynamic response of soils treated with industrial waste, aiming to provide sustainable geotechnical solutions. In parallel, he is advancing research in artificial intelligence and machine learning applications in civil engineering, particularly for real-time safety monitoring in construction through advanced object detection models such as YOLOv11.

Publication Details

1. **Reddy, N. D. K.**, Diksha, Gupta, A. K., & Sahu, A. K. (2024). Evaluation of soil liquefaction potential using ensemble classifier based on grey wolves optimizer (GWO). *Soil Dynamics and Earthquake Engineering*, 182, 108750. **Impact Factor: 4.6**

PRASHANT C. RAMTEKE

Department of Civil Engineering

AWARD SUMMARY

01 Commendable Research Award

Prashant C. Ramteke is currently serving as an Assistant Professor in the Civil Engineering Department at G. B. Pant DSEU Okhla-III Campus (formerly G. B. Pant Institute of Technology), New Delhi, India. He holds an M.Tech. in Engineering Structures from the National Institute of Technology, Warangal, and a Ph.D. from Delhi Technological University, Delhi. His professional background includes approximately three years of field experience in construction, planning, estimating, and surveying, complemented by over fourteen years of teaching and eight years of research in civil engineering. His research interests encompass slope stabilisation, ground improvement techniques, structural repairs and rehabilitation, geotechnical hazards, stability of natural and engineered slopes, soil nailing, sustainable development in civil and environmental engineering, earthquake engineering, and structural engineering etc. He focuses on civil engineering applications involving numerical modelling for geotechnical and structural analysis. Alongside his academic and research pursuits, he serves as a reviewer for several reputed SCIE journals worldwide. He is also a Life Member of the Indian Geotechnical Society (IGS), Delhi Chapter, and the Institution of Green Engineers (IGEN), Chennai, among other professional bodies.

Publication Details

1. **Ramteke, P.C.**, Sahu, A.K. (2024). Soil-slope stability investigation using different nail inclinations: a comprehensive LSD, FEM and experimental approach. *Sādhanā Academy Proceedings in Engineering and Sciences*, 49 (62). **Impact Factor: 1.4**

RAJU SARKAR

Department of Civil Engineering

AWARD SUMMARY

Yearly Citation Award

Raju Sarkar is a Professor in Department of Civil Engineering and Coordinator/ Director of Centre of Excellence in Disaster Risk Reduction (CoEDRR), Delhi Technological University (DTU). Prior to joining back to his parent organization DTU, Dr. Raju was working as Professor in Department of Civil Engineering and Architecture, College of Science and Technology, Royal University of Bhutan, Bhutan under Ministry of External Affairs, Govt. of India deputation to Bhutan. During his tenure in Bhutan, he has established the research Center for Disaster Risk Reduction and Community Development Studies and also worked as Team Leader to start the new undergraduate programme â€“ Engineering Geology in Royal University of Bhutan. Presently he is also Chair, Commission on Education and Outreach and Co-Chair, Commission on Earthquake Hazard, Risk and Strong Ground Motion, International Association of Seismology and Physics of the Earth's Interior (IASPEI) â€“ IUGG. He has vast experience to work in Hindu-Kush Himalayas region both at government and community level. He has published quite a good number of original research articles in peer reviewed journals, books, book chapters and proceedings of international societies and serving as an editorial member of several journals. Dr. Raju is collaborating in a number of research projects funded by ICSU, World Bank, GCRF-UK, EPSRC-UK, RAS-UK, DHI-RGoB, MoEF. He has keen interest on Geotechnics for Natural Disaster Mitigation, Geohazards Risk Managements, Landslide, Seismology, Community Resilience against cataclysmic events, Vulnerability and Risk Assessment and Disaster Management Education.

YAKSHANSH KUMAR

Department of Civil Engineering

AWARD SUMMARY

02 Commendable Research Award

Yakshansh Kumar, born on 12th September 1995 in Sonipat, Haryana, is a researcher in civil engineering specializing in pavement–soil dynamics, finite element modelling, and piezoelectric sensing. He earned his B.E. from Hindu College of Engineering (2017) and M.Tech. in Geotechnical Engineering from Delhi Technological University (2020), where he is currently pursuing a PhD on pavement–soil systems with piezo sensors. His research integrates experimental studies with advanced numerical modelling and has been published in leading journals such as the *International Journal of Non-Linear Mechanics*, *Journal of Vibration Engineering and Technologies*, *AI in Civil Engineering*, and *Transportation Infrastructure Geotechnology*. He has presented at international conferences, receiving the Best Technical Paper Award at SIIOC 2024 and the Third Best Paper Award at ICES 2021. A reviewer for *Transportation Infrastructure Geotechnology* (Springer, USA), he combines traditional geotechnical methods with emerging sensing and computational technologies. Beyond academics, he is also a medal-winning football and chess player, with a vision to develop sustainable and intelligent pavement infrastructure.

Publication Details

1. **Kumar, Y.**, Trivedi, A., & Shukla, S. K. (2024). Deflections governed by the cyclic strength of rigid pavement subjected to structural vibration due to high-velocity moving loads. *Journal of Vibration Engineering & Technologies*, 12(3), 3543-3562. **(Impact Factor - 2.4)**
2. **Kumar, Y.**, Trivedi, A., & Shukla, S. K. (2024). Investigating the Influence of Frequency on Piezo-dynamics of Polyvinylidene Fluoride (PVDF) Films Embedded in Confined Geomaterials. *Journal of Vibration Engineering & Technologies*, *12*(7), 8867-8886. **(Impact Factor - 2.4)**

Department of
Computer Science
Engineering

ADITI SHARMA

Department of Computer Science Engineering

AWARD SUMMARY

01 Premier Research Award

Aditi Sharma (Member, IEEE) is an Assistant Professor at Thapar Institute of Engineering and Technology with over five years of academic experience. She has previously served at Jaypee University of Information Technology and DIT University. Dr. Sharma earned her Ph.D. in Affective Computing from Delhi Technological University, where she also completed her M.Tech. in Software Engineering in 2017. She holds a B.Tech. in Computer Science and Engineering from Punjabi University, Patiala (2015). Her research interests include Affective Computing, Machine Learning, Predictive Healthcare, and Text Summarization. She has published extensively in high-impact SCI/SCIE journals and has been recognized with the *"Commendable Research Award for Excellence in Research"* by Delhi Technological University for three consecutive years (2022, 2023, and 2024). Dr. Sharma is a professional member of IEEE, ACM, CSI, and IAENG.

Publication Details

1. **Sharma, A.**, & Kumar, A. (2024). DREAM: Deep Learning-based Recognition of Emotions from Multiple Affective Modalities using consumer-grade body sensors and video cameras. *IEEE Transactions on Consumer Electronics*, *70*(1), 1434-1442. **Impact Factor: 10.9**

ANIL SINGH PARIHAR

Department of Computer Science Engineering

AWARD SUMMARY

02 Commendable Research Award

Anil Singh Parihar is a Professor in the Department of Computer Science & Engineering at Delhi Technological University, Delhi, India. He received his B.Tech. Degree in Electronics and Communication Engineering in 2005 from U. P. Technical University, Lucknow, India, M.E. degree in Electronics and Communication Engineering from Delhi College of Engineering, New Delhi, India in 2008, and Ph.D. degree in the area of applications of soft comping in image processing in 2016. He joined the Department of Information Technology at Delhi Technological University, Delhi, India as Assistant Professor in 2010. His research interest includes Image Processing, Pattern Recognition, Computer Vision, Soft Computing and Evolutionary Algorithms.

Publication Details

1. Singh, K. **Parihar, A., S.**, (2024), Bff: Bi-stream feature fusion for object detection in hazy environment. *Signal Image and Video Processing* (18), 3097–3107. **Impact Factor: 2.1.**
2. Singh, K. **Parihar, A., S.**, (2024), Illumination estimation for nature preserving low-light image enhancement. *The Visual Computer* (40), 121–136. **Impact Factor: 2.9.**

ANKUR

Department of Computer Science Engineering

Ankur is an Assistant Professor in the Department of Computer Science and Engineering at NIT Delhi, currently serving as Associate Dean (Planning & Development). He holds a Ph.D. in Computer Science and Engineering from Delhi Technological University, where his research focused on reversible data hiding in encrypted images. With strong expertise in cryptography, post-quantum security, and wireless sensor networks, he has published widely in IEEE, Elsevier, and Springer. Alongside his research, he is passionate about teaching courses such as Data Structures, Algorithms, and Compiler Design. Known for academic leadership, he has actively contributed to planning, development, and institutional growth.

AWARD SUMMARY

01 Premier Research Award

Publication Details

1. **Ankur**, Kumar, R., & Sharma, A. K. (2024). Bit-plane based reversible data hiding in encrypted images using multi-level blocking with quad-tree. *IEEE Transactions on Multimedia, 26*, 4722-4735. **Impact Factor: 9.7**

ANSHU KHURANA

Department of Computer Science Engineering

Anshu Khurana, Assistant Professor in the Department of Artificial Intelligence and Data Science at Maharaja Agrasen Institute of Technology, Delhi, has over 18 years of teaching and research experience in Computer Science and Engineering. She earned her Ph.D. in Natural Language Processing, with research spanning computational linguistics, intelligent systems, and deep learning applications. Her interests include text mining, sentiment analysis, explainable AI, and curriculum innovation. She has published widely, guided numerous student projects, and remains dedicated to advancing AI and NLP research while mentoring the next generation of engineers.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Khurana, A.**, & Verma, O. P. (2024). Optimal heterogeneous domain adaptation for text classification in transfer learning. *Computers and Electrical Engineering*, *116*, 109192.**Impact Factor:** 4.9

ANSHU MALHOTRA

Department of Computer Science Engineering

Anshu Malhotra is a skilled data scientist and researcher with hands-on technical experience in designing large-scale, data science and machine learning driven solutions for various domains. She has around 15 years of work experience spanning both industry and academia. She is currently working as a Manager - Data Science at a leading multinational company. She was awarded her Ph.D. degree in CSE from Delhi Technological University in 2024. Prior to that, she completed her M.Tech. in CSE from IIIT-Delhi with a full scholarship, and her B.Tech,in CSE from GGSIPU, Delhi. She has authored several research publications, organized many conferences, and successfully led various technology-focused industry collaboration initiatives. Her areas of research include Machine Learning, Deep Learning, and Natural Language Processing.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Malhotra, A.**, Jindal, R. (2024). Xai transformer based approach for interpreting depressed and suicidal user behavior on online social networks. *Cognitive Systems Research*, *84*, 101186. **Impact Factor: 3.9**

ANURAG GOEL

Department of Computer Science Engineering

AWARD SUMMARY

03 Commendable Research Award

Anurag Goel is working as an Assistant Professor in the Department of Computer Science and Engineering, Delhi Technological University, New Delhi since December 2020. He has completed his Ph.D. in the Department of Computer Science and Engineering Department, Indraprastha Institute of Information Technology, IIIT Delhi in November, 2023. He has received his M.Tech. degree in Computer Science and Engineering with Gold medal from IIIT Delhi in 2017. He has received his B.Tech. degree in Computer Science and Engineering from SRM University in 2012. His area of interest lies in Deep Learning, Image Processing, Graph Networks and AI For Social Good. He has more than eight years of experience in industry and academia. He has published several research publications in reputed SCIE journals including Information Sciences, Signal Processing, IEEE Geoscience and Remote Sensing letters etc. and several international conferences including EUSIPCO 2021, ICIP 2022 etc. He has presented his research paper in IEEE International Conference on Image Processing (ICIP) 2024 held at Abu Dhabi, UAE. He has received Best Research Paper award in IEEE ICSTSN 2023 and IEEE ICSTSN 2024. He is a Senior IEEE member and lifetime member of CSI. He has worked as a peer reviewer for various reputed conferences and journals including ICASSP, ICIP, Neurocomputing, IEEE Transactions on Circuits and Systems for Video Technology etc. He has organized and attended several Workshops, FDPs, seminars and Refresher modules. He has participated in Google Research India Graduate Symposium 2021 and Google Research Week 2022.

Publication Details

1. Jyoti Maggu, **Anurag Goel** (2024), K-BEST subspace clustering: kernel-friendly block-diagonal embedded and similarity-preserving transformed subspace clustering, *Pattern Analysis and Applications*, 27 (119). **Impact Factor: 3.7**
2. **Anurag Goel**, Angshul Majumdar (2024), Sparse subspace clustering incorporated deep convolutional transform learning for hyperspectral band selection, *Earth Science Informatics,* 17, 2727-2735. **Impact Factor: 2.8**
3. **Anurag Goel**, and Angshul Majumdar (2024), Contrastive Deep Convolutional Transform K-Means Clustering, *Information Sciences*, 661 (120191). **Impact Factor: 8.23**

DIKSHA CHAWLA

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Diksha Chawla is currently working as an assistant professor (Senior Grade) in Jaypee Institute of Information Technology, Noida, India. She completed her Ph.D. in the Department of Computer Science and Engineering at Delhi Technological University, New Delhi, India and her M.TECH in Information Technology from the Center for Development of Advanced Computing (CDAC), Noida, India. She received her B.Tech. in Information Technology from the Maharishi Dayanand University (MDU), Haryana, India. She has authored many publications in International journals and conferences indexed in SCIE, Scopus, Web of Science. She has more than 14 years of teaching experience. She has qualified for GATE competitive examination. Her research area includes the Internet of Things, Quantum Information and Computing, Wireless Sensor Networks, Blockchain and Image Processing.

Publication Details

1. **Chawla, D.**, & Mehra, P. S. (2024). QAKA: A novel quantum authentication and key agreement (QAKA) protocol using quantum entanglement for secure communication among IoT devices. *Transactions on Emerging Telecommunications Technologies*, *35*(3), e4957. https://doi.org/10.1002/ett.4957, **Impact factor:2.5**

DIKSHA KURCHANIYA

Department of Computer Science Engineering

AWARD SUMMARY

01 Premier Research Award

Diksha Kurchaniya received her B.Tech. degree in Computer Science & Engineering in 2014 from ITM, Gwalior, M.P. She has completed her Master of Technology from MITS, Gwalior, M.P. in 2017. She is pursuing her PhD from Delhi Technological University, New Delhi, India. She has published 10+ papers in reputed journals, including 2 transactions. She has 4+ years of teaching experience. Her research interests include computer vision, image processing, and artificial intelligence

Publication Details

1. **Kurchaniya, D.**, & Kumar, S. (2024). D-SCAN: Dual Stream Spatiotemporal Channel-Wise Attention Network With Point-Wise ConvBi-LSTM for Activity Recognition. *IEEE Transactions on Consumer Electronics*. **Impact Factor: 10.9**

DIPIKA JAIN

Department of Computer Science Engineering

AWARD SUMMARY

01 Premier Research Award

Dipika Jain completed her PhD in 2024 from the Department of Computer Science and Engineering at Delhi Technological University (DTU). Her research primarily focused on Natural Language Processing (NLP) with a special emphasis on affective computing, where she explored the intersection of emotion recognition and human-computer interaction. Her work aimed to enhance machine understanding of human emotions, making interactions with AI systems more intuitive and empathetic.

Publication Details

1. Akshi Kumar, **Dipika Jain**, and Rohit Beniwal. 2024. Hindi Personality Net: Personality Detection In Hindi Conversational Data Using Deep Learning With Static Embedding. ACM Trans. Asian Low-Resour. *Lang. Inf. Process*. 23, 8, Article 117 (August 2024), 13 pages. https://doi.org/10.1145/3625228

HIMANSHU NANDANWAR

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Himanshu Nandanwar is a dedicated researcher in computer science, specializing in blockchain technology, cybersecurity, and artificial intelligence for healthcare and IoT applications. He is currently pursuing his Ph.D. in the Department of Computer Science and Engineering at Delhi Technological University, New Delhi, India, where his research focuses on developing secure and privacy-preserving frameworks for intrusion detection systems in IoT.

With a strong academic foundation, he has contributed extensively to scientific research, publishing articles in reputed journals and conferences. His work emphasizes integrating advanced cryptographic techniques such as Elliptic Curve Cryptography (ECC), Digital Signature Algorithm (DSA), and Secure Hash Algorithm (SHA-512) to enhance data security in IoT-based healthcare systems. In addition, his research explores federated learning, deep learning models, and blockchain-based solutions for intelligent and resilient cybersecurity frameworks.

Beyond publications, Himanshu has actively served as a peer reviewer for high-impact journals and conferences, evaluating manuscripts on machine learning, cybersecurity, and blockchain applications. His research interests include blockchain for IoT security, AI-driven intrusion detection systems, cryptographic models, and decentralized healthcare frameworks. Currently, he is also serving as Head of the IPR Cell at GL Bajaj Institute of Technology and Management, contributing to fostering innovation and intellectual property awareness.

Publication Details

1. **Nandanwar, H.**, & Katarya, R. (2024). TL-BILSTM IoT: transfer learning model for prediction of intrusion detection system in IoT environment. *International Journal of Information Security*, *23*(2), 1251-1277. **Impact Factor: 3.2**

INDU SINGH

Department of Computer Science Engineering

AWARD SUMMARY

02 Commendable Research Award

Indu Singh is working as Assistant Professor in Computer Science Engineering Department at Delhi Technological University, Delhi, India. Singh has received her B.Tech in 2010 in Computer Science Engineering and M.Tech degree in Information Security from Ambedkar Institute of Technology, Govt. of NCT Delhi in 2012. She has done PhD in Computer Science & Engineering (CSE) from Delhi Technological University (DTU, Delhi) with specialization in Data Mining and Information Security in 2023. Her research interests include Database Systems, Data Mining, Information Security, Machine Learning, Fuzzy systems, Biometrics Recognition and Metaheuristic Optimization. She has published 48 research papers in reputed International Journals and conferences of IEEE, Elsevier, Springer and ACM. She has received IEEE Best Paper Award in ICACCI-2016. Singh is also serving as a reviewer for various SCI Indexed Journals including IEEE Transactions on Evolutionary Computation, Journal of Information Security and Applications (Elsevier), Computers in Biology and Medicine (Elsevier), Computers and Electrical Engineering (Elsevier), Biomedical Signal Processing and Control (Elsevier), Soft Computing Journal (Springer), Cluster Computing Journal (Springer) and various International Conferences of Elsevier, Springer and IEEE. She is also a member of IEEE...{Brief Biography}

Publication Details

1. **I.Singh**, R.Jindal, "Outlier based intrusion detection in databases for user behaviour analysis using weighted sequential pattern mining", *International Journal of Machine Learning and Cybernetics*, Vol-15, pp.2573-2593, (2024). **Impact Factor :- 2.7** https://doi.org/10.1007/s13042-023-02049-4
2. **I.Singh**, D.P. Kothari, S.Aditya, M.Rajora, C.Agarwal, V.Gautam," A hybrid metaheuristic optimised ensemble classifier with self organizing map clustering for credit scoring", *Operational Research*, Vol-24, pp.1-42, (2024). **Impact Factor :- 2.7** , https://doi.org/10.1007/s12351-024-00864-3

JATIN SHARMA

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Jatin Sharma is currently serving as an Assistant Professor in the Department of Computer Engineering at the Faculty of Technology, University of Delhi. He is pursuing his Ph.D. from Delhi Technological University in the Department of CSE. He received his M.Tech. in Computer Applications from Thapar Institute of Engineering and Technology, Patiala. He has completed his B.Tech. in Information Technology from JCDM College of Engineering, Sirsa. He has three years of Software Development experience at ITG Telematics Pvt Ltd, New Delhi. His research interests include the Internet of Things, Post-Quantum Cryptography, Unmanned Aerial Vehicles, Wireless ad hoc networks, Cryptography, and network security.

Publication Details

1. **Sharma, J.**, & Mehra, P. S. (2024). HCFAIUN: A novel hyperelliptic curve and fuzzy extractor-based authentication for secure data transmission in IoT-based UAV networks. *Vehicular Communications*, *49*, 100834. https://doi.org/10.1016/j.vehcom.2024.100834. **Impact Factor: 6.5**

KAINAT KHAN

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Kainat Khan is currently designated as a Ph.D research scholar in the Department of Computer Science, at Delhi Technological University, Delhi, India. She has completed her M.tech from the University School of Information, Communication, and Technology, Delhi. She has completed an undergraduate degree (B.Tech, Computer Science) from the Noida International University. She has published various research papers in SCIE/SCOPUS/IEEE/ELSEVIER-indexed International Conferences/Journals. Her research areas of interest include Artificial Intelligence, Healthcare, Data mining, Machine learning, Deep learning, and Natural Language Processing. She is currently doing her research on public health surveillance using machine learning techniques. She was also awarded the eminent "Best Paper Award" in 2024 at ICSSA, Penang, Malaysia.

Publication Details

1. **Khan, K.**, Kainat, ., & Katarya, R. (2024). AFF-BPL: An adaptive feature fusion technique for the diagnosis of autism spectrum disorder using Bat-PSO-LSTM based framework. *Journal of Computational Science*, 83, 102447. **Impact Factor: 3.1.**

KAVINDER SINGH

Department of Computer Science Engineering

Kavinder Singh is an Assistant Professor in the Department of Computer Science & Engineering at Delhi Technological University, Delhi, India. He received his B.Tech. degree in Computer Science & Engineering from A. K. Technical University (Formerly UPTU) Lucknow, M.Tech. degree in Information systems from Delhi Technological University in 2018. He is pursuing his PhD from Delhi Technological University, New Delhi, India. He joined Department of Computer Science & Engineering at Delhi Technological University, New Delhi, India as Assistant Professor in 2020. His research interest includes Image Processing, Pattern Recognition, Object recognition and Computer Vision.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Singh, K.,** Parihar, A., S., (2024), MRN-LOD: Multi-exposure Refinement Network for Low-light Object Detection, *Journal of Visual Communication and Image Representation* (79), 103241. **Impact Factor: 3.1.**

MADHURI YADAV

Department of Computer Science Engineering

Madhuri Yadav is a doctoral researcher in Computer Science at Delhi Technological University (DTU), Delhi. Her research is centered on Natural Language Processing (NLP), with a particular emphasis on text summarization techniques. She is currently working on text summarization using deep learning models, addressing the challenges of low-resource languages and enhancing the quality of machine-generated summaries. Her broader research interests include artificial intelligence, machine learning, information retrieval. She aims to bridge the gap between computational linguistics and real-world applications, making summarization systems more effective, accessible, and multilingual. She has also demonstrated strong academic excellence by qualifying the GATE and UGC-NET-JRF examinations.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Yadav, M.**, Katarya, R. Stacked Denoising Variational Auto Encoder Model for Extractive Web Text Summarization. *Iran J Sci Technol Trans Electr Eng* **48**, 1501–1518 (2024). https://doi.org/10.1007/s40998-024-00751-9

MINNI JAIN

Department of Computer Science Engineering

Minni Jain is an Assistant Professor in the Computer Science & Engineering Department at Delhi Technological University. She was awarded a gold medal for her M.Tech. and received three commendable Research Excellence Awards in 2023 from Delhi Technological University for her significant contributions to the field of Natural Language Processing (NLP). Her research focuses on NLP, fuzzy logic, machine learning, and deep learning, particularly in areas like Hindi-English code-mixed language processing, mental health care, hate speech detection, sentiment analysis, and lexicon generation techniques. In the realm of mental health, Dr. Jain's work involves applying various advanced methodologies, such as BERT, RoBERTa, DeBERTa, MentalBERT, Mistral, LSTM, Bi-LSTM, Graph Neural Networks (GCN, GAT), and large language models (LLMs), for depression detection and stressor identification.

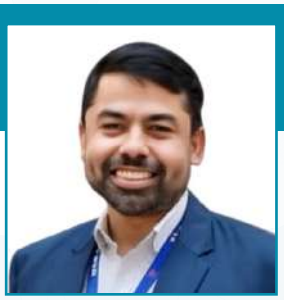
AWARD SUMMARY

01 Premier Research Award

02 Commendable Research Award

Publication Details

1. **Jain M.**, Jain S., Jain A., Garg B. (2024). CDME-GAT: Context-Aware Depression Detection Using Multi-embedding and Graph Attention Networks in Social Media Text. *IEEE Transactions on Computational Social Systems, 11 (6),* 7212-7222 **Impact Factor: 4.9**
2. **Jain M.**, Jindal R., Jain A. (2024). Code-mixed Hindi-English text correction using fuzzy graph and word embedding. *Expert Systems 41 (7), e13328*. **Impact Factor: 2.3**
3. **Jain M.**, Jindal R., Jain A. (2024). Lexical Semantics Identification Using Fuzzy Centrality Measures and BERT Embedding. *National Academy Science Letters 47 (3), 329-333* **Impact Factor: 1.3**



NITESH KUMAR

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Nitesh Kumar is pursuing his Ph.D. (Computer Science and Engineering) from Delhi Technological University, India. He did his M.Tech (Master of Technology) in Information Technology & was gold medallist of 2010 Batch, and B.Tech (Bachelor of Technology) degrees in Electronics and Communication from Guru Gobind Singh Indraprastha University (GGSIPU), Delhi. He is a qualifier of the prestigious UGC JRF, UGC NET, and GATE examinations. His primary research interests include Wireless Sensor Networks, the Internet of Things (IoT), and Machine Learning.

Publication Details

1. **Kumar, N.**, & Beniwal, R. (2024). A multi-constrained green routing protocol for IoT-based software-defined WSN. Concurrency and Computation: *Practice and Experience*, 36(28), e8306. **Impact Factor: 1.5**

PALLAVI RANJAN

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Pallavi Ranjan is a faculty in the School of IT focused on computer vision, image processing and earth sciences. With over 15 years of full-time academic experience in the Middle East and India, Dr. Ranjan has a strong focus on mentoring and nurturing the future tech professionals. She completed her PhD in Artificial Intelligence and Machine Learning from Delhi Technological University in 2024. She holds a Senior Fellowship completed at Murdoch University and a Fellowship from the Higher Education Academy (UK), completed at Middlesex University, in recognition of her teaching excellence. Dr. Ranjan completed her master's in computer science engineering in 2012 as a gold medallist in. Presently she is steering the Artificial Intelligence and Autonomous Systems program at Murdoch University Dubai. Her research involves developing novel algorithms in Computer Vision, Image Processing, Generative AI, Data Science and Machine Learning with applications in remote sensing. Believing that teaching, industry, and research are inseparable parts of academia, Dr. Ranjan has chaired sessions at leading conferences, organized and hosted conferences powered by British Computer Society, CISCO, Oracle MEA, Robotics Club @The Assembly during her tenure at Middlesex University. Extremely close to her heart, Dr. Ranjan is committed to empowering women to pursue careers in science and tech.

Publication Details

1. **Ranjan, P.**, Girdhar, A., Ankur, & Kumar, R. (2024). A novel spectral-spatial 3D auxiliary conditional GAN integrated convolutional LSTM for hyperspectral image classification. *Earth Science Informatics*, 17(6), 5251–5271. https://doi.org/10.1007/s12145-024-01451-y

PAVI SARASWAT

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Pavi Saraswat is pursuing her Ph.D. (Computer Science and Engineering) from Delhi Technological University, India. She did her M.Tech (Master of Technology) in Computer Science and Engineering & was silver medallist of 2016 Batch from Amity University Uttar Pradesh, India. She earned her B.Tech (Bachelor of Technology) in Information Technology from the Dr. APJ Abdul Kalam Technical University (AKTU), U.P. She is currently working as an Assistant Professor in Department of Information Technology at KIET Group of Institutions (Affiliated to AKTU), U.P., India. Her primary research interests include Artificial Intelligence, Machine Learning, Deep Learning, Sentiment Analysis and Computer Vision with a passion for education and innovation.

Publication Details

1. Beniwal, R., & **Saraswat, P.** (2024). A hybrid BERT-CNN approach for depression detection on social media using multimodal data. *The Computer Journal*, 67(7), 2453-2472. **Impact Factor: 1.5**

PRACHI DAHIYA

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Prachi Dahiya is currently pursuing Ph.D. from the Department of Computer Science and Engineering at Delhi Technological University in New Delhi, India. She has done her Bachelors in Technology (B.Tech.) from Maharaja Surajmal Institute of Technology (MSIT) affiliated with Guru Gobind Singh Indraprastha University (GGSIPU), Dwarka, New Delhi, India from 2014-2018. And she completed her Masters inTechnology (M.Tech.) in Computer Engineering (CE) from J.C.Bose University of Science and Technology (JCBUST), YMCA, Faridabad, Haryana, India from 2018-2020. Her research interests include Data Mining, Web Mining, Webpage Ranking Algorithms, Collaborative Filtering (CF), Recommender Systems, Internet of Things (IoT) and Machine Learning (ML).

Publication Details

1. **Dahiya, P.**, Kumar, V., (2024). An Optimized Multi-kernal Based Extreme Learning Machine for Authentication Threat Detection with Feature Reduction Scheme in IoT. *Wireless Personal Communications, 139,* 1451-1475. **Impact Factor: 2.2**

PRASHANT GIRIDHAR SHAMBHARKAR

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

B.E. From Amravati University, M.Tech From RGPV,Bhopal and Ph. D. from Jamia Millia Islamia, New Delhi and Working as an Assistant Professor in Department of Computer Science & Engineering having 19+ years teaching and 10+ years of research experience of various computer science and IT field. Guided 2 PhD scholars, 3 scholars are pursuing PhD under my supervision. 10 + M.Tech students guided for their dissertation. 100+ B.Tech projects guided . Worked in various committee at responsible position, worked as exam coordinator, counselor, mentor, time table in-charge, assistant center superintendent in university exam, center controller in UPSEE exam, Alumni Incharge, Organized Literary Activities, Dy. Chairperson Admission for B.Tech Programme under Continuing Education for Working Professionals, Dy. Coordinator PhD Admissions, Coordinator M.Tech Admissions, Dy. Coordinator IQAC, Faculty Coordinator for "Desh Ke Mentor" , Coordinator for Exploring Engineering, Hostel Warden etc.

Publication Details

1. **Shambharkar, P. G.**, & Sharma, N. (2024). Deep learning-empowered intrusion detection framework for the Internet of Medical Things Environment. *Knowledge and Information Systems*, 66(10), 6001–6050. https://doi.org/10.1007/s10115-024-02149-9, (**Impact Factor: 3.1,** Publisher: Springer)

RAHUL KATARYA

Department of Computer Science Engineering

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

02 Innovation Award

03 Commendable Research Award

Rahul Katarya is a Professor in the Department of Computer Science & Engineering at Delhi Technological University (DTU), New Delhi. A Senior Member of IEEE, he is globally recognized for his contributions to Artificial Intelligence and Computer Science. He was recently appointed Entrepreneurship Ambassador under IEEE Region 10 ACEI and has delivered invited talks in Greece, Bulgaria, and the UK (2024). His research excellence includes a Best Paper Award for *LSTVision* at IEEE ICSSA 2024, Penang, Malaysia. Prof. Katarya has represented India at international forums such as the BRICS Young Scientist Forum (Russia, 2020), Sakura Science Program (Japan, 2020), and UNESCO GAP (New Zealand, 2019). Listed among the World's Top 2% Scientists by Stanford University for five consecutive years (2020–2024), he also serves as DTU's Nodal Officer under the National Supercomputing Mission. He led a DST-funded AI project "TRIP AID" and coordinated key institutional collaborations with CDAC and SAU. Holder of two Indian patents in precision agriculture and autonomous robotics (2024), he also serves as Associate Editor for SCIE-indexed journals including *Knowledge and Information Systems* (Springer). Through impactful research, leadership, and innovation, Prof. Katarya continues to advance AI and higher education globally.

Publication Details

1. Himanshu Nandanwar, **Rahul Katarya (2024)**, Deep Learning Enabled Intrusion Detection System for Industrial IoT Environment, *Expert Systems with Applications*, **Impact Factor: 8.665**
2. Garima Gupta, **Rahul Katarya (2024)**, A Computational Approach Towards Food-Wine Recommendations", *Expert Systems with Applications*, **Impact Factor: 8.665**
3. Anjum, **Rahul Katarya (2024)**, Hate speech, Toxicity detection in online social media: A recent survey of state-of-the-art, and opportunities, *International Journal of Information Security*, **Impact Factor: 3.2**

RAJEEV KUMAR

Department of Computer Science Engineering

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

01 Commendable Research Award

Rajeev Kumar completed his Ph.D. in Computer Engineering from the University of Delhi in 2017 and pursued postdoctoral research at Kyungil University, South Korea. He is currently an Assistant Professor in the Department of Computer Science and Engineering at Delhi Technological University (DTU), where he also serves as Assistant Director (IPR-TT) in the Corporate Relations Office and In-Charge of the Blockchain Technology Research Lab. Dr. Kumar has received fellowships from the National Research Foundation (NRF), Korea, for his work on multimedia security during 2018–2019 and 2021–2025. He has been recognized with Commendable Research Excellence Awards from DTU in 2022, 2023, and 2024, and was honored with the inaugural Innovation Research Award by DTU in 2024. He actively contributes to scholarly publishing as an Associate Editor for the *Journal of Information Security and Applications*, *Journal of Electronic Imaging*, and *SN Computer Science* (Springer), and serves on the editorial board of *Scientific Reports* (Nature). He is also a member of the *APSIPA Multimedia Security and Forensics Technical Committee*. Dr. Kumar has authored more than 50 SCI(E) publications, holds six granted patents, and has over 20 patent applications. His research interests include privacy and security in neural networks, steganography, reversible data hiding, multimedia forensics, image processing, compression, hyperspectral image classification, and wireless sensor networks.

Publication Details

1. Ankur, **Kumar, R.**, & Sharma, A. K. (2024). Link chain driven reversible data hiding in encrypted images for high payload. *Signal, Image and Video Processing*, 18, 5841–5856. **Impact Factor:2.1**

RAJIV KUMAR MISHRA

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Rajiv Kumar Mishra, completed his PhD from Delhi Technological University, Delhi. He has published several research papers in SCI/SCOPUS/UGC-Care/ UGC/National and International Journals and Conferences. His primary research interests include Access Control in Internet of Things, Blockchain, Information Security, and Ontology Mapping.

Publication Details

1. **Mishra, R.K.**, Yadav, R.K. & Nath, P. Access Control Models and Frameworks for the IoT Environment: Review, Challenges, and Future Direction (2024). *Wireless Personal Communication 138, 1671–1701.* https://doi.org/10.1007/ s11277-024-11568-4**Impact Factor:** 2.2

RAJNI JINDAL

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Rajni Jindal is working as Professor at Computer Engineering Department, Delhi Technological University, Delhi, India. She also worked as HOD at Computer Engineering Department, Delhi Technological University, Delhi, India. She received her M.E. from Delhi College of Engineering. She completed her PhD (Computer Engineering) from Faculty of Technology, Delhi University. She also worked as Professor (IT) and Dean (Research & Collaboration) at IGDTUW for 3 years. She possesses a work experience of around 33 years in research and academics. She is working as Chairperson of Anti Ragging Committee since 2023, also Faculty Coordinator of SPIC MACAY at DTU Delhi. Her major areas of interest are Database Systems, Data Mining, Operating Systems, Compiler Design. She has authored around 200+ research papers and articles for various national and international journals/conferences and also 5 books. She is a Senior Member of IEEE and Life Member of CSI.Throughout her career, she has been deeply committed to fostering innovation, mentoring students, and leading institutional growth through her dynamic leadership and expertise. She has been honored with several prestigious recognitions, including the Lifetime Achievement Award (Scientific Laurels Committee, 2025) and Distinguished Woman Researcher in Data Mining (Venus International Foundation, 2025).

Publication Details

1. Seniaray S., **Jindal R.** (2024). Performance Analysis of Anomaly-Based Network Intrusion Detection Using Feature Selection and Machine Learning Techniques. *Wireless Personal Communications, **138**,* 2321–2351. **Impact Factor: 2.2.**

ROHIT BENIWAL

Department of Computer Science Engineering

AWARD SUMMARY

03 Commendable Research Award

Rohit Beniwal has received his Ph.D. (Computer Engineering) from the University of Delhi, India. He did his M.Tech and B.Tech degrees in Information Technology from Guru Gobind Singh Indraprastha University, Delhi. He is currently working as a University Assistant Professor in the Department of Computer Science & Engineering at the Delhi Technological University, Delhi, India. He is member of various technical societies such as ACM, IEEE, IEANG, Computer Society of India (CSI), and Indian Society of Technical Education (ISTE). He has many publications to his credit in various international and national journals/ conferences. His research interests are in the area of Data Analytics, Artificial Intelligence, and Wireless Sensor Network.

Publication Details

1. **Beniwal, R.**, & Saraswat, P. (2024). A hybrid BERT-CPSO model for multi-class depression detection using pure hindi and hinglish multimodal data on social media. *Computers and Electrical Engineering*, *120*, 109786. **Impact Factor: 4.0**
2. **Beniwal, R.**, & Kumar, N. (2024). Energy optimized artificial hummingbird algorithm for routing in IoT-based software-defined WSN. *International Journal of Communication Systems*, *37*(8), e5748. **Impact Factor: 1.7**
3. Sharma, V., **Beniwal, R.**, & Kumar, V. (2024). Multi-level trust-based secure and optimal IoT-WSN routing for environmental monitoring applications. *the Journal of Supercomputing*, *80*(8), 11338-11381. **Impact Factor: 2.5**

SAMIULLAH MEHRABAN

Department of Computer Science Engineering

Samiullah Mehraban is pursuing PhD in the Department of Computer Science & Engineering at Delhi Technological University, Delhi, India. He completed his B.Tech in Computer Science at Kabul Education University, Kabul, Afghanistan, and ME at Gujarat Technological University, Gujarat, India. His research areas are Computer Networks, Software-Defined Networks, Hybrid SDN networks, network security, and wireless sensor networks. He worked as an Academic and Professional member of the Teacher Education Directorate at the Ministry of Education in Afghanistan. He has published many research papers in Conferences and reputed international journals.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Mehraban, Samiullah**, and Rajesh Kumar Yadav. (2024). "Traffic engineering and quality of service in hybrid software defined networks." *China Communications* 21.2: 96-121. **Impact Factor: 3.1**

SANJAY KUMAR

Department of Computer Science Engineering

Sanjay Kumar is currently an Assistant Professor in the Department of Computer Science and Engineering, Delhi Technological University (DTU), New Delhi, India. He did Ph.D. degree in Computer Applications from Indian Institute of Technology (IIT) Delhi. He has completed MTech in Computer Application from Indian Institute of Technology (IIT) Delhi, India. Previously, he has worked with National Informatics Centre, Govt. of India as Scientist-B. His research interests include Machine Learning, AI, Social Network Analysis, NLP, and Design and Analysis of Algorithms. He has published numerous articles and proceeding papers in reputed journals and conferences. Notably, more than 35 of his papers have been published in top-rated SCI/SCIE journals, reflecting the quality and impact of his work. He is a recipient of "Premier and Commendable Research Award for Excellence in Research" awarded by DTU for last five consecutive years. According to the list released by the prestigious Stanford University and Elsevier, Dr. Kumar is one among the top 2% of influential scientists and researchers globally for the year 2022 and 2023 in the domain of "Artificial Intelligence and Image Processing".

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

02 Commendable Research Award

04 Premier Research Award

Publication Details

1. Mahajan, E., Mahajan, H., & **Kumar, S. (2024)**. EnsMulHateCyb: Multilingual hate speech and cyberbully detection in online social media. *Expert systems with applications*, 236, 121228. **Impact Factor: 7.5**
2. Kumar, A., Jain, D. K., Mallik, A., & **Kumar, S.** (2024). Modified node2vec and attention based fusion framework for next POI recommendation. *Information Fusion*, 101, 101998.**Impact Factor: 15.5**
3. **Kumar, S**., Kumar, A., Mallik, A., & Singh, R. R. (2023). Optnet-fake: Fake news detection in socio-cyber platforms using grasshopper optimization and deep neural network. *IEEE Transactions on Computational Social Systems*, 11(4), 4965-4974. **Impact Factor: 5.0**
4. Kumar, A., Mallik, A., & **Kumar, S.** (2024). TLP-NEGCN: Temporal Link Prediction via Network Embedding and Graph Convolutional Networks. *IEEE Transactions on Computational Social Systems*, *11*(3), 4454-4464. **Impact Factor: 5.0**

5. **Kumar, S.** (2024). Negative stances detection from multilingual data streams in low-resource languages on social media using BERT and CNN-based transfer learning model. *ACM Transactions on Asian and Low-Resource Language Information Processing*, 23(1), 1-18. **Impact Factor: 2.0**
6. Kumar, A., Mallik, A., & **Kumar, S.** (2024). HumourHindiNet: Humour detection in Hindi web series using word embedding and convolutional neural network. *ACM Transactions on Asian and Low-Resource Language Information Processing*, 23(7), 1-21. **Impact Factor: 2.0**

SHAILENDER KUMAR

Department of Computer Science Engineering

AWARD SUMMARY

02 Commendable Research Award

Shailender Kumar is currently serving as Professor and Head of the Computer Centre, as well as Associate Head of the Department of Computer Science and Engineering at Delhi Technological University (DTU), formerly Delhi College of Engineering. He is a distinguished academician and researcher with over 24 years of teaching experience. He has supervised 06 Ph.D. scholars and 40 M.Tech Dissertation. He guided 100+ B.Tech Projects. His research contribution includes over 100 publications in reputed International Journals, International Conferences and Book Chapters/Letters. He is frequently invited as expert speaker at several reputed universities and colleges, sharing his insights on emerging technologies. His research interest includes Data Mining, Big Data Analytics, Machine Learning, Fake News Detection, Information Security and others. He has been an expert member in various committees constituted by State Govt. and Central Govt. His dedication to research, education and innovation continues to shape the future of many young minds.

Publication Details

1. Ashish Kumari, **Shailender Kumar**, Ram Shringar Raw (2024), Towards secure IoT system from a smart city perspective: An optimized algorithm and implementation. *Transactions on Emerging Telecommunications Technologies*, 35(4). **Impact Factor: 2.5**
2. Ashish Kumari, **Shailender Kumar**, Ram Shringar Raw (2024), SSR-GAN: super resolution-based generative adversarial networks model for flood image enhancement. *Signal Image and Video Processing*, 18(8–9), 5763–5773. https://doi.org/10.1007/s11760-024-03269-z. **Impact Factor: 2.1**

VISHAL SHARMA

Department of Computer Science Engineering

AWARD SUMMARY

01 Commendable Research Award

Vishal Sharma obtained his Ph.D. in Computer Science & Engineering from Delhi Technological University, New Delhi, India, in 2025. He possesses over 16 years of extensive academic and research experience, with expertise encompassing Computer Networks, Internet of Things (IoT), Machine Learning, Artificial Intelligence, and Embedded Systems, particularly in applications related to agriculture, environmental sustainability, and transportation systems. He is a Fellow Executive Member of the IETE, New Delhi Division, and serves as the Student Branch Counsellor of the Computer Society of India. He has many publications in the international journals and conferences, reflecting his significant contributions to the field.

Publication Details

1. **Sharma, V.**, Beniwal, R., & Kumar, V. (2023). Towards secure IoT system from a smart city perspective: An optimized algorithm and implementation. *Transactions on Emerging Telecommunications Technologies*, *35*(4). **Impact Factor: 2.5**

VINAY DUBEY

Department of Computer Science Engineering

AWARD SUMMARY

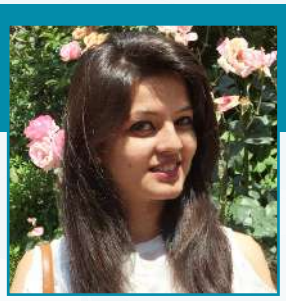
01 Commendable Research Award

Vinay Dubey is currently a Ph.D. Research Scholar in the Department of Computer Science at Delhi Technological University (DTU), Delhi, India. Throughout his academic journey, he has consistently focused on advancing knowledge in computer science, artificial intelligence, and related domains. He has published several research papers in reputed SCIE, SCOPUS, IEEE, and Elsevier-indexed international journals and conferences, highlighting his contributions to cutting-edge research. His primary research interests include Artificial Intelligence (AI), Machine Learning (ML), Deep Learning (DL), and their applications in disaster management. At present, his doctoral research emphasizes the development of AI-driven models for disaster resilience, early warning systems, and risk mitigation strategies. He is passionate about exploring interdisciplinary approaches that integrate computer science, data analytics, and environmental monitoring to address real-world challenges. With active participation in the academic and research community through publications and collaborations, his long-term vision is to contribute to sustainable societal development by applying artificial intelligence techniques in disaster management and other critical domains.

Publication Details

1. **Dubey, V.**, & Katarya, R. (2024). SSR-GAN: super resolution-based generative adversarial networks model for flood image enhancement. *Signal Image and Video Processing*, 18(8–9), 5763–5773. https://doi.org/10.1007/s11760-024-03269-z. **Impact Factor: 2.1**

Department of
Design



ANURADHA KUMARI

Department of Design

AWARD SUMMARY

01 Premier Research Award

Anuradha Kumari, graduated in Electronics & Communication Engineering from Chitkara University, H.P. Thereafter she did her Masters in Industrial Design from Punjab Engineering College, Chandigarh. She worked as an Assistant Professor at Lovely Professional University, Punjab from 2016 to 2019. After working for almost 3 years she joined Delhi Technological University, Delhi as a research scholar in the area of "Frugal Product Design." Anuradha, a passionate designer, finds inspiration in the culture and traditional art with a blend of nature and technology. With over seven years of experience in product design and UXD, she brings a wealth of knowledge and expertise to her role as an educator and researcher. Her primary research interests are Design for Sustainability, Design Thinking, Human Factors, and Frugal Design. She has hands-on experience with Product prototyping. Anuradha is dedicated to inspiring and educating the next generation of designers, and her innovative teaching methods have earned her numerous awards and accolades. She also organized international conferences "NICHE 2018," "ICAPIE 2019", and "ICDM 2021". She has authored some publications in referred journals and conferences. She is also a member of the Association of Designers (ADI) of India.

Publication Details

1. **Kumari, A.**, Singh, R., & Das, L. K. (2024). A Conceptual Model to Assess the Effectiveness of Frugal Product Design Frameworks. *IEEE Transactions on Engineering Management*,vol. 71, pp. 11734-11745, 2024, doi: 10.1109/TEM.2024.3429159.**Impact factor: 5.2**

Delhi School of Management

APOORVA JAIN

Delhi School of Management

Apoorva Jain is an Assistant Professor at Delhi School of Management, DTU. She was previously working with Vivekananda Institute of Professional Studies, GGSIPU as Assistant Professor for 2 years. She has completed her Doctorate of Philosophy (Ph.D.) from Delhi School of Management, Delhi Technological University in the area of International Business and Family Business Management. She has taught subjects in the domain of International Business, Finance and Accountancy. She has published various research papers in the international journals of repute like Journal of Business Research (ABDC – A), International Journal of Entrepreneurial Behaviour & Research (ABDC – B), Journal of the Asia Pacific Economy (ABDC – B), among others. She has presented research papers in various national and international conferences including ISC at IIMA, MERC at IIMK, SFME at IIT Roorkee, among others. She has also won best paper awards by International Journal of Emerging Markets and in an international conference jointly organised by Ramanujan College, University of Delhi, Ministry of Education, PhD Chamber of Commerce and Industry and Shri Ram College of Commerce, University of Delhi. Her areas of interest include International Business, Family Business Management and Finance.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Jain, A.**, Thukral, S., & Paul, J. (2024). Foreign market entry modes of family firms: A review and research agenda. *Journal of Business Research*, *172*, 114407. **Impact Factor: 9.8**

MOHIT BENIWAL

Delhi School of Management

Mohit Beniwal holds a B.E. from Netaji Subhas University of Technology (NSUT), an MBA, and a Master's in Information Systems from Iowa State University, USA. He completed his Ph.D. in 2023. Along with academic experience, he has worked with organizations such as HCL Technologies, Coforge, Accenture (USA), and YesMail in San Francisco.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Beniwal, M.**, Singh, A., & Kumar, N. (2024). Forecasting multistep daily stock prices for long-term investment decisions: A study of deep learning models on global indices. *Engineering Applications of Artificial Intelligence*, 129, 107617. **(Impact Factor: 8)**

SAURABH AGRAWAL

Delhi School of Management

Saurabh Agrawal, presently works as an Associate Professor and Head of Department in Delhi School of Management at Delhi Technological University, Delhi, India. He has vast experience of academics, research and the industry both in India and in USA. He has worked in V.Tech. Communications, OR, USA, and Wiquest Communications, TX, USA as supply chain analyst. His research focus is in the areas of Supply Chain Management, Reverse Supply Chain, Industry 4.0, Sustainability, Circular Economy and e-waste management. He has published research papers in international journal of repute including Business Strategy and the Environment, Resource Policy, Resource, Conservation, and Recycling; Journal of Industrial Engineering, International; Journal of advances in Management Research; Journal of Modelling in Management ;and Competitiveness Review: An International Business Journal.

AWARD SUMMARY

Yearly Citation Award

Department of
Electrical Engineering

AJIT NANDAWADEKAR

Department of Electrical Engineering

Ajit Nandawadekar received his B.E. in Electrical Engineering from the University of Pune in 2014, M.Tech. in Power Electronics from Amrita School of Engineering, Bangalore in 2017, and Ph.D. in Electrical Engineering from Delhi Technological University in 2024. His research interests include superconducting magnets, MRI, superconducting joints and switches, power electronics, multiphase drives, and cryogenic engineering.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Nandawadekar, A.**, Singh, M. & Kar, S. Study of power diodes used for MRI applications. *J. Power Electron.* 24, 316–323 (2024) **Impact Factor:1.56**

ANKITA ARORA

Department of Electrical Engineering

Ankita Arora received her B.Tech degree from Jamia Millia Islamia, M.Tech from NSIT Delhi University and PHD degree from Delhi Technological University. She joined Delhi Technological University (DTU) as Assistant Professor in 2016. Presently she is an Assistant Professor in the Electrical Engineering Department, DTU. Her research interests are in the power quality, Phase Locked Loop Techniques, Renewable Energy Source and Electric Vehicles. Dr. Arora is a member of IEEE USA, life member of Indian Society for Technical Education, New Delhi, India. She has total of eight years of experience as Assistant Professor in the department of Electrical Engineering. She has organised IEEE conference ICPEICES 2024 in Delhi Technological University. She has more than 30 publications in reputed peer reviewed International Journals and Conferences with his present research impact in terms of h index of 6, i-10 index of 4. She is currently guiding 2 PhD students and supervised 9 M.Tech dissertations.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Arora A,** Singh A. (2024). Fractional delay Newton structure for Lagrangian interpolation in PV integrated grid connected system. *Int J Circ Theor Appl.,* 52(3),1095-1115. **Impact Factor: 1.6**

ANUPAMA

Department of Electrical Engineering

Anupama is an Assistant Professor in the Electrical Department at Delhi Technological University (DTU), Delhi. She received her B.Tech degree in Electronics and Communication Engineering from Netaji Subhas Institute of Technology (NSIT), Delhi, in 2013, and her M.Tech in VLSI Design from Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi, in 2015. She is currently pursuing a Ph.D. in Electronics and Communication Engineering at DTU. Her research interests include semiconductor device design, modeling, and simulation for low-power applications. She is also a member of IEEE, IEI, and ISTE.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Anupama**, Rewari, S., & Pandey, N. (2024). Numerical simulation and characterization of high-power Gallium Nitride based Junctionless

Accumulation Mode Nanowire FET (GaN-JAM-NWFET) for small signal high frequency terahertz applications. *AEU - International Journal of Electronics and Communications, 174*, 155032. **Impact Factor: 3**

2. **Anupama**, Rewari, S., & Pandey, N. (2024). Numerical simulation of core shell dual metal gate stack junctionless accumulation mode nanowire FET (CS-DM-GS-JAMNWFET) for low power digital applications. *Micro and Nanostructures, 196,* 207995. **Impact Factor: 2.7** https://doi.org/10.1016/j.micrna.2024.207995. (Already mailed to IRD about duplicate entry to resolve this issue)

ARVIND GOSWAMI

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

Arvind Goswami was born and brought up in Punjab, India, and has over 13 years of professional experience spanning academia, research, industry, and entrepreneurship. He earned his B.E. in Electrical Engineering from Punjab Engineering College, Chandigarh, followed by an M.E. from PEC University of Technology, and a Ph.D. in Electrical Engineering from Delhi Technological University, Delhi, with his doctoral research focusing on the design and implementation of BLDC motor drive controllers for electric vehicle applications. He has worked extensively on developing efficient control strategies for EV powertrains, emphasizing sensor fault mitigation and optimized commutation techniques. His contributions aim to enhance the reliability, efficiency, and performance of EV drive systems in real-world conditions. His career includes significant stints with organizations such as C-DAC, TCIL IT, Inductis (now EXL Services), and Chandigarh University, as well as other entrepreneurial ventures. His research interests lie in electric vehicle control systems, embedded systems, power electronics, and motor drives.

Publication Details

1. **Goswami, A.**, Sreejeth, M., Singh, M. (2024). Investigation and mitigation of unbalanced hall sensor signal faults in sensored brushless DC motor drives. *Electrical Engineering*, 106, 4835–4850. **Impact Factor: 1.9**
2. **Goswami, A.**, Sreejeth, M., Singh, M. (2024). DC link current based commutation delay compensation method for sensored brushless DC motor drives. *Journal of Power Electronics,* 24(4), 897–905. **Impact Factor: 1.3**

ATUL AVASTHI

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Atul Avasthi earned his bachelor's degree in Electrical Engineering from Rajasthan Technical University, Kota, and his master's degree in Power Systems from Government Engineering College, Bikaner. He is currently a Doctoral Research Scholar in Electrical Engineering at Delhi Technological University, Delhi, India. His research focuses on renewable energy systems, with an emphasis on floating solar photovoltaic power plants.

Publication Details

1. **Avasthi, A.**, Garg, R., & Mahajan, P. (2024). Comparative analysis of bifacial and monofacial floating solar power plants: Performance evaluation and economic analysis. *Iranian Journal of Science and Technology, Transactions of Mechanical Engineering*, 48(4), 2167-2185. **Impact Factor: 1.7**

BANDANA

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Bandana has received her Bachelor of Engineering Degree in Electrical Engineering and M. Tech Degree in Instrumentation and Control in year 2006 and 2008 from Aligarh Muslim University (AMU), Aligarh, India. and she has awarded PhD degree from Delhi Technological University (DTU), Delhi India. She has 16 years of teaching experience in KIET and KEC, AKTU affiliated colleges, India and currently working as Assistant Professor in KIET Group of Institutions. Her area of research includes Metaheuristic Optimization Techniques, Hybrid Renewable Energy Based Systems (HRES), Size Optimization Of HRES, Space Vector PWM inverter etc. She has published 8 research papers in SCIE and International Journals. She has also presented and published 8 research papers in international conferences. She has also got best paper award in JTACON 2020, multidisciplinary International Conference held at Jamia Milia Islamia, New Delhi, India. She is lifetime member of International Association of Engineers (IAENG).

Publication Details

1. Anand, P., **Sharma, B.**, & Rizwan, M. (2024). Size optimization of grid-tied hybrid energy system by employing forecasted meteorological data. *Mapan*, 39(3), 739-750. **Impact Factor: 1.3**

BASANT TOMAR

Department of Electrical Engineering

AWARD SUMMARY

03 Commendable Research Award

Basant Tomar completed his Ph.D. in intelligent control and robotics systems with the Department of Electrical Engineering, Delhi Technological University (DTU), Delhi, India. He is currently working as an Assistant Managing Editor in the Global Services-OA department, SAGE, New Delhi, India. He received his M.Tech degree in Control and Instrumentation Engineering from DTU, Delhi, India in 2020 and the B.E. degree in Instrumentation and Control Engineering from Netaji Subhas University of Technology (formerly NSIT), Delhi, India in 2016. He has qualified for the national-level Graduate Aptitude Test in Engineering (GATE) and was a recipient of the GATE Financial Scholarship from 2018 to 2020. He has worked as a guest faculty at IGDTUW and DTU from 2024-2025. He has also worked in the R&D department at Addverb Technologies Pvt. Ltd., Noida, India. He has many publications in peer-reviewed journals and has presented his research articles at several International Conferences. He has also published two patents and has been awarded one patent grant by the Intellectual Property India, Govt. of India. His area of research includes fuzzy systems, instrumentation and control, Real-time control systems, PLC and SCADA automation.

Publication Details

1. **Tomar B.**, Kumar N., Sreejeth M. (2024). Augmentation in performance of real-time balancing and position tracking control for 2-DOF ball balancer system using intelligent controllers. *Wireless Personal Communications*, vol. 138, pp. 2227-2257. **Impact Factor: 2.2**
2. **Tomar B.**, Kumar N., Sreejeth M. (2024). PLC and SCADA based temperature control of heat exchanger system through fractional order PID controller using metaheuristic optimization techniques. *Heat and Mass Transfer,* vol. 60, pp. 1585 1602. **Impact Factor: 2.0**

3. **Tomar B.**, Kumar N., Sreejeth M. (2024). Robust control of rotary inverted pendulum using metaheuristic optimization techniques based PID and fractional order PIAD^ controller. *Journal of Vibration Engineering & Technologies*, vol. 12, pp. 1-20. **Impact Factor: 2.4**

BRIJENDRA SANGAR

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Brijendra Sangar is currently an Associate Professor (on leave) at the Gurukul Institute of Engineering and Technology, Kota, and a Senior Research Fellow in the Department of Electrical Engineering at Delhi Technological University, where he recently submitted his Ph.D. on "Performance Enhancement of Permanent Magnet Synchronous Motor (PMSM) for Electric Vehicle Applications." With over 14 years of academic and project experience, his teaching and research interests include control systems, automation, embedded system design, electric vehicles, and power electronics. He holds an M.E. in Control and Instrumentation Engineering from Delhi College of Engineering and a B.E. in Electronics Instrumentation and Control Engineering from IET Alwar, and has contributed through several journal and conference publications in the field of EV drives and intelligent control.

Publication Details

1. **Sangar, B.**, Singh, M., & Sreejeth, M. (2024). An improved ANFIS model predictive current control approach for minimizing torque and current ripples in PMSM-driven electric vehicle. *Electrical Engineering*, 106(5), 5897-5907. **Impact Factor: 1.9**

CHANDAN KUMAR

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

Chandan Kumar earned his bachelor's degree in Electrical Engineering from Biju Patnaik University of Technology, Rourkela, Odisha, and his master's degree in Power Electronics from Birla Institute of Technology, (BIT) Mesra Ranchi. He is also pursuing Ph.D. in Electrical Engineering from Delhi Technological University (DTU), Delhi. He is currently working as an Assistant Professor at Galgotias College of Engineering and Technology, Greater Noida, Uttar Pradesh. His research focuses on design of multilevel inverter and providing security in smart grid using Blockchain.

Publication Details

1. **Kumar, C.** & Chittora, P. (2024). Secure and privacy preserving framework for IoT-Enabled smart grid environment. *Arabian Journal for Science and Engineering*, Volume 49,3063-3078. **Impact Factor: 2.9**
2. **Kumar, C.** & Chittora, P. (2024). Deep learning and blockchain empowered secure data sharing for smart grid infrastructure. *Arabian Journal for Science and Engineering*, Volume 49,16155-16168. **Impact Factor: 2.9**

CHETAN GASAIN

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Chetan Gusain completed his B.Tech in 2012 from Northern India Engineering College, affiliated with Guru Gobind Singh Indraprastha University (GGSIPU), in Electrical and Electronics Engineering. He received his M.Tech degree in Renewable Energy Engineering and Management from the TERI School of Advanced Studies, New Delhi, India, in 2020. He further enrolled in the Ph.D. program at Delhi Technological University, Delhi, India, specializing in the optimization of solar photovoltaic systems and hybrid renewable energy solutions. He received the Research Excellence Award in 2024 for his commendable research contributions. His academic journey has been strongly research-driven, with a focus on solar photovoltaics, battery energy storage, hybrid energy systems, and advanced data-driven metaheuristic techniques. His work integrates technical expertise with rigorous research, aiming to accelerate renewable energy adoption and support the global transition toward sustainable power systems.

Publication Details

1. **Gusain, C.**, Nangia, U., & Tripathi, M. M. (2024). Optimal sizing of standalone hybrid renewable energy system based on reliability indicator: A case study. *Energy Conversion and Management*, 310, 118490. **Impact Factor: 10.9**

CHAUDHRY INDRA KUMAR

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Chaudhry Indra Kumar is an Assistant Professor in the Department of Electrical Engineering at Delhi Technological University, where he has been since 2020. Prior to that, he was working as an Assistant professor in Birla Institute of Technology and Science Pilani, Goa. Previously he was associated with the Indian Institute of Technology Roorkee, as a Research Associate. He received his Ph.D. in VLSI Design from the Indian Institute of Technology Roorkee in 2019. He received his Masters (M.Tech.) from IIITM Gwalior, India.

Dr. Chaudhry Indra Kumar has more than seven year of teaching experience in his career. He has published several research articles and served as a reviewer in many reputed international journals and conferences. His research interest is in the areas of device physics, circuit- device interaction, Low power circuit design, and energy efficient sequential circuit design.

Publication Details

1. **Chaudhry Indra Kumar**, Abhishek Chaudhary, Shreyansh Upadhyaya (2024). Design of high performance energy efficient CMOS voltage level shifter for mixed signal circuits, applications. *Integration, Volume 95*, March 2024, 102133. **Impact Factor: 2.5**

D. R. BHASKAR

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

D R Bhaskar received BSc degree from Agra University, BTech degree from Indian Institute of Technology (IIT) Kanpur, MTech from IIT Delhi, India and PhD from University of Delhi, India. Prof Bhaskar held the positions of lecturer (1984–1990) and senior lecturer (1990–1995) at the Electrical Engineering Department of Delhi College of Engineering (now Delhi Technological University). He joined the Electronics and Communication Engineering (ECE) Department of Jamia Millia Islamia, New Delhi, India in July1995, as a reader and became a professor in January 2002. He served as the head of the Department of ECE from 2002 to 2005. Presently, he is working as an Honorary professor in the Department of Electrical Engineering, Delhi Technological University, Delhi, India. His teaching and research interests are in the areas of bipolar and CMOS analog integrated circuits and systems, current mode signal processing, communication systems and electronic instrumentation. Prof Bhaskar has authored or co-authored 215 research papers—all in international journals of repute. He has co-authored 4 monographs. He has acted/has been acting as a reviewer for several journals of IEEE, IEE and other international journals of repute.

Publication Details

1. **Bhaskar, D. R.**, Shrivastava, M., Raj, A., & Kumar, P. (2024). Floating parallel lossy inductance, parallel lossy capacitance, parallel C-D, and lossless capacitance multiplier circuits using current feedback operational amplifiers. *International Journal of Circuit Theory and Applications*, 52(3), 1489-1517.
2. **Bhaskar, D. R.**, Bhagat, R., Raj, A., & Kumar, P. (2024). Grounded synthetic series lossy inductor simulator circuits employing single current differencing buffered amplifier. *International Journal of Circuit Theory and Applications*, 52(6), 3081-3098.

DHEERAJ JOSHI

Department of Electrical Engineering

AWARD SUMMARY

01 Innovation Award

Dheeraj Joshi is working as Professor since July 2015 in EE Department, DTU Delhi. He has more than 25 years of experience in research and teaching in NIT Kurukshetra and DTU Delhi. He got university gold medal in his Masters from IIT Roorkee for his achievements in Power Electronics and Electric Drives. He has more than 200 publications in national and international journals. He guided 8 PhD and more than 40 MTech students. He has six utility patents and completed two research projects in year 2023 and 2024 respectively. He authored two books in the area of advanced power electronics and its applications by CRC press and Wiley. He organized IEEE conference, STC in DTU Delhi. He is life member of ISTE , Senior member IEEE and Fellow of IE(I). He received several best paper awards in reputed international conferences. His area of expertise is renewable energy sources, power electronics and optimization techniques.

DIPAK PRASAD

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Dipak Prasad is a Ph.D. Scholar in Control Systems in the Electrical Engineering Department at Delhi Technological University, Delhi, under the supervision of Prof. Sudarshan K. Valluru and co-supervision of Dr. Madan Mohan Rayguru. His research focuses on nonlinear systems, singularly perturbed systems, switched systems, and singularly perturbed switched systems. He has developed advanced control strategies, including neural backstepping controllers, disturbance observers, and filtered backstepping controllers, with applications to systems such as the Twin Rotor MIMO System and single-link manipulators. Mr. Dipak earned his B.Tech in Electrical Engineering from Maulana Abul Kalam Azad University of Technology, West Bengal (2015), and his M.Tech in Control and Industrial Automation from the National Institute of Technology, Silchar (2019). He has published research in reputed journals such as Sadhana and the International Journal of Control, and actively contributes to the advancement of robust nonlinear control design.

Publication Details

1. **Prasad, D.**, Valluru, S. K., & Rayguru, M. M. (2024). Filter based saturated controller design for a class of nonlinear singularly perturbed systems. *Sadhana*, 49(2), 184. **Impact Factor: 1.4**

KANCHAN BALA RAI

Department of Electrical Engineering

AWARD SUMMARY

01 Premier Research Award

01 Commendable Research Award

Kanchan Bala Rai is currently working as a Senior Engineer – Power Electronics (R&D) at Ornate Solar, where she is engaged in the design and development of advanced grid-connected inverters. She earned her PhD in Electrical Engineering from Delhi Technological University (DTU), New Delhi, with specialization in power electronics and renewable energy systems. Her research focused on developing adaptive control techniques and custom power devices to improve power quality in PV-integrated grids. At Ornate Solar, she works on real-time control, embedded programming, and inverter topology design to ensure reliable and efficient solar integration. She has published multiple peer-reviewed papers on DVRs, UPQC, and active filters using neural networks and adaptive algorithms. With her blend of academic excellence and industry experience, she contributes to innovative solutions tailored to Indian grid conditions. She is passionate about advancing clean energy technologies and bridging the gap between research and practical deployment. Her work plays a key role in supporting India's transition to sustainable solar energy.

Publication Details

1. **Rai, K. B.**, Kumar, N., & Singh, A. (2024). Three-Phase Grid Connected Shunt Active Power Filter Based on Adaptive Q-LMF Control Technique. *IEEE Transactions on Power Electronics,* 39(8), 10216–10225. https://doi.org/10.1109/tpel.2024.3398369
2. **Rai, K. B.**, Kumar, N., & Singh, A. (2024b). Design and control of DVR based on adaptive Batman Polynomial for power quality improvement. *International Journal of Circuit Theory and Applications*. https://doi.org/10.1002/cta.4270

KARTIK SAINI

Department of Electrical Engineering

Kartik Saini is pursuing Ph.D. in the area of Control Systems at Electrical Engineering Department, Delhi Technological University, New Delhi. His research focuses on developing advanced control techniques to improve the performance, stability, and reliability of dynamic systems. He has a strong interest in both the theoretical foundations and practical applications of control engineering, and he is passionate about solving real-world problems through innovative and efficient control strategies. Throughout my academic journey, he has been actively involved in research activities, paper writing, and collaborative projects.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Saini, K.**, Kumar, N., Bhushan, B., & Kumar, R. (2024). Artificial neural network-based adaptive control for nonlinear dynamical systems. I*nternational Journal of Adaptive Control and Signal Processing*, 38(8), 2693-2715. **Impact Factor: 3.9**

KASHIKA BARANWAL

Department of Electrical Engineering

Kashika Baranwal received her B.Tech degree in Electrical Engineering from Uttar Pradesh Technical University, in 2013, M.Tech. degree in Automation and Robotics from Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi, in 2015. She is currently working towards the Ph.D. degree with the Delhi Technological University (DTU), Delhi, India. Her current research focuses on photovoltaic power conversion with a focus on modeling and analysis of solar cells, design and implementation of solar PV systems, performance evaluation under partial shading conditions, and innovative methodologies to enhance overall system efficiency.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Baranwal, K.**, Prakash, P., & Yadav, V. K. (2025). Optimizing bypass diode performance with modified hotspot mitigation circuit. *Solar Energy Materials and Solar Cells*, 280, 113281. **Impact Factor: 6.3**

LALIT AGARWAL

Department of Electrical Engineering

Lalit Agarwal received the bachelor's degree (Hons.) in Electrical and Electronics Engineering from U. P. Technical University, Lucknow, the master' degree (Hons.) in Power System and Drives from J. C. Bose university of Science and Technology, Faridabad (Formerly YMCA University of Science and Technology, Faridabad). He is currently pursuing PhD degree from Delhi Technological University, Delhi. He is presently working as an Assistant Professor in EEE Department of Maharaja Agrasen Institute of Technology, Delhi (affiliated to GGSIP University, Delhi). His research interests include Artificial Intelligence, machine learning, cyber security, power system modelling and control and smart grid.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Agarwal, L.**, Jaint, B., & Mandpura, A. K. (2024). Reducing overfitting in deep learning intrusion detection for power systems with CTGAN. *Chaos Solitons & Fractals*, 188, 115603. https://doi.org/10.1016/j.chaos.2024.115603. **Impact Factor: 5.6**

M. RIZWAN

Department of Electrical Engineering

AWARD SUMMARY

Cumulative Citation Award (Silver)

M. Rizwan did his post-doctoral research at Virginia Polytechnic Institute and State University, USA. He has more than 23 years of teaching and research experience. Dr. Rizwan has successfully completed three research projects in the area of renewable energy systems and published and presented more than 220 research papers in reputed international/national journals including IEEE transactions and conference proceedings. Presently he is working on two international and one national research projects in the area of solar PV and EVs. Dr. Rizwan has authored one book for CRC Press, USA and edited one book for AIP Publishing, USA. He is the recipient of Raman Fellowships for Post-Doctoral Research for Indian Scholars in USA, DST Start Up Grants (Young Scientists) and many more. His area of interest includes soft computing applications in power engineering, renewable energy systems, building energy management, smart grid etc. He is a Sr. Member of IEEE, Life Member of ISTE, Life Member of SSI, Member of International Association of Engineers (IAENG), and many other reputed societies.

MANVI MISHRA

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Manvi Mishra recently submitted her PhD thesis in Electrical Engineering at Delhi Technological University under the guidance of Prof. Priya Mahajan and Prof. Rachana Garg. She is currently a Research Affiliate at the Power, Energy, and Smart Research Laboratory (PESRLAB), University of New Haven, USA. Her research focuses on data-driven forecasting for solar PV systems, solar irradiance prediction, electric load analysis, and optimization of machine learning models. Passionate about sustainable energy and AI applications in power systems, she aims to pursue a career in academia and research.

Publication Details

1. **Mishra, M.**, Mahajan, P. & Garg, R. (2024). Implementation and comparison of metaheuristically modified ANN MPPT controllers under varying solar irradiance conditions. *Electrical Engineering*, 106, 3427-3443. https://doi.org/10.1007/s00202- 023-02165-y. **Impact Factor: 1.9**

MAYANK KUMAR

Department of Electrical Engineering

AWARD SUMMARY

01	Innovation Award
01	Sponsored Research Project Award
03	Premier Research Award

Mayank Kumar is an Assistant Professor with the Department of Electrical Engineering, Delhi Technological University, Delhi, India. He received the B.Tech. (Hons.) degree in electronics and communication engineering from Dr. A.P.J. Abdul Kalam Technical University, Lucknow, India, in 2010, and the M.Tech. and Ph.D. degrees in electrical engineering from the Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India, in 2013 and 2017, respectively. Dr. Kumar is a senior member of IEEE and a member of the Institution of Engineers, and he is listed in the Stanford 2% Scientist Award list for the year 2024. He has more than fourteen years of experience in the field of teaching and research. His research interests include fault-tolerant dc-dc power converters, fault detection and identification in MLIs, digital control of converters, dc-dc, dc-ac, and ac-ac converters, solar power conversion, and so on. He has published several IEEE Transactions and IET Journals, in which six (06) IEEE Transactions are as a single author, one patent is granted, three patents are published, and he successfully completed one SERB-sponsored project at a cost of 31.48 lakhs.

Publication Details

1. **M. Kumar**, (2024). Multiple Open Switch Fast Fault Detection and Localization Algorithm for Tolerant CHB-MLI. *IEEE Transactions on Transportation Electrification*, 10 (3), 6789-6800. **Impact Factor: 8.3**
2. **M. Kumar**, (2024). Detection and Localization of Open Switch Faults for Level-Shifted PWM Cascaded H-Bridge Inverter. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 71 (4), 2409-2413. **Impact Factor: 4.9**
3. A. K. Gupta, **M. Kumar**, (2024). Characterization and Localization of Open Circuit Faults for n-Phase Interleaved Buck Converter. *IEEE Transactions on Industry Applications*, 60 (2), 3273-3283. **Impact Factor: 4.5**

MEGHANA SHRIVASTAVA

Department of Electrical Engineering

AWARD SUMMARY

02	Commendable Research Award

Meghana Shrivastava received her B.Tech degree in Instrumentation Engineering from Bundelkhand University, Jhansi, India, in 2017, and her M.Tech degree in Control and Instrumentation Systems from Jamia Millia Islamia, New Delhi, India, in 2021. She is currently pursuing her doctoral studies in the Department of Electrical Engineering at Delhi Technological University, New Delhi, India. Her research interests include analog signal processing, signal generation, immittance simulator circuit design, and filter design. She has experience working with modern active building blocks such as CFOA, CFDITA, and VCII, as well as simulation tools including PSpice, Cadence Virtuoso, and MATLAB.

Publication Details

1. **Shrivastava, M.**, Kumar, P., Raj, A., & Bhaskar, D. R. (2024). Single current follower differential-input transconductance amplifier based grounded lossy capacitance multiplier with large multiplication factor. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, 37 (1), e3139. **Impact Factor: 1.6**
2. Raj, A., **Shrivastava, M.**, Bhaskar, D. R., & Kumar, P. (2024). Enhancement of multiplication factor of capacitor using single current-follower differential-input transconductance amplifier. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, 37 (4), e3279. **Impact Factor: 1.6**

MINI SREEJETH

Department of Electrical Engineering

AWARD SUMMARY

01 Innovation Award

01 Sponsored Research Project Award

An author, academician and research enthusiast with B. Tech, M. Tech and Ph.D. degrees from Mahatma Gandhi University, Calicut University and Delhi University respectively. After a short stint in the Generation Division of the Kerala State Electricity Board as Assistant Engineer and as a Lecturer in Government Engineering College, Chengannur, Kerala, she joined Indian Institute of Technology, Kanpur as a Senior Research Associate in the area of Distribution Automation. Joined Directorate of Training and Technical Education in 1999 as a lecturer and is presently a Professor and Associate Head of Department, Electrical Engineering at Delhi Technological University (DTU). With more than 85 research publications and having successfully guided many Ph.D. scholars and graduate students, her research interests are in the areas of – electric vehicles and related technologies; electric drives; PLC based SCADA systems for automation and control of drives. She has successfully completed a Govt. of India, MeitY sponsored research project, that culminated in the development of a BLDC motor controller for light mobility applications. The developed controller has been certified by ICAT, Manesar for EMI/EMC standards, granted Indian Patent, and resulted in execution of technology licensing agreement between DTU and the Industrial Partner. She has also successfully completed three other DTU sponsored research projects. As coordinator, organised a 1-week MHRD, GoI sponsored GIAN Course, in addition to many other workshops in EED, DTU.

PARUL KANSAL

Department of Electrical Engineering

AWARD SUMMARY

03 Commendable Research Award

Parul Kansal is an accomplished academician and researcher, presently working as an Assistant Professor in the Department of Electronics & Communication Engineering at Bipin Tripathi Kumaon Institute of Technology (BTKIT), Dwarahat, Almora, Uttarakhand, a state government engineering institute of Uttarakhand, where she has been serving since 2011. She holds a Ph.D. in Electrical Engineering from Delhi Technological University (DTU), an M.Tech from the National Institute of Technology (NIT), Kurukshetra, and a B.Tech from Uttar Pradesh Technical University, Lucknow. With over 18 years of teaching and research experience, including 14 years at BTKIT, Dr. Kansal specializes in Wireless Sensor Networks, Internet of Things, Energy-Efficient Routing Protocols, RF & Microwave Systems, and 5G Communication. She has guided numerous undergraduate and postgraduate research projects and published in reputed journals and conferences. Her research primarily focuses on energy efficiency, routing optimization, and performance enhancement in modern communication networks.

Publication Details

1. **Kansal, P.**, Mandpura, A. K., & Kumar, N. (2024). A dual band CPW-fed MIMO antenna for fifth generation application. *Physica Scripta*, 99(5), 1-10. **Impact Factor: 2.6**
2. **Kansal, P.**, Mandpura, A. K., & Kumar, N. (2024). Triple band self-decoupled MIMO antenna pair for 5G communication. *Physica Scripta*, 99(9), 1-11. **Impact Factor: 2.6**
3. **Kansal, P.**, Mandpura, A. K., & Kumar, N. (2024). Investigation of circularly polarized MIMO antenna with enhanced isolation for sub-6 GHz application. *Physica Scripta*, 99(10), 1-10. I**mpact Factor: 2.6**

POONAM

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Poonam is a Ph.D. candidate in Electrical Engineering at Delhi Technological University (DTU), specializing in AI-based renewable generation forecasting for microgrids. Her research advances time-series forecasting using deep learning models such as GRU ensembles, signal decomposition, and hybrid attention mechanisms to improve wind power prediction. She holds an M.Tech in Hydroinformatics Engineering from NIT Agartala and a B.Tech in Electrical Engineering. Poonam has published in high-impact venues, including a survey in Archives of Computational Methods in Engineering (IF: 9.9) and IEEE/ICIIS conferences, with several works under review in top journals like Future Generation Computer Systems. She has served as a Teaching Associate at Thapar Institute of Engineering and Technology, teaching Basic Electrical Engineering and Signals and Systems. Proficient in Python, PyTorch, and MATLAB, she also reviews for Energy Conversion and Management. A recipient of DTU and GATE scholarships, Poonam bridges AI innovation and sustainable energy solutions, aiming to enhance the global reliability of renewable systems.

Publication Details

1. **Dhaka, P.**, Sreejeth, M., & Tripathi, M. M. (2024). A survey of artificial intelligence applications in wind energy forecasting. *Archives of Computational Methods in Engineering*, 31(8), 4853-4878.

RANJEET SINGH

Department of Electrical Engineering

AWARD SUMMARY

01 Premier Research Award

03 Commendable Research Award

Ranjeet Singh is an Assistant Professor in the Department of Electrical Engineering, Faculty of Technology, University of Delhi. He holds a B.Tech from G.B. Pant Engineering College, an M.Tech in Renewable Energy Systems from NIT Kurukshetra, and a PhD from Delhi Technological University on performance enhancement of solar PV systems. He has served at SRM Institute of Science and Technology and Galgotias College of Engineering and Technology. A recipient of premier and commendable research awards from DTU (2024), Dr. Singh has published eight SCIE-indexed papers, including three in reputed IEEE journals. His research focuses on solar cell modeling, PV diagnostics, and reconfiguration strategies for improved performance.

Publication Details

1. **Ranjeet Singh**, Vinod Kumar Yadav, and Madhusudan Singh, An Improved Hot Spot Mitigation Approach for Photovoltaic Modules Under Mismatch Conditions, in *IEEE Transactions on Industrial Electronics*, vol. 71, no. 5, pp. 4840-4850. **(Impact Factor = 7.7)**
2. **Ranjeet Singh**, Vinod Kumar Yadav, and Madhusudan Singh, A Comprehensive Shade Resilient Approach for Enhanced PV Array Performance Under Irradiance Mismatch Conditions, in *IEEE Journal of Photovoltaics*, vol. 14, no. 3, pp. 549-556 **(Impact Factor = 2.5)**
3. **Ranjeet Singh**, Vinod Kumar Yadav, and Madhusudan Singh, Performance Enhancement of a Novel Reduced Cross-Tied PV Arrangement Under Irradiance Mismatch Scenarios, in *Applied Energy*, vol. 376, Part A, 124185 **(Impact Factor = 10.1)**

4. S. Kushwaha, **Ranjeet Singh**, R. Yadav, V.K. Yadav, T. Yadav, and S. Singh Reconfiguration of PV Array for Improved Performance Under Different Partial Shading Conditions Using Roulette Barrel Shifter Approach, in *Energy Conversion and Management*, vol. 322, 119151 **(Impact Factor = 9.9)**

SAURABH MISHRA

Department of Electrical Engineering

AWARD SUMMARY

01 Premier Research Award

Saurabh Mishra received the B.E. degree in Electrical Engineering from Government Engineering College, Jabalpur, Madhya Pradesh in 2012, M. Tech. degree in Electrical Drives from Maulana Azad National Institute of Technology (MANIT), Bhopal, Madhya Pradesh in 2016, and Ph.D. degree in Electrical Engineering from Indian Institute of Technology, Delhi (IIT-Delhi) in 2025. He has been with the Department of Electrical Engineering, Delhi Technological University (DTU), Delhi since 2017, where he is currently serving as an Assistant Professor. He is a Senior Member of IEEE and actively reviews for IEEE Transactions on Power Electronics, IEEE Transactions on Transportation Electrification, IEEE Transactions on Industrial Electronics, IETE Journal of Research, and various Elsevier journals. His research interests include power electronics, electrical machines, and electrical drives.

Publication Details

1. **S. Mishra**, B. Singh and A. Varshney, 2024 "Adaptive Flux Based Speed Estimation of Syn-Rel Motor Drive for Electric Vehicle with Solar-PV Assistance," *IEEE Transactions on Industry Applications*, vol. 60, no. 4, pp. 6634-6644. **Impact Factor: 4.5**

SHOBANA. R.

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

Shobana. R is currently pursuing Phd in Electrical Engineering. Her research interest includes Application of Artificial Neural network in modeling and control, Nature inspired learning algorithms, Optimization.

Publication Details

1. **Shobana, R.**, Jaint, B., & Kumar, R. (2024). Design of a novel robust recurrent neural network for the identification of complex nonlinear dynamical systems. *Soft Computing-A Fusion of Foundations, Methodologies & Applications*, 28(3).
2. **Shobana, R.**, Kumar, R., & Jaint, B. (2024). Nonlinear dynamical system approximation and adaptive control based on hybrid-feed-forward recurrent neural network: Simulation and stability analysis. *Expert Systems*, 41(9), e13619.

SHRUTI PRAJAPATI

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

Shruti Prajapati received her B.E. degree in Electrical and Electronics Engineering from MS Engineering College, Bangalore, India, in 2018, and her M.Tech. degree in Power Systems from Birla Institute of Technology, Mesra, Ranchi, India, in 2021. She is currently pursuing her Ph.D. in Electrical Engineering at Delhi Technological University, Delhi. Her research focuses on renewable energy systems, power quality enhancement, control strategies, and hybrid microgrids. She has expertise in optimization techniques and artificial neural networks (ANN) for improving system performance. Her academic work emphasizes integrating advanced control and intelligent algorithms to enhance the efficiency and reliability of modern power systems

Publication Details

1. **Shruti Prajapati**, Rachana Garg, and Priya Mahajan. Novel adaptive MPPT technique for enhanced performance of grid integrated solar photovoltaic system. *Computers and Electrical Engineering* 120 (2024): 109648. **Impact factor:4.9**
2. **Shruti Prajapati**, Rachana Garg, and Priya Mahajan. Modified control approach for MPP tracking and DC bus voltage regulation in a hybrid standalone microgrid. *Electric Power Systems Research* 236 (2024): 110935. **Impact factor:4.2**

SHUBHAM GUPTA

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Shubham Gupta received the B.E. degree in Electrical Engineering from the College of Technology and Engineering, Udaipur, India, in 2012, the M.Tech. degree in power engineering from Guru Nanak Dev Engineering College, Ludhiana, India, in 2015. He is currently working toward the Ph.D. degree in electrical engineering with a research focus on the techno-economic analysis and optimization of distributed energy resources in modern distribution systems with the Delhi Technological University, New Delhi, India. His research interests include electricity pricing, distributed energy resources, and energy system modeling.

Publication Details

1. **Gupta, S.**, Yadav, V. K., Singh, M., & Giri, A. K. (2025). Decision-making in multi-objective DG planning for distribution system via Shannon's entropy. *Electrical Engineering*, 107(7), 8995-9007.

SUDHANSHU MITTAL

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

Sudhanshu Mittal earned his bachelor's degree in Electrical Engineering from Sam Higgin Bottom Institute of Agriculture, Technology and Sciences, Prayagraj, Uttar Pradesh, and his master's degree in Power System Engineering from Indian Institute of Technology (Indian School of Mines), Dhanbad. He also completed Ph.D. in Electrical Engineering from Delhi Technological University (DTU), Delhi. He is currently working as an Assistant Professor of Research at Thapar Institute of Engineering and Technology, Patiala, Punjab. His research focuses on Grid connected EV charging systems, Microgrid, Power Quality Improvement and renewable energy sources.

Publication Details

1. **Mittal, S.**, Singh, A., & Chittora, P. (2024). Power quality enhancement in single phase two level/five level converters using adaptive-RBFNN algorithm. *Electrical Engineering*, 106(6), 7565-7578. **Impact Factor: 1.9**
2. **Mittal, S**., Singh, A., & Chittora, P. (2024). Design and development of leaky least mean fourth control algorithm for single- phase grid- connected multilevel inverter. *International Journal of Circuit Theory and Applications*, 52(1), 328-345. **Impact Factor: 1.6**

SNIGDHA CHATURVEDI

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Snigdha Chaturvedi is currently working as an Assistant Professor in the Department of Electrical and Electronics Engineering at KIET Group of Institutions, Ghaziabad. She received her Ph.D. in Control Systems from the Delhi Technological University, Delhi, in 2024, where her research focused on the Design and Analysis of Intelligent Controllers for Nonlinear Systems. Prior to this, she completed her M.Tech in Control and Instrumentation from Delhi Technological University in 2014, and her B.Tech in Electrical and Electronics Engineering with Honours from United College of Engineering and Research, Prayagraj in 2009. With more than eight years of teaching and research experience, her areas of expertise include nonlinear control, optimization algorithms, IoT, and intelligent computing techniques. She has published multiple SCIE-indexed research papers in reputed journals and presented her work at several national and international conferences.

Publication Details

1. **Chaturvedi, S.**, Kumar, N., & Kumar, R. (2024). A PSO-optimized novel PID neural network model for temperature control of jacketed CSTR: Design, simulation, and a comparative study. *Soft Computing*, 28(12), 4759–4773. **Impact Factor: 2.5**

SOMBIR KUNDU

Department of Electrical Engineering

AWARD SUMMARY

03 Commendable Research Award

Sombir Kundu is an Assistant Professor in the Department of Electrical Engineering at MMEC, Maharishi Markandeshwar (Deemed to be University), Mullana. He holds a B.Tech from MDU Rohtak, an M.Tech in Power Systems from DCRUST Murthal, and a PhD from Delhi Technological University (2023). He has taught at several institutions and published 20 research papers and 5 book chapters in reputed journals and publishers including Elsevier, Wiley, and Springer. A recipient of DTU's Research & Innovation Excellence Award (2024), he also serves as an editor for Scientific Reports (Springer Nature). His research interests include power electronics, renewable energy, microgrids, power quality, and advanced control techniques.

Publication Details

1. **Kundu, S.**, Singh, M., & Giri, A. K. (2024). Synchronization and control of WECS-SPV-BSS-based distributed generation system using ICCF-PLL control approach. *Electric Power Systems Research*, 226, 109919. https://doi.org/10.1016/j.epsr.2023.109919. (IF-4.2)
2. **Kundu, S.**, Singh, M., & Giri, A. K. (2024). SPV-wind-BES-based islanded electrical supply system for remote applications with power quality enhancement. *Electrical Engineering*, 106(1), 279–294. https://doi.org/10.1007/s00202-023-01979-0. (IF-1.8)
3. **Kundu, S**., Singh, M., Giri, A. K., & others. (2025). Robust and fast control approach for islanded microgrid system and EV charging station applications. *Electrical Engineering*, 107, 8385–8396. https://doi.org/10.1007/s00202-024-02291-1. (IF-1.8)

SUKHBIR SINGH

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Sukhbir Singh received his B.Tech in Electrical Engineering from Maharishi Dayanand University, Rohtak, Haryana, India, in 2011, and his M.Tech in Electrical Engineering with a specialization in Electrical Power Systems from Maharishi Dayanand University, Rohtak, Haryana, India in 2015. He is currently pursuing a Ph.D. in Electrical Engineering at Delhi Technological University, New Delhi, India. In September 2013, he joined the Department of Electrical Engineering, School of Engineering and Technology (a unit of Ganga Technical Campus), Bahadurgarh, Haryana, as an Assistant Professor. In May 2022, he moved to the Department of Electrical Engineering, Ganga Institute of Technology and Management, Jhajjar, Haryana, where he also served as an Assistant Professor. In November 2024, he joined Uttar Haryana Bijli Vitran Nigam (UHBVN), Government of Haryana, as a Junior Engineer (Electrical). His research interests include power electronics, renewable energy, grid-connected PV systems, power quality, and the application of adaptive and robust control techniques in grid-connected PV systems.

Publication Details

1. **Singh, S.**, & Rai, J. N. (2024). Implementation of an adaptive control approach in a single-phase grid-tied solar photovoltaic system for power quality improvement. *International Journal of Circuit Theory and Applications*, 52(11), 5916–5931. https://doi.org/10.1002/cta.4032. (IF-1.6).

UDIT MITTAL

Department of Electrical Engineering

AWARD SUMMARY

01 Commendable Research Award

Udit Mittal, completed B.E. (honors) in Electrical Engineering from Aligarh Muslim University, Aligarh, India, and M.Tech in Power System & Drives from Aligarh Muslim University, Aligarh, India. Currently, I am working as an Assistant Professor in the Department of Electrical Engineering at JSS Academy of Technical Education, Noida, since August 2010. I have enrolled in Ph.D. in the Department of Electrical Engineering at Delhi Technological University, Delhi, India. My research focuses on advanced optimization techniques for power system optimization, specifically Optimal Power Flow. I am also a Senior Member of IEEE and actively engage in research, teaching, and academic activities.

Publication Details

1. **Mittal, U**., Nangia, U., Jain, N. K., & Shukla, B. (2024). Optimal power flow solution using a learning-based sine–cosine algorithm. *The Journal of Supercomputing,* 80, 15974–16012. https://doi.org/10.1007/s11227-024-06043-7. **Impact Factor: 2.4**

VIVEK SAXENA

Department of Electrical Engineering

AWARD SUMMARY

02 Commendable Research Award

Vivek Saxena, born in 1985 in Bulandshahr, Uttar Pradesh, India, earned his Ph.D. from Delhi Technological University, Delhi, and his M.Tech. from the Indian Institute of Technology (IIT) Delhi. With 19 years of academic experience, he is currently serving as an Associate Professor at ABES Engineering College, Ghaziabad. His research interests encompass battery energy storage systems (BESS), distributed generation, environmental management, renewable energy technologies, and smart grids. Dr. Saxena has authored 18 SCIE-indexed research papers in reputed international journals.

Publication Details

1. S**axena, V.**, Kumar, N., & Nangia, U. (2024). Computation and optimization of BESS in the modeling of renewable energy based framework. *Archives of Computational Methods in Engineering,* 31(5), 2385–2416. **Impact Factor: 12.1.**
2. **Saxena, V.**, Kumar, N., & Nangia, U. (2024). Coal power plant-enabled grid resilience through distributed energy resources and demand response integration. *Electrical Engineering*, 106(10), 4415–4437. **Impact Factor: 1.9.**

Department of

Electronics and Communication Engineering

AAPURVA KAUL

Department of Electronics and Communication Engineering

AWARD SUMMARY

03 Commendable Research Award

Aapurva Kaul was born in Jammu and Kashmir, India, in 1991. She earned her B.Tech. degree in Electronics and Communication Engineering from Rajasthan Technical University, Rajasthan, in 2013. She completed her M.Tech. degree in VLSI Design from Maharishi Markandeshwar University, Haryana, in 2016, graduating as a Gold Medalist for her academic excellence. Currently, she is pursuing her Ph.D. in Electronics and Communication Engineering at Delhi Technological University, New Delhi (2025).

Her research focuses on the development of nanowire-based devices, emphasizing innovative design, modelling, and optimization strategies for next-generation nanoelectronics applications. She has contributed several publications to reputed journals and conferences, advancing knowledge in semiconductor device engineering.

Driven by curiosity and perseverance, Aapurva's academic journey reflects her commitment to innovation and excellence. Alongside research, she actively engages in mentoring and educational discussions, inspiring young minds to pursue careers in advanced electronics. She aspires to translate fundamental research into impactful, energy-efficient technologies.

Publication Details

1. **Kaul, A.**, Rewari, S., & Nand, D. (2024). Hetero-dielectric macaroni channel cylindrical gate all around field effect transistor (HD-MC CGAA FET) for reduced gate leakage analog applications. *Microsystem Technologies*, *30*(5), 599-611. **Impact Factor: 1.8**
2. **Kaul, A.**, Rewari, S., & Nand, D. (2024). Double metal gate macaroni nanowire FET (DMGM-NFET) for improved performance and off-state leakage reduction. *ECS Journal of Solid State Science and Technology*, *13*(10), 103010. **Impact Factor: 2.2**
3. **Kaul, A.**, Yadav, S., Rewari, S., & Nand, D. (2024). Computational modelling of cylindrical-ferroelectric-dual metal-nanowire field effect transistor (C-FE-DM-NW FET) using landau equation for gate leakage minimization. *Micro and Nanostructures*, *191*, 207851. **Impact Factor: 3.0**

AKSHAY MANN

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Akshay Mann received the B.Tech. degree in Electronics and Communication Engineering from Uttar Pradesh Technical University (UPTU), Lucknow, India, in 2010, and the M.Tech. degree in Microelectronics from the Indian Institute of Information Technology (IIIT), Allahabad, India, in 2013. He is currently pursuing the Ph.D. degree in Electronics and Communication Engineering at Delhi Technological University (DTU), Delhi, India.

He is presently an Assistant Professor with the Department of Electronics and Communication Engineering, DTU. He has authored and co-authored several research articles in reputed international journals and conference proceedings. He is an active member of the Vinod Dham Centre of Excellence for Semiconductors and Microelectronics, DTU.

His current research interests include microelectronics, VLSI design, and mixed-signal integrated circuits, with a focus on high-performance data converters, low-power analog/mixed-signal circuits, and advanced comparator architectures for next-generation system-on-chip (SoC) applications.

Publication Details

1. **Mann, A.**, Pandey, N., & Gupta, M. (2024). Novel high speed low power comparators imbibing self-cascode preamplifier technique. *AEU - International Journal of Electronics and Communications, 185,* 155429. **Impact Factor: 3.2**

AMARENDRA KUMAR MISHRA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Amarendra Kumar Mishra is currently serving as an Assistant Professor in the Department of Electronics Engineering at Vivekananda Institute of Professional Studies - Technical Campus, New Delhi. He has completed his Ph.D. and M. Tech from Delhi Technological University in Electronics and Communication Engineering. His doctoral research focused on Image Enhancement and Restoration Techniques for underwater Images. He has completed his B. Tech in Electronics and Communication Engineering from Uttar Pradesh Technical University. He has 3 years of academic experience. His core areas of expertise include Pattern Recognition, Signal Processing, Image Processing, Machine Learning, Deep Learning, and Computer Architecture. Dr. Mishra has published extensively in SCIE and Scopus-indexed journals, with notable contributions in Image Processing and Signal Processing. He has qualified for various competitive examinations like UGC NET and the 7 times GATE examination. He has done FDPs & Workshops in Machine Learning, Computer Vision, and Deep Learning from IITs, NITs, and ISRO.

Publication Details

1. **Mishra, A. K.**, Kumar, M., & Choudhry, M. S. (2024). Underwater image enhancement by using transmission optimization and background light estimation via principal component analysis fusion. *Signal, Image and Video Processing*, 18(4), 3855-3865. IF (2.1)

AMIT KUMAR DWIWEDI

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Amit Kumar Dwivedi received his B.Tech degree in Electronics and Communication Engineering from Uttar Pradesh Technical University, Lucknow, India, in 2008, and his M.E. degree from Panjab University, Chandigarh, India, in 2015. He is currently pursuing a Ph.D. in the Department of Electronics and Communication Engineering at Delhi Technological University (DTU), Delhi, India. He has authored several papers in SCI-indexed journals. His current research interests include biomedical signal processing, artificial intelligence, and time-frequency analysis.

Publication Details

1. **A. Kumar Dwivedi**, O. Prakash Verma, and S. Taran, "Adaptive Flexible Analytic Wavelet Transform for EEG-Based Emotion Recognition," *IEEE Sensors J.,* vol. 24, no. 18, pp. 28941–28951, Sep. 2024, doi: 10.1109/JSEN.2024.3429523 **Impact Factor: 4.5.**

ANIL KUMAR

Department of Electronics and Communication Engineering

Anil Kumar received his B.Tech. degree in Electronics and Communication Engineering from Dr. APJ AKTU, UP, India, and M.Tech. degree in Microelectronics & VLSI Design from MNNIT Prayagraj, India. He is working towards a Ph.D. in the Department of Electronics and Communication Engineering, Delhi Technological University, Delhi, India. His research interests include nanoscale device simulation and modeling.

AWARD SUMMARY

03 Commendable Research Award

Publication Details

1. **Kumar, A.**, & Kale, S. (2024). Analytical Modeling of Silicon Nanowire Dielectric Modulated Reconfigurable FET Biosensor. *ECS Journal of Solid State Science and Technology*, 13(11), 113005.
2. **Kumar, A.**, & Kale, S. (2024). Noise and sensitivity analysis of the dielectric modulated reconfigurable SiNW-SBT for biosensor applications. *Micro and Nanostructures*, 193, 207923.
3. **Kumar, A.**, & Kale, S. (2024). Spacer-engineered reconfigurable silicon nanowire schottky barrier transistor as a label-free biosensor. *Silicon*, 16(5), 2023-2036.

ARUNIMA TRIPATHI

Department of Electronics and Communication Engineering

Arunima Tripathi, currently a final year Bachelors of Technology student in the Department of Electronics and Communication Engineering at Delhi Technological University. Her research endeavours concentrate on the enhancement of static random access memory cells and she is dedicated to advancing the field.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Tripathi, A.**, Dahiya, A., & Mittal, P. (2024). A low-power single ended half-select free 7 T SRAM cell with improved write margin at 32 nm technology node. *Physica Scripta*, 100(1), 015015.

ASHISH RATURI

Department of Electronics and Communication Engineering

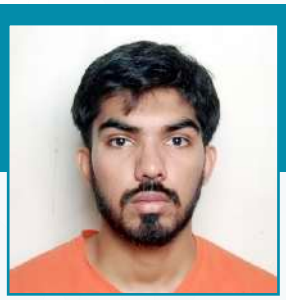
Ashish Raturi is a Ph.D. research scholar in the department of electronics and communication engineering at DTU. He has received B. Tech degree in electronics and communication engineering from Graphic Era University Dehradun. Afterward, he completed his M. Tech from NIT Kurukshetra in VLSI design. His research focuses are computational techniques, material science, nanotechnology, and optoelectronics. He has published papers in SCI and Scopus-indexed journals and presented papers in various International conferences.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Raturi, A.**, Mittal, P., & Choudhary, S. (2024). Enhanced absorption in SnS/SnSe, SnS/ZnS, and SnS/ZnSe vdW heterostructures for optoelectronic applications: DFT insights. *Physica Scripta, 99*(12), 125508. **Impact Factor: 2.6.**



AYUSH DAHIYA

Department of Electronics and Communication Engineering

Ayush, currently engaged as a research scholar in the Department of Electronics and Communication Engineering, is dedicated to advancing the field. He earned his Bachelor of Technology degree from the University Institute of Engineering and Technology, Maharshi Dayanand University, Rohtak in 2019. Subsequently, in 2021, he completed his Master of Technology from the National Institute of Technology, Delhi. His research endeavours concentrate on the enhancement of static random access memory cells, the development of peripherals such as sense amplifiers, and the exploration of beyond von Neumann in-memory computing architectures.

AWARD SUMMARY

01 Premier Research Award

Publication Details

1. **Dahiya, A.**, Mittal, P., & Rohilla, R. (2024). Realizing in-memory computing using reliable differential 8T SRAM for improved latency. *ACM Transactions on Design Automation of Electronic Systems*, *29* (6), 1–15. **Impact Factor**: 2.2

BHARTI MITTAL

Department of Electronics and Communication Engineering

Bharti is currently engaged as a part-time research scholar in the Department of Electronics and Communication Engineering at Delhi Technological University (DTU), Delhi. She earned her Bachelor of Engineering degree in Electronics and Communication Engineering from the Netaji Subhas Institute of Technology, University of Delhi, in 2017. Subsequently, in 2019, she completed her Master of Technology in VLSI Design and Embedded Systems from DTU, Delhi. Her research endeavours focus on semiconductor device simulation and modeling.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Bharti, Mittal**, P. (2024). Investigating the Effect of Scaling and Temperature on the Performance of Improved Junctionless Nanowire FET Through Simulation Analysis. *Physica Scripta*, *99* (8), 086103. **Impact Factor:** 2.6

BHAVANA SHARMA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Bhavana Sharma is a passionate PhD scholar specializing in the field of computer vision and deep learning. Currently pursuing her doctoral studies at Delhi Technological University, Delhi, India. Her research focuses on human activity recognition and hand gesture recognition using advanced AI techniques and deep learning models. With a strong foundation in artificial intelligence and machine learning, Bhavana aims to bridge the gap between human-computer interaction and intelligent systems. Her work involves designing and optimizing deep learning architectures to improve the accuracy and robustness of real-time recognition systems, with potential applications in surveillance, healthcare, assistive technologies, and smart environments. Throughout her academic journey, she has contributed to participated in national and international conferences that explore the real-world impact of AI-driven solutions. Driven by curiosity and a problem-solving mindset, Bhavana Sharma continues to explore new frontiers in deep learning, aspiring to make meaningful contributions to the evolving landscape of intelligent technologies.

Publication Details

1. **Sharma, B**., & Panda, J. (2024). Spatiotemporal features representation with dynamic mode decomposition for hand gesture recognition using deep neural networks. *Signal, Image and Video Processing*, 18(4), 3745-3759.

CHHAVI DHIMAN

Department of Electronics and Communication Engineering

AWARD SUMMARY

Yearly Citation Award

02 Commendable Research Award

02 Premier Research Award

Chhavi Dhiman has received the B.Tech. from Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi, India, in 2011, M.Tech. and Ph.D. from Delhi Technological University (DTU), Delhi, India, in 2014 and 2019 respectively. She is currently working as an Assistant Professor in the Department of Electronics and Communication Engineering, Delhi Technological University, Delhi, India. Her current research interest includes Machine Learning, Deep Learning, Pattern Recognition, Human Action Identification and Classification, Image Captioning, Pedestrian Intention Prediction, Sentiment Analysis, Face Anti-spoofing systems & Social-Media Fake News Detection. Her H-index is 14, and has 1042 total research citation count in last five years. She has published more than 50 research papers in the reputed IEEE/ACM/Elsevier/Springer Transaction and Journals, and International Conferences. She is a reviewer of various Journals/Transactions of ACM, IEEE, IET, Springer and Elsevier. She has also edited a book on "Data Analytics on Intelligent systems", IOP publications, 2023. She has received the Premiere Research Award in year 2021 and 2022 for her outstanding research contributions.

Publication Details

1. **C. Dhiman**, A. Varshney, & V. Vyapak, AP-TransNet: a polarized transformer based aerial human action recognition framework. *Machine Vision and Applications* 35, 52 (2024). https://doi.org/10.1007/s00138-024-01535-1, **Impact Factor: 2.4**

2. **C. Dhiman**, A. Antil, A. Anand, et al. A deep face spoof detection framework using multi-level ELBPs and stacked LSTMs. *Signal, Image and Video Processing* , 18 (Suppl 1), 499–512 (2024). https://doi.org/10.1007/s11760-024-03169-2 **, Impact Factor: 2.1**
3. A. Antil, **C. Dhiman**, MF2ShrT: Multi-Modal Feature Fusion using Shared layered Transformer for Face Anti-Spoofing, *ACM Transactions on Multimedia Computing, Communications and Applications,* Volume 20, Issue 6, Article No.: 172, Pages 1 – 21, https://doi.org/10.1145/3640817, **Impact Factor: 5.2**
4. D. Sharma, **C. Dhiman** and D. Kumar, "Control With Style: Style Embedding-Based Variational Autoencoder for Controlled Stylized Caption Generation Framework," in *IEEE Transactions on Cognitive and Developmental Systems*, vol. 16, no. 6, pp. 2032-2042, Dec. 2024, doi: 10.1109/TCDS.2024.3405573. **Impact Factor: 5**

DHRUV SHARMA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Dhruv Sharma is a dedicated and accomplished academic who has swiftly progressed through significant roles in engineering education and research. He is currently serving as an Assistant Professor at the Amity Centre for Artificial Intelligence (ACAI), Amity University, Noida, Uttar Pradesh. He earned his Ph.D. in Electronics and Communication Engineering (ECE) from Delhi Technological University (DTU) in December 2024, where his doctoral research focused on advanced applications of machine learning, computer vision, and multimodal artificial intelligence.

With a robust foundation in signal processing, Dr. Sharma pivoted his expertise toward emerging and high-impact technologies such as artificial intelligence, deep learning, and multimodal systems. He has published several SCI/SCI-E indexed papers in reputed journals from IEEE, Elsevier, and Springer, and his contributions were recognized with the Commendable Research Award 2024 from DTU.

Publication Details

1. **Sharma, Dhruv.**, Dhiman, Chhavi., & Kumar, Dinesh. (2024). FDT− Dr. 2 T: a unified Dense Radiology Report Generation Transformer framework for *X-ray images. Machine Vision and Applications*, 35(4), 68. **Impact Factor: 2.3:**

DINESH KUMAR

Department of Electronics and Communication Engineering

AWARD SUMMARY

Yearly Citation Award

Dinesh Kumar received his B.Tech. (ECE) and M.Tech (ECE) (Gold Medalist) form National Institute of Technology (NIT) Kurukshetra and received Ph.D. degree in the field of Biometrics (Face Recognition) from GGS Indraprastha University, Delhi. He has more than 33 years of teaching and research experience and currently working as Professor in the Electronics and Communication Engineering Department of Delhi Technological University, Delhi. He has research publications in National/International Journals and Conferences including IEEE, Elsevier, Springer, Wiley. His current research interests include image processing, biometrics, soft computing, clustering, biomedical imaging, machine learning, image captioning. He is on the panel of reviewers for IEEE, Elsevier and Springer journals/Transactions.

DIVYA ARORA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Divya Arora Bhayana is currently pursuing her Ph.D. at Delhi Technological University (DTU), where her research focuses on hierarchical image classification for robotic applications. This field integrates computer vision, machine learning, and intelligent classification systems. She completed her Bachelor of Technology (B.Tech.) in 2009 from Kurukshetra University, followed by a Master of Technology (M.Tech.) in 2011 from Guru Gobind Singh Indraprastha University (GGSIPU). With this strong academic background, she has cultivated expertise in image processing, deep learning, and fuzzy logic applications for intelligent systems. Her academic journey reflects a strong foundation in engineering and research, with a keen interest in advancing knowledge in her field of specialization.

At DTU, she is engaged in doctoral research that integrates cutting-edge methodologies with real-world applications, contributing to both theoretical advancements and practical innovations. With a background spanning two reputed institutions—Kurukshetra University and GGSIPU—she brings a diverse academic perspective and a commitment to excellence in higher education and research at DTU.

Publication Details

1. **Bhayana, D. A.**, & Verma, O. P. (2024). Triplet attention-based deep learning model for hierarchical image classification of household items for robotic applications. *Signal, Image and Video Processing*, *18*(Suppl 1), 489-498. **Impact Factor:** 2.1

HEMANSHI CHUGH

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Hemanshi Chugh is a full-time research scholar in the Department of Electronics and Communication Engineering at Delhi Technological University, India. Her research focuses on Nanocomputing and Quantum Dot Cellular Automata (QCA), with an emphasis on redefining paradigms in Quantum Computing and Low-Power VLSI. She has presented her work at national and international conferences and published several articles and book chapters in reputed journals. Prior to joining DTU, she worked as an Assistant Professor in the Department of Electronics and Communication Engineering at ADGITM (formerly NIEC), GGSIPU, for nearly four years. Hemanshi holds an M.Tech in VLSI Design from the Centre for Development of Advanced Computing (CDAC), Noida, securing 83.8%, and a B.Tech in Electronics and Communication Engineering from GTBIT, GGSIPU, with an aggregate of 81.4%. Passionate about research-driven teaching, she aims to inspire innovation and foster academic excellence in the field of emerging technologies.

Publication Details

1. **Chugh, H.**, & Singh, S. (2024). Efficient co-planar adder designs in quantum dot cellular automata: Energy and cost optimization with crossover elimination. I*ntegration*, 94, 102103. **Impact Factor: 2.5**

ISHAAN SHARMA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Ishaan Sharma works in the field of Electronics and Communication Engineering with a focus on reconfigurable intelligent surfaces (RIS) and multi-armed bandit (MAB) learning for next-generation wireless communication systems. His research emphasizes maximizing signal-to-noise ratio at the receiver through learning-driven RIS configuration, and he has also contributed to hardware-efficient implementations of bandit learning on FPGA platforms. He earned his M.Tech. in Communication Engineering with a thesis on multiport-multiband antenna design for 5G applications. His broader research interests include intelligent wireless systems, integrated sensing and communication (ISAC), adaptive optimization, and machine learning for communication technologies. He has authored several publications in reputed IEEE journals and conferences and is actively engaged in collaborative projects on wireless communications.

Publication Details

1. **Sharma, I.**, Kumar, R., & Darak, S. J. (2024). Online-learning-based multi-RIS-aided wireless systems. I*EEE Systems Journal,* 18(2), 1174–1185. https://doi.org/10.1109/JSYST.2024.3391856 **Impact Factor: [4.4]**

KAMAKSHI RAUTELA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Kamakshi Rautela is an Assistant Professor in the School of Computer Science at UPES, Dehradun. Her work spans medical image analysis, explainable AI, and lightweight cryptography for IoT. She has published in reputable journals and conferences, filed Indian patents, and previously served as Deputy Technical Manager at CIRUS Defence on software and hardware integration projects. In the classroom, she teaches machine learning, computer vision, and mobile app development, and mentors student teams to build practical systems that bridge research with real-world use.

Publication Details

1. **Rautela, K.**, Kumar, D., & Kumar, V. (2024). Improved GAN for image resolution enhancement using ViT for breast cancer detection. *International Journal of Imaging Systems and Technology*, *34*(2), e22998.

KAUSTUBH RANJAN SINGH

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Kaustubh Ranjan Singh is currently serving as Assistant Professor in ECE Dept. DTU Delhi. His interests include next generation wireless communications, green cellular communications. Prior to joining academia, he worked in telecom sector for Planning Team with Bharti Airtel Private Limited as Assistant Manager in Network Services Group (NSG-AP Circle).

Publication Details

1. **Singh, K. R.**, Chaudhry, R., Rishiwal, V., & Yadav, M. (2024). Model-Free QoE-Aware seamless handoff in heterogeneous wireless networks. *Mobile Networks and Applications*, 1-13.

KIRTI DALAL

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Kirti Dalal is a Ph.D. Scholar in the Department of Electronics and Communication Engineering, Delhi Technological University, Delhi, India. She received her M. Tech. degree in Digital Communication from Ambedkar Institute of Advanced Communication Technologies and Research, Guru Gobind Singh Indraprastha University, Delhi, India in the year 2020 and B. Tech. degree in Electronics and Communications Engineering from G. B. Pant Govt. Engineering College, Guru Gobind Singh Indraprastha University, Delhi, India in the year 2018. Her major research interests include design and modelling of nanophotonic devices, plasmonic switches, and optical communication.

Publication Details

1. **Dalal, K.**, and Sharma, Y. (2024). Plasmonic switches based on VO2 as the phase change material. *Nanotechnology,* 35(14), 142001. **Impact Factor: 2.8**

LOKESH SONI

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

01 Premier Research Award

Lokesh Soni received the B.E. degree in Electronics and Communication Engineering from the Institute of Information Technology and Management, Gwalior, Madhya Pradesh, India, in 2015, and the M.Tech. degree in Embedded Systems and VLSI from Netaji Subhas Institute of Technology (NSIT), New Delhi, India, in 2019, with a CGPA of 9.1. He subsequently worked for approximately 1.7 years at Ericsson India Pvt. Ltd. He has qualified the GATE examination multiple times as well as the UGC NET. He is currently pursuing the Ph.D. degree at Delhi Technological University (DTU), New Delhi, India. His current research focuses on the design of low-power and high-performance SRAM cells.

Publication Details

1. **Soni, L.**, & Pandey, N. (2024). A low power Schmitt-trigger driven 10T SRAM Cell for high speed applications. *Integration*, 97, 102187.
2. **Soni, L.**, & Pandey, N. (2024). A Reliable and high performance Radiation Hardened Schmitt Trigger 12T SRAM cell for space applications. *AEU-International Journal of Electronics and Communications*, 176, 155161.
3. **Soni, L.**, & Pandey, N. (2024). A single bitline highly stable, low power with high speed half-select disturb free 11T SRAM cell. *ACM Transactions on Design Automation of Electronic Systems,* 29(4), 1-13.

M GANESH

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

M. Ganesh is an accomplished Assistant Professor at Delhi Technological University, New Delhi, with over 8 years of teaching and 2 years of industry experience. He holds a Ph.D. (2021–2025) in Electronics and Communication Engineering from DTU, an M.Tech from NIT Rourkela (with a branch topper medal), and a B.Tech from SVCET, Chittoor, Andhra Pradesh. His expertise lies in Antennas, RF, & Microwave Engineering, with a strong research focus on reconfigurable antennas for IoT and Sub-6 GHz wireless applications. He has published in SCI/Scopus-indexed journals and IEEE conferences. He has achieved multiple awards, including being the best presenter at the ICED 2024 conference organized by the University of Malaysia Perlis, Malaysia, and Academic Excellence at NIT Rourkela. He has significant experience with tools like HFSS, ADS, and MATLAB. He actively contributes to scholarly peer review and is a member of IEEE and WAMS. His current research includes advancing AI-integrated smart antennas for 6G, expanding academic-industry research ties, and developing efficient, scalable wireless solutions for emerging technologies.

Publication Details

1. **Ganesh, M.**, Raghava, N. S., Sabapathy, T., & Sharma, Y. (2024). A compound reconfigurable electronically switched parasitic monopole antenna for sub 6 GHz wireless and vehicular applications. *AEU - International Journal of Electronics and Communications*, 179, 155335. https://doi.org/10.1016/j.aeue.2024.155335 IF:3.2

MANJEET KUMAR

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

Cumulative Citation Award (Silver)

Yearly Citation Award

Manjeet Kumar is an Assistant Professor in the Department of Electronics and Communication Engineering at Delhi Technological University, Delhi, since 2020. He earned his B.Tech from Kurukshetra University (2008), M.Tech in Signal Processing from GGSIPU (2011), and Ph.D. from NSIT, University of Delhi (2017). Earlier, he served at Bennett University (2016–2020). His research spans signal and biomedical signal processing, image processing, AI in healthcare, and low-power biomedical circuit design. He has published over 100 research papers, authored a book with Springer, edited a book with IOP, and holds two awarded Indian patents. Dr. Kumar serves as reviewer and guest editor for reputed journals, and has received multiple research awards at DTU. He has been consistently featured in Stanford University's prestigious list of the World's Top 2% Scientists (2021–2023)

Publication Details

1. Pankaj, Kumar, A., **Kumar, M.**, and Komaragiri, R., (2024) "Edge-based computation of super-resolution Superlet spectrograms for real-time estimation of heart rate using an IoMT based reference signal less PPG sensor", *IEEE Internet of Things Journal*, Volume 11, Issue 5, Pages 8647-8657. **(Impact Factor: 8.9)**
2. Mishra, A. K., **Kumar, M.**, and Choudhry, M. S., (2024) "Fusion of Multiscale Gradient Domain Enhancement and gamma correction for Underwater Image/Video Enhancement and Restoration", *Optics and Lasers in Engineering (Elsevier)*, Volume 178, **(Impact Factor: 3.7)**

MOHIT TYAGI

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

Mohit Tyagi is a Part time Ph.D. research scholar in the Department of Electronics and Communication Engineering at Delhi Technological University under the supervision of Prof. Poornima Mittal. His research interests include low power circuit design and design of ultra-low power analog to digital converters. He has completed his B. Tech degree as Honors from Uttar Pradesh Technical University, Lucknow, Uttar Pradesh in 2011 and completed M.Tech in 2014 from NIT Kurukshetra, Haryana in VLSI design. He has qualified GATE exam with 1054 rank in 2014 and 1127 rank in 2012. Also, he is working at KIET Group of Institutions as an Assistant professor grade 3.

Publication Details

1. **Mohit Tyagi**, Poornima Mittal, Parvin Kumar, (2024). Performance Optimization of SAR ADC using Dynamic Controlled Comparator at 45 nm Technology for Biomedical and IoT Applications. *Wireless & Personal Communications*, vol. 134, pp. 1035-1057. **Impact Factor: 2.2.**

NAVNIT KUMAR

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Navnit Kumar received a B. Tech degree in Electronics and Communication Engineering from Uttar Pradesh Technical University, India. He received an M.Tech degree in the field of VLSI and Embedded Systems from National Institute of Technology in Manipur, India. At present, he is working towards a Ph.D. degree in the Department of Electronics and Communication Engineering at Delhi Technological University, Delhi, India. His research interests include memristive circuits, fractional order devices, and current-mode microelectronics circuits.

Publication Details

1. **Kumar, N.**, Kumar, M., Pandey, N., & Minaei, S. (2025). Second generation current conveyor based capacitorless floating memristor emulator. *International Journal of Circuit Theory and Applications*, 53(3), 1775-1794.

NEETA PANDEY

Department of Electronics and Communication Engineering

AWARD SUMMARY

Yearly Citation Award

01 Commendable Research Award

Neeta Pandey is currently working as a Professor in the Department of Electronics and Communication Engineering, Delhi Technological University, Delhi, India. She did her M.E (Microelectronics) from BITS, Pilani, Rajasthan, India and Ph. D. from Guru Gobind Singh Indraprastha University, New Delhi, India. She was with the Central Electronics Engineering Research Institute, Pilani; IIT Delhi, New Delhi; the Priyadarshini College of Computer Science, Noida; and the Bharati Vidyapeeth's College of Engineering, New Delhi, in various capacities. She has authored over 300 technical papers in reputed national and international conferences and journals. Her current research interests include Integer and fractional order analog signal processing and generating circuits. Design of low-power high speed logic (Current Mode Logic) and memory (SRAM, nonvolatile SRAM) circuits. Circuit design in emerging technologies; Device Modelling, Multistage Amplifier design for driving high capacitive loads, ADC Design Converter for IoT applications. She has been awarded with three Indian patents and received "Commendable Research Award" and "Silver Citation Award" by Delhi Technological University, Delhi, India. Her total current citations are 2540 with an h-index 25. She has been included in the prestigious list of the World's Top 2% Scientists prepared by Stanford University for 2021, 2023 and 2024. She is member of editorial board member and reviewer of various international journals. She is a Life Member of ISTE, a senior member of IEEE and the IEEE WIE Affinity Group.

Publication Details

1. Gupta, OK, **Pandey, N.**, Gupta, M,(2024), Improved frequency compensation technique of three stage amplifier using class AB flipped voltage follower and slew rate enhancer circuit, *AEU- International Journal of Electronics and Communications*, 177, 155173, **Impact Factor: 3.2**

NEETU SHARMA

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

Neetu Sharma holds a Ph.D. in Blockchain Technology with a focus on healthcare applications and has published over 40 papers in reputed journals and conferences, including SCI and Scopus indexed. With 8+ years of academic experience as an Assistant Professor, she has taught electronics, VLSI, and emerging technologies. A Gold Medalist in M.Tech (VLSI Design) from RGPV and UGC NET qualified, she has authored academic content, guided M.Tech theses, and received the Srijan Award by MPCST. She holds certifications in blockchain from IIIT-Bangalore and other platforms, with hands-on experience in Ethereum, Hyperledger, Solidity, Python, and IoT frameworks.

Publication Details

1. **Sharma, N.**, & Rohilla, R. (2024). Scalable and cost-efficient PoA consensus-based blockchain solution for vaccination record management. *Wireless Personal Communications*, 135(2), 1177–1207. I**mpact Factor: 2.2** https://doi.org/10.1007/s11277-024-11115-1
2. **Sharma, N.**, & Rohilla, R. (2024). A multilevel authentication-based blockchain-powered medicine anti-counterfeiting for reliable IoT supply chain management. *The Journal of Supercomputing*, 80(4), 4870–4913. **Impact Factor: 3.3** https://doi.org/10.1007/s11227-023-05654-w

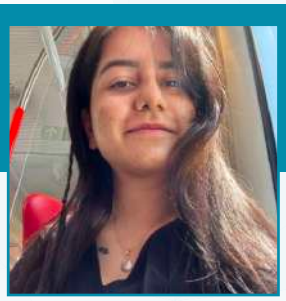
O. P. VERMA

Department of Electronics and Communication Engineering

AWARD SUMMARY

Yearly Citation Award

O. P. Verma is the Head of the Department of Electronics and Communication Engineering at Delhi Technological University (DTU). He has previously served as Director/Principal of G.B. Pant Government Engineering College, Delhi, and held several key academic and administrative positions, including Head of Computer Science & Engineering, Head of Information Technology, Dean of Continuing Education, Head of Computer Centre, Member of Academic Council, and Chairman of B.Tech. Admissions. He has been a member of BoG and Senate in various academic institutions across India and has served as an expert/ chairman for NAAC, NBA, and UGC peer review teams. Recognized globally, Professor Verma was listed among the world's top 2% scientists by Stanford University in 2020 and 2021. He has published over 100 papers in reputed international journals and conferences, holds one U.S. patent and four Indian patents, and has a Google Scholar h-index of 28 with more than 3000 citations. He has also played a leading role in organizing prestigious conferences, serving as Organising Chair of IEEE India International Conference on Information Processing (2016) and General Chair of the 4th International Conference on Computers and Management (2018).



PALAK HANDA

Department of Electronics and Communication Engineering

AWARD SUMMARY

Award for Submission of Ph.D. Thesis within Stipulated Period

02 Commendable Research Award

Palak Handa, Ph.D., is a Postdoctoral Scientist (permanent) at the Research Centre for Medical Image Analysis and AI (MIAAI), Danube Private University, Austria, working with Prof. Dr. Ramona Woitek since June 2024. She earned her Ph.D. in Medical Computer Vision from Delhi Technological University, India, and her M.Tech. in VLSI from IGDTUW, India. Founder of MISAHUB, she has mentored 150+ students in AI for healthcare, open-sourced 12+ biomedical datasets, and published about 14+ journals, 13+ conferences, 11+ book chapters, and 4+ national patents. Her work spans multimodal medical data analysis, hospital AI applications, and organizing international biomedical challenges. She also reviews for top journals and is a Guest Associate Editor for *Frontiers in Medicine*.

Publication Details

1. **Handa, P.**, Goel, N., Indu, S., & Gunjan, D. (2024). Comprehensive evaluation of a new automatic scoring system for cleanliness assessment in video capsule endoscopy. *International Journal of Imaging Systems and Technology*, 34(3), e23097. **Impact Factor: 3.94**
2. **Handa, P.**, Goel, N., Indu, S., & Gunjan, D. (2024). A multi-label dataset and its evaluation for automated scoring system for cleanliness assessment in video capsule endoscopy. *Physical and Engineering Sciences in Medicine*, 47(3), 1213-1226. **Impact Factor: 2**

PARITOSH CHAMOLA

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

Paritosh Chamola earned his Ph.D. from Delhi Technological University (DTU) and completed his M.Tech from CDAC Noida. With a strong academic background and a passion for research, his primary areas of interest include Organic Electronics and VLSI Design. He is dedicated to fostering innovation and excellence in engineering education and actively engages in academic research and student mentoring.

Publication Details

1. **Chamola P.**, Mittal P. (2024). Zinc telluride material properties for solar cell application: Absorber layer. *Main Group Chemistry*, vol. 23, pp. 251-270. **Impact Factor: 1.3**
2. **Chamola P.**, Mittal P., Kumar B. (2024). Organic Solar Cells: Structural Variety, Effect of Layers, and Applications. *ECS Journal of Solid State Science and Technology*, vol. 13, pp. 035001. **Impact Factor: 1.8**

POORNIMA MITTAL

Department of Electronics and Communication Engineering

AWARD SUMMARY

Innovation Award

Yearly Citation Award

03 Commendable Research Award

Poornima Mittal, Senior Member IEEE has published 210+ research papers in international journals and conferences of repute. Her research interest includes Design/Modeling of Flexible Electronic Devices, Memory, Low Power VLSI Circuits and biomedical sensor applications. She is the awardee of three Indian Patents in the field of Low Power VLSI, Electric Switch and Flexible Electronics. Also, she has published a Text Book on flexible electronics by CRC Press, Taylor & Francis in 2016. She has received the research awards in 2012 and 2015 for her dedicated research at Graphic Era University, Dehradun. Also, she has received Premium and Commendable Research Awards in 2019, 2020, 2021, 2022, 2023, 2024 and 2025 at Delhi Technological University (DTU). She is the recipient of Innovator of the Year Award at Uttarakhand State Science and Technology Congress in 2016. Presently, she is working as Professor in the Department of ECE, DTU, Delhi, India.

Publication Details

1. Tyagi, M., **Mittal, P.**, Kumar, P. (2024). Design of a Low-Power Dynamic Latched Comparator for Biomedical Applications. *Physica Scripta*, 100 (1), 016103. **Impact Factor: 2.6**
2. Bharti, **Mittal, P.** (2024). Oppositely-Doped Core-Shell Junctionless Nanowire FET: Design and Investigation. *ECS Journal of Solid State Science and Technology*, *13* (1), 013004. **Impact Factor: 1.8**
3. Yadav, S., **Mittal, P.**, Negi, S. (2024). Covid-19 Detection Using Organic LED and Photo Diode Based Sensor Device. *IEEE Sensors Journal*, *24* (24), 40678-40684, **Impact Factor: 4.3**

RAHUL KUMAR GUPTA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Rahul Kumar Gupta is a Research Scholar, Department of Electronics and Communication Engineering at Delhi Technological University and an assistant professor at JSS Academy of Technical Education, Noida. He holds an M.Tech. degree in ECE-VLSI from IIT(ISM) Dhanbad (2020), B.Tech. degree in ECE with a Gold Medal from DTU (2015), and a Diploma in ECE from Government Polytechnic Ghaziabad (2008). He has a combined teaching and non-teaching experience of 14 years. He boasts 08 SCI indexed papers, 06 international and national conference papers, and holds 04 Indian patent. Rahul actively contributed to the successful completion of an IEEE HAC funded project as a team member. He has a rich knowledge of analog and digital integrated circuits. His research focuses on high frequency memelements design and their applications in mixed signal processing circuits.

Publication Details

1. **Gupta, R. K.**, Choudhry, M. S., Saxena, V, Taran, S (2024). A Single MOS-Memristor Emulator Circuit. *Circuits Systems and Signal Processing, 43, 54-73, https://doi.org/10.1007/s00034-023-02500-5zz.* **Impact Factor: 2.0**

RAHUL THAKUR

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Rahul Thakur is currently serving as an Assistant Professor at Delhi Technological University, Delhi, India, since July 2020. He received his B.Tech. degree in Electronics and Communication Engineering from Guru Gobind Singh Indraprastha University (GGSIPU), Delhi, India, in 2015, followed by an M.Tech. degree from NSUT East Campus (formerly Ambedkar Institute of Advanced Communication Technologies and Research), Delhi, India, in 2017. He was awarded a Ph.D. degree from Delhi Technological University, Delhi, India, in 2025. He is a member of professional bodies including the IEEE and the Institution of Electronics and Telecommunication Engineers (IETE), and is a lifetime member of the Computer Society of India (CSI). His current research interests include Machine Learning, Digital Image Processing, Deep Learning, Image Forensics, and Computer Vision.

Publication Details

1. **Thakur, R.**, & Rohilla, R. (2024). An effective framework based on hybrid learning and kernel principal component analysis for face manipulation detection. *Signal, Image and Video Processing*, 18(5), 4811-4820. **Impact Factor: 2.1**

RAVI

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Ravi is serving as an Assistant Professor in the Department of Electronics and Communication Engineering at Galgotias College of Engineering. He obtained his M.Tech. from IIT Roorkee and earned his Ph.D. in Electronics and Communication Engineering from Delhi Technological University. His research expertise spans speech signal processing, speech emotion recognition, and deep learning, with a strong emphasis on developing intelligent and emotion aware models for enhanced human machine interaction. Dr. Ravi has published several research papers in reputed international journals and conferences, showcasing significant contributions to the fields of signal processing and artificial intelligence.

Publication Details

1. **Ravi** and Taran, S., 2024. A novel decomposition-based architecture for multilingual speech emotion recognition. *Neural Computing and Applications*, 36(16), pp.9347-9359. **Impact Factor: 4.6**

REKHA RANI

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Rekha Rani is currently pursuing the Ph.D. degree in Electronics and Communication Engineering from Delhi Technological University, Delhi. She has 8 years of experience in academics and industrial research. She has number of research publications and book chapters. Her research interests include the Wireless Communication, Channel Modeling, Optimal Power Allocation, Channel Estimation and Free Space Optical Wireless Communication

Publication Details

1. **Rani, R.**, Jayanthi, N., & Mandpura, A. K. (2024). Performance Analysis of Free Space Optical System Over Inverse Gaussian Gamma Turbulence Channel. *Transactions on Emerging Telecommunications Technologies*, 35(11), e70009. **Impact Factor: 2.5**

RITIKA SOROT

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Ritika Sorot is an academic and researcher with over a decade of teaching experience in Delhi Government engineering colleges and polytechnics. She holds an M.Tech in Electronics and Communication Engineering from YMCA University of Science and Technology, Faridabad, and is currently pursuing her Ph.D. at Delhi Technological University under the guidance of Dr. Sonam Rewari and Dr. Chaudhry Indra Kumar. Her research focuses on device and circuit design using phase transition materials, and she has presented her work at three IEEE international conferences.

Ritika is also the author of a book, Applied Physics, published by Kataria & Sons, tailored for diploma students. Beyond academia, she serves as the Chief Technical Officer at Shabari.AI, where she leads the development of machine learning models for agricultural applications. Her team has successfully built an

offline mobile application that assesses the ripening and sweetness of papayas, contributing to advancements in AI-driven fruit quality detection.

Publication Details

1. **Sorot, R.**, Goel, A., & Rewari, S. (2024). Novel hybrid-CMOS inverter utilizing phase transition material for enhancing digital logic performance at lower operating voltages. *Physica Scripta*, 99(3), 035024.

ROLI KUSHWAHA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Roli Kushwaha is an Assistant Professor in the Department of Electronics and Communication Engineering at the University of Lucknow, Uttar Pradesh, India. She is currently pursuing her Ph.D. in Electronics and Communication Engineering at Delhi Technological University (DTU), Delhi, where her research explores the applications of machine learning, deep learning, computer vision, and human-computer interaction.

She received her B.Tech. degree in Electronics and Communication Engineering from Gautam Buddha Technical University, Greater Noida, in 2012, and her M.Tech. degree from Uttar Pradesh Technical University, Lucknow, in 2015. With a strong academic background and growing research expertise, she is dedicated to advancing intelligent systems that bridge the gap between artificial intelligence and human-centered technologies.

Publication Details

1. **Kushwaha, Roli.**, Kumar, Manjeet., & Kumar, Dinesh. (2024). VRFNet-ASLiT: Fused Deep CNN and Adaptive Super Resolution Transform Based Hand Gesture Recognition. *IEEE Sensors Journal*. vol. 24, no. 18, pp. 28931-28940. **Impact Factor: 4.5**

RUCHI TRIPATHI

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Ruchi Tripathi received her B.E. degree from MITS Gwalior and her M.Tech degree from IIIT Allahabad. She has worked as an Assistant Professor in PSIT Kanpur and Galgotias College of Engineering and Technology. She is currently pursuing her PhD Degree from DTU Delhi, with a focus on Road Infrastructure for an Advanced Driver Assistant System. She has published her work in reputed journals and conferences, contributing to AI-driven road safety and sustainable infrastructure management.

Publication Details

1. **Tripathi, R.**, Indu, S., & Kumar, R. (2024). ERCU-Net: segmentation of road potholes using enhanced residual convolutional block based on U-Net for ADAS. *Signal, Image and Video Processing*, *18*(Suppl 1), 385-394. **Impact Factor – 2.1**

S INDU

Department of Electronics and Communication Engineering

AWARD SUMMARY

Yearly Citation Award

Innovation Award

02 Sponsored Research Project Award

S. Indu, Dean (Digital Education) and Professor in the Department of Electronics and Communication Engineering at Delhi Technological University (DTU), received her B.Tech. and M.Tech. degrees in Electrical Engineering from the University of Kerala, and her Ph.D. in Visual Sensor Networks from the University of Delhi. She joined Delhi College of Engineering (now DTU) in 1999 and briefly served as Acting Vice Chancellor of DTU in Oct–Nov 2023. Prof. Indu has guided around 40 M.Tech. theses, supervised 17 completed Ph.D.s, and currently mentors 5 doctoral scholars. Her research interests include Computer Vision, Sensor Networks, and Image Processing. She has authored Smart Camera Networks (INTECH, USA), contributed four book chapters, and published around 200 papers in reputed journals and conferences. She has successfully completed five sponsored projects worth - 80 lakhs, with two more ongoing (DST and IIIT Hyderabad). Prof. Indu has received DTU's Commendable Research Award for six consecutive years (2018–2024) and the Premium Research Award (2024). She was honored with IEEE USA's Best Branch Counsellor Award and IEEE Delhi Section's Outstanding Branch Counsellor Award for five consecutive years (2013–2018).

SACHIN TARAN

Department of Electronics and Communication Engineering

AWARD SUMMARY

Yearly Citation Award

Sachin Taran is an Assistant Professor in the Department of Electronics and Communication Engineering at Delhi Technological University (DTU), Delhi, with over 12 years of teaching and research experience. He earned his Ph.D. from IIITDM Jabalpur, India, and completed his postdoctoral research at Nanyang Technological University (NTU), Singapore. His research focuses on developing early diagnostic systems using biomedical signal processing and machine learning. Dr. Taran has published more than 65 research papers in reputed international journals and conferences. He currently leads sponsored research projects worth approximately - 7 crore, funded by agencies such as AICTE, DRDO, DST, and NASSCOM. He has supervised numerous Ph.D., postgraduate, and undergraduate projects in signal processing, communication, and machine learning, contributing significantly to innovation and academic excellence in his field.

SHIKHA SINGHAL

Department of Electronics and Communication Engineering

Shikha Singhal received the B.Tech. and M.Tech degree in Electronics and Communication Engineering from Kurukshetra University, Kurukshetra, India, in 2011 and 2015 respectively. Her research interests include biomedical signal processing, artificial intelligence in healthcare, and image processing, machine learning, Generative AI.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Singhal, S.**, & Kumar, M. (2024). GSMD-SRST: Group sparse mode decomposition and superlet-transform-based technique for multilevel classification of cardiac arrhythmia. *IEEE Sensors Journal,* 24(6), 8160-8169.
2. **Singhal, S.**, & Kumar, M. (2024). SPTDMD-WST: Arrhythmia classification from spatiotemporal modes of dynamic mode decomposition using wavelet scattering transform. *Biomedical Signal Processing and Control*, 92, 105983.

SHIVANI YADAV

Department of Electronics and Communication Engineering

Shivani Yadav received her B. Tech. degree in electronics and communication engineering from UIET CSJM University Kanpur, M. Tech. degree in VLSI design from MNIT Jaipur, and Ph.D. degree from Delhi Technological University, Delhi, India. At present, she is Assistant Professor in Department of ECE, KIET Group of Institutions, Ghaziabad. Her research interests include simulation and modeling of nanoscale device and biosensor applications.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Yadav, S.**, Rewari, S. Dual metal dual layer GAA NW–FET (DMDL–GAA–NW–FET) biosensor for label free SARS-CoV-2 detection. *Microsystem Technology* 30, 565–582 (2024). https://doi.org/10.1007/s00542-023-05560-4. **Impact Factor: 1.6**
2. **Yadav, S.**, Das, A., and Rewari, S. Dielectrically-Modulated GANFET Biosensor for Label-Free Detection of DNA and Avian Influenza Virus: Proposal and Modeling. *ECS Journal of Solid State Science and Technology*, vol. 13, no. 4, p. 047001, 2024, doi: 10.1149/2162-8777/ad3364. **Impact Factor: 1.8**

SNEHLATA YADAV

Department of Electronics and Communication Engineering

AWARD SUMMARY

03 Commendable Research Award

Snehlata Yadav received her B.Tech. degree from Uttar Pradesh Technical University, followed by an M.Tech. degree from the National Institute of Technology, Srinagar. She further pursued her academic interests and earned a Ph.D. from Delhi Technological University. She has around 8 SCI journal publications including IEEE transaction, and various international conference publications to her credit. She is an esteemed reviewer for several SCI journals, contributing her expertise to the peer review process and advancing research within her field. Currently, she serves as an Assistant Professor at Veermata Jijabai Technological Institute (VJTI), Mumbai.

Publication Details

1. **Yadav, S.**, Rewari, S., Pandey, R. (2024). Gate Engineered Ferroelectric Junctionless BioFET for LabelFree Detection of Biomolecules. *Journal of Electronic Materials*, 53, 683–692. **Impact Factor: 2.2.**
2. **Yadav, S.**, Rewari, S., Pandey, R. (2024). Physics based analytical model for trap assisted biosensing in dual cavity negative capacitance junctionless accumulation mode FET. *Microelectronics Journal, 143,* 1-10. **Impact Factor: 2.3**.
3. **Yadav, S.**, Rewari, S., Pandey, R. (2024). Surface potential and mobile charge based drain current modeling of double gate junctionless accumulation mode negative capacitance field effect transistor. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 37*(2), 1-17. **Impact Factor: 1.6**.

SUGUNDHA YADAV

Department of Electronics and Communication Engineering

AWARD SUMMARY

03 Commendable Research Award

Sugandha Yadav has received her B. Tech. degree in Electronic and Communication Engineering from Hindustan Institute of Technology, Greater Noida, Uttar Pradesh-India in 2012. Thereafter, she pursued Masters of Technology in VLSI Design from National Institute of Technology, Kurukshetra, Haryana, India. Currently, she is pursuing her Ph.D. from Delhi Technological University (DTU), Delhi, India. Her research primarily focuses on organic electronics, flexible biomedical sensors, and photonic devices. She has published more than 15 research articles in International Journals and Conferences. In addition to research, she has more than 8 years of academic and research experience and presently, she is working as Assistant Professor (contractual) in the department of ECE at Gautam Buddha University, Greater Noida, India.

Publication Details

1. **Yadav, S.**, Mittal, P., Negi, S. (2024). High-k dielectric based high performance vertical organic thin film transistor for flexible low power applications. *Physica Scripta*, 99 (2), 025940. **Impact Factor: 2.6**
2. **Yadav, S.**, Mittal, P., Negi, S. (2024). Impact of varying position and ratio of charge generation layer on performance parameters of organic photodiode. *ECS Journal of Solid State Science and Technology*, *13* (2), 026001. **Impact Factor:** 1.8

3. **Yadav, S.**, Mittal, P., Negi, S. (2024). Architectural design, fabrication techniques, characteristics parameters and different applications for OLED along with some OTFT driven OLEDs: A review. *Main Group Chemistry*, *23* (1), 1-16. **Impact Factor:** 1.3

SUMEDHA GUPTA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Sumedha Gupta completed her Ph.D. with the Department of Electronics and Communication Engineering, Delhi Technological University, New Delhi, India in 2024. She received her B.Tech and M.Tech Degrees in Electronics and Communication Engineering from Guru Gobind Singh Indraprastha University, Delhi, India in the year 2011 and 2013 respectively. Her area of research includes Modeling of Microelectronic Devices. Her research work has been published in various peer-reviewed International Journals, and she has presented her findings at several renowned International Conferences as well, where she was also conferred with the Best Paper Award.

Publication Details

1. **Gupta, S.**, Pandey, N., & Gupta, R. S. (2024). Non-uniform doping dependent electrical parameters of dual-metal gate all around junctionless accumulation-mode nanowire FET (DMGAA-JAM-NWFET). *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, *37*(2), e3203. **(Impact Factor: 1.7)**

SUMIT KALE

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Sumit Kale is an Assistant Professor in the Department of Electronics and Communication Engineering at Delhi Technological University (DTU), Delhi, where he has been serving since July 2020. He earned his Ph.D. in 2017 from the PDPM Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Jabalpur, Madhya Pradesh. With over 10 years of teaching experience at both undergraduate and postgraduate levels and more than 15 years of research experience, his expertise lies in nanoscale device simulation and modeling for analog/RF, digital, biosensor, and gas sensor applications. His research interests further include high-speed low-power circuit design, analog-to-digital converters, and GaN High Electron Mobility Transistors (HEMTs) for power electronics. Dr. Kale is a Senior Member of IEEE and the IEEE Electron Devices Society. He has successfully led multiple sponsored research projects as Principal Investigator, supported by ANRF, IHFC–IIT Delhi, and DTU Delhi.

Publication Details

1. Kumar, A., Thakur, V., Kumar, S., **Kale, S.**, Singh, K. (2024). Sensitivity Investigation of Underlap Gate Cavity-Based Reconfigurable Silicon Nanowire Schottky Barrier Transistor for Biosensor Application, Silicon, 16, 5877–5889. **Impact Factor: 3.3.**

SURESH ANGADI

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

Suresh Angadi is a Ph.D. Candidate in Electronics and Communications Engineering at Delhi Technological University (DTU), New Delhi. He completed his Master of Technology in Digital Communications from Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh and done his B.Tech in Gayathri Vidhya Parishad College of Engineering, Visakhapatnam, Andhra Pradesh. His research focuses on MIMO Antenna Technology, Reconfigurable MIMO, Metasurfaces. In his Ph.D. tenure he has published 3 SCIE publications in reputed international journals such as Elsevier and Science Direct with notable work on Ultrawide band 4-port MIMO for mm-Wave communication and published 2 IEEE International Conferences.

Publication Details

1. **Angadi, S.**, Sharma, Y., Raghava, N. S., & Sabapathy, T. (2024). A low profile circularly polarized metasurface-based ultra-wideband 4x4 MIMO antenna for 5G NR band FR2 frequencies. *AEU-International Journal of Electronics and Communications*, 178, 155282. **Impact Factor: 3.2.**
2. **Angadi, S.**, Sharma, Y., Raghava, N. S., & Sabapathy, T. (2024). A metasurface based close-proximity two-port circularly polarized MIMO antenna for mid-band sub-6 GHz 5G applications. *AEU-International Journal of Electronics and Communications*, *183*, 155379. **Impact Factor: 3.2.**

SWETA KUMARI

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Sweta Kumari is an academic and researcher with a focus on VLSI design, encompassing an interest in analog, digital, and mixed-signal circuit systems. She earned her B.E. in Electronics and Communication Engineering from the Birla Institute of Technology, Mesra, Ranchi, an M.Tech. in VLSI Design from the Indira Gandhi Delhi Technical University for Women, Kashmere Gate, Delhi, and a Ph.D. in Electronics and Communication Engineering from the Delhi Technological University, Delhi. She has contributed to publications in reputed international and national journals and conferences, showcasing her dedication to advancing integrated circuit design and its real-world applications

Publication Details

1. **Kumari, S.**, Nand, D. & Kant, S. (2025). MOS-based electronically tunable current-mode dual-output full-wave rectifier using single DDCCTA. *Electrical Engineering 107*, 4203–4213. https://doi.org/10.1007/s00202-024-02736-7. **Impact Factor: 1.9**

TANVIKA GARG

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Tanvika Garg is a Ph.D. research scholar in the Department of Electronics and Communication Engineering at Delhi Technological University. Her research interests include designing of gallium nitride high electron mobility transistor for power electronics applications. She received her B.Tech degree in Information and Communication Technology from Dhirubhai Ambani Institute of Information and Communication Technology, Gujarat and M.Tech degree in Electronics and Communication Engineering from National Institute of Technology, Delhi.

Publication Details

1. **Garg, T.**, & Kale, S. (2024). Optimization of structural parameters in Omega (Ω)-Shaped gate p-GaN MIS-HEMT for performance improvement. *Micro and Nanostructures*, *188*, 207793. **Impact Factor**: 3.0

VIJAY THAKUR

Department of Electronics and Communication Engineering

AWARD SUMMARY

02 Commendable Research Award

Vijay Thakur received his B.Sc. (hons.) degree in Physics from Sri Venkateswara College, University of Delhi, New Delhi, India in 2015, M.Sc. degree in Physics from Maharshi Dayanand University, Haryana, India in 2017, and M.Tech. degree in Nano Science and Engineering from Indian Institute of Science (IISc) Bangalore, India in 2022. He then worked as Junior Research Fellow under SERB sponsored project in the department of Electronics and Communication Engineering at Delhi Technological University, New Delhi from December 2022 to January 2025. He is currently pursuing Ph.D. degree in Electrical Engineering at Laboratoire Génie de Production, Université de Technologie Tarbes Occitanie Pyrénées (UTTOP), France. His research interests include TCAD simulations, analytical modeling of nanoscale biosensors and the fabrication and packaging of wide bandgap semiconductor high-voltage power modules.

Publication Details

1. **Thakur, V.**, Kumar, A., & Kale, S. (2024). Analytical modeling of spacer-engineered reconfigurable silicon nanowire Schottky barrier transistor for biosensing applications. *Micro and Nanostructures*, *188*, 207799. **Impact Factor: 3**
2. **Thakur, V.**, Kumar, A., & Kale, S. (2024). Numerical modeling and performance analysis of underlap gate cavity-integrated reconfigurable silicon nanowire Schottky barrier transistor biosensors. *Applied Physics A, 130(11)*, 846. **Impact Factor: 2.8**

VISHAL CHAUDHARY

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Vishal Chaudhary is a Research Scholar, Department of Electronics & Communication Engineering at Delhi Technological University, India. Prior to this he worked as an Assistant Professor, in the department of Electronics and Communication Engineering at Netaji Subhas Institute of Technology, Bihta Patna, Bihar, for nearly two years. He received the M.Tech degree from Madan Mohan Malviya University of Technology Gorakhpur, India and B.Tech degree from Feroze Gandhi Institute of Engineering & Technology, Raebareli, India. His research interests include Photonic Crystal Fiber, PCF based Sensors, and biosensors.

Publication Details

1. **Chaudhary, V.**, Singh, S., Chaudhary, V. S., & Kumar, D. (2024). Design and optimization of terahertz based D-shaped photonic crystal fiber for blood component detection. *IEEE Sensors Journal*, 24(18), 28768–28775. **[Impact Factor: 4.5]**

VISHAL KUMAR

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Vishal Kumar completed his B.Tech in Electronics and Electrical Engineering from KIIT, Bhubaneswar, in 2018, where he was honored with the Vice Chancellor's Silver Medal. Further, he pursued his M.Tech in Communication and Networks, graduating in 2021 as a Gold Medal awardee. His academic journey has fueled my passion for the dynamic field of wireless communication, with a particular focus on Visible Light Communication (VLC).

Driven by curiosity and innovation, he explores VLC as a transformative technology that leverages visible light for high-speed, secure data transmission. Beyond theoretical research, he emphasizes practical implementation, working extensively with Universal Software Radio Peripheral (USRP) to bridge the gap between concepts and real-world applications. Through his research, he aspires to contribute meaningful advancements in next-generation communication systems, fostering technologies that redefine connectivity and create impactful solutions for the future.

Publication Details

1. **Kumar, V.**, Kumar, R., & Prakriya, S. (2024). Performance of an intelligent reflecting mirror-aided uplink lightwave communication system. *IEEE Wireless Communications Letters*, 13(4), 954-958. **Impact Factor: 5.5**

YASHNA SHARMA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Yashna Sharma is an Assistant Professor in the Department of Electronics and Communication Engineering at Delhi Technological University, India since 2016. She joined the Indira Gandhi Institute of Technology, Delhi in 2007 and received a degree of Bachelor of Technology in Electronics and Communication, in August of 2011 with exemplary performance from there. Thereafter, she joined the Indian Institute of Technology-Delhi in the fall of 2011 to pursue graduate studies. She obtained a Master's degree in Optoelectronics and Optical Communication from IIT Delhi in 2013. She was awarded the 'perfect ten gold medal' and the 'gold medal for the best woman with highest CGPA' by the President of India for her performance in the M. Tech program. She completed her doctoral thesis from IIT Delhi on 'Nanophotonic Sensors and Devices" in June 2017, for which she was awarded a 'Distinction in Doctoral Thesis' by IIT Delhi. Her research includes computational and numerical investigations of engineered plasmonic substrates, SERS-based sensing and the design of optical switches based on phase change materials.

Publication Details

1. Dalal, K., & **Sharma, Y.** (2024). Multi-wavelength and broadband plasmonic switching with V-shaped plasmonic nanostructures on a VO_2 coated plasmonic substrate. *Nanotechnology*, *35*(39), 395203. **Impact Factor: 2.8**

YOGITA CHOPRA

Department of Electronics and Communication Engineering

AWARD SUMMARY

01 Commendable Research Award

Yogita Chopra is a dedicated Ph.D. scholar in the department of electronics and communication engineering at Delhi Technological University (DTU). She has a strong academic background and a passion for research in the field of semiconductor memory designing. Yogita Chopra is committed to advancing knowledge in the field through rigorous research and critical inquiry. She began her academic journey with a B.Tech. degree in electronics and communication engineering from M.D.U., Haryana, followed by a M. Tech. from M.D.U., Haryana in electronics and communication engineering. She has also qualified the UGC-NET in the year 2018 with the subject Electronic science. Over the course of her academic career, she has presented papers at national and international conferences, published articles in peer-reviewed journals.

Publication Details

1. **Chopra Y.**, Mittal P. (2024). Design of dual port 9T SRAM cell with parallel processing and high performance computing. *Physica Scripta*, vol. 99(9), 095015.

Department of
Environmental Engineering

ANIL KUMAR HARITASH

Department of Environmental Engineering

AWARD SUMMARY

Yearly Citation Award

01 Commendable Research Award

A.K. Haritash is Professor in the Department of Environmental Engineering, Delhi Technological University. He has about 18 years of teaching experience, and has around 22 years of research experience. With h-index of 30; i-10 value 54; and total citations more than 7000, he has around 105 published research papers, conference articles, and an edited book. His research on biodegradation of PAHs has been conferred the status of *FAST BREAKING RESEARCH* in Environmental Engineering by Thomson Reuters and Science Watch. Dr. Haritash has been conferred state level Outstanding Faculty Award for his contribution in academics and research. He is also the recipient of Research Excellence Award of DTU consecutively for last 7 years. He has been on the panel of subject experts in Shastri Indo-Canadian Institute, NMCG, TERI School of Advanced Studies etc. Dr. Haritash has participated in several consultancy projects, national and international seminars/conferences, and organized various workshops.

Publication Details

1. Al-Sari', M. I., & **Haritash, A. K.** (2024). Municipal organic solid waste management in the concept of urban mining and circular economy: a model from Palestine. *Journal of Material Cycles and Waste Management*, *26*(5), 2980-2995.

ANSHUL TYAGI

Department of Environmental Engineering

AWARD SUMMARY

01 Commendable Research Award

Anshul Tyagi is a doctoral research scholar in the department of Environmental Science and Engineering at Delhi Technological University, specializing in decarbonisation opportunities in the Indian agriculture sector. Her Ph.D. focuses on identifying major sources and sinks of carbon emissions in agriculture, quantifying greenhouse gases from diverse agroecosystems, and advancing climate-smart agricultural practices to foster resilient and sustainable food systems. Her research combines field-based measurements, laboratory analysis and statistical approaches to provide actionable insights into carbon sequestration and emissions mitigation in Indian agriculture. She holds a Master's degree in Environmental Sciences from J.C. Bose University of Science and Technology, Haryana and a Bachelor's degree in Life Sciences from University of Delhi.

Her work has been disseminated through peer-reviewed journals, book chapters, and national and international conferences. She has published three research articles in reputed international journals indexed in the Science Citation Index (SCI). Her work advances the understanding of resource management and circular economy solutions, positioning her as an emerging scholar in the field of environmental sustainability.

Publication Details

1. **Tyagi, A.**, & Haritash, A. K. (2024). Geophysical electrical survey for aquifer detection, and carbon footprinting for groundwater abstraction in India. Rendiconti Lincei. Scienze Fisichee Naturali, 35(1), 263-272. **Impact Factor: 2.7**

DEEPIKA

Deaprtment of Environmental Engineering

AWARD SUMMARY

01 Commendable Research Award

Deepika is pursuing Ph.D. in Environmental Engineering at Delhi Technological University. Her doctoral research focuses on the phytoremediation of heavy metal-contaminated soil, contributing to sustainable solutions for soil pollution. Currently, she is working as an Assistant Officer (Environmental Management) at NTPC Limited. She has qualified the NTA UGC-NET JRF in Environmental Sciences. She holds a Master's degree (M.Sc.) in Environmental Science and Technology from the Central University of Punjab, Bathinda, and a Bachelor's degree (B.Sc. Hons.) in Botany from Ramjas College, University of Delhi. She has published four research articles in reputed international journals indexed in the Science Citation Index (SCI).

Publication Details

1. **Deepika**, Haritash, A.K. (2024). Phytoremediation of chromium (VI)-contaminated soil by euphorbia tithymaloides l. and metagenomic analysis of rhizospheric bacterial community. *Water Air Soil Pollut* 235, 512. **Impact factor: 3**

GEETA SINGH

Department of Environmental Engineering

AWARD SUMMARY

01 Commendable Research Award

Geeta Singh; Head of Environmental Engineering Department, Delhi Technological University (Formerly Delhi Collage of Engineering), Delhi is having rich and vast experience (24 years) in the field of Engineering, Administration, Teaching, Research and Consultation at various Educational Institutes, Organisations, PSUs, Local Body and Govt. Departments in varied capacities and responsible positions. She has received various scholarships and accolades from reputed institutes(EIL), organisations and Govt. Departments. She is a member of "Expert Advisory Committee(EAC) on Environmental Engineering Fundamental Glossary" at "Commission for Scientific and Technical Terminology, Ministry of Education (Dept. of Higher Education), New Delhi, Government of India. She is also a Member of the State Board for Wildlife in GNCTD (Govt. Of National Capital Territory of Delhi) as an Environmentalist from DTU. Dr. Geeta Singh has authored more than 60 papers in Journals and International/Nation Conferences, 4 book chapters and a book on "Introduction to Environmental Science and Management".

Publication Details

1. Nibedita Verma, **Geeta Singh**, Naved Ahsan(2024) *"Water quality modelingbased assessment for the scope of wastewater treatment of the urban reach of River Yamuna at Delhi, India"* Environment Monitoring Assessment, volume**196**, 155. **Impact Factor: 3.0.**

KANAGARAJ RAJAGOPAL

Department of Environmental Engineering

AWARD SUMMARY

02 Commendable Research Award

Kanagaraj completed his Ph.D. in 2025 from Delhi Technological University. His expertise lies in urban air quality and human health, with a focus on transport emissions in urban regions. During his doctoral studies, he investigated variations in particle number concentrations of nanometer-sized pollutants under different scenarios, including COVID-19 lockdown, semi-lockdown, and normal conditions. He modelled particle exposure levels and analysed their evolution in the atmosphere, highlighting the health risks of ultrafine particles. His research findings received national and international media coverage and provided critical insights for policymakers on emission standards and mitigation. He also evaluated policy interventions such as firecracker bans, odd–even traffic rules, and stage-wise restrictions implemented during the G20 summit, assessing their effectiveness in improving air quality. Currently, he is working as a Programme Associate at the International Forum for Environment, Sustainability & Technology (iFOREST) in the Air Pollution team as a Policy Analyst. His work supports state governments in implementing Clean Air Action Plans, and he is presently working closely with the governments of Uttar Pradesh, Assam, and Maharashtra, as well as in the Himalayan regions of India and Nepal.

Publication Details

1. **Rajagopal K,** Ramachandran S, Mishra RK (2024). Size resolved particle contribution to vehicle induced ultrafine particle number concentration in a metropolitan curbside region. *Atmospheric Environment 337*,120773.(IF 3.7)
2. **Rajagopal K**, Ramachandran S, Mishra RK (2024) Traffic-induced nanoparticle emissions and associated respiratory risk analysis using measurements conducted in a roadside environment. *Air Quality Atmosphere and Health*. (IF 2.9)

KULVENDRA PATEL

Department of Environmental Engineering

AWARD SUMMARY

02 Commendable Research Award

Kulvendra Patel is a Senior Research Fellow in the Department of Environmental Engineering at Delhi Technological University, New Delhi. Under the guidance of Prof. S.K. Singh, his doctoral research centers on evaluating the environmental sustainability of biofuels in India using life cycle assessment (LCA) methodologies. His research interests include LCA, biofuels, wastewater treatment, and solid waste management. He has authored 7 peer-reviewed SCI publications on topics such as the environmental impacts of wastewater treatment, biodiesel production, and biochar derived from agricultural waste, and has also contributed to 5 book chapters in the same domain. His recent studies have explored sustainable waste management practices, including the production of bioethanol from agricultural and municipal waste, reflecting a strong emphasis on renewable energy and circular economy approaches. For his contributions to environmental research, he received the Research Excellence Award from DTU in the year 2023 and 2024. He is actively involved in disseminating his research through platforms like Research Gate, Google Scholar, and Springer

Nature's research communities, promoting scientific collaboration. His work plays a vital role in advancing environmental engineering solutions tailored to India's sustainability challenges.

Publication Details

1. **Patel, K.**, & Singh, S. K. (2024). Environmental sustainability, energy efficiency and uncertainty analysis of agricultural residue-based bioethanol production: A comprehensive life cycle assessment study. *Biomass and Bioenergy*, *191*, 107439. **Impact Factor: 5.8,** https://doi.org/10.1016/j.biombioe.2024.107439
2. Kumar, R., **Patel, K.**, & Singh, S. K. (2024). Biological wastewater treatment: a comprehensive sustainability analysis using life cycle assessment. *Environmental Monitoring and Assessment*, *196*(5), 416. **Impact Factor: 3.0,** https://doi.org/10.1007/s10661-024-12578-2

MALLIKA VASHIST

Department of Environmental Engineering

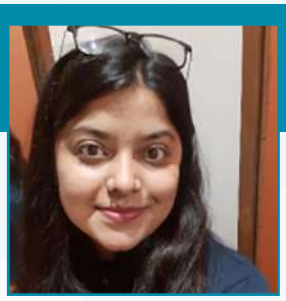
AWARD SUMMARY

01 Commendable Research Award

Mallika Vashist is an environmental professional and PhD scholar in the Department of Environmental Engineering at Delhi Technological University (DTU). Her doctoral research focuses on assessing the role of urban vegetation in improving air quality. Utilizing the i-Tree Eco model, she quantifies ecosystem services such as carbon sequestration, PM2.5 removal, and urban resilience benefits. This work contributes to strategies aimed at reducing urban air pollution and advancing Sustainable Development Goals (SDGs) in reducing the environmental impact of cities and reducing illnesses from hazardous air pollutants. In addition to her doctoral studies, Mallika serves as an Assistant Manager at ReNew, specializing in carbon development with a focus on Nature-Based Solutions (NBS). She holds an M.Sc. in Biodiversity and Conservation from Guru Gobind Singh Indraprastha University and a B.Sc. (Hons.) in Botany from the University of Delhi.

Publication Details

1. **Vashist, M.**, Kumar, T. V., & Singh, S. K. (2024). Assessment of air quality benefits of vegetation in an urban-industrial region of India by integrating air monitoring with i-Tree Eco model. *CLEAN–Soil, Air, Water*, *52*(7), 2300198.



MONIKA SHARMA

Department of Environmental Engineering

AWARD SUMMARY

01 Commendable Research Award

Monika Sharma received her B.Sc. (Hons.) degree in Zoology from the University of Delhi and an M.Sc. degree in Environmental Science from Dr. Bhimrao Ambedkar University, Agra, India. She is currently pursuing her doctoral research in the Department of Environmental Engineering, Delhi Technological University (DTU), Delhi, India. Her research focuses on monitoring and analyzing household pollutant levels across different socioeconomic groups and on promoting healthier indoor environmental practices to improve health, comfort, and productivity. She was recently honored with the Young Researcher Award by the Society for Indoor Environment (SIE) at IIT Delhi, in recognition of her outstanding contributions to the field of Indoor Environmental Quality. Ms. Sharma has actively participated in several national and international conferences, where she has presented her research findings. She has also published four SCI-indexed papers, one Scopus-indexed paper, and multiple book chapters in peer-reviewed publications.

Publication Details

1. **Sharma M**, Khare M, Mishra RK (2024). Air quality changes in Delhi due to open waste burning: an accidental fire in Bhalswa landfill. *International Journal of Environmental Science and Technology 21 (1), 655-664*. (IF 3.4)

RAJEEV KUMAR MISHRA

Department of Environmental Engineering

AWARD SUMMARY

03 Commendable Research Award

Rajeev Kumar Mishra is working as an Associate Professor in the Department of Environmental Engineering. The thrust areas of his research are Environmental implications of urban transport systems, Air & Noise Pollution Monitoring, Modeling and Management, Tailpipe emissions, Ultrafine particulates, Impact of urban transport on climate change and Sustainable development. He has supervised 05 Ph.D. theses, 19 M.Tech. Dissertations and 31 B.Tech. Projects. He has published 79 research papers in highly reputed International and National Journals along with 81 News Paper articles. He has also presented 55 International and 11 National conference papers. Dr. Mishra has written 11 book chapters in Springer and Springer Nature. He is the reviewer of different international journals like Transportation Research Part D (Elsevier), Environmental Monitoring and Assessment (Springer), Transport Reviews (Taylor & Francis), Sustainable Cities and Society (Elsevier) etc.

Publication Details

1. Kanagaraj Rajagopal, Vignesh Mohan, **Rajeev Kumar Mishra** (2024). Are Delhi residents exposed to lesser particle number concentration due to the firework ban in the city? *Air Quality, Atmosphere and Health*, (IF: 2.9)
2. Abhinav Pandey, Govind Pandey, **Rajeev Kumar Mishra** (2024). Evaluating exhaust emissions from heterogeneous car fleet through real-time field-generated dataset. *Atmospheric Pollution Research*, (IF: 3.9).
3. Vignesh Mohan, Vijay Kumar Soni, **Rajeev Kumar Mishra** (2024). Geographical variability of ultrafine particle concentrations in urban and background regions in India. *Urban Climate*, Vol. 56, No. 102066, (IF: 6).

S.K. SINGH

Department of Environmental Engineering

AWARD SUMMARY

02 Commendable Research Award

S.K. Singh, Former Vice Chancellor of Rajasthan Technical University, Kota, is a distinguished academic and environmental engineer with an extensive background in teaching, research, and institutional leadership. A graduate of BITS Pilani and IIT Varanasi, he has over three decades of experience, having held key positions at Delhi Technological University and other prestigious institutions. His expertise spans environmental engineering, water resource management, life cycle assessment, and sustainability studies. Prof. Singh is a fellow of numerous professional bodies and has significantly contributed to environmental science through over 265 research publications in national and international forums. His work includes pioneering studies in wastewater treatment, biofuels, groundwater quality, and air pollution control. He has also played influential roles on editorial boards of several international journals. Renowned for his scholarly impact and administrative acumen, Prof. Singh continues to drive academic excellence and sustainable innovation in environmental engineering.

Publication Details

1. Noori, A. R., & **Singh, S. K.** (2024). Delineation of optimal locations for artificial groundwater recharge utilizing MIF and GIS in a semi-arid area. *Environmental Earth Sciences*, 83(1), 33.
2. Noori, A. R., & **Singh, S. K.** (2024). Assessment of seasonal groundwater quality variation employing GIS and statistical approaches in Kabul basin, Afghanistan. *Environment, Development & Sustainability*, 26(2).

SONAM TANEJA

Department of Environmental Engineering

AWARD SUMMARY

01 Commendable Research Award

She has completed her Ph.D. from the Environmental Engineering Department on the remediation of metal-contaminated soils using electrokinetics. During her Ph.D., she pursued her research at Çanakkale Onsekiz Mart University, Türkiye, for one semester. She has more than 15 publications as research papers, conference proceedings, and book chapters. Her area of interest lies in environmental monitoring, soil sustainability, and health risk assessment.

Publication Details

1. **Taneja, S.**, Karaca, Ö., Haritash, A.K. (2024). Electrokinetic remediation: Past experiences and future roadmap for sustainable remediation of metal-contaminated soils. *Journal of Geochemical Exploration, 259,* 107437. **Impact Factor:** 3.4

VIGNESH MOHAN

Department of Environmental Engineering

AWARD SUMMARY

02 Commendable Research Award

Vignesh Mohan is currently pursuing his Ph.D. at Delhi Technological University, where he has been enrolled since August 2020. His research focuses on urban air quality and its implications for human health, with a particular emphasis on comparing air pollution characteristics between urban and background environments. His doctoral work examines the behavior and temporal patterns of ultrafine particle number concentrations and size distributions across contrasting geographical locations. In addition to this, he has investigated new particle formation events in urban settings and evaluated the effectiveness of various policy interventions, such as firecracker bans, odd-even traffic regulations, and stage-wise restrictions, implemented during major initiatives like the Graded Response Action Plan (GRAP), in mitigating air pollution. His research provides critical evidence to inform policymakers in refining emission standards and designing effective control strategies.

Publication Details

1. **Vignesh Mohan**, Vijay Kumar Soni, Rajeev Kumar Mishra (2024). Analysing the impact of day-night road traffic variation on ultrafine particle number size distribution and concentration at an urban site in the megacity Delhi. *Atmospheric Pollution Research*, 102065. (IF 3.9).
2. **Mohan, V.**, Mishra, R. K., & Soni, V. K. (2024). Air Quality Analysis in Desert Region in the Northern State of India: GIS Based Approach. *Journal of the Indian Society of Remote Sensing*, 1-10.

Department of

Information Technology

ABHISHEK VERMA

Department of Information Technology

AWARD SUMMARY

01 Commendable Research Award

Abhishek Verma is an Assistant Professor in the Department of Computer Science and Engineering at Madan Mohan Malaviya University of Technology, Gorakhpur. He completed his Ph.D. in Information Technology from Delhi Technological University in just three years, submitting his thesis within 2.4 years under the supervision of Prof. Dinesh Kumar Vishwakarma and Dr. Virender Ranga. During his doctoral research, he made significant contributions, authoring five journal papers, five published patents, and four international conference papers. His research focuses on deep learning, computer vision, and geospatial data analysis, with impactful applications in air pollution forecasting, fire risk detection, and satellite-based remote sensing. For his contributions, he received the Commendable Research Award (2024) from DTU. Dr. Verma continues to advance AI-driven solutions for environmental and societal challenges while mentoring and guiding the next generation of engineers and researchers.

Publication Details

1. **Verma, A.**, Ranga, V., & Vishwakarma, D. K. (2024). BREATH-Net: A novel deep learning framework for NO_2 prediction using bi-directional encoder with transformer. *Environmental Monitoring and Assessment*, 196, 340. https://doi.org/10.1007/s10661-024-12455-y **Impact Factor:** 3.0

ANANYA PANDEY

Department of Information Technology

AWARD SUMMARY

01 Commendable Research Award

Ananya Pandey is an Assistant Professor-I in the Department of Computer Science and Engineering at Thapar Institute of Engineering and Technology (Deemed-to-be-University), Patiala. She completed her Ph.D. in Information Technology from Delhi Technological University (DTU), New Delhi, with her doctoral research focused on Multimodal Sentiment Analysis, integrating speech, vision, and text modalities to enhance emotion and sentiment recognition. Her research interests include multimodal learning, computer vision, natural language processing, and AI robustness. She has proposed novel approaches for sentiment recognition using deep learning architectures, and her work has been published in SCI-indexed journals and presented at international conferences. She is committed to advancing multimodal AI for real-world applications in human-computer interaction, while fostering innovation and academic excellence through her teaching and research guidance.

Publication Details

1. **Pandey, A.**, & Vishwakarma, D. K. (2024). Progress, achievements, and challenges in multimodal sentiment analysis using deep learning: A survey. *Applied Soft Computing, 152,* 111206. **Impact Factor: [6.6]**

ANITA THAKUR

Department of Information Technology

Anita Thakur holds a B.Tech. degree in Computer Science and Engineering from the University Institute of Information Technology and an M.Tech. from Himachal Pradesh University, Summerhill, Shimla. She is currently pursuing her Ph.D. in Computer Science at Delhi Technological University, Delhi, having enrolled in 2022. Her research interests include blockchain technology, distributed computing, and cryptography. She has published several research papers in reputed conferences and Q1, Q2 journals

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Thakur, A.**, Ranga, V., & Agarwal, R. (2024). Workload dynamics implications in permissioned blockchain scalability and performance. *Cluster Computing*, *27*(8), 11569-11593. **Impact Factor:** 4.1

ANKIT YADAV

Department of Information Technology

Ankit Yadav completed his Ph.D. degree from the Delhi Technological University, India in 2024. He is currently working as an assistant professor in the department of Information Technology, DTU. His current research interest is the detection of malicious manipulation in multimedia data. His primary research focus includes deep learning and computer vision. He did his graduation and post-graduation from Guru Gobind Singh Indraprastha University, Delhi, India in 2013 and 2016 respectively.

AWARD SUMMARY

03 Commendable Research Award

Publication Details

1. **Yadav, A.**, & Vishwakarma, D. K. (2024). AW-MSA: Adaptively weighted multi-scale attentional features for DeepFake detection. *Engineering Applications of Artificial Intelligence*, 127, 107443. https://doi.org/10.1016/j.engappai.2023.107443. **Impact Factor - 8.0**
2. **Yadav, A.**, & Vishwakarma, D. K. (2024). Toward effective image forensics via a novel computationally efficient framework and a new image splice dataset. *Signal, Image and Video Processing*, 18(4), 3341-3352. **Impact Factor – 2.1**
3. **Yadav, A.**, Gupta, D., & Vishwakarma, D. K. (2024). Uncovering visual attention-based multi-level tampering traces for face forgery detection. *Signal, Image and Video Processing*, 18(2), 1259-1272. **Impact Factor – 2.1**

ASHISH BAJAJ

Department of Information Technology

AWARD SUMMARY

01 Commendable Research Award

Ashish Bajaj is an Assistant Professor in the Department of Computer Science and Engineering at Thapar Institute of Engineering and Technology, Patiala, Punjab. He earned his Ph.D. in Information Technology from Delhi Technological University (DTU), New Delhi, where his research focused on adversarial attacks and defenses in classification models for Natural Language Processing (NLP). He holds an M.Tech. in Information Technology and a B.Tech. in Computer Science and Engineering from Guru Gobind Singh Indraprastha University, Delhi. His research interests include adversarial machine learning, NLP, AI security, and robustness, with an emphasis on developing resilient and trustworthy AI models. He has published extensively in SCI(E)-indexed journals and presented at leading international conferences. Dr. Bajaj is committed to advancing secure and reliable AI for real-world applications while fostering innovation, research excellence, and student mentorship.

Publication Details

1. **Bajaj, A.**, & Vishwakarma, D. K. (2024). Non-Alpha-Num: a novel architecture for generating adversarial examples for bypassing NLP-based clickbait detection mechanisms. *International Journal of Information Security*. Vol. 23 (Issue 4) Pages 2711-2737 https://doi.org/10.1007/s10207-024-00861-9 **(Impact Factor-3.2)**

BINDU VERMA

Department of Information Technology

AWARD SUMMARY

01 Commendable Research Award

Bindu Verma is an Assistant Professor in the Department of Information Technology at Delhi Technological University. She earned masters and Doctorate degree in Automated Intent Recognition using Hand Gesture and Face Expression Analysis from School of Computer and Systems Sciences, Jawaharlal Nehru University, New Delhi. She has more than 8 years teaching experience. She has many publications in SCI journals including IEEE transaction and conferences. She is passionate to work in the area of computer vision, machine learning, human-computer interaction, intelligent systems, affective state monitoring. She has made substantial contributions to the field of human-computer interaction, emotion recognition, and intent recognition with many research articles published in international conferences and journals. She is the reviewer of many International Journals such as IET Intelligent Transport System, IEEE Transactions on Circuits and Systems for Video Technology, Intelligent Transportation System conferences, etc.

Publication Details

1. Tripathi, R., & **Verma, B.** (2024). Survey on vision-based dynamic hand gesture recognition. *The Visual Computer*, *40*(9), 6171-6199.

DEEPAK DAGAR

Department of Information Technology

AWARD SUMMARY

02 Commendable Research Award

Deepak Dagar received his B.Tech degree in Software Engineering from Delhi Technological University (DTU), Delhi in 2014, and his M.Tech degree from Netaji Subhas Institute of Technology (NSIT), Delhi in 2016. From 2016 to 2019, he worked at Bombardier Transportation Private Limited as a Software Testing Engineer and later as a Software Test Lead. He obtained his Ph.D. degree in Information Technology from Delhi Technological University (DTU), Delhi in 2024. His doctoral research focused on the *"Development of a Framework for Deepfake Detection in Multimedia Data."* His current research interests include deep learning, computer vision, multimedia forensics, and deepfake generation and detection.

Publication Details

1. **D. Dagar** and D. K. Vishwakarma(2024), Shallowfake and deepfake image manipulation localization using noise and RGB-based dual branch method, *Signal Image and Video Processing*, vol. 18, pp. 7065-7077, 2024. **Impact Factor:2**
2. **D. Dagar** and D. K. Vishwakarma(2024), Tex-Net: texture-based parallel branch cross-attention generalized robust Deepfake detector," *Multimedia Systems*, vol. 30, p. 233. **Impact Factor: 3.1**

DINESH KUMAR VISHWAKARMA

Department of Information Technology

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

Highly Cited Paper Award

01 Premier Research Award

03 Commendable Research Award

Dinesh Kumar Vishwakarma received the Ph.D. degree in the field of Computer Vision and Machine Learning from Delhi Technological University, New Delhi, India, in 2016. He is currently a Professor and Head, the Department of Information Technology, Delhi Technological University. His current research interests include Computer Vision, Deep/Machine Learning, Sentiment Analysis, Fake News Detection, Multimedia Data Analytics, Deepfake Detection and Crowd Behaviour Analysis. He received research excellence awards from the Delhi Technological University in the years 2017-2023. He is Associate Editor of IEEE Transactions on Circuits Systems for Video Technology. He has been featured among top 2% scientist of the world by Stanford University in the year 2024-2021. He is a reviewer of various journals/transactions of the ACM, IEEE, Elsevier, and Springer. He is a senior member of IEEE, Member of Association for Computing Machinery, and a lifetime member of ISTE.

Publication Details

1. Choudhry, A., Khatri, I., Jain, M., & **Vishwakarma, D. K.** (2024). An emotion-aware multitask approach to fake news and rumor detection using transfer learning. *IEEE Transactions on Computational Social Systems*, 11(1), 588-599.
2. Gupta, V., Yadav, A., & **Vishwakarma, D. K.** (2024). HumanPoseNet: An all-transformer architecture for pose estimation with efficient patch expansion and attentional feature refinement. *Expert Systems with Applications*, 244, 122894.
3. Yadav, A., & **Vishwakarma, D. K.** (2024). Datasets, clues and state-of-the-arts for multimedia forensics: An extensive review. *Expert Systems with Applications*, 249, 123756.
4. Chaturvedi, K., Dhiman, C., & **Vishwakarma, D. K.** (2024). Fight detection with spatial and channel wise attention-based ConvLSTM model. *Expert systems*, *41*(1), e13474.

MANU NARULA

Department of Information Technology

I am currently working as an assistant professor in the Department of CSE at Maharaja Agrasen Institute of Technology and am pursuing my doctorate from the Department of Information Technology at Delhi Technological University. I completed my M. Tech. and B. Tech. from GGSIPU, New Delhi. I have published several research papers in International Journals and presented several research papers in reputed Conferences. My area of research and expertise is "Secure Federated Learning for resource-constrained Data Sensitive Applications." I am an active participant in organizing various workshops and lectures on cybersecurity at DTU, Delhi.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Narula, M.**, Meena, J., & Vishwakarma, D. K. (2024). A comprehensive review on federated learning for data-sensitive application: Open issues & challenges. *Engineering Applications of Artificial Intelligence*, *133*, 108128.

NIDHI

Department of Information Technology

Nidhi is an Assistant Professor in the School of Computer Science at Bennett University, Greater Noida. She earned her Doctorate degree from the Department of Information Technology, Delhi Technological University (Formerly known as Delhi College of Engineering), Delhi, India. She received her Bachelor of Technology and Master of Technology in Computer Science from Banasthali Vidyapith, Rajasthan, India. Her area of research interests are computer vision, machine learning, human-computer interaction, and facial emotion recognition.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Nidhi**, & Verma, B. (2024). A lightweight convolutional swin transformer with cutmix augmentation and CBAM attention for compound emotion recognition. *Applied Intelligence*, 54(17), 7793-7809.

REENA TRIPATHI

Department of Information Technology

AWARD SUMMARY

01 Commendable Research Award

Reena Tripathi is a dedicated researcher and educator in the field of Computer Science and Information Technology. She earned her Ph.D. in Information Technology from Delhi Technological University, where her research focused on dynamic hand gesture recognition using deep learning, ensemble learning, and advanced loss functions. She holds an M.Tech. in Computer Science and Engineering from GGSIPU and a B.Tech. in Electronics and Telecommunication from BPSMV. Dr. Tripathi has published research in reputable journals, including The Visual Computer and Signal, Image and Video Processing, as well as contributed to IEEE conferences. Her academic interests span computer vision, deep learning, IoT, and medical image analysis. With teaching and mentoring experience at DTU, she combines strong research expertise with academic leadership. A recipient of the DTU fellowship, Dr. Tripathi has also actively participated in technical workshops, conferences, and academic committees, reflecting her commitment to advancing research and education.

Publication Details

1. **Tripathi, R.**, & Verma, B. (2024). Motion feature estimation using bi-directional GRU for skeleton-based dynamic hand gesture recognition. *Signal, Image and Video Processing*, 18(Suppl 1), 299–308. Impact Factor: 2

SAJAL AGGARWAL

Department of Information Technology

AWARD SUMMARY

01 Commendable Research Award

Sajal Aggarwal received his B. Tech degree in Information Technology with a minor in Artificial Intelligence and Machine Learning from Delhi Technological University (Formerly Delhi College of Engineering) in 2024. He was awarded the prestigious Chancellor's Gold Medal by the Hon'ble Lieutenant Governor of Delhi, Shri Vinai Kumar Saxena, for securing the first position in the order of merit among the students of all undergraduate programmes (batch 2020-24). Additionally, he was awarded the Vice Chancellor's Gold Medal and the Dr. Alok Goyal Scholastic Award for Academic Excellence. During the tenure of his undergraduate course, he received several other honours and awards for his distinctive academic performance, including the annual merit scholarship, the Prof. P. Kundu Medal, and the Pramod Jain Merit Scholarship. He is currently pursuing his PhD in Information Technology from Delhi Technological University. His research interests include adversarial attacks, deepfake detection, and multimodal sentiment and hate speech analysis.

Publication Details

1. **Aggarwal, S.**, & Vishwakarma, D. K. (2024). Exposing the Achilles' heel of textual hate speech classifiers using indistinguishable adversarial examples. *Expert Systems with Applications*, *254*, 124278. **Impact Factor:** 7.5

SEBA SUSAN

Department of Information Technology

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

01 Commendable Research Award

Seba Susan is a Professor in the Department of Information Technology at Delhi Technological University (DTU). She completed her Ph.D from the Electrical Engineering Department of IIT Delhi in 2014. She was among the top-241 performers out of 5308 in the pedagogy course- ICT for Education & Pedagogy program 2017- conducted by IIT Bombay. Her research areas are Data Mining, Natural Language Processing, Generative models, Computer Vision, Bioinformatics & Biomedical research, with the area of specialization being the development of Soft Computing tools for Pattern Recognition across various modalities (image, speech, text, sensor data). She is a member of the IEEE Computational Intelligence Society, IEEE Signal Processing Society and the IEEE Computer Society and a life member of the Computer Society of India (CSI). She has published more than 150 papers in international journals and conferences. She is listed in Stanford University's top 2% scientists in the world (2024).

Publication Details

1. **Susan, S.** (2024). Neuroscientific Insights about Computer Vision Models: A Concise Review. *Biological Cybernetics,* 118(5), 331-348 **Impact Factor: 1.6**

SUNAKSHI MEHRA

Department of Information Technology

AWARD SUMMARY

03 Commendable Research Award

Sunakshi Mehra completed her Ph.D. in Information Technology at Delhi Technological University (DTU) and is currently an Assistant Professor in the Department of Computer Science and Engineering at DTU. Her research interests span speech recognition, natural language processing, and computer vision, with a focus on multimodal deep learning that integrates audio, linguistic, and visual modalities. Her work addresses challenges such as speech impairments, accented speech, and low-resource language processing. She has authored SCIE-indexed journal articles in Q1 and Q2 high-impact journals and contributed book chapters in artificial intelligence and machine learning. Her broader goal is to link AI research with practical applications in healthcare, assistive technologies, and human-centric computing.

Publication Details

1. **Mehra, S.**, Ranga, V., & Agarwal, R. (2024). A deep learning approach to dysarthric utterance classification with BiLSTM-GRU, speech cue filtering, and log mel spectrograms. *The Journal of Supercomputing, 80*(10), 14520–14547. **Impact Factor: 2.7.**
2. **Mehra, S.**, Ranga, V., & Agarwal, R. (2024). Multimodal integration of mel spectrograms and text transcripts for enhanced automatic speech recognition: Leveraging extractive transformer-based approaches and late fusion strategies. *Computational Intelligence, 40*(6), e70012. **Impact Factor: 1.7.**
3. **Mehra, S.**, Ranga, V., & Agarwal, R. (2024). Improving speech command recognition through decision-level fusion of deep filtered speech cues. *Signal, Image and Video Processing, 18*(2), 1365–1373. **Impact Factor: 2.1.**

VIKAS SHARMA

Department of Information Technology

Vikas Sharma completed his Ph.D. in the Department of Information Technology at Delhi Technological University, Delhi, India. He earned his M.Tech. and B.Tech. in Information Technology from SRM Institute of Science and Technology, Chennai. His research interests include Digital Twin, Cloud Computing, Malware Analysis, and IoT Security. He is GATE qualified and receives a DTU fellowship. So far, he has published research papers in reputed SCI/SCIE journals. He has also presented her work in national and international conferences.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Sharma, V.**, Kumar, A., & Sharma, K. (2024). Digital twin application in women's health: Cervical cancer diagnosis with CervixNet. *Cognitive Systems Research*, 87, 101264. **Impact Factor: 2.4**

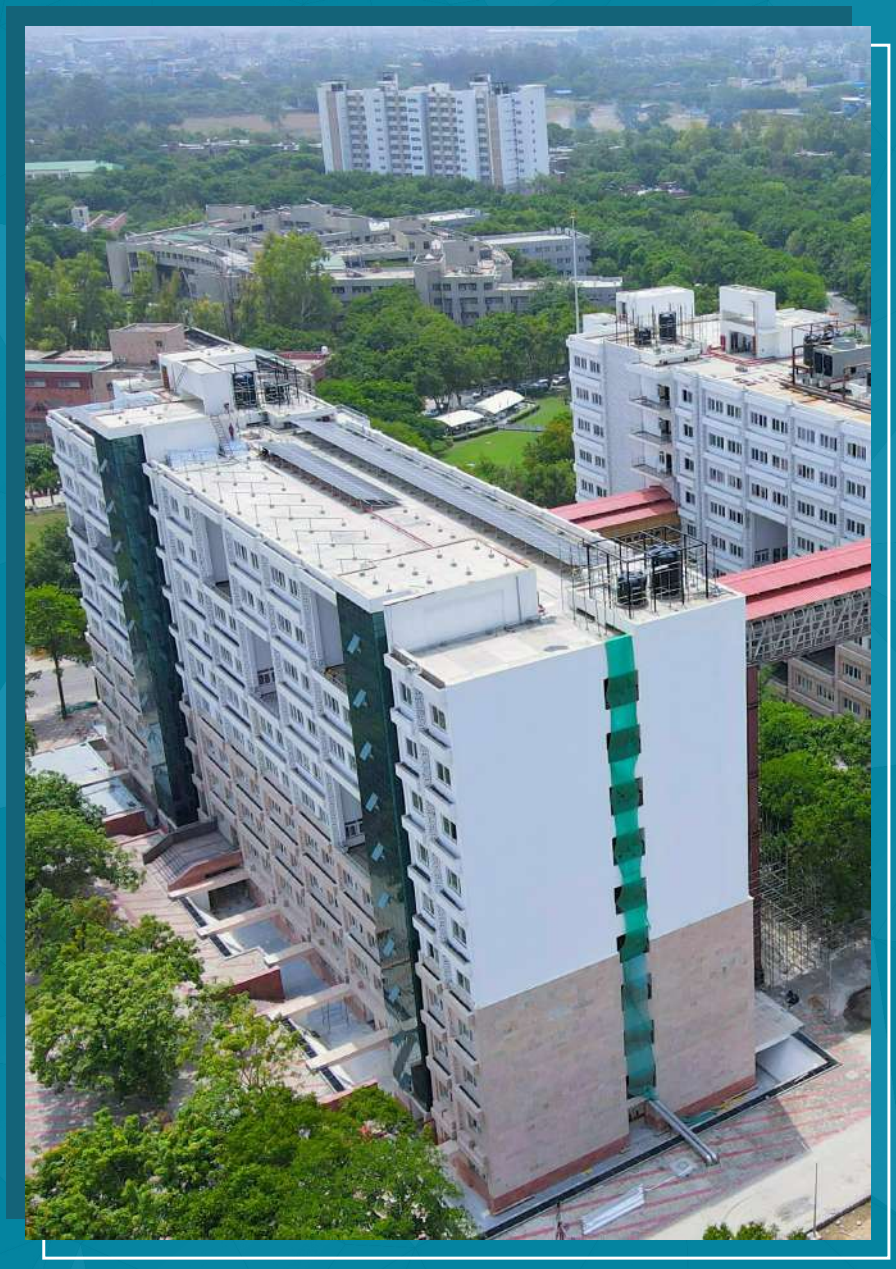
VIRENDER RANGA

Department of Information Technology

Virender Ranga received his Ph.D. degree from the Computer Engineering Department of the National Institute of Technology (NIT), Kurukshetra. He has been working as an Associate Professor in the Information Technology Department of Delhi Technological University, Delhi. Previously, he worked as an Assistant Professor with the Computer Engineering Department of the National Institute of Technology Kurukshetra, Haryana, India. He has published more than 100 research articles in various SCI/SCIE/SCOPUS/ESCI/ INSPEC Journals and various reputed International Conferences in Computer Communications and Computer Security areas. He is an active reviewer of various reputed journals like IEEE Transaction journals, Springer journals, Elsevier journals, Taylor & Francis journals, Wiley journals, and InderScience journals. His research area includes Wireless Sensor and ad-hoc network security, IoT security, FANET security, SDN security, IoRT, NLP, ITS, etc.

AWARD SUMMARY

Yearly Citation Award



Academic Block, **DTU**

Department of Mechanical Engineering

ABDUL KHALIQ ANSARI

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Abdul Khaliq Ansari is a full-time research scholar in the Department of Mechanical Engineering, Delhi Technological University (DTU). He earned his B.Tech (2011) and M.Tech (2014) degrees from Zakir Husain College of Engineering and Technology (ZHCET), Aligarh Muslim University (AMU), Aligarh. Following his post-graduation, he served as a Contractual Faculty at ZHCET, AMU Aligarh, and Jamia Millia Islamia (JMI), New Delhi. Currently, he is working as a 1-D Simulation Engineer at Prolim India Pvt. Ltd., Bangalore. He has published multiple research papers in reputed national and international journals. His research interests lie in the field of vibration analysis and fault diagnosis of rotary machinery, with a focus on condition monitoring and predictive maintenance.

Publication Details

1. **Ansari, A. K.**, & Kumar, P. (2024). Vibration and acoustics analyses of tapered roller bearing. *Journal of Vibration Engineering & Technologies*, *12*(2), 2467-2484. **Impact Factor: 2.7**
2. **Ansari, A. K.**, & Kumar, P. (2024). Vibro-acoustic analysis of defective taper roller bearings. *Tribology International*, *199*, 110044. **Impact Factor: 6.9**

ANANT BHARDWAJ

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Anant Bhardwaj is a dedicated researcher and Ph.D. candidate in the Department of Mechanical Engineering at Delhi Technological University (DTU), Delhi, India. He earned his M.Tech. degree in Mechanical Engineering from Uttar Pradesh Technical University, Lucknow, India. His primary research interests lie in the fields of Solar Distillation, Solar Energy, and Exergy analysis, with a focus on improving the efficiency and sustainability of renewable energy systems. Alongside his doctoral research, he is actively engaged in academia as a faculty member in the Department of Mechanical and Allied Engineering at IILM University, Greater Noida, India, where he contributes to teaching and mentoring future engineers. His work reflects a strong commitment to advancing sustainable energy technologies and academic excellence.

Publication Details

1. **Bhardwaj, A.**, Srinivas, K., & Chaudhary, R. (2024) Development and Characterization of Novel Engine-Oil-Based Media Gel for Thermal Additive Centrifugal Abrasive Flow Machining. *National Academy Science Letters,* 1-4.
2. **Bhardwaj, A.**, Srinivas, K., & Chaudhary, R. (2024). Morphology of finished brass surface by thermal additive centrifugal abrasive flow machining process using novel electrode. *JOM*, *76*(1), 510-521.

ANIL KUMAR

Department of Mechanical Engineering

AWARD SUMMARY

03	Commendable Research Award
01	Premier Research Award
	Yearly Citation Award (Early Research Impact and Influence Award)
	Ph.D. Thesis Submission Within Minimum Stipulated Period Awar

Anil Kumar is a Professor in the Department of Mechanical Engineering at Delhi Technological University, Delhi, and Head of the Division 'Clean Energy: Nodal Centre of Excellence in Energy Transition (NCEET)'. He earned his Ph.D. in Solar Energy from IIT Delhi (2007) and completed post-doctoral research in Energy Technology at Prince of Songkla University, Thailand. His expertise spans renewable energy, solar energy applications, heat transfer, and energy economics. He has published over 250 journal papers, 80 conference papers, 12 books, and holds multiple patents. With more than 11,000 citations and an h-index of 60 (Google Scholar), he is consistently featured in Stanford University's list of the World's Top 2% Scientists. He serves as Associate Editor of *Journal of Engineering for Sustainable Buildings and Cities* (ASME), and has supervised 19 Ph.D. and 45 master's scholars.

Publication Details

1. Singh, V., & **Kumar, A.** (2024). A Systematic and Comprehensive Review on 2-D and 3-D Numerical Modelling of Stirling Engine. *Archives of Computational Methods in Engineering*, *31*(6), 3255-3266.
2. Yadav, A. K., Sinha, S., & **Kumar, A.** (2024). Advancements in composite cathodes for intermediate-temperature solid oxide fuel cells: A comprehensive review. *International Journal of Hydrogen Energy*, *59*, 1080-1093.
3. Kumar, R., & **Kumar, A.** (2024). Recent advances of biogas reforming for hydrogen production: Methods, purification, utility and techno-economics analysis. *International Journal of Hydrogen Energy*, *76*, 108-140.
4. Yadav, A. K., **Kumar, A.**, & Sinha, S. (2024). Techno-economic and environmental analysis of a hybrid power system formed from solid oxide fuel cell, gas turbine, and organic rankine cycle. *Journal of Energy Resources Technology*, 146(7), 072101.

ASEEM DUBEY

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Aseem Dubey, a research scholar in the Department of Mechanical Engineering at Delhi Technological University (DTU), is a prolific researcher. He completed his M. Tech. in Thermal Engineering (Mechanical Engineering) from DTU in 2020, with First Division (Distinction), and his B. Tech in Mechanical Engineering from Dr. A.P.J. Abdul Kalam Technical University, Lucknow, in 2017 with First Division. His active involvement in research is evident from his number of publications. He has published ten research papers in SCI-indexed international journals of repute, of which two were published in 2024 from his Ph.D. research work. In 2022, he received two Research Excellence Awards at DTU under Premiere and Commendable categories for publishing two research papers from his M.Tech. research work. He has also presented and published research papers at various international conferences.

Publication Details

1. **Dubey, A.,** Arora, A. (2024). Effect of promoters in hydrates based carbon dioxide capture: A review. *Gas Science and Engineering*, 131, 205459. **Impact Factor: 5.5**
2. **Dubey, A.**, Arora, A. (2024). Effect of various energy storage phase change materials (PCMs) and nano-enhanced PCMs on the performance of solar stills: A review. *Journal of Energy Storage*, 97, 112938. **Impact Factor: 9.8**

ASHISH KUMAR

Department of Mechanical Engineering

AWARD SUMMARY

03 Commendable Research Award

Ashish Kumar completed his Ph.D. in Mechanical Engineering from Delhi Technological University, Delhi, India. He holds a B.Tech in Mechanical Engineering from Uttarakhand Technical University, Dehradun, and an M.Tech in Metallurgical Engineering from the National Institute of Technology, Warangal, India. With extensive experience teaching undergraduate students in the field of mechanical engineering, Dr. Kumar focused his doctoral research on the fabrication and characterization of aluminum matrix composites for automotive and aerospace applications. Since 2022, he has published more than twenty (20) research articles in leading international peer-reviewed journals and has presented his research at multiple international conferences, where it received significant recognition. He serves as a reviewer for several international peer-reviewed journals. Currently, Dr. Kumar is a postdoctoral research fellow at the MOE Key Laboratory for Liquid-Solid Structure Evolution and Materials Processing, Institute of Materials Joining, Shandong University, Jinan, China.

Publication Details

1. **Kumar, A.**, Singh, V. P., Mallik, A., Sahoo, B. K., Singh, R. C., & Chaudhary, R. (2024). The utilization of agricultural and industrial waste in the synthesis of AA7075-based novel lightweight composite. *Journal of Materials Science*, 59(3), 915-931. **Impact Factor: 3.9**
2. **Kumar, A.**, Singh, V. P., Singh, R. C., Chaudhary, R., Kumar, D., & Mourad, A. H. I. (2024). A review of aluminum metal matrix composites: fabrication route, reinforcements, microstructural, mechanical, and corrosion properties. *Journal of Materials Science*, 59(7), 2644-2711. **Impact Factor: 3.9**

3. **Kumar, A.**, Singh, V. P., Singh, R. C., Chaudhary, R., & Kumar, D. (2024). Enhancing microstructural, tribological and corrosion responses of Al–Zn–Mg–Cu alloy via nano-/micro-Al2O3 particulates. *Journal of Materials Science*, 59(17), 7235-7257. **Impact Factor: 3.9**

ASHUTOSH MISHRA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Ashutosh Mishra is an Assistant Professor in the Department of Mechanical Engineering at GL Bajaj Institute of Technology and Management, Greater Noida. He obtained his Ph. D. from Delhi Technological University in the optimization of a combined cycle power plant. He specializes in thermal engineering, mathematical modelling, and optimization, with a focus on improving the efficiency of energy and refrigeration systems. His research integrates simulation and real-world applications, aiming to develop sustainable solutions in power and energy systems. Alongside research, Dr. Mishra is deeply involved in teaching and mentoring, particularly guiding students through practical projects that bridge theory and application. His work emphasizes energy system optimization, leveraging computational tools and modelling approaches to enhance performance and reliability.

Publication Details

1. **Mishra, A.**, Arora, B.B. & Arora, A. Exergy-based sustainability analysis of combined cycle gas turbine plant integrated with double-effect vapor absorption refrigeration system. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 46, 20 (2024). **Impact Factor: 2.1**

AYAZ MEHMOOD

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Ayaz Mehmood is currently serving as an Assistant Professor in the Department of Mechanical Engineering at Mewat Engineering College (Waqf), Mewat, Haryana, where he has been working since 2011. Prior to joining MEC, he worked as a Senior Lecturer at the World Institute of Technology, Sohna from 2010 to 2011. He also served as Guest Faculty at Zakir Husain College of Engineering & Technology, Aligarh Muslim University (A.M.U.), Aligarh, from 2008 to 2010, and at the University Polytechnic, A.M.U., Aligarh, from 2007 to 2008.

He is currently pursuing a Ph.D. from Delhi Technological University (DTU), Delhi. He completed his B.Tech. in 2006 and M.Tech. in Thermal Science (Mechanical Engineering) in 2009, both from Z.H. College of Engineering and Technology (ZHCET), A.M.U. Aligarh. He has published three research papers in reputed international/national journals and conference proceedings.

Publication Details

1. **Mehmood, A.**, Zunaid, M., & Madan, A. K. (2024). Multi-objective optimization and performance improvement of CD nozzle design parameters for cold spray coating process using RSM, ANN and GA. *Materials Today Communications, 40,* 109446. https://doi.org/10.1016/j.mtcomm.2024.109446. **Impact Factor: 4.5**

BIJENDRA PRASAD

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Bijendra Prasad is currently working as a research scholar in the department of mechanical engineering at Delhi Technological University. Before joining the PhD, he had a total of four years of teaching and R&D experience in CSIR and DST projects. His area of research has been in sheet metal forming of composite sheet metal at elevated temperatures, design of machine elements like actuators based on shape memory alloys for below-elbow prosthesis application and component for the microclimate moderation in the tractors for agricultural application. He has authored two SCIE indexed research papers. He has presented seven papers at national and international conferences. His work was awarded with the best paper award at the international conference ISME-2024.

Publication Details

1. **Prasad B.**, Gautam V. (2024). Experimental and Numerical Investigations of Formability of Two-Ply Clad Sheet of Stainless Steel and Aluminium Alloy. *MAPAN - Journal of Metrology Society of India*, 39(4):887–900. **Impact Factor: 1.3**

DEEPAK SHARMA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Deepak Sharma is an Assistant Professor at the Institute of Business Management, GLA University, Mathura, India. He holds a PhD in Operations and Supply Chain Management from the Department of Mechanical Engineering, Delhi Technological University, Delhi. With over 14 years of teaching and research experience, his academic interests include Sustainable Manufacturing, Industry 4.0, Circular Economy, Sustainable Supply Chains, and the United Nations' Sustainable Development Goals (SDGs). He has contributed extensively in reputed international journals such as *Operations Management Research, International Journal of Logistics Research & Applications, Global Journal of Flexible Systems Management, Process Integration and Optimization for Sustainability, and Proceedings of the Institution of Mechanical Engineers-Part E,* among others.

Publication Details

1. **Sharma, D.**, Kumar, P., & Singh, R. K. (2024). Framework for evaluating sustainability index of a manufacturing system: A case illustration. *Operations Management Research*, *17*(2), 569-595. https://doi.org/10.1007/s12063-023-00438-0 **Impact Factor: 5.3**

DHARMENDRA KUMAR

Department of Mechanical Engineering

Dharmendra Kumar is currently a research scholar in Delhi Technological University in the Department of Mechanical Engineering. He graduated from BIT Sindri, Dhanbad, Jharkhand, in Mechanical Engineering and post-graduated from IIT Roorkee in Production & Industrial Systems Engineering. He has more than 18 years of experience in various fields like administration, management, teaching, and industry in the government setup. He has worked as an Assistant Engineer in Uttarakhand Jal Vidyut Nigam Limited. He has also worked as a Lecturer at BIT Sindri, Dhanbad. He is presently working as Director in the Ministry of Defence, Government of India. His research interests include Industry 4.0, Circular Economy, Supply Chain Management, and Game Theory. He has published various research articles in International Journals and Conferences.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Kumar, D.,** Agrawal, S., Singh, R. K., & Singh, R. K. (2024). IoT-enabled coordination for recommerce circular supply chain in the industry 4.0 era. *Internet of Things*, Vol. 26, 101140. **Impact Factor: 6.0.**

DURVESH

Department of Mechanical Engineering

Durvesh is a Ph.D. scholar in mechanical engineering with a specialization in Fluid Mechanics and Turbomachinery and expertise in Computational Fluid Dynamics (CFD) from Delhi Technological University, an M.Tech. in Hydropower Engineering from MANIT, Bhopal, and a B.Tech. in Mechanical Engineering from Uttar Pradesh Technical University. Her research focuses on developing advanced CFD models to analyze fluid flow in Multistage Centrifugal Pump and their design optimization. She has a strong background in Fluid Mechanics and Turbomachinery, with experience in conducting simulations to enhance the performance of Multistage Centrifugal Pump. Her expertise in Computational Fluid Dynamics (CFD), and Response Surface Methodology underscores her proficiency in both Mechanical and Hydropower engineering domains.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Yadav, D.**, Singh, R. K., & Kumarswamy, M. (2024). Numerical simulation of inter-stage of multistage centrifugal pump by varying number of blades. *The Canadian Journal of Chemical Engineering*, 102(8), 2921-2935.
2. **Yadav, D.**, Singh, R. K., & Manjunath, K. (2025). Response surface method-based hydraulic performance optimization of a single-stage centrifugal pump. *International Journal for Numerical Methods in Fluids*, 97(1), 20-43.

FADIA AHMED NAJI

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Fadia Ahmed Naji is a Research Scholar in Mechanical Engineering at Delhi Technological University (DTU), India. She earned her Bachelor's degree in Industrial and Manufacturing Systems Engineering and her Master's degree in Engineering Management from the Centre for Graduate Studies, Taiz University, Yemen. Her research focuses on advanced manufacturing processes, surface engineering, thermochemical processes, magnetorheological finishing, nano-finishing, and biomaterial alloys such as Ti64 alloy. She developed a novel, sustainable chemical pretreatment process for precision finishing and improving the bioactivity of Ti64 alloy. She has published in reputable, high-impact-factor journals. In addition to being an academic reviewer in international journals, including the Journal of Manufacturing Processes and the Journal of the Brazilian Society of Mechanical Sciences and Engineering.

Publication Details

1. **Abdullah Naji**, Fadia Ahmed, Qasim Murtaza, and M. S. Niranjan. 2024. "Challenges and Opportunities in Nano Finishing of Titanium Alloys for Biomedical Applications: A Review." *Precision Engineering* 88 (January): 81–99. **Impact Factor: 3.7**

GAURAV KUMAR

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

I am a passionate and skilled CFD analyst with over 6 years of experience in various academic projects, such as aerospace, automotive, and renewable energy. I have a strong background in mathematics, physics, and engineering, and I am proficient in using software tools such as ANSYS Fluent, Open FOAM, and Python. I have successfully completed several projects involving aerodynamics, heat transfer, multiphase flow, and turbulence modeling, and I have published my results in peer-reviewed journals and conferences. I am always eager to learn new techniques and technologies, and I enjoy collaborating with other experts and clients to solve complex problems and deliver high-quality solutions. I am looking for new opportunities to apply my CFD skills and knowledge to challenging and innovative projects that can make a positive impact on the world.

Publication Details

1. **Kumar, G.**, & Singh, R. K. (2024). Numerical simulation of thermal hydraulics of supercritical pressure water with 2× 2 rod assembly wrapped differently with a wire. *Progress in Nuclear Energy*, 168, 105029. **Impact Factor: 3.2**
2. Tyagi, A., Singh, P., Rao, A., **Kumar, G.**, & Singh, R. K. (2024). A novel framework for optimizing Gurney flaps using RBF surrogate model and cuckoo search algorithm. *Acta Mechanica*, *235*(6), 3385-3404.

GIRISH KUMAR

Department of Mechanical Engineering

Girish Kumar is a Professor in the Department of Mechanical Engineering at Delhi Technological University. He currently serves as the Dean of Research & Development and Director of the Center for Community Development and Research. With over 28 years of experience in teaching and research, Dr. Kumar specializes in Reliability Engineering, Maintenance Management, Stochastic Modeling, Optimization, and Quality Engineering. He has authored more than 80 high-quality research articles published in reputed international journals.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Kumar, G.**, James, A. T., Kumar, G., Rajput, R., & Choudhary, S. (2024). Evaluation of sustainability indicators of machine tools: a hybrid Fuzzy DEMATEL approach. *Environment, Development and Sustainability*, 26(7), 18593-18624.
2. James, A. T., Khan, A. Q., Asjad, M., **Kumar, G.**, & Arya, V. (2024). Identification and evaluation of challenges in commercial vehicle transport business in India post-implementation of BS-VI emission norms. *Research in Transportation Business & Management*, 54, 101122.

HUSAIN MEHDI

Department of Mechanical Engineering

Husain Mehdi received his PhD from Delhi Technological University, Delhi, and his M.Tech (Machine Design) from Aligarh Muslim University, Aligarh, in 2013. His teaching and research interests include Friction stir welding/Processing, Composite material, strength of Materials, Computational fluid dynamics (CFD), and advanced materials. He delivered his lecture as a keynote speaker at various reputed International Conferences like the International Conference on Scientific Ideas of Young Scientists, Poland, 2021, and the 2nd Edition of the International Congress of Chemical Engineering, Morocco, 22 June 21. He has supervised 10 M.Tech research scholars and more than 25 B.Tech student projects. Now, he is working as an associate professor and Assistant Dean Research at Meerut Institute of Engineering and Technology, Meerut, India. He has published more than 72 research papers in reputed journals and conferences and has 13 granted patents. His research publications were cited in more than 2079 worldwide with a 29 H index. He organized three international conferences: ICARIE-2017 in 2017 at Meerut Institute of Technology, Meerut (U.P), ICAMMIA-2023 at MIET, Meerut, and ICARAE2022 in 2022 at Cape Peninsula University of Technology, South Africa.

He is also an editor in the Journal of Adhesion Science and Technology (Taylor and Francis) (SCI) Impact Factor: 3.7 (Q1) and guest editor in the International Journal on Interactive Design and Manufacturing (SPRINGER) Impact Factor: 2.5 (Q3), Journal of Adhesion Science and Technology, and Advanced Manufacturing: Polymer & Composites Science (Taylor and Francis) (SCOPUS, ESCI, Impact factor: 2.2).

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Mehdi, H.**, Mishra, R.S., Modification of Microstructure and Mechanical Properties of AA6082/ZrB2 Processed by Multipass Friction Stir Processing. *Journal of Material Engineering and Performance* 33, 2050 (2024). **Impact Factor: 2.0** https://doi.org/10.1007/s11665-023-08880-8.

KARTIKEY VISHNU

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Kartikey Vishnu, a B.Tech. (Mechanical Engineering) graduate student of Delhi Technological University, is a Machine Learning Engineer and researcher with experience spanning computer vision, natural language processing, and AI for robotics. He has led end-to-end development of scalable ML solutions at Aurva, including document classification with transformers, OCR systems, anomaly detection, and risk scoring algorithms. His research background includes deep learning and computer vision at ETS Montreal (MITACS), where he explored multi-object tracking, re-identification, and multi-task learning, improving accuracy and ID stability in industrial contexts. He has published work on deep metric learning and lightweight convolutional architectures, applying them to image retrieval and aerodynamic optimization. His applied projects include active perception for driverless cars, where he trained and deployed YOLO-based models with millimeter-level precision. With a strong foundation in AI, statistics, and scalable systems, his focus lies in advancing real-world applications of machine learning, deep learning, and AI-driven robotics.

Publication Details

1. **Vishnu, K.**, Chatterjee, D., Goel, A., & Kumar, R. (2024). Deep convolutional architectures for optimizing multi-element airfoil systems. *Physics of Fluids*, 36(11), Article 113622. https://doi.org/10.1063/5.0234254 **(Impact Factor: 4.1)**

INDRA JEET SINGH

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

I, **Indra Jeet Singh**, am a Research Scholar in the Department of Mechanical Engineering at Delhi Technological University. My research primarily focuses on additive manufacturing, with an emphasis on advancing modern fabrication techniques. I possess strong proficiency in welding simulations using *Simufact Welding*, enabling me to analyze and optimize welding processes effectively. Alongside, I have experience in Fusion 360 and engineering tools, which complement my research. My academic journey is driven by a keen interest in developing innovative manufacturing solutions for industrial applications.

Publication Details

1. **Singh, I. J.**, Murtaza, Q., & Kumar, P. (2024). Effect of welding speed on metallurgical characterization of CMT welding of dissimilar aluminium alloys of AA6061 and AA8011. *Silicon*, 16(7), 3891–3903. https://doi.org/10.1007/s12633-024-02961-6, **Impact Factor:3.3**

KROVVIDI SRINIVAS

Department of Mechanical Engineering

Krovvidi Srinivas presently working as Associate Professor in the Department of Mechanical Engineering, Delhi Technological University. Joined at Delhi College of Engineering in 2008 as Assistant Professor. He got his M.Tech. degree from Regional Engineering college Warangal in 1994. He is having a total teaching experience of 31 years. He has supervised 40 UG projects, 9 PG thesis and awarded one Ph.D. degree under joint supervision. Presently, he is supervising 6 Ph.D. students. Published around 36 research papers in SCIE, Scopus indexed and UGC care journals. Presented research work in 24 international Conferences.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. Bhardwaj, Anant; **Srinivas, Krovvidi**; Chaudhary, Rajiv. (2024) Enhancing material removal of TACAFM process through improved electrode geometry. *Sādhanā* 49:110. https://doi.org/10.1007/s12046-024-02474-3, **Impact Factor- 1.4.**

MANISH KUMAR

Department of Mechanical Engineering

Manish Kumar is a dedicated PhD Research Scholar at Delhi Technological University (formerly Delhi College of Engineering), Delhi. He did his M.Tech from Delhi Technological University. His research interests span across renewable energy, biofuels, internal combustion (IC) engines, alternative fuels, and optimization techniques, reflecting his commitment to sustainable and innovative technologies. He has authored and published numerous research papers in reputed SCI and Scopus-indexed journals, as well as in international conference proceedings. His work has gained significant recognition, with a current Google Scholar citation count of 240 and an h-index of 8.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Kumar, M.**, Gautam, R., & Ansari, N. A. (2024). Optimisation of an experimental and feasibility research on a CRDI diesel engine based on a blend of waste cooking oil and waste plastic oil using RSM: A value addition for disposed waste oil. *Journal of the Energy Institute*, vol.*117*, p-101564. **(Impact factor: 6.2).**

MAYANK SINGHAL

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Mayank Singhal is a Research Scholar with Mechanical Engineering Department at DTU, Delhi and a Senior Scientist with Defence Research and Development Organistaion (DRDO), Ministry of Defence. He received his B.Tech. in Mechanical Engineering from BIT, Mesra, and M.E. in Thermal Engineering from Delhi College of Engineering. He has 25 years of research experience in field of Cryogenics and Electronic packaging. He has developed miniature cryocoolers to maintain infrared devices at cryogenic temperatures. His other significant achievements include the development of hermetically sealed packages for semiconductor-based devices and their thermal management. He has published research papers in reputed international journals and conferences in these areas. He is a life member of the Indian Cryogenic Council, Vacuum Electronics and Device Application Society (VEDAS), Bureau of Indian Standards (BIS), and Institution of Engineers. He is a certified Chartered Engineer.

Publication Details

1. **Singhal, M.**, Kumar, R., Walia, R. S., & Pandey, S. K. (2024). Evaluation of tribological and cooling performance of TiN and DLC-coated pistons for miniature stirling cryocooler. *MAPAN*, *39(4),* 851-862. **Impact Factor:** 1.3

MOHD ASJAD SIDDIQUI

Department of Mechanical Engineering

AWARD SUMMARY

01 Premier Research Award

01 Commendable Research Award

Mohd Asjad Siddiqui is currently pursuing research in Thermal Engineering at Delhi Technological University (DTU), Delhi. His academic interests revolve around alternative fuel combustion, thermal-fluid sciences, and renewable energy-driven power and cooling systems. With a strong foundation in thermodynamics and computational modelling, he specializes in analysing and simulating the performance of energy systems for improved efficiency and sustainability. Alongside research, he has gained teaching experience in core mechanical engineering subjects such as Thermodynamics, Fluid Mechanics, Automotive Components Design, and Energy Sources for Automobiles. His work has been published in well-regarded international journals, showcasing his contributions to advancing renewable energy technologies and promoting environmentally responsible engineering solutions.

Publication Details

1. Almatrafi, E., **Siddiqui, M.A.** (2024). Thermodynamic investigation of a hydrogen enriched natural gas fueled HCCI engine for the efficient production of power, heating, and cooling. *International Journal of Hydrogen Energy, 82*, 111-122. **Impact Factor:** 8.3
2. **Siddiqui, M.A.** (2024). Thermodynamic Analysis and Performance Assessment of a Novel Solar-Based Multigeneration System for Electricity, Cooling, Heating, and Freshwater Production. *Journal of Solar Energy Engineering (ASME), 146* (2), 021007. **Impact Factor:** 1.9

MOHIT VISHNOI

Department of Mechanical Engineering

AWARD SUMMARY

03 Commendable Research Award

I, **Mohit Vishnoi**, completed B. Tech in Mechanical Engineering from Uttar Pradesh Technical University, Lucknow, India, and M.Tech (honors) in Materials Science and Engineering from National Institute of Technology, Tiruchirappalli (Tamil Nadu, India). Currently I am working as an Assistant Professor in the Department of Mechanical Engineering at JSS University, Noida. I was awarded my Ph.D. in December 2024 from Department of Mechanical Engineering at Delhi Technological University, Delhi-42, (India) under the supervision of Prof. Qasim Murtaza and Dr. Paras Kumar. I have published 23 papers in SCI/SCIE journals, 5 in ESCI journals, and 17 in Scopus-indexed journals. I have been honored with the Commendable Research Award at Delhi Technological University, Delhi, for excellence in research—receiving cash prizes of ₹50,000 and ₹1,00,000 along with certificates of merit on March 3, 2022, and September 5, 2024, respectively. In addition, I was awarded the Best Young Researcher Award for outstanding excellence and remarkable achievements in research and publications on January 15, 2024, in Coimbatore.

Publication Details

1. **Vishnoi, M.**, Murtaza, Q., & Kumar, P. (2024). Assessment of Mechanical and Slurry Erosive Behavior on Laser-Textured Stainless Steel (SS410). *Journal of Materials Engineering and Performance*, *33*(24), 13924-13940. IF: 2.3.
2. **Vishnoi, M.**, Murtaza, Q., & Kumar, P. (2024). Mechanical and surface wettability analysis of rare earth modified composite coating developed using metal spraying. *Arabian Journal for Science and Engineering*, *49*(2), 2065-2076. IF: 2.9.
3. **Vishnoi, M.**, Murtaza, Q., Kumar, P., Bansal, A., & Singh, V. (2024). Rare earth-doped ceramic coatings: Analysis of microstructure, mechanical properties, and slurry Erosion resistance using high pressure-high velocity oxy-liquid fuel deposition. *International Journal of Refractory Metals and Hard Materials*, *125*, 106873. IF: 4.6.

MOHMAD IQBAL

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Mohmad Iqbal is a researcher affiliated with Delhi Technological University, Delhi, specializing in condition monitoring, machine fault diagnostics, manufacturing technology, and flexible manufacturing systems (FMS). With a strong academic record, he has published extensively on advanced diagnostic techniques for CNC machine bearings, leveraging artificial intelligence, machine learning, and deep learning to enhance industrial reliability and power system safety. His work has garnered significant recognition, with several papers cited multiple times, reflecting his impact in the field of mechanical engineering and machine diagnostics. Mr. Iqbal's contributions include pioneering studies on vibration and acoustic signal analysis and hybrid signal processing methods for predictive maintenance, underlining his commitment to innovation and research excellence. He collaborates actively with renowned scholars and is driven by a passion for technological advancement in manufacturing processes and fault diagnosis, establishing him as a respected voice in the engineering academic community.

Publication Details

1. **Iqbal, M.**, & Madan, A. K. (2024). Bearing fault diagnosis in CNC machine using hybrid signal decomposition and gentle AdaBoost learning. *Journal of Vibration Engineering & Technologies*, 12(2), 1621-1634.

NEELAM BAGHEL

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Neelam Baghel is currently working as a full-time research scholar in Mechanical Engineering Department at Delhi Technological University, Delhi. She has completed his B.E. in Mechanical Engineering from Madhav Institute of Technology and Science, Gwalior and M.Tech. with specialization in Thermal Engineering from Delhi Technological University, Delhi. She has received Best Program Conducted Award, awarded by ITM Gwalior in 2020. She has published research papers in various reputed journals. His area of interest is Solar Photovoltaics and Hybrid Renewable Energy Systems.

Publication Details

1. **Baghel, N.**, Manjunath, K., & Kumar, A. (2024). Assessment of solar-biomass hybrid power system for decarbonizing and sustainable energy transition for academic building. *Process Safety and Environmental Protection*, *187*, 1201-1212.

NEERAJ BUDHRAJA

Department of Mechanical Engineering

AWARD SUMMARY

03 Commendable Research Award

Neeraj Budhraja is a young and dynamic researcher working in the field of energy and IC engines. His key interest areas are Hydrogen energy, Biofuels like biogas and biodiesel, IC engines, and Environmental pollution reduction. He has 8 SCIE research papers in reputed peer-review international journals, 2 ESCI and 1 SCOPUS research article along with 2 Book chapters in LNME (Springer). He has a patent published on Hydrogen production technology. He has also qualified UGC NET 2017 in Environmental Studies and GATE 2014, 2016, 2019, 2021, 2024 in Mechanical Engineering. He has actively participated and being in the organizing committee of many academic events such as International conferences, workshops, seminars, and faculty development programs.

Publication Details

1. **Budhraja, N.**, Pal, A., Mishra, R.S. (2024). Parameter optimization for enhanced biodiesel yield from Linum usitatissimum oil through solar energy assistance. *Biomass Conversion and Biorefinery, 14*, 15335–15350. **Impact Factor:** 4.1
2. **Budhraja, N.**, Pal, A., Mishra, R.S. (2024). Simulation and Optimization of Biohydrogen Production from Biomass Feed via Anaerobic Digestion. *Chemical Engineering & Technology, 47* (4), 706-715. **Impact Factor:** 1.6
3. **Budhraja, N.** (2024). Simulation and optimization for biohydrogen production potential of various organic waste via anaerobic digestion. *Fuel, 360*, 130563. **Impact Factor:** 7.5

PHOOL SINGH

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Phool Singh is an academic and researcher in Mechanical Engineering with 18 years of academic and extensive industrial experience. He earned his B.E. from Jamia Millia Islamia, M.E. in Production Engineering from Delhi College of Engineering, and Ph.D. from Delhi Technological University (2024). His expertise spans production engineering, polymeric composites, renewable energy, and computational techniques. He has published several research papers in reputed journals and conferences and has actively contributed to seminars, workshops, and academic development. Earlier, he also worked in senior R&D roles in industry and as senior technical staff at DTU. He continues to pursue impactful teaching and research in mechanical engineering.

Publication Details

1. **Singh, P.**, Singari, R. M., & Mishra, R. S. (2024). Enhanced mechanical properties of MWCNT reinforced ABS nanocomposites fabricated through additive manufacturing process. *Polymers for Advanced Technologies*, 35(2), e6308.

POOJA RANI

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Pooja Rani is a full-time research scholar in the Department of Mechanical Engineering, Delhi Technological University (DTU). She earned her B.Tech (2010) and M.Tech (2013) degrees from Y.M.C.A.I.E. Faridabad and NIT Kurukshetra respectively. Following her post-graduation, she served as an assistant professor in BADDI University, Himachal Pradesh, NIT New Delhi, NCU Gurgaon and DESU New Delhi. She has published multiple research papers in reputed national and international journals. Her research interests lie in high-temperature material behaviour, creep-fatigue interaction, and life assessment of critical engineering components. She is particularly focused on developing numerical and experimental approaches for predicting damage evolution and remaining life evaluation of turbine blades and other mechanical systems.

Publication Details

1. **Rani, P.**, Agrawal, A.K. (2024). Fatigue Life Evaluation of a Low-Pressure Stage Steam Turbine Blade. *Journal of Vibration Engineering & Technologies*, 12(4), 5431–5443, **Impact Factor: 2.2**
2. **Rani, P.**, Agrawal, A.K. (2024). Lifetime Assessment of a Low-Pressure Steam Turbine Blade. *Journal of Vibration Engineering & Technologies* 12 (1), 221–231. **Impact Factor: 2.2**

PRADEEP KUMAR MEENA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Pradeep Kumar Meena is currently working as a Technical Staff at the Indian Institute of Technology (IIT) Delhi. He earned his B.Tech from Rajasthan University in 2009 and completed his M.Tech from Pune University in 2013. He received his Ph.D. in 2023 from Delhi Technological University, Delhi. Dr. Meena has made significant contributions to the field of sustainable energy and allied areas, with 20 SCIE-indexed research papers published in reputed journals such as Elsevier, Springer, Wiley, and Taylor & Francis. In addition to his journal publications, he has authored two books, one book chapter, and presented five papers at international conferences. His research reflects a strong commitment to advancing knowledge in renewable energy technologies and sustainable development.

Publication Details

1. **Meena, P. K.**, Pal, A., & Samsher. (2024). Characterization, utility, and interrelationship of household organic waste generation in academic campus for the production of biogas and compost: A case study. *Environment, Development and Sustainability*, 26(3), 2687–2713. https://doi.org/10.1007/s10668-022-02747-z **Impact Factor: 4.7**

PRADEEP KUMAR MOURIA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Pradeep Kumar Mouria is an Assistant Professor at Manav Rachna University, Faridabad, with more than 10 years of teaching and research experience. He completed his B.Tech and M.Tech in Mechanical Engineering from Guru Jambheshwar University of Science and Technology, Hisar, and has cleared the GATE examination four times. He received his Ph.D. from Delhi Technological University with a thesis on *"Experimental Investigations in Friction Stir Welding of Non-Ferrous Dissimilar Materials."* His research interests include welding technology and optimization techniques. He has published 10 research papers and holds two patents.

Publication Details

1. **Pradeep Kumar Mouria**, Ranganath. M. Singari, Reeta Watta *"Impact of Tool Pin Profile on Mechanical and Microstructural Properties of Friction Stir Welded Joints of AA2024 and AZ91D", Journal of Materials Engineering and Performance*, Vol. 33, 14513–14524. **Impact Factor: 2.3**

PRAVIN KUMAR

Department of Mechanical Engineering

AWARD SUMMARY

Yearly Citation Award (Early Research Impact and Influence Award)

01 Commendable Research Award

Pravin Kumar is working as a Professor in the Department of Mechanical Engineering, Delhi Technological University, Delhi. He has obtained the degree of B Sc. Engg. (Mechanical) From Bhagalpur College of Engineering, M.Tech. (Industrial Management) from IIT (BHU), Varanasi, and Ph.D. from IIT Delhi. He has more than 25 years of teaching and research experience. He has expertise in the areas of Industrial Engineering, Operations and Supply Chain Management, Quality Management, Operations Research, etc. He has authored more than 75 research papers in the Journal of reputed and International conferences. He has authored book on Basic Mechanical Engineering (Pearson Learning, Delhi), Engineering Economics and Management (Wiley India), Industrial Engineering and Management (Pearson Learning, Delhi).

Publication Details

1. **Kumar, P.,** Singh, R.K. & Shahgholian, A. (2024). Learnings from COVID-19 for managing humanitarian supply chains: systematic literature review and future research directions. *Ann Oper Res* **335**, 899–935. https://doi.org/10.1007/s10479-022-04753-w

PREM SHANKER YADAV

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Prem Shanker Yadav is an academic and researcher in Mechanical Engineering with expertise in fluid dynamics, spray characteristics, alternative fuels, and renewable energy systems. He earned his B.Tech from JSS Academy of Technical Education, Noida (2009), M.Tech in Applied Mechanics from IIT Delhi (2011), and Ph.D. from Delhi Technological University. His research focuses on nozzle geometry reformation, cleaner combustion, waste-to-wealth initiatives, hydrogen, EVs, ammonia, and AI applications in renewable energy to support India's Net-Zero 2070 goals. He has published in leading SCI journals such as *Applied Energy* and *Energy*, contributed a book chapter with Springer, and serves as a reviewer for reputed publishers. Recipient of DTU's Research Excellence Award (2023–2025), he has also undertaken funded projects and guides research in collaboration with NIT Delhi and DTU.

Publication Details

1. **Shanker Yadav, P.**, Said, Z., Gautam, R., Caliskan, H., & Wu, H. (2024). Impact of hydrogen induction on atomization combustion performance and emissions in diesel engines fueled with heated biodiesel blends. *Energy*, 313, 134026. **(IF: 9.4 SCI)**
2. **Yadav, P. S.**, Gautam, R., Le, T. T., Khandelwal, N., Le, A. T., & Hoang, A. T. (2024). A comprehensive analysis of energy, exergy, performance, and emissions of a spark-ignition engine running on blends of gasoline, ethanol, and isoamyl alcohol. *Energy*, 307, 132548. **(IF: 9.4 SCI)**

QASIM MURTAZA

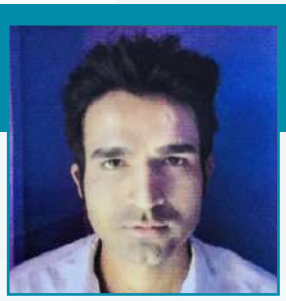
Department of Mechanical Engineering

AWARD SUMMARY

01 Innovation Award

Yearly Citation Award (Early Research Impact and Influence Award)

Qasim Murtaza currently serves as a Professor in the Department of Mechanical Engineering at Delhi Technological University (DTU), Delhi, INDIA. He obtained his Ph.D. in Manufacturing Processes from Dublin City University, Ireland, in 2006, through a prestigious European Union scholarship. Additionally, Dr. Murtaza has worked as a Research Associate at Manchester Metropolitan University, UK. Prof. Murtaza's research interests are broad and include Precision Engineering, Advanced Manufacturing Processes, Advanced Welding, Metal Coatings, Additive Manufacturing, Advanced Composites, Super-finishing Processes, and Remanufacturing. He has supervised 50 M.Tech theses and guided 21 Ph.D. scholars, contributed significantly to the academic development of his students. With over 230 research papers published in reputed international journals and conferences, Prof. Murtaza has received numerous accolades, including the Best Paper Award from Elsevier, Emerald, and Springer publications. He has also been honoured with the Excellence in Research Award by DTU, recognizing his consistent contributions to advancing research and innovation in the field. He also served as a guest editor for the Journal of Adhesion Science and Technology and the Advances in Materials and Processing Technologies journal. His pioneering work continues to shape the future of advanced manufacturing and material processing.



RAJENDRA PRASAD MEENA

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Rajendra Prasad Meena holds a Bachelor's degree (B.Tech.) in Mechanical Engineering from Maulana Azad National Institute of Technology, Bhopal, India, and a Master's degree (M.Tech.) in (Production) Mechanical Engineering from Malviya National Institute of Technology, Jaipur, India. He has completed his PhD from Delhi Technological University in "Experimental Investigation on Wire Arc Additive Manufacturing of Dissimilar Inconel and Stainless-Steel Alloys Using Cold Metal Transfer Welding" from the Mechanical Engineering Department. His primary research interests encompass Wire Arc Additive Manufacturing (WAAM), high-strength alloys, dissimilar alloys, Cold Metal Transfer Welding (CMT), gas metal arc welding (GMAW), tribological characteristics, and optimization techniques. He has published 11 SCI/SCIE-indexed papers, including 3 ASME (American Society of Mechanical Engineers) Transaction Papers, two international conference papers, and two book chapters. He is currently working as an Assistant Professor in the Mechanical Engineering Department at the University School of Automation and Robotics, East Campus, Guru Gobind Singh Indraprastha University, Dwarka, Delhi, India.

Publication Details

1. **Meena, R.P.**, Yuvaraj, N. & Vipin (2024). Investigations and Optimization of Cold Metal Transfer-based WAAM Process Parameters for Fabrication of Inconel 718 Samples using Response Surface Methodology. *Arabian Journal of Science and Engineering* **49 (11)**, 15177–15191. https://doi.org/10.1007/s13369-024-08947-1 **Impact factor: 2.9**
2. Prasad, R., Yuvaraj, N., Vipin (2024). Experimental investigation of process parameters of cold metal transfer welding-based wire arc additive manufacturing of aluminum 4047 alloy using response surface methodology. *Welding in the World* **68(11)**, 2837–2852. https://doi.org/10.1007/s40194-024-01817-2 **Impact factor:2.5**

RAJESH KUMAR

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

I am **Rajesh Kumar**, currently pursuing a Ph.D. in Mechanical Engineering at Delhi Technological University, Delhi, since 2021. My research focuses on fluid mechanics and heat transfer, with a keen interest in advancing thermal management technologies. I completed my M.Tech in Mechanical Engineering from the National Institute of Technology Durgapur in 2020. Prior to that, I earned my B.Tech in Mechanical Engineering from the Sant Longowal Institute of Engineering and Technology in 2018. Throughout my academic journey, I have developed strong analytical and computational skills, contributing to my work in the modeling, simulation, and optimization of complex thermal systems. I have published five papers in reputed international journals and conferences, enhancing my research profile and reflecting my drive to address real-world engineering challenges through innovation and sustainable design.

Publication Details

1. **Kumar, R.**, Zunaid, M., & Mishra, R. S. (2024). Multi-objective optimization of hydrothermal performance of a porous minichannel heat sink using RSM and NSGA-II algorithm. *International Journal of Heat and Fluid Flow*, *110*, 109600. https://doi.org/10.1016/j.ijheatfluidflow.2024.109600. **Impact Factor: 3.1**

RAJESH KUMAR MAURYA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Rajesh Kumar Maurya was a research scholar in the department of Mechanical Engineering, Delhi Technological University, New Delhi. He has completed his Ph.D. at DTU Delhi in the Department of Mechanical Engineering under the supervision of Prof. M. S. Niranjan in December, 2024. The topic of his research was “Experimental Investigations into Enhancing the Machinability of EN-36C”. He had authored many research papers in International Journals and Conferences of repute. He had published 2-SCIE and 2-Scopus – indexed conference papers. Currently, he is working as Asst. Professor in the Department of Mechanical Engineering at G L Bajaj Institute of Technology and Management in Greater Noida UP

Publication Details

1. **Maurya, R.K.**, Niranjan, M.S. (2024). Optimization of Residual Stresses, Tool Wear, and Material Removal Rate of Tempered EN-36C Alloy Steel in CNC Turning Using Response Surface Methodology. *Journal of Materials Engineering and Performance* 33, (23), P 3871–3884 . https://doi.org/10.1007/s11665-023-09053-3. **(Impact Factor-2.30)**. (SCIE).

RANJEET KUMAR SINGH

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Ranjeet Kumar Singh is a researcher in Mechanical Engineering, currently pursuing his Ph.D. at Delhi Technological University (DTU) under the supervision of Prof. Ramesh Chandra Singh. His research focuses on the fabrication, characterization, and optimization of functionally graded material (FGM) leaf spring plates. He has published several papers in SCIE and Scopus-indexed journals, authored book chapters, and presented at international conferences. He is also a co-inventor of three patents, including innovations in fuel measurement, waste treatment, and stir casting systems. Additionally, he has successfully completed a TEQIP-III funded project on composite materials. His expertise lies in advanced composites, computational modeling (Abaqus), and optimization techniques, contributing to the development of sustainable engineering materials.

Publication Details

1. **Singh, R. K.**, & Singh, R. C. (2024). Property investigation of functionally graded materials leaf spring plate fabricated through stir casting process by using new gradient evaluation method. *Materialwissenschaft und Werkstofftechnik*, 55(9), 1297-1309. **Impact Factor: 1.1**
2. **Singh, R. K.**, & Singh, R. C. (2024). Evaluation of the mechanical and microstructural properties of an Al7075/B4C/Gr FGM plate fabricated using a stir casting process. *Journal of Mechanical Science and Technology*, 38(10), 5389-5398. **Impact Factor: 1.7**

RASHIN KHERA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Rashin Khera is a doctoral researcher in the Department of Mechanical Engineering at Delhi Technological University (DTU), New Delhi. He has recently submitted his PhD thesis in Mechanical Engineering and his research interests include Thermodynamics, Refrigeration, Energy and Exergy analysis, vortex tube and Optimization of thermal systems, etc. His work continues to explore efficient, eco-friendly cooling technologies, aiming to address the growing global demand for sustainable energy solutions. During his research journey, he has published and presented numerous research papers in international journals and conferences. Prior to this, he has completed M.Tech in Thermal Engineering from DTU and B.Tech in Mechanical Engineering from Rajasthan Technical University, Kota. Currently, he is working as an Assistant Professor (Guest Faculty) in the Department of Mechanical Engineering at DTU.

Publication Details

1. **Khera, R.**, Arora, A., & Arora, B. B. (2024). Energy, exergy, environmental (3E) analyses and multi-objective optimization of vortex tube coupled with transcritical refrigeration cycle. *International Journal of Refrigeration*, *167*, 137-151. **Impact Factor: 3.8**

RATNESH KUMAR GUPTA

Department of Mechanical Engineering

AWARD SUMMARY

03 Commendable Research Award

Ratnesh Kumar Gupta is a scholar and educator in Mechanical Engineering, currently serving at Delhi Skill and Entrepreneurship University (DSEU), Pusa Campus. He holds a B.Tech from UPTU Lucknow, M.Tech from IIT Delhi, and Ph.D. in Mechanical Engineering Design from DTU. With numerous publications and several authored books—including *Theory of Machines, Renewable Energy: Solar and Wind Electrical Systems, and Sustainable Energy: Technologies and Innovations*—his work spans mechanical, industrial, and environmental engineering. Previously, he taught at B.S.A. College of Engineering and Technology and served as Assistant Professor with DTTE, Govt. of NCT Delhi. He continues to contribute to research, education, and sustainable innovation.

Publication Details

1. **R. Gupta**, R.C. Singh. (2024) Development and experimental investigations of squeeze film damper setup for high rotational speeds and oil pressure,volume-12, pages 5475-5494 *Journal of Vibration Engineering & Technologies*. DOI:10.1007/s42417-023-01186-y. **IF=2.7**
2. **R. Gupta**, R.C. Singh. (2024) Comprehensive Experimental Analysis of a Squeeze Film Damper for Flexible Rotor Applications: Utilizing Box-Behnken Design with Desirability Optimization, volume-12, pages 5267-5290, *Journal of Vibration Engineering & Technologies*. DOI:10.1007/s42417-023-01197-9. **IF=2.7**
3. **R. Gupta**, R.C. Singh. (2024) Optimizing High-Speed Rotating Shaft Vibration Control: Experimental Investigation of Squeeze Film Dampers and a Comparative Analysis using Artificial Neural Networks (ANN) and Response Surface Methodology (RSM).volume 249,(part-B), *Expert Systems with Applications. Elsevier*, **IF=8.5**

RAVINDRA KUMAR

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Ravindra Kumar is working as an Assistant Professor in Dr. Akhilesh Das Gupta Institute of profession studies, New Delhi. He has completed his Ph.D. in Mechanical Engineering, at the Department of Mechanical Engineering, Delhi Technological University, Delhi (2019-2024). He has received his M.Tech, specializing in Thermal Engineering, from National Institute of Technology, Silchar. Dr. Ravindra Kumar has published 3 SCI indexed papers in reputed International Journals, and more than 7 Scopus indexed papers in International Conferences and Journals. He has received, Research Excellence Award awarded by DTU in 2023, Delhi. His research areas of interests are Hydrogen production, renewable energy and reforming process.

Publication Details

1. **Kumar, R**., Kumar, A., & Pal, A. (2024). Simulation modelling of hydrogen production from steam reforming of methane and biogas. *Fuel*, *362*, 130742. **Impact Factor: 7.5**

SATYAVEER SINGH

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Satyaveer Singh is a dedicated academician and researcher with expertise in Mechanical Engineering, specializing in welding technologies and materials science. Currently working as an Assistant Professor at IIMT College of Engineering Greater Noida, he has over 15 years of experience in teaching and industry. Dr. Singh holds a Ph.D. from Delhi Technological University and has published numerous research papers in esteemed journals. He is a member of professional societies like ASHRAE and ISHRAE and has received awards for academic excellence and research contributions. His research interests include Cold metal transfer welding, materials characterization, and optimization techniques.

Publication Details

1. **Singh, S.**, Yuvaraj, N., Wattal, R. (2024). Measurement of mechanical properties of friction stir welding of Al–Li alloy under different environmental conditions. *Mapan: Journal of Metrology Society of India*, 39(3), 525-534. **Impact Factor: 1.0**

SHAILENDRA KUMAR GAUR

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

I (**Shailendra Kumar Gaur**) am a research scholar in the Mechanical Engineering Department and enrolled in PhD in the year 2021 (2K20/PHDME/507). My research work area is thin film deposition of metals such as Cr-Au, In, and Sn and passivation films of materials such as CdTe, ZnS, and CdS. I am working in the Solid State Physics Laboratory, Timarpur, Delhi. I have good experience in the operation and maintenance of thermal evaporation systems. My research work involves deposition of thin films at various deposition conditions (different deposition rates, single layer, multi-layers, etc.) under high vacuum conditions and characterization of thin films for structural, morphological, topographical, mechanical, optical, and electrical properties by X-ray diffraction, scanning electron microscopy, atomic force microscopy, nanoindentation, UV-spectrometer, 4-probe electrical measurements, etc. These optimized thin films are suitable for the fabrication of photovoltaic and optoelectronic devices.

Publication Details

1. **Shailendra Kumar Gaur**, Qasim Murtaza , R.S. Mishra. (2024). Analysis of structural, morphological and nano-mechanical properties of vacuum evaporated nanoscale CdTe and ZnS films. *Optical Materials, 154* , 115764-115774. **Impact Factor:** 4.2

SHOBHIT MISHRA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Shobhit Mishra is currently pursuing his Ph.D. from Delhi Technological University (DTU), New Delhi, under the guidance of Professor Raj Kumar Singh, where he has submitted his thesis. He received his M.Tech in Mechanical Engineering from Jamia Millia Islamia, New Delhi, in 2016 and is currently working as an Assistant Professor in the Department of Mechanical Engineering at Amity University, Greater Noida. His research expertise includes refrigeration and air conditioning, vapor absorption and compression systems, and renewable energy-based cooling technologies. He has authored several research papers indexed in Scopus and Google Scholar, covering topics such as thermodynamic performance evaluation of vapor compression systems, SOFC based cogeneration, and solar-assisted trigeneration systems. His publications have been cited in reputed journals, with an h-index of 3, reflecting the impact of his contributions. Mr. Mishra continues to focus on sustainable HVAC applications and the integration of solar and clean energy technologies in advanced cooling systems.

Publication Details

1. **Mishra, S.**, Singh, R.K. Performance evaluation of absorption cooling system for air conditioning-based novel trigeneration system using solar energy. *Journal of the Brazilian Society of Mechanical Sciences and Engineering* **46**, 354 (2024). **Impact Factor: 1.8.** https://doi.org/10.1007/s40430-024-04943-6

SIDDHARTH GARG

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Siddharth Garg is currently an MBA candidate at IIM Mumbai (formerly NITIE) and a Delhi Technological University (DTU) alumnus (2024 B.Tech Mechanical). He has interned with Asian Paints, Bharat Electronics Limited, UFlex, Flurno, and Fractal across operations, analytics, and manufacturing domains. At DTU, he captained Team Raftaar, rebuilding the team and leading it to victory at ASME e-HPVC EFx India 2023. Academically, he has authored multiple peer-reviewed work, including four SCIE-indexed articles, and presented at multiple international conferences. His research interests include additive manufacturing, materials and process optimization, manufacturing systems, operations analytics, industrial governance, and sustainability. Passionate about data-driven supply chain problem-solving, he enjoys table tennis, distance running, and collecting and reading comics.

Publication Details

1. **Garg, S.**, & Murtaza, Q. (2024). Effect of filler paste's mixing ratio on the properties of Al-64430 dip-brazed joints. *Welding in the World*, 68(9), 2459–2471. https://doi.org/10.1007/s40194-024-01772-y **Impact Factor:** 2.5.
2. **Garg, S.**, Bansal, S., & Murtaza, Q. (2024). Failure investigation of an elbow pipe used in sewage water treatment facility. *Materials and Corrosion*, 75(9), 1185–1192. https://doi.org/10.1002/maco.202414336 **Impact Factor:** 2.0.

SONI KESARWANI

Department of Mechanical Engineering

AWARD SUMMARY

02 Commendable Research Award

Soni Kesarwani is a Ph.D. scholar in the Department of Mechanical Engineering at Delhi Technological University (DTU). She holds an M.Tech in Production Engineering from DTU and a B.Tech in Mechanical Engineering from IERT (AKTU). Her research expertise spans wire arc additive manufacturing, bimetallic materials, friction stir processing, metal matrix composites, casting, optimization techniques, and machining. She has professional experience at Petrofac Pvt. Ltd., where she worked as a Procurement Engineer in Dubai (UAE) and as a Piping Engineer in Gurugram (Haryana), contributing to pipe stress analysis and supporting major projects such as the Thai Oil HMU Unit. She has authored eight research papers in reputed SCI/SCIE-indexed international journals and has participated in numerous national and international conferences and workshops. She is also a member of the Indian Institute of Metals (IIM) and a Life Member of the Indian Welding Society (IWS).

Publication Details

1. **Kesarwani, S**., Yuvaraj, N., & Niranjan, M. S. (2024). Impact of depositional direction and current on microstructure and mechanical properties of the bimetallic wall of ER5356/ER4043 fabricated by cold metal transfer based wire arc additive manufacturing. *CIRP Journal of Manufacturing Science and Technology, 53*, 17-33. **Impact Factor:5.4**
2. **Kesarwani, S**., Yuvaraj, N., & Niranjan, M. S. (2024). CMT-based WAAM: A comprehensive review of process parameters, their effects, challenges, and future scope. *Journal of the Brazilian Society of Mechanical Sciences and Engineering, 46*(699). **Impact Factor:2.1**

SUNIL KUMAR GUPTA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

01 Premier Reasearch Award

Sunil Kumar Gupta is a regular faculty of Mechanical Engineering in the Department of Training and Technical Education, Govt. of Delhi. He obtained Ph.D. degree in Mechanical Engineering in 2024 under the supervision of Prof. B.B.Arora and Prof. Akhilesh Arora of Mechanical Engineering Department, Delhi Technological University. His research area is Refrigeration and Air-Conditioning. His research papers have been published in reputed SCI expanded journals and a technical brief published in ASME journal.

Publication Details

1. **Sunil Kumar Gupta**, B.B. Arora, Akhilesh Arora (2024). Thermo-economic assessment of air conditioner utilizing direct evaporative cooling: A comprehensive analysis. International Journal of Refrigeration, 158 (February 2024), 68–88. **Impact Factor: 3.8**
2. **Sunil Kumar Gupta**, B.B. Arora, Akhilesh Arora (2024). Thermodynamic performance assessment of air conditioner combining evaporative and passive cooling. J. Thermal Sci. Eng. Appl., 16 (5): 051003 (12 pages). **Impact Factor: 1.4**

SUSHILA RANI

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Sushila Rani is currently serving as an Associate Professor in the Department of Mechanical, Production, Industrial and Automobile Engineering at Delhi Technological University (DTU), Delhi, India. She earned her Ph.D. in Machine Design (Vibrations) from DTU, where her doctoral research focused on advanced studies in vibration analysis. Her research interests span across vibration analysis, machine design, fault diagnosis, and failure investigation of mechanical systems, with a particular focus on the dynamic behaviour of turbine blades, rotating machinery, and critical mechanical components. She has conducted in-depth studies on the identification and prediction of faults in complex mechanical systems, integrating both experimental and computational approaches for reliable condition monitoring. Her work also emphasizes the development of advanced diagnostic techniques aimed at improving machine health, reducing downtime, and enhancing operational efficiency in industrial systems. Dr. Sushila Rani has published extensively in reputed international journals, including those by Springer, Taylor & Francis, and Elsevier, where her contributions have been widely cited and recognized by the academic community. She has also actively presented research papers at prestigious international and national conferences, fostering collaborations and contributing to global discussions in the field of mechanical engineering.

Publication Details

1. **S. Rani** (2024). Parametric Evaluation and Dynamic Analysis of Turbine Blades–Damper Assembly Using Bond Graph Technique. *Journal of Vibration Engineering & Technologies*, Volume 12, pages 681–693. **Impact Factor: 2.4**

VARSHA MISHRA

Department of Mechanical Engineering

AWARD SUMMARY

01 Commendable Research Award

Varsha Mishra holds a B.Tech in Mechanical Engineering from BBDNIIT, Lucknow (2009-2013), an M.Tech in Manufacturing Technology from NITTTR Chandigarh (2015- 2019), and a PhD from Delhi Technological University, Delhi. Her research focuses on Gas Metal Arc Welding (GMAW), Cold Metal Transfer Welding (CMT), Cladding, and optimization techniques. She has published 3 SCI/ SCIE papers and 3 international conference papers. With a strong academic background and research experience, she is skilled in analysis, problem-solving, and communication. Her expertise contributes to advancements in manufacturing technology and related fields.

Publication Details

1. **Mishra, V.**, Yuvaraj, N., & Vipin. (2024). Tribological Behaviour of Austenitic Stainless Steel-Clad Surface Over Low Carbon Steel Produced by Cold Metal Transfer Welding Process. Transactions of the Indian Institute of Metals, 77(6), 1639-1650.**Impact Factor: 1.6**

VIBHU SINGH

Department of Mechanical Engineering

AWARD SUMMARY

01	Commendable Research Award

Vibhu Singh is a PhD scholar in the Department of Mechanical Engineering at Delhi Technological University (DTU). She holds an M.Tech in Production Engineering from DTU and a B.Tech in Mechanical Engineering from AKGEC (AKTU). Her research interests include metal matrix composites, welding, additive manufacturing, casting, optimization techniques, and machining. She has industry experience as a Deputy Manager at Volvo Eicher Commercial Vehicles Ltd., Pithampur, Madhya Pradesh, where she contributed to the design and development of lightweight composite-based automotive components. She has published eight research papers in reputed international SCI/SCIE-indexed journals and has actively participated in several national/international conferences and workshops. She is also a member of the Indian Institute of Metals (IIM) and a life member of the Indian Welding Society (IWS).

Publication Details

1. **Singh, V**., Murtaza, Q., Niranjan, M.S. (2024). Analyzing the synergistic effects of hard ceramic TiB_2 and rare earth oxide La_2O_3 on mechanical behaviour, wear resistance, and residual stress of AA6061-T6 hybrid composite fabricated via ultrasonic-assisted stir casting. *Materials Chemistry and Physics*, *325*, 129727. **Impact Factor:4.7**

VIJAY GAUTAM

Department of Mechanical Engineering

AWARD SUMMARY

01	Commendable Research Award
01	Premier Research Award

Vijay Gautam is a Professor in Department of Mechanical Engineering, DTU, Delhi since 27th December 2016. He graduated in Mechanical Engineering from Delhi College of Engineering, Delhi University in 1995 and did his post-graduation in Manufacturing Engineering from National Institute of Foundry and Forge Technology, Ranchi University in 1998. He did his Ph.D. in Mechanical Engineering under the guidance of Prof. D. Ravi Kumar, in the Department of Mechanical Engineering, IIT Delhi in December 2016.

He has more than twenty-five years of teaching experience in the field of Elastic and Plastic Behaviour of Engineering Materials, Manufacturing Processes, Mechanics of Solids, Machine Design-I & II, Metallurgy, Foundry Technology and Plasticity and Metal Forming. He has been teaching these subjects at both Undergraduate and Postgraduate levels. His research areas are focussed in the field of Metal Forming, Machine Design and Composite laminates and materials. He has guided five PhDs and many under-graduate and post graduate students for various projects. He has published more than 75 research papers in international journals of repute.

Publication Details

1. Yadav, R. D., & **Gautam, V.** (2024). Effect of magnetic field on mechanical properties of an advanced high strength steel sheet. *Materials Letters*, 361, 136087. **Impact Factor: 2.7**
2. Yadav, R. D., & **Gautam, V.** (2024). Effect of magnetic field on deformation behavior of a steel sheet in uniaxial tension. *Journal of Testing and Evaluation*, 52(1), 141-164. **Impact Factor: 1.2**

Department of
Software Engineering

ANJALI BANSAL

Department of Software Engineering

AWARD SUMMARY

01 Commendable Research Award

Anjali Bansal received the B.Tech. degree in the Department of Computer Science and Engineering from Dr. A. P. J. Abdul Kalam Technical University, Lucknow, India and the M.Tech. degree in the Department of Software Engineering from Delhi Technological University, Delhi, India. She is currently pursuing a Ph.D. in the Department of Software Engineering from Delhi Technological University, Delhi, India. Her Ph.D. project is concerned with the maintenance of software containers, the application of machine learning and deep learning in different areas such as software containers, software quality, and human activity recognition. Her current research interests are AI, software quality, software containers, predictive modelling, and data analytics.

Publication Details

1. Malhotra, R., **Bansal, A.**, & Kessentini, M. (2024). Deployment and performance monitoring of docker based federated learning framework for software defect prediction. *Cluster Computing*, *27*(5), 6039-6057.

NEHA GAHLAN

Department of Software Engineering

AWARD SUMMARY

02 Commendable Research Award

I am working as an Assistant Professor at The NorthCap University. I am a passionate research enthusiast with a keen interest in exploring new frontiers of knowledge in the area of Affective Computing, Emotion Recognition, Wearable Sensors, Physiological Signals, Machine Learning and Deep Learning. With a strong analytical mindset and a relentless curiosity, I am dedicated to uncovering insights and advancing understanding in my field. Rigid inquiry, creative thinking, and a desire to make a significant contribution to the academic and scientific community are the driving forces behind my work.

Publication Details

1. **Gahlan, N.**, & Sethia, D. (2024). AFLEMP: Attention-based federated learning for emotion recognition using multi-modal physiological data. *Biomedical Signal Processing and Control*, *94*, 10635. **Impact Factor: 4.9.**
2. **Gahlan, N.**, & Sethia, D. (2024). Federated learning inspired privacy sensitive emotion recognition based on multi-modal physiological sensors. *Cluster Computing*, *27*(3), 3179-3201. **Impact Factor: 4.1.**

PARUL SHARMA

Department of Software Engineering

AWARD SUMMARY

02 Commendable Research Award

I am a Ph.D. researcher in Software Engineering, specializing in deep learning for sustainable agriculture. My doctoral work focuses on developing AI-driven solutions for monitoring and managing biotic stress in plants, with applications in disease and pest detection to improve crop health and resilience. I have published peer-reviewed papers in reputed journals and presented at national and international conferences. My expertise spans image-based datasets, ensemble learning, and model evaluation techniques. I have collaborated with interdisciplinary teams bridging agriculture, computer science, and environmental sciences. Alongside research, I have contributed as a reviewer, mentored junior researchers, and assisted in grant proposal writing. With my thesis submitted and viva scheduled, I am seeking opportunities in research-driven environments to advance innovations at the intersection of AI and sustainability.

Publication Details

1. **Sharma, P**., & Sharma, A. (2024). A novel plant disease diagnosis framework by integrating semi-supervised and ensemble learning. *Journal of Plant Diseases and Protection*, *131*(1), 177-198.
2. Sharma, A., & **Sharma, P.** (2024). S2AM: a sustainable smart agriculture model for crop protection based on deep learning. *Journal of Plant Diseases and Protection*, *131*(6), 2181-2205.

RUCHIKA MALHOTRA

Department of Software Engineering

AWARD SUMMARY

03 Commendable Research Award

Yearly Citation Award (Early Research Impact and Influence Award)

Ruchika Malhotra is Head of Department and Professor in the Department of Software Engineering, Delhi Technological University, Delhi, India. She served as Associate Dean in Industrial Research and Development, Delhi Technological University from August 2018 to 2022. She was awarded with prestigious Raman Fellowship for pursuing Post-doctoral research in Indiana University Purdue University Indianapolis USA. She received her master's and doctorate degree in software engineering from the University School of Information Technology, Guru Gobind Singh Indraprastha University, Delhi, India. She has received IBM Faculty Award 2013. She has been ranked amongst the World's top 2% scientist by Stanford University report, USA, for her research in the field of "Artificial Intelligence & Image Processing" in 2020, 2021, 2022, 2023, and 2024. She is recipient of Commendable Research Award (in 2018, 2019, 2020, 2021, 2022, 2023, and 2024) by Delhi Technological University. Her H-index is 37 as reported by Google Scholar. She is author of book titled "Empirical Research in Software Engineering" published by CRC press and co-author of a book on Object Oriented Software Engineering published by PHI Learning. She has published more than 280 research papers in international journals and conferences. Her research interests are in software testing, improving software quality, statistical and adaptive prediction models, software metrics and the definition and validation of software metrics.

Publication Details

1. **Malhotra, R.**, Khan, K. (2024). A novel software defect prediction model using two-phase grey wolf optimisation for feature selection. *Cluster Computing*, 27(9), 12185-12207. **Impact Factor:** 4.1
2. **Malhotra, R.**, Bansal, A., Kessentini, M. (2024). A systematic literature review on maintenance of software containers. ACM Computing Surveys, 56(8), 1-38. **Impact Factor:** 28

3. **Malhotra, R.**, Meena, S. (2024). Empirical validation of machine learning techniques for heterogeneous cross-project change prediction and within-project change prediction. Journal of Computational Science, 76, 102230. **Impact Factor:** 3.7

SANJAY PATIDAR

Department of Software Engineering

Sanjay Patidar is an Assistant Professor at Department of Software Engineering, Delhi Technological University, Delhi. He has total 14 + years of academic and industry experience. His area of research are in domain of Internet of Things, Machine Learning, Data Science, Data analytics in application like agriculture, enviornment , transportation etc.

AWARD SUMMARY

01 Commendable Research Award

Publication Details

1. **Patidar, S.**, Kumar, N., & Jindal, R. (2024). IoT Data Stream Handling, Analysis, Communication and Security Issues: A Systematic Survey. *Wireless Personal Communications*, 1-50.

SHAGUN JAIN

Department of Software Engineering

Shagun Jain is a research scholar in the Software Engineering Department at Delhi Technological University, under the supervision of Dr. Divyashikha Sethia (Associate Professor, Department of SE) and Dr. K.C. Tiwari (Professor, Multidisciplinary Centre for Geoinformatics). She has two years of industry experience and is UGC-NET qualified. Her research focuses on spectral-based soil nutrient prediction for smart agriculture using machine learning. She works on deep learning models, novel spectral indices, and satellite image analysis. Over three years of doctoral research, she has published two SCIE-indexed journal papers, submitted three manuscripts under review, and authored six international Scopus-indexed conferences. During a three-month summer training at the Indian Council of Agricultural Research (ICAR), Delhi, she observed drone-based data collection and learned hyperspectral data preprocessing workflows through lab visits. She also authored a paper with ICAR–Goa scientists on soil properties prediction using Indian hyperspectral data. At Samsung Lab, DTU, she mentors UG/PG students and contributes to interdisciplinary research. Her work aligns with the UN Sustainable Development Goals 2030, particularly Zero Hunger, Climate Action, and Life on Land.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Jain, S.**, Sethia, D., & Tiwari, K. C. (2024). A critical systematic review on spectral-based soil nutrient prediction using machine learning. *Environmental Monitoring and Assessment*, 196(8), 699. **Impact Factor: 3.0.**
2. **Jain, S.**, Sethia, D., & Tiwari, K. C. (2024). Developing novel spectral indices for precise estimation of soil pH and organic carbon with hyperspectral data and machine learning. *Environmental Monitoring and Assessment*, 196(12), 1255. **Impact Factor: 3.0**

University School of Management and Entrepreneurship

AASHIMA

University School of Management & Entrepreneurship

Aashima was a Research Scholar in the Department of University School of Management & Entrepreneurship, Delhi Technological University. She has contributed several research papers in reputed journals published by Elsevier, Springer, Wiley, and Sage. Her areas of research interest include health insurance, health expenditure and public health.

AWARD SUMMARY

02 Commendable Research Award

Publication Details

1. **Aashima**, & Sharma, R. (2024). Is health insurance really benefitting Indian population? Evidence from a nationally representative sample survey. *The International Journal of Health Planning and Management*, Vol no. *39*(2), pp. 293-310. **Impact Factor: 1.9.**
2. **Aashima**, & Sharma, R. (2024). A systematic review of the world's largest government sponsored health insurance scheme for 500 million beneficiaries in India: Pradhan Mantri Jan Arogya Yojana. *Applied Health Economics and Health Policy*, Vol no. *22*(1), pp. 17-32. **Impact Factor: 3.1.**

DIVYA MISHRA

University School of Management & Entrepreneurship

Divya Mishra is an Assistant Professor at the University School of Management and Entrepreneurship (USME), Delhi Technological University. She earned her doctorate in Human Resource Management and Organizational Behaviour from University School of Management and Entrepreneurship, Delhi Technological University, and holds both her graduation and master's degrees from University of Allahabad, where she was awarded a Gold Medal for academic excellence. She has published widely in high-impact international journals such as IEEE Transactions on Engineering Management, Journal of Knowledge Management, International Journal of Organizational Analysis, and Journal of Contingencies and Crisis Management -Wiley. In addition, she has authored a book, contributed book chapters with reputed publishers including Taylor & Francis and Emerald Publishing, and developed 13 case studies published with SAGE Business Cases Originals on contemporary business issues. She has presented her research at premier institutions such as IIM Ahmedabad, IIM Bangalore, and IIM Indore, and has been conferred with the Best Reviewer Award by the Academy of Management (AOM). She also serves as a reviewer for reputed journals including California Management Review, Frontiers in Psychology, and Springer Nature. Her research interests span Human Resource Management, Organizational Behaviour, Technological Innovation, Good Governance, Crowdsourcing, Open Innovation, and Digital Transformation.

AWARD SUMMARY

01 Premier Research Award

01 Commendable Research Award

Publication Details

1. **Mishra, D.**, & Maheshwari, N. (2024). Crowdsourcing-based social linkage and organizational innovation competence: Knowledge transfer effectiveness and absorptive capacity as serial mediators. *Journal of Knowledge Management, 28*(7), 2013–2037. https://doi.org/10.1108/JKM-07-2023-0583 Impact Factor: 9.5 | CiteScore: 14.8
2. **Mishra, D.**, & Maheshwari, N. (2023). Effective governance through crowdsourcing: A strategic framework for empowered participation. *IEEE Transactions on Engineering Management, 71*(1), 4647–4664. https://doi.org/10.1109/TEM.2022.3218188 **Impact Factor: 5.2 | CiteScore: 9.7**

HARLEEN KAUR

University School of Management & Entrepreneurship

AWARD SUMMARY

01 Commendable Research Award

Harleen Kaur is an Assistant Professor at University School of Management and Entrepreneurship, DTU. She is a PhD in Marketing from Faculty of Management Studies, University of Delhi. Prior education include a PGDM from Indian Institute of Management Calcutta (IIM C) and a B.E. (Information Technology) from Delhi College of Engineering, University of Delhi (now DTU). She began her marketing career with Pepsico India Ltd. and has worked with leading brands - Mountain Dew, Mirinda and Pepsi. She has been awarded the Junior Research Fellowship (UGC NET-JRF). Her research and teaching interests include brand strategy, consumer psychology, consumer brand relationships, marketing research and marketing analytics.

Publication Details

1. **Kaur, H.** and Verma, H.V. (2024), Brand pride: concept and measurement, *Journal of Product & Brand Management,* Vol. 33 No. 6, pp. 668-683. https://doi.org/10.1108/JPBM-06-2023-4555. **Impact Factor: 5.7** (5 year impact factor 7.1)

NAVAL GARG

University School of Management & Entrepreneurship

AWARD SUMMARY

02 Commendable Research Award

Naval Garg is an Ex-Assistant Professor at University School of Management and Entrepreneurship, Delhi Technological University, New Delhi. Currently, he is an Associate Professor and Head of Department in the Department of Management Studies, Netaji Subhas University of Technology, New Delhi. He is a prominent researcher in the area of workplace spirituality, gratitude, scale development, and Indian Knowledge System. He has published extensively in SSCI-indexed and ABDC-ranked journals and has 82 Scopus-indexed papers to his credit with h-index of 27. He also features among world's top 2% scientists as per Stanford University list.

Publication Details

1. **Garg, N.** (2024). Gratitude research: Review and future agenda using bibliometric analysis of the studies published in the last 20 years. *Asian Journal of Social Psychology*, 27 (4), 639-656 (IF= 1.6)
2. Verma, S. and **Garg, N.** (2024). Validation and confirmation of the equanimity scale-16 in India and its relationship with well-being. *Mindfulness*, 15 (3), 689-699 (IF= 3.5)

VIRENDER KUMAR

University School of Management & Entrepreneurship

AWARD SUMMARY

01 Commendable Research Award

Virender Kumar is an Assistant Professor at University School of Management and Entrepreneurship (USME), Delhi Technological University. He has a Bachelor's degree in Economics from Hansraj College, University of Delhi, and Master's degree in Economics from Delhi School of Economics, University of Delhi. He has completed his Ph.D (Economics) and M.Phil (Economics) from Delhi School of Economics, University of Delhi. He was previously employed with Shri Ram College of Commerce (SRCC), University of Delhi, and has more than 9 years of teaching and research experience. He has publications in reputed journals from Elsevier, Springer and Wiley. His areas of interest include Macroeconomics, Monetary Economics, International Economics, Financial Markets, Environmental Economics, Time Series Analysis, and Panel Data Analysis.

Publication Details

1. **Kumar, V.**, & Dua, P. (2024). What explains foreign portfolio investment inflows to BRICS countries?. *Economic Analysis and Policy*, *82 (June)*, 32-46. **Impact Factor: 8.7**

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