M S BIDVE ENGINEERING COLLEGE,LATUR

NEWSLETTER ELECTRONICS

Presented By:

Department of Electronics Engineering

M S Bidve Engineering College

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Department of Electronics Engineering has healthy administration, robust infrastructure and enthusiastic team of faculty, non-teaching technical and supportive staff. Highly meritorious students get admitted to this programme.

In addition to essential electronic subjects, software based subjects are also included in the curriculum which makes this course suitable for electronics and many IT industries.

Department offers one under graduate course – B. Tech (Electronics Engineering.) and one post graduate course - M.Tech (Electronics and Communication Engineering.). The department outfits the increasing needs of technical wisdom in all associated areas of electronics engineering such as Microelectronics, Communication, Control and Instrumentation, Power electronics, Microcontrollers, Signal and Image Processing, VLSI etc. There are around 12 well equipped laboratories which includes a simulator lab exclusively meant for the research. This lab has many research equipment such as Mentor graphics, spectrum analyzer, digital storage oscilloscopes, high frequency counter, antenna trainer kit, etc. These laboratories are monitored and maintained by skilled and experienced staff. Department has signed MOU with various companies.

Department has an independent library with 1500 text books and Journals with open access for students.

Department frequently organizes guest lectures by leading industrialist and technologist's to keep the students in tune with the latest technological developments. Innovation, Paper Presentation Contest and Project Competitions are held to bring out the latest technical and organizational skills of the students. Industrial trainings are regularly arranged to expose the students to the industrial environment.

VISION

To achieve excellence in Electronics and Telecommunication engineering through quality education by promoting professionalism, human values and ethics leading to a progressive career in industry and academia globally.

MISSION

• To boost employability/entrepreneurship/higher studies through value-added activities.

• To expose students with a multidisciplinary technology spectrum in order to prepare them for diverse and competitive career path.

• To inculcate research attitude and professional ethics for addressing the needs of Industry and Society.

Industrial visit to Terna FM, INCOIS and Photonics Hyderabad

The industrial visit to Indian National Centre for Ocean Information and Photonics Hyderabad is organized to bridge the gap between theoretical knowledge and practical experience by exposing students to real-world working environments and industry practices. This helps students understand how business operations function, gain practical insights, and potentially develop skills needed for future careers provided students.

TRONICS CARNIVAL STATE LEVEL EVENT

Students Participation in various Events

The **Department of Electronics** successfully organized a **state-level technical event titled "Tronics Carnival"** with the objective of enhancing technical knowledge, creativity, and innovation among students. The event provided a common platform for students from various institutes to showcase their technical skills, ideas, and talents.

Tronics Carnival included a variety of competitions such as **Poster Presentation, Project Exhibition, Model Making, and Gaming**. These competitions were designed to encourage practical learning, problem-solving abilities, teamwork, and healthy competition among participants.

The event witnessed enthusiastic participation, with **more than 100 students from different institutes across the state** taking part in various competitions. Students presented innovative ideas and projects related to electronics and allied fields. The poster presentation competition focused on emerging technologies and current trends, while the project exhibition and model-making events highlighted students' creativity and technical expertise. The gaming competition added an interactive and engaging element to the event.

Qualified judges from academia and industry evaluated the participants based on predefined criteria such as innovation, presentation skills, technical knowledge, and practicality. Winners and participants were appreciated for their efforts, and certificates and prizes were awarded to encourage and motivate students.

Overall, **Tronics Carnival was a grand success**, fostering technical awareness and providing valuable exposure to students. The event strengthened inter-institutional collaboration and contributed significantly to the academic and professional development of the participants.

ANNUAL GATHERING ATHYANG 2024

List of Participants   **Annual gathering cultural, sports, and singing and funfair events**

The **Annual Gathering 2024** was successfully organized from **26th March to 28th March 2024** with great enthusiasm and active participation from students and staff. The event aimed to provide a platform for students to showcase their talents, promote cultural activities, and encourage overall personality development.

A variety of competitions and activities were organized during the three-day event, including **singing, dance, sports events, and a funfair**. These activities created a vibrant and joyful atmosphere on campus and encouraged students to actively participate beyond academics. Students enthusiastically took part in all the events, demonstrating their talents, teamwork, and sportsmanship.

The **third day of the Annual Gathering** was marked by a **prize distribution ceremony**, where winners of various competitions were felicitated with prizes and certificates in recognition of their achievements. The ceremony motivated students and appreciated their efforts and participation. Following the prize distribution, a **dinner was organized**, providing an opportunity for students and staff to interact and celebrate together, thereby strengthening camaraderie and unity.

Overall, the **Annual Gathering 2024 was a grand success**, offering memorable experiences to students and fostering cultural, social, and recreational development within the institution.

DANDIYA NIGHT

Participation of students in Dandiya Night Event

Dandiya Night was successfully organized on 10/10/2023 by the **EESA (Engineering Students' Association)** on the occasion of **Navratri** with great enthusiasm and cultural spirit. The event witnessed active participation from **more than 200 students**, creating a vibrant and joyful atmosphere on the campus.

The program aimed to promote Indian culture, unity, and student engagement through traditional festivities. Students enthusiastically performed traditional **Dandiya and Garba**, showcasing cultural values and teamwork.

Several **faculty members and staff** were also present during the event, encouraging students and contributing to the overall success of the program. Their presence added motivation and strengthened student–faculty bonding.

The event was well-organized, disciplined, and concluded smoothly. Overall, the Dandiya Night celebration was a grand success and provided a memorable cultural experience for all participants.

NSS ACTIVITY

Students Participation in Swachata League

NSS Unit of M S Bidve Engineering College Latur, actively participated in "Indian Swachhata League". The Swachh Amrit Mahotsav is the most significant cleanliness campaign by our Honorable Prime Minister Shri Narendra Modi. Principal, faculties and NSS Unit of our College has taken this opportunity and participated in this cleanliness drive. The main purpose of this programme was to create awareness among the peoples regarding Cleanliness and its benefits.

TREE PLANTATION

Tree Plantation programme was held in our college campus. The students of Third year and Final year actively participated in the programme. Principal, Dept HOD's, faculty, Alumni's, students were plant saplings in our college premises. Our faculty had also explained about the trees and the importance of tree plantation. At the end of programme there was a photo session with Principal, faculty and students.

RANGOLI COMPETITION ON THE OCCASION OF BASAVA JAYANTI
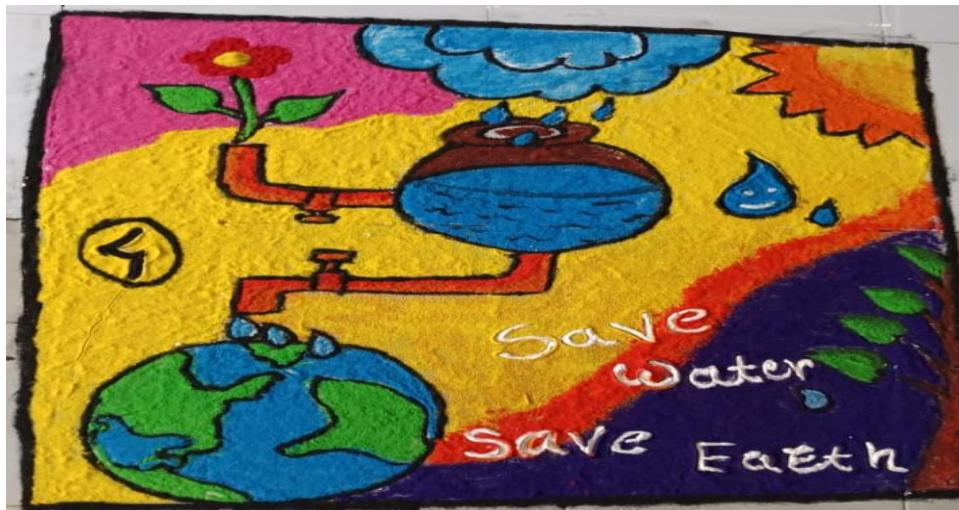
On the occasion of Basava Jayanti, a Rangoli Competition was organized to promote cultural values and the teachings of Jagatguru Basaveshwara among students.

MEGA ALUMINI MEET

A **Mega Alumni Meet** was successfully organised by the institute on **7th August 2023** at **Pune** with the objective of strengthening the bond between alumni and the institute and to create a platform for interaction among alumni, faculty members, and current students.

The event witnessed enthusiastic participation from alumni belonging to various batches and departments, who are presently working in reputed industries, academia, government services, and entrepreneurial ventures. The presence of senior alumni added great value to the program by sharing their rich professional experiences.

Basic Objectives of the Department	♦ To deliver quality teaching and practical skills in E&TC Engineering. ♦ To promote student participation in projects, research, and innovation. ♦ To strengthen industry interaction through visits, internships, and expert talks. ♦ To improve student employability through skill-based training. ♦ To develop professional, ethical, and communication skills in students.

Staff Editor: **Printed & Published by:** EESA

ELECTROCLIPS

DEPARTMEN T EVENTS

TWO-DAY NATIONAL LEVEL COMPETITION ON ROBOSOCCER-25: THE ULTIMATE SOCCER BATTLE

The Department of Electronics and Communication Engineering (ECE), in association with the dynamic ELECTROBLITZ Club, Dayananda Sagar University (DSU), hosted an exhilarating national-level event titled "ROBOSOCCER-25: The Ultimate Soccer Battle" on April 25th and 26th, 2025. This two-day celebration of innovation, intelligence, and interdisciplinary engineering challenged participants to design, build, and program autonomous robots that could navigate challenging terrain and compete in high-stakes soccer matches.

Blending robotics, artificial intelligence, embedded systems, and mechatronics, the competition served as a unique platform for students from top engineering institutions across India to demonstrate creativity, collaboration, and technological prowess. The event not only tested the technical capabilities of students but also fostered skills in team strategy, problem-solving, and real-time system control. With over 144 participants from 36 teams, ROBOSOCCER-25 stood out as a grand confluence of technology and sportsmanship.

Objectives:
- To foster hands-on learning in robotics, control systems, and embedded design through real-time, competitive tasks.
- To promote interdisciplinary innovation by integrating mechanical design, coding, AI algorithms, and electronics in one functional robotic system.
- To encourage teamwork, leadership, and strategic thinking among engineering students across diverse institutions.
- To expose students to real-world engineering challenges, enhancing their skills in robotics-based decision- making and dynamic obstacle handling.
- To provide a platform for technical exchange and collaboration between academic and industry leaders through expert sessions and networking.
- To identify and reward engineering excellence by recognizing top-performing teams in innovation, design, and execution.

Highlights:

- **National-Level Recognition:** ROBOSOCCER-25 positioned DSU on the national map as a hub for robotics innovation, attracting 36 teams and 144 participants from reputed institutions across India.
- **Theme Integration:** The event uniquely integrated robotics, AI, and sports, challenging participants to apply intelligent systems in a competitive, real-time soccer scenario.
- **Two-Day Format:** Spanning 30 hours, the competition was divided into two core segments—Obstacle Course Challenge and Robosoccer Tournament, each testing distinct technical abilities.
- **Opening Ceremony with Industry Experts:** The digital lamp lighting ceremony was symbolizing the spark of innovation. Dr. Ambar Bajpai (GITAM University) and Mr. Vinod Shankar (AIC-DSU) offered industry- relevant guidance and inspiration to participants.
- **Faculty Leadership:** The event was steered under the academic mentorship of Dr. Arun Balodi, Chairman, ECE, and coordinated meticulously by Dr. Divyashree H. B., Faculty Advisor of
- ELECTROBLITZ.
  Magazine Launch: The unveiling of the ECE departmental magazine during the inauguration was a key
- moment, receiving appreciation for showcasing academic and student creativity.
  Dynamic Track Design: The Obstacle Course featured moving platforms, ramps, trapdoors, and
- complex navigation paths, encouraging teams to optimize real-time control and stability.
  Technical Intensity in Robosoccer: Robots competed in knockout matches, tested for speed, agility, AI-
- based decision-making, precision control, and goal-scoring techniques.
  Safety and Fair Play: The organizing team enforced strict technical safety protocols and match rules to
- maintain a professional and sportsmanlike environment throughout the competition.
  Special Category Awards: To recognize diversity in technical strengths, awards were given for design
- innovation, Obstacle efficiency, and gameplay excellence, beyond the top 3 positions.
  Gender-Inclusive Participation: The competition saw active participation from women students,
- reflecting DSU's commitment to diversity and inclusion in STEM.
  Expert Jury Panel: Evaluation was done by a hybrid panel of industry professionals and faculty,
- ensuring fairness and comprehensive assessment across multiple technical dimensions.
  Student Leadership: The ELECTROBLITZ student committee, led by Ms. Aarthi Nayak Ullal (Jury President), handled stage management, logistics, technical coordination, and hospitality with
- professionalism.
  Audience Engagement: The event attracted over 300 attendees, including faculty, peers, and external
- observers, creating a lively, interactive environment around the competition arena.
  Valedictory & Closing: The event concluded with heartfelt speeches, prize distribution, and recognition of volunteer efforts by Dr. Puttamadappa C (Registrar), Dr. Udaya Kumar Reddy, and Dr. Arun Balodi, emphasizing interdisciplinary collaboration and real-world skill development.

Conclusion:

ROBOSOCCER-25 was more than just a robotics competition—it was a celebration of innovation, technical excellence, and collaborative spirit. The event gave students a dynamic platform to turn their engineering concepts into working prototypes and compete in a real-world environment. The technical depth, creativity, and teamwork showcased throughout the competition reaffirmed the Department of ECE's dedication to experiential learning. By inspiring the next generation of tech leaders, ROBOSOCCER-25 laid a strong foundation for future advancements in robotics and intelligent systems at DSU and beyond.

1st Prize: *Pavan*, B.Tech,
    Rajarajeshwari College of
    Engineering

2nd Prize: *Vishal*, B.Tech, CSE, DSU

3rd Prize: *Team Tech X-2*,
Rajarajeshwari College of Engineering

FACULTY CO-ORDINATOR :
Dr. DIVYASHREE H B, ASSISTANT PROFESSOR, ECE, DSU

Expert Lecture on Intellectual Property Rights

As part of the Student Development Program (SDP), the Department of Electronics and Communication Engineering at Dayananda Sagar University organized an expert lecture on Intellectual Property Rights (IPR) on February 19, 2025. The session was delivered by Dr. M. Shahina Parveen, Professor and Chairperson, Department of Computer Science & Technology, DSU.

Objectives:
- To introduce the fundamental concepts of Intellectual Property Rights (IPR).
- To create awareness about patents, copyrights, trademarks, and their
- relevance. To highlight the role of IPR in innovation, research, and
- entrepreneurship.
  To educate students on the legal and ethical aspects of intellectual property.

Highlights:
- Expert session delivered by Dr. M. Shahina Parveen, Professor & Chairperson, CSE, DSU.
- Engaging discussion on real-world applications and legal frameworks of IPR.
- Active participation from students and faculty in the interactive session.
  Event successfully coordinated by Dr. Arun Balodi, Professor & Chairman, ECE, DSU.

Conclusion:
The expert lecture on IPR served as a valuable learning experience for students, equipping them with crucial knowledge on intellectual property laws and their role in protecting innovation. The session encouraged students to consider legal aspects in their future research and entrepreneurial ventures, aligning with DSU's vision of fostering innovation with integrity.

CONVENOR:
Dr. ARUN BALODI, CHAIRPERSON, ECE, DSU

Workshop on "Autonomous System" Certification Program

The Department of Electronics and Communication Engineering at DSU conducted a one-day certification workshop on "Autonomous System" on March 3, 2025. The session focused on real-world robotics and automation applications, offering students hands-on experience in building and programming autonomous robots using modern tools and techniques.

Objectives:
- To introduce students to the fundamentals of autonomous robotic systems.
- To provide hands-on exposure to IR sensors, PID controllers, and obstacle
- avoidance. To bridge theoretical knowledge with real-time robotic applications.
- To foster interest in automation, robotics, and AI-based industries.

Highlights:
- Participation of 100 students across all years and guests from Vemana Institute of
- Technology. Hands-on training in sensor integration and robotic control logic.
- Expert guidance from Safear Defense Pvt. Ltd. on industry advancements.
- Well-coordinated by Dr. Pushpa P.V., Dr. Navya R., Pannati S., and Jayashree E.

Conclusion:
The workshop offered a valuable platform for students to gain practical knowledge in robotics and automation. Active participation and industry collaboration enriched the learning experience. The success of the workshop reflects DSU's commitment to nurturing future-ready engineers in autonomous systems.

FACULTY CO-ORDINATOR :
Dr. PUSHPA P V, PROFESSOR, ECE, DSU
Dr. NAVYA R, ASSISTANT PROFESSOR, ECE, DSU

Faculty Development Programme on "Emerging Trends in FPGA-Machine Learning in VLSI"

TThe Department of Electronics and Communication Engineering, DSU, in association with ECIT, IIT Roorkee, conducted a five-day FDP on "Emerging Trends in FPGA–Machine Learning in VLSI" from February 10–14, 2025. The hybrid-mode programme saw enthusiastic participation from 93 faculty members nationwide, focusing on the convergence of AI, FPGA, and VLSI systems.

Objectives:
- To provide a strong foundation in integrating AI-ML algorithms with FPGA
- hardware. To expose participants to real-world applications in VLSI and embedded
- systems.
  To offer hands-on training using tools like Xilinx Vivado, MATLAB, and Google Colab.

Highlights:
  Expert sessions by professors from IIT Roorkee, IIT Madras, IIIT Dharwad, and top industries like
- MathWorks and Sperry Marine.
- Hands-on training with FPGA tools: Xilinx, Cadence Virtuoso, Intel FPGA, and Simulink.
- Practical sessions on AI acceleration, CNNs, and hardware-based deep learning.
  A concluding pedagogy session on effective teaching strategies in AI and VLSI.

Conclusion:
This FDP enriched participants with advanced knowledge in AI-driven FPGA design and VLSI applications. The sessions bridged the gap between theory and practice, enhancing research capabilities and classroom effectiveness. The successful coordination by Dr. Sneha Sharma and Dr. Shirshendu Roy, with guidance from Dr. Arun Balodi, ensured a transformative experience aligned with current technological trends.
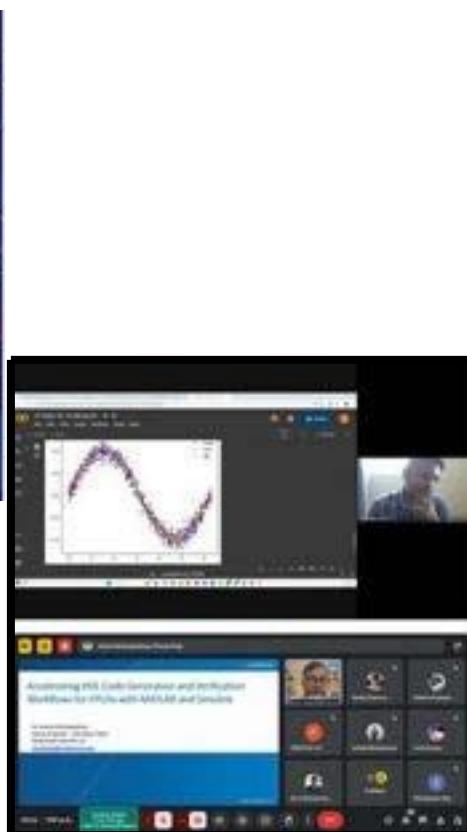
FACULTY CO-ORDINATOR :
Dr. SNEHA SHARMA, ASSISTANT PROFESSOR, ECE,
DSU Dr. SHIRSHENDU ROY, ASSISTANT PROFESSOR,
ECE, DSU

Memorandum of Understanding (MoU) Signed Between MIT Square and Dayananda Sagar University

Dayananda Sagar University (DSU), Bengaluru, signed a significant Memorandum of Understanding (MoU) with MIT Square Group of Companies, London, on March 14, 2025. This international collaboration marks a pivotal step towards enhancing DSU's global footprint in research, innovation, and technology transfer. The partnership will lead to the establishment of a ZERO-COST Global Research Force Centre of Excellence (CoE) at DSU, focusing on Technology Transfer Transformation (T3).

Objectives:

- To promote global research collaborations and innovation ecosystems at DSU.
- To establish a Centre of Excellence (CoE) focused on T3 (Technology Transfer
- Transformation). To provide value-added certifications, faculty development, and student
- development programs. To enable internships, industrial visits, and international knowledge
- exchange opportunities.
- To foster entrepreneurship and startup incubation support in cutting-edge technology domains. To impart specialized training in:

1. Internet of Things (IoT)
2. Artificial Intelligence (AI)
3. Blockchain
4. Cybersecurity
5. Robotics
6. Electric Vehicles (EVs)
7. Web Development

Highlights:

- MoU Signing and Collaboration Scope: On March 14, 2025, DSU signed an MoU with MIT Square Group of Companies, London, to establish a ZERO-COST Global Research Force Centre of Excellence (CoE) focused on Technology Transfer Transformation (T3).
- Academic and Skill Development Initiatives: The collaboration includes value-added certifications (VACs), faculty and student development programs (FDPs/SDPs), internships, industrial visits, and global knowledge exchange programs.
- Focus on Emerging Technologies: Specialized training will be offered in cutting-edge domains such as IoT, AI, Blockchain, Cybersecurity, Robotics, Electric Vehicles, and Web Development to equip students with industry-relevant skills.
- Entrepreneurship and Innovation Support: The CoE will actively support innovation and startup incubation, fostering an entrepreneurial ecosystem within the university.
- Leadership and Participation: The initiative was led by the Department of ECE, with key contributions from Dr. Arun Balodi, Dr. Divyashree H.B, and Dr. Supraja Eduru, and was formally signed in the presence of university and MIT Square leadership.

Conclusion:

The MoU between DSU and MIT Square is a landmark initiative that reflects DSU's commitment to academic excellence, global collaboration, and innovation-led growth. By integrating industry partnerships, real- world training, and startup incubation into academic programs, this collaboration empowers students and faculty to lead in next-generation technologies and entrepreneurial ventures.

FACULTY CO-ORDINATOR :
Dr. ARUN BALODI, CHAIRPERSON, ECE, DSU
Dr. DIVYASHREE H B, ASSISTANT PROFESSOR, ECE,
DSU Dr. SUPRAJA EDURU, ASSISTANT PROFESSOR, ECE,
DSU

Five-Day Workshop on VLSI Design Flow Digital, Testing and Verification Essentials Using Cadence at Dayananda Sagar University

The Department of Electronics and Communication Engineering, Dayananda Sagar University, organized a five- day hands-on workshop on "VLSI Design Flow – Analog, Digital, Testing and Verification Essentials using Cadence" from April 7–12, 2025. The event was held at the VLSI Lab, School of Engineering, and witnessed enthusiastic participation from 60 sixth-semester ECE students.

Objectives:
The workshop aimed to enhance student proficiency in VLSI design by offering insights into both analog and digital design flows, testing methodologies, and the usage of Cadence® EDA tools. Participants gained hands-on exposure to industry-standard practices and tools vital for careers in semiconductor design and testing.

Highlights:
The event commenced with a formal inauguration ceremony, where Dr. Udaya Kumar Reddy, Dean-SOE, DSU, welcomed the chief speaker Dr. C. P. Ravikumar, Former Director of Talent Development at Texas Instruments and Professor (Retd.), IIT Delhi. Dr. Ravikumar conducted sessions over the first three days, covering key concepts such as:
- Verilog-based digital design and testbench writing
- Introduction to System Verilog
- Fault modelling, ATPG, scan-based testing, and
- BIST Analog and mixed-signal testing
- techniques Industry trends in VLSI testing

The final two days were led by Dr. Gayathri K M, Associate Professor, DSU, who focused
- on: Analog design flow using Cadence Virtuoso
- Schematic and symbol creation, simulation, layout, DRC, LVS
- Post-layout simulation, RC extraction, and FINFET-based SRAM/OPAMP design

Conclusion:
The workshop provided in-depth, hands-on experience with Cadence tools such as Virtuoso and Modus, reinforcing theoretical learning with practical implementation. The event was coordinated under the leadership of Dr. Arun Balodi, Chairman–ECE, and Dr. Gayathri K M.

Such industry-oriented initiatives reflect DSU's strong commitment to equipping students with the latest technological skills and preparing them for successful careers in VLSI and semiconductor domains.

FACULTY CO-ORDINATOR :
Dr. ARUN BALODI, CHAIRPERSON, ECE, DSU
Dr. GAYATHRI K M , ASSOCIATE PROFESSOR, ECE, DSU

IEEE-Sponsored Five-Day Workshop on "Emerging Trends in Wireless Communication and Applications"

The Departments of Aerospace Engineering (ASE), Electronics and Communication Engineering (ECE), and the Centre for Space Science and Technology (CSST) at Dayananda Sagar University (DSU) jointly organized a five-day IEEE-sponsored workshop titled "Emerging Trends in Wireless Communication and Applications" from 07–12 April 2025. Held at the Harohalli Campus, the workshop brought together over

250 participants including students, faculty, researchers, and industry experts to explore the latest advancements in wireless technologies, especially in the context of aerospace and space applications.

Objectives:

- To provide participants with a comprehensive understanding of emerging wireless communication technologies for aerospace and space sectors.
- To offer hands-on training in antenna design, testing, and measurement techniques.
- To expose students and faculty to practical implementations of RF, optical, and satellite communication systems.
- To promote industry-academia interaction through expert talks from ISRO, academia, and private sector leaders.
- To foster future research collaborations and skill development in the field of space communications.

Highlights:

- The five-day IEEE-sponsored workshop on "Emerging Trends in Wireless Communication and Applications" was held from 07–12 April 2025 at DSU's Harohalli Campus, with participation from over 250 attendees, including students, faculty, and industry professionals.
- The inaugural ceremony featured Dr. V. Senthil Kumar (URSC, ISRO) as Chief Guest, along with addresses by Dr. Hariharan V. K, Dr. Udaya Kumar Reddy, and Dr. Nagaraja S R.
- Expert sessions covered cutting-edge topics such as RF, optical, and quantum communications, aerospace antenna systems, CubeSat communication, EMI/EMC in spacecraft, and 5G antenna testing.
- Distinguished speakers included experts from ISRO, Alcatel Lucent, PES University, CHRIST University, and Skynetics, offering a blend of academic and industry perspectives.
- Hands-on training involved the design and testing of dipole, monopole, and patch antennas, along with VNA measurements, led by engineers from ISRO and Technilab.
- Two major technical visits enhanced the practical learning experience—on 11th April to the Indian Deep Space Network (IDSN), Byalalu, and on 12th April to CSST Ground Station, DSU Kudlu Campus.
- With 96% positive feedback, the workshop was highly appreciated for its structured delivery, hands-on content, and real-world exposure, marking it as one of the most successful training events at DSU.

Conclusion:

The IEEE-sponsored workshop successfully bridged the gap between theory and practice in the realm of aerospace wireless communication. By integrating expert knowledge, practical training, and immersive field experiences, the event not only enriched participants' technical understanding but also laid the groundwork for future research, academic-industry collaboration, and innovation in space communications.

FACULTY CO-ORDINATOR :
Mrs. MANASA K R, ASSISTANT PROFESSOR, ECE, DSU

INDUSTRIAL VISIT TO URSC, BENGALURU

The Department of Electronics and Communication Engineering, through the ELECTROBLITZ Club, organized an industrial visit to the U R Rao Satellite Centre (URSC), ISRO, Bengaluru, on 15th May 2025. The visit aimed to enhance student awareness of India's advancements in space technology and provide firsthand exposure to real-world satellite and launch vehicle systems.

Objectives:
- To provide insights into India's satellite development and launch programs.
- To understand the functioning of cryogenic engines and launch vehicle
- technologies. To learn about major ISRO missions like Chandrayaan-3 and the
- upcoming Gaganyaan.
  To expose students to the integration and testing of communication and remote sensing satellites.

Highlights:
- 40 ECE students participated in the visit organized by the ELECTROBLITZ Club,
- DSU. Students gained insights into ISRO's satellite systems, including INSAT, IRS,
- and GSAT. A session on cryogenic launch technologies and India's GSLV Mk III
- was conducted.
  A documentary on Chandrayaan-3's lunar landing was screened, followed by an interactive Q&A.
  Students explored ISRO's key missions and facilities, including the Gaganyaan program and launch infrastructure.

Conclusion:
The visit to URSC–ISRO provided a transformative learning experience, exposing students to the practical side of space technology and satellite development. It not only enhanced their understanding of complex aerospace systems but also instilled a deep appreciation for India's contributions to space exploration. This initiative fostered academic curiosity and inspired many to consider research and engineering roles in the space sector.

FACULTY CO-ORDINATOR :
Dr. DIVYASHREE H B, ASSISTANT PROFESSOR, ECE, DSU

PROJECT EXPO 25 – A Grand Showcase of Innovation and Engineering Excellence

The Department of Electronics and Communication Engineering (ECE), in collaboration with the ELECTROBLITZ Club and IEEE DSU Student Branch, successfully organized Project Expo 25 on Saturday, 24 May 2025, at the DSU Main Campus, Harohalli. This grand showcase offered final-year ECE students a platform to present over 40 innovative projects, demonstrating their technical expertise and problem-solving capabilities developed through years of academic learning.

Objectives:

- To provide a platform for final-year ECE students to exhibit their technical innovations and real-world engineering solutions.
- To foster industry-academia interaction, enabling valuable feedback and collaboration
- opportunities. To encourage communication, teamwork, and entrepreneurial thinking among
- students.
  To celebrate and document student innovation through the release of ECE Project Chronicles – 2025.

Highlights:

- Over 40 projects showcased across diverse domains: Quantum Computing, ML, Embedded Systems, etc.
- Unveiling of ECE Project Chronicles – 2025, a compilation of top student innovations.
- Expert jury from CoreEL Technologies, MathWorks, Safear India, and academia evaluated the projects.
- Strong industry-academia interaction through hands-on discussions and feedback.
- Student leadership and coordination handled registrations, logistics, and event
- flow. Recognition of faculty mentors and project guides for their academic contributions. A vibrant atmosphere of collaboration, learning, and technical exchange.

Conclusion:

Project Expo 25 was a resounding success, serving as a celebration of innovation, collaboration, and technical excellence. It not only highlighted the students' technical skills but also emphasized their ability to communicate ideas, work in teams, and think entrepreneurially. The unveiling of the ECE Project Chronicles – 2025 reinforced the department's vision of recognizing and nurturing talent. The event has left a lasting impact, inspiring future engineers to pursue innovation with purpose and contribute meaningfully to society.

FACULTY CO-ORDINATOR :
Dr. ARUNGALAI VENDAN, ASSOCIATE PROFESSOR, ECE,
DSU Prof. ABHINAV KIRAN, ASSISTANT PROFESSOR, ECE,
DSU
Dr. DIVYASHREE H B, ASSISTANT PROFESSOR, ECE, DSU

Industry Conclave 2025 on Curriculum Development

The Department of Electronics and Communication Engineering, Dayananda Sagar University, organized the Industry Conclave on Curriculum Development to bridge the gap between industry expectations and academic curriculum. The event brought together leading industry professionals and academic experts to collaboratively redesign a future-ready ECE syllabus in tune with emerging technologies and real-world applications.

Objectives:
- To realign the ECE curriculum with current and emerging industry demands.
- To incorporate skill-based and hands-on learning components into core and elective
- subjects. To restructure the sequence and content of existing subjects for better academic
- flow.
  To gather expert and student inputs for continuous improvement in teaching and learning.

Highlights:
  Hosted on 23rd May 2025 by the Department of ECE, Dayananda Sagar University.
-> Key industry experts:
- Mr. Shailesh Sakri, Senior Director, Harman International
  Dr. C. P. Ravikumar, Adjunct Professor, IIT Dharwad & CLO, VinyanaTech
-> Curriculum restructuring suggestions included:
- Shift Computer Organization to 3rd semester, Signals and Systems to 4th semester
- Merge Signals and Systems with Network Analysis
  Integrate Transforms and Numerical Methods across semesters
-> Modernization of courses proposed:
- Replace outdated subjects with Power Electronics, EV Technology, Quantum Computing, AI, and IoT
  Introduce a dedicated course on PCB Designing
-> Skill integration emphasized:
- Make Data Structures a skill enhancement course with practical C
  programming Add Assembly Language programming labs using ARM
- processors
-> Elective optimization proposed:
- Merge related electives like Nanoelectronics & MEMS, Embedded Linux & Device Drivers
- Offer 1-credit, expert-led modules on niche topics (e.g., Acoustics, Audio)
  AI applications to be embedded across the core curriculum
  Student feedback included to ensure practical relevance and curriculum flexibility

Conclusion:
The Industry Conclave 2025 at DSU served as a vital platform for bridging academia and industry. With expert insights and forward-thinking recommendations, it laid the foundation for a dynamic, future-ready ECE curriculum aligned with emerging technologies and industry needs.
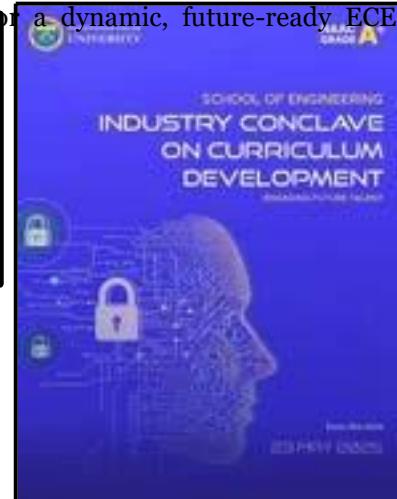
CONVENOR:
Dr. ARUN BALODI, CHAIRPERSON, ECE, DSU

Board of Studies (BoS) Meeting – Department of ECE, Dayananda Sagar University

The Department of Electronics and Communication Engineering at Dayananda Sagar University held its Board of Studies (BoS) meeting to review and update the curriculum for B.Tech, M.Tech, and Ph.D. programs, aligning academic offerings with emerging technologies and industry needs.

Objectives:
- Approve and finalize curriculum schemes for UG and PG programs.
- Introduce skill-enhancing and industry-relevant courses.
- Review department achievements and infrastructure.
- Incorporate expert suggestions for continuous academic improvement.

Highlights:
- B.Tech 2025–2029 syllabus approved; M.Tech Embedded Systems (2025–2027)
- ratified. Reviewed curriculum for senior batches and Ph.D. coursework.
- Model-based design introduced as a skill course.
- Department secured ₹43.4 lakh in research funding and submitted ₹192 lakh worth
- proposals. Labs established: Cadence, MATLAB, Embedded Systems.
- Experts suggested hands-on projects, AI/ML integration, and revised course sequencing.

Conclusion:
The BoS meeting successfully advanced the department's academic vision by integrating expert feedback, new technologies, and hands-on learning, ensuring a robust and future-ready curriculum.
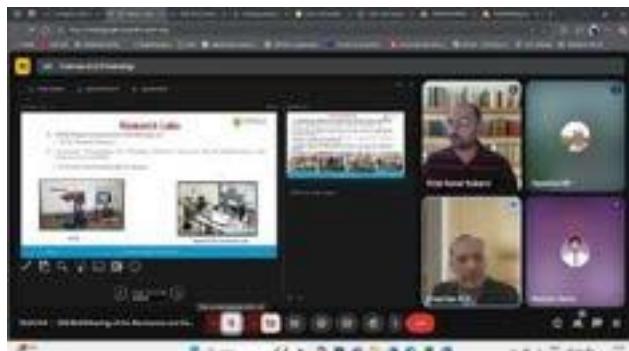
CONVENOR:
Dr. ARUN BALODI, CHAIRPERSON, ECE, DSU

Dayananda Sagar University – Special Interest Group (SIG), Department of Electronics and Communication Engineering

The Department of Electronics and Communication Engineering, Dayananda Sagar University, in collaboration with Dayananda Sagar College of Engineering (DSCE) and Dayananda Sagar Academy of Technology and Management (DSATM), organized a series of Special Interest Group (SIG) meetings on 20th and 21st June 2025. These meetings aimed to strengthen inter-institutional research collaboration by identifying common areas of interest, sharing technical resources, and fostering a culture of innovation and interdisciplinary research across the DSI group of institutions. Faculty members from various engineering domains participated enthusiastically, proposing actionable plans to drive impactful academic and research initiatives forward.

Objectives:

- To promote collaborative and interdisciplinary research across DSU, DSCE, and DSATM by leveraging the collective expertise of faculty members.
- To identify common research domains and institutional strengths in areas like VLSI, Embedded Systems, Signal Processing, Communication, and Electrical Sciences.
- To encourage sharing of research infrastructure and facilities, such as laboratories, tools, and testing platforms, for optimizing research efficiency.
- To initiate joint academic activities, including technical workshops, seminars, student-driven projects, and faculty development programs.
- To establish structured communication and coordination mechanisms, such as forming a Research Coordination Committee (RCC) and dedicated communication platforms.
- To enable impactful research outcomes, including collaborative publications, grant proposals, patents, and real-world innovations that align with national and global technology needs.

Highlights:

- SIG initiative launched to promote collaborative, interdisciplinary research across DSU, DSCE, and DSATM.
- Three thematic SIG groups formed:
  1. Interdisciplinary Electrical Science
  2. Signal Processing & Communication
  3. VLSI & Embedded Systems
- Each group held focused meetings with faculty from all three institutions.
- Research Coordination Committees (RCCs) to be formed with faculty representatives from each
- institution. Follow-up meetings scheduled for August 2025 to finalize research directions and collaborative projects.

Interdisciplinary Electrical Science SIG (20th June

- 2025): Led by Dr. Arungalai Vendan S (DSU).
  Joint research areas identified:
  - Optimization
  - Biomedical
  - Electronics
  - Insulation Studies
- Power Electronic Converters
  - Renewable Electronics
  Action points:
  - Formation of
    RCC
- Joint workshops, student projects, and resource sharing
- Nominations of coordinators by 30th June 2025

Signal Processing & Communication SIG (21st June 2025):

Emphasis on collaborative research in MIMO systems, Antenna Design, and Advanced Communication. Contributions by Dr. K. L. Sudha (DSCE) and Dr. Siddalingappagouda Birdar (DSATM).

Key outcomes:
- Planned technical workshop on Antenna Design
- Creation of dedicated WhatsApp group for ongoing coordination
  - Proposal to share labs and infrastructure between DSCE and DSATM

VLSI & Embedded Systems SIG:

Convened by Dr. Arun Balodi (DSU), with faculty from all three campuses.
Research areas identified:
  - Low-Power VLSI Design
- Device Modeling
  - Photonics
  - FPGA-based Accelerators
  - Embedded RTOS
  Proposals:
    Joint seminars, faculty exchanges, and student
    projects Shared use of C2S facilities across
    institutions
    Formation of RCC and collection of individual research areas via Google Form

Conclusion:

The SIG meetings fostered strong inter-institutional collaboration across DSU, DSCE, and DSATM. Common research areas were identified, RCCs were proposed, and action plans were outlined to drive joint research, resource sharing, and innovation. Follow-up meetings in August 2025 will finalize and implement these initiatives.

CONVENOR:
Dr. ARUN BALODI, CHAIRPERSON, ECE, DSU

Samavarthana-2025

Samavarthana-2025 is a new beginning of graduate students of school of Engineering, organized by the Department of ECE in association with the Department of student affairs, DSU on 6th June 2025. This event was combined with alumni interactions to exchange the experiences among the student community. The ceremony was organized under the aegis of the university administration, with meticulous planning to ensure that the event struck a balance between solemnity and celebration.

Objectives:
- Provide a platform to the graduating students to share their experience in the institution.
- Discussion forum for exchange of ideas for future life planning with alumni.
- Scope of improvement for the department in maintaining the academic standards.
  Scope for upgradation of the skillsets as per the current industrial requirements and trends.

Highlights:
  The graduating students got an opportunity to celebrate their success with their junior fellow-
- mates, classmates, faculty and seniors.
  Alumni got an opportunity to share their experiences and guide the juniors about life time
- planning requirements.
  Department and faculty were fortunate to get motivated by understand their role in nurturing their students to the fullest and grow higher.

FACULTY CO-ORDINATOR :
Dr. ARUN ANANTHANARAYANA ASSOCIATE PROFESSOR, ECE,
DSU Dr. NAVYA R ASSISTANT PROFESSOR, ECE, DSU
Prof. KNMANI BS ASSISTANT PROFESSOR, ECE, DSU

Technical Blog

Beyond the spectrum : Massive MIMO's Role in 5G/6G & the Connected Future

As the digital world demands faster, more reliable, and intelligent wireless communication, Massive MIMO (Multiple-Input Multiple-Output) emerges as a critical pillar in 5G and 6G network architectures. Unlike traditional MIMO systems with a few antennas, massive MIMO employs tens to hundreds of antennas at the base station, enabling unprecedented improvements in spectral efficiency, energy efficiency, and network capacity.

Massive MIMO refers to wireless systems where base stations are equipped with large antenna arrays to simultaneously serve multiple users using the same frequency band. This high-density antenna deployment allows: Spatial multiplexing (sending multiple data streams at once), Advanced beamforming (focusing energy toward specific users), Interference mitigation (by spatial separation of users).

Massive MIMO is a key enabler in 5G standards (3GPP NR),
   providing: High throughput for enhanced mobile broadband
  (eMBB)
  Low-latency, reliable links for ultra-reliable low-latency communications (URLLC)
  Better spectrum utilization through spatial reuse
  Adaptive beamforming for users in dynamic environments.
Massive MIMO is also optimized for operation in sub-6 GHz and mmWave frequencies, where path loss is higher and beamforming becomes essential.

In 6G, massive MIMO is expected to evolve with new dimensions:
   Terahertz Massive MIMO: Operating at ultra-high frequencies for Tbps speeds.
  Cell-Free Massive MIMO: Thousands of distributed antennas coordinated to serve users seamlessly, without traditional cell boundaries.
  AI-Driven MIMO: Using deep learning to optimize beam patterns, resource allocation, and channel prediction.
  Intelligent Surface Integration: Combining with IRS to dynamically reflect and shape wireless environments.

The Evolution of Connectivity   Evolution from 5G to 6G   Applications enables by Massive MIMO

Massive MIMO's capabilities are foundational for next-generation
  technologies: 6G Smartphones: Real-time streaming, cloud gaming, and
  holographic calls.
  Autonomous Vehicles: Ultra-reliable vehicle-to-everything (V2X) communication.
  Tactile Internet: Real-time remote control in surgeries and haptics.
  Smart Cities & Factories: Dense IoT sensor networks with coordinated communication.
 Non-Terrestrial Connectivity: Enabling robust links between ground users and satellites or drones.

Massive MIMO marks a transformative leap in wireless technology. By unlocking the power of spatial dimensions, it enables efficient, reliable, and high-capacity communications critical to 5G and essential for realizing the full   vision of 6G. As antenna arrays grow and algorithms get smarter, Massive MIMO will continue to be the heartbeat of future wireless systems, empowering a connected, intelligent, and immersive digital world.
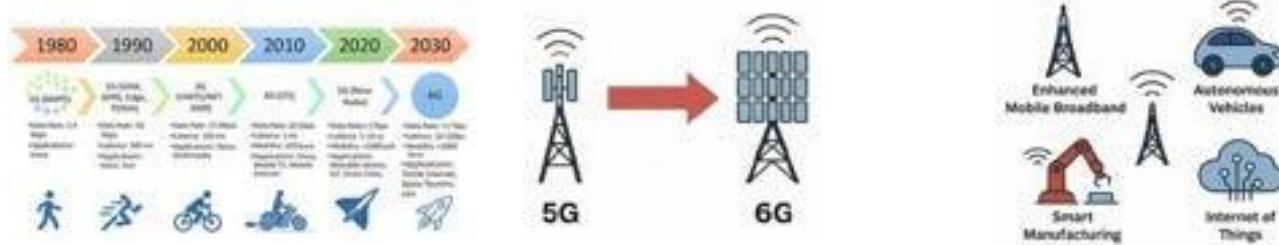
ELECTROCLIPS

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ELECTROBLITZ EVENTS

ELECTROBLITZ CLUB

Electroblitz is a student techno-cultural club formed under the Dept. Of Electronics and Communication, with the motive of providing a platform for students to exhibit both academic and extra curricular skills. The activities of the club enhance their technical skills and personal development apart from academics

VISION

To excel in developing engineers, and techno-entrepreneurs through quality technical education, imbibing societal and ethical values by leveraging interdisciplinary research for sustainable solutions

MISSION

The Department of Electronics and Communication Engineering is committed to:

M1: Design and deliver contemporary Electronics and Communication Engineering curricula to offer quality technical education centered on experiential learning, ethical values, and leadership qualities.

M2: Inculcate interdisciplinary research and innovative culture in partnership with industries and premier institutions.

M3: Create engineers and techno-entrepreneurs to meet societal needs by upholding moral principles.

TECHNOHUNT 2025: A Thrilling Fusion of Technology and Adventure

The ElectroBlitz Club, in collaboration with the Department of Electronics and Communication Engineering, successfully conducted TechnoHunt, a tech based treasure hunt, on March 5, 2025. Held at the AEC Labs, DSU School of Engineering, the event featured 21 teams competing to decode riddles and build circuits in a race of technical skill and teamwork.

Objectives:
- To foster hands-on technical learning in a fun and competitive
- environment. To improve problem-solving, logical thinking, and hardware
- debugging skills. To encourage teamwork and collaborative innovation.
- To apply electronics concepts practically through circuit-building challenges.

Highlights:

21 student teams participated, and on-spot registrations added energy to the event.
Participants decoded riddles to collect hidden electronic components.
Teams built a Bistable Multivibrator Circuit using retrieved components.
Judging was based on riddle-solving speed, circuit accuracy, and
functionality.

Conclusion:

TechnoHunt 2025 was a successful blend of fun and learning, testing both intellect and practical electronics skills. The event promoted critical thinking, teamwork, and hands-on circuit assembly. With expert coordination and enthusiastic participation, the event left a lasting impact on all attendees and reinforced DSU's commitment to experiential technical education.

Winners
Mr. Shreyas V (Third Year,
ECE) Mr. Harikrishna (Third
Year, ECE) Mr. Tejas D.S. (Third
Year, ECE)

First Runners-up
Mr. Tejas A (Third Year, ECE)
Mr. Hari Krishna Raj (Third Year,
ECE) Mr. Harsha V.P. (Third Year,
ECE)

Second Runners-up
Ms. Pravallika M (Third Year,
ECE) Ms. Likitha N (Third Year,
ECE) Mr. Ganesh K (Third
Year, ECE)
Mr. Yuvaraj Nayak (Third Year, ECE)

FACULTY CO-ORDINATOR :
Dr. DIVYASHREE H B, ASSISTANT PROFESSOR, ECE, DSU

INVESTITURE CEREMONY

The Investiture Ceremony of the ELECTROBLITZ Club was held on 24th June 2025, marking a proud moment of leadership transition and continuity. The event was coordinated under the guidance of Dr. Divyashree H.B., fostering a spirit of responsibility and commitment among the student members. Dr. Arun Balodi, Chairman of the ECE Department, graced the occasion and delivered an insightful address on leadership, innovation, and the importance of teamwork in shaping future technocrats. A symbolic badge handover ceremony took place, where the outgoing ELECTROBLITZ committee graciously passed on their duties and badges to the newly appointed team, signifying the formal transfer of roles and responsibilities. The event reflected the club's dedication to nurturing student leadership and fostering a vibrant technical community within the department.

FACULTY CO-ORDINATOR :
Dr. DIVYASHREE H B, ASSISTANT PROFESSOR, ECE, DSU

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STUDENT ACHIEVEMENTS

The research paper titled "Revised QOS-aware Multipath Routing in MANET Using Blockchain Technology", authored by Prokshith J S and Vikram Adhitya, under the esteemed guidance of Dr. Divyashree and Dr. Supraja, has been accepted for publication in the IEEE proceedings of the 2nd International Conference on Communication, Computer Sciences and Engineering (IC3SE-2025), hosted by Amity University in collaboration with the IEEE UP Section. This work presents a novel methodology for enhancing mobile ad- hoc network efficiency using blockchain-integrated routing strategies, reflecting the authors' commitment to secure, decentralized communication frameworks in line with emerging global standards.

The research paper titled "An Efficient Smart Agriculture Monitor System using IoT", authored by Dev Sharma and Prathamesh M. Naik, under the esteemed guidance of Dr. Divyashree H. B., Shirshendu Roy, and Dr. Supraja Eduru, has been accepted for publication in the proceedings of the Ninth International Conference on Smart Trends in Computing and Communications (SmartCom 2025), organized by the GR Foundation and managed by GR Scholastic, in collaboration with Springer. The conference was held from 29–31 January, 2025, in Pune, India, via digital platform Zoom. This work reflects a contribution toward smart agriculture systems using IoT, in alignment with modern computing and communication technologies.

The research paper titled "Enhanced design and optimization of Hexapod robot", authored by Prathamesh M. Naik, has been accepted for presentation and publication in the proceedings of the 8th International Conference on Innovative Computing and Communication (ICICC-2025), organized by Shaheed Sukhdev College of Business Studies, University of Delhi, in association with National Institute of Technology Patna, University of Valladolid, Spain, and others. The conference was held from 14th– 15th February 2025, in New Delhi, India.

The research paper titled "Robotic Operating System Based Ground Control Station for Unmanned Aerial Vehicles", authored by Preesha Tandon, has been digitally presented and accepted for publication in the proceedings of the Ninth International Conference on Smart Trends in Computing and Communications (SmartCom 2025). The conference is organized by the GR Foundation, managed by GR Scholastic, and the paper will be published by Springer. The event was held from 29–31 January, 2025, in Pune, India, via digital platform Zoom.

The research paper titled "Heart Disease Detection Using Fundus Imaging and ML Algorithm", authored by Mythri Peddamariveedu, has been presented and accepted for publication in the proceedings of the 8th International Conference on Innovative Computing and Communication (ICICC-2025), organized by Shaheed Sukhdev College of Business Studies, University of Delhi, in association with National Institute of Technology Patna and the University of Valladolid, Spain. The conference will be held on 14th–15th February 2025, in New Delhi, India.

The research paper titled "Robotic Operating System based Ground Control Station for Unmanned Aerial Vehicles", authored by Laranya Subudhi and Preesha Tandon, under the esteemed guidance of Dr. Divyashree H. B. and Deepthi Chamkur V., has been accepted for publication in the proceedings of the Ninth International Conference on Smart Trends in Computing and Communications (SmartCom 2025), organized by the GR Foundation and managed by GR Scholastic, with Springer as the publication partner. The conference will be held from 29–31 January, 2025, in Pune, India, via digital platform Zoom.

The research paper titled "An Efficient Smart Agriculture Monitor System using IoT", authored by Dev Sharma and Prathamesh M. Naik, under the esteemed guidance of Dr. Divyashree H. B., Shirshendu Roy, and Dr. Supraja Eduru, has been accepted for publication in the proceedings of the Ninth International Conference on Smart Trends in Computing and Communications (SmartCom 2025), organized by the GR Foundation and managed by GR Scholastic, with Springer Nature as the publication partner. The conference was held from 29–31 January, 2025, in Pune, India.

Dev Sharma, Student from Electronics and Communication Engineering Department, Achieves Premium Milestone in Google Cloud Arcade Program

We are proud to share that Dev Sharma, a student from the Electronics and Communication Engineering Department, has successfully participated in the prestigious Google Cloud Arcade Program—a competitive and skill-driven initiative aimed at equipping students with hands-on experience in cloud technologies.

Throughout the program, Dev Sharma demonstrated exceptional dedication and technical acumen by completing a wide range of practical labs, real-world challenges, and guided learning paths using various Google Cloud tools and services. His consistent performance earned him the coveted Premium Milestone, a recognition reserved for top-performing participants.

This achievement not only deepened Dev's knowledge of cloud infrastructure, DevOps, and AI/ML on Google Cloud, but also marked a significant milestone in his journey as a technology enthusiast. His participation in this globally recognized program reflects both his commitment to continuous learning and the growing role of cloud computing in shaping the future of technology.

We congratulate Dev Sharma, student from Electronics and Communication Engineering Department, on this commendable accomplishment and look forward to his continued success in the field of cloud innovation.

PLACEMENT

ELECTROCLIPS

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PRINCIPAL

CERTIFICATE
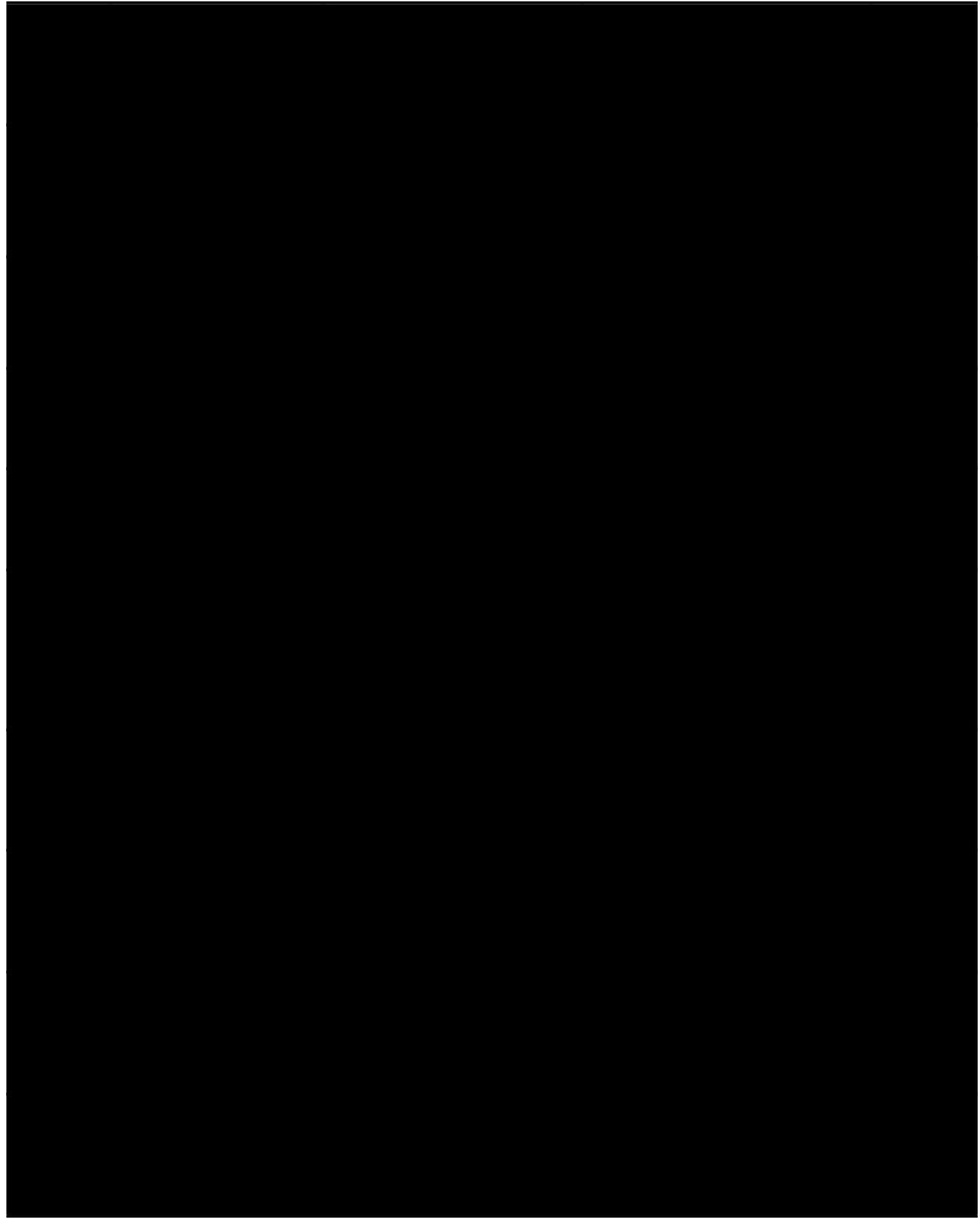
FACULTY ACHIEVEMENTS

DR. ARUN BALODI

Dr. Arun Balodi, Professor and Chairman, ECE Department, School of Engineering, DSU, delivered expert lectures during the FDP on "Generative AI: Foundations, Applications, and Future Directions" organized by the E&ICT Academy, IIT Roorkee, from November 18 to December 24, 2024.

His sessions provided valuable insights into core concepts and applications of Generative AI. He was awarded a certificate of appreciation for his contributions. This reflects DSU's continued focus on academic excellence and collaboration with premier institutions.

Dr. Arun Balodi, Professor and Chairman, ECE Department, School of Engineering, DSU, participated in the IEEE SPS Forum on "Green Signal Processing for AI: Balancing Innovation and Sustainability" held at HARMAN International, Bengaluru.

The forum featured keynotes from industry leaders and a panel discussion on sustainable AI practices. Dr. Balodi also attended the IEEE SPS Bangalore Chapter AGM and began his tenure as Vice Chair (Academia) for 2025, reaffirming his commitment to responsible and sustainable AI innovation.
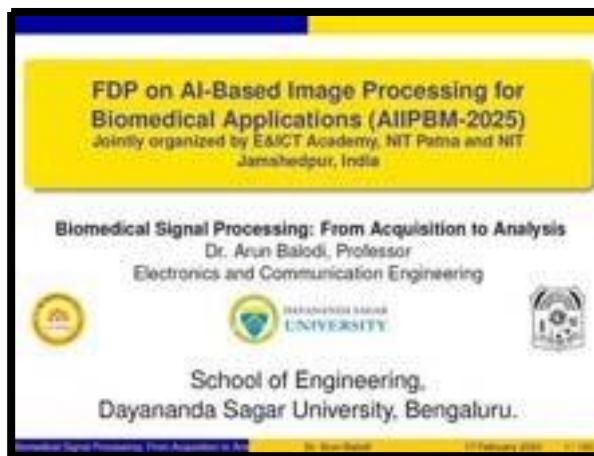
Dr. Arun Balodi, delivered a session on "Biomedical Signal Processing: From Acquisition to Analysis" on February 17, 2025, during the FDP on AI-Based Image Processing for Biomedical Applications (AIIPBM-2025).

The program was jointly organized by E&ICT Academy, NIT Patna, and NIT Jamshedpur. Dr. Balodi's lecture offered valuable insights into biomedical signal techniques and AI-driven healthcare analysis. He thanked Dr. Jayendra Kumar (NIT Patna) for the invitation. The FDP fostered academic exchange and collaboration in AI-powered biomedical research.

Dr. Arun Balodi, completed the AI for Entrepreneurship module by AIM, NITI Aayog, and Intel India on February 27, 2025, reflecting his commitment to AI-driven innovation and entrepreneurship.

Dr. Arun Balodi, inaugurated the IEEE MTT-S Student Chapter at Cambridge Institute of Technology, Bengaluru, alongside Dr. Ashutosh Kedar, Chair, IEEE APS/MTTS Bengaluru Chapter. The event highlighted opportunities in microwave technology and encouraged student engagement in research, innovation, and professional growth.

Dr. Arun Balodi, delivered a talk on "Biomedical Signal Processing: Decoding Physiological Data" at IEEE SJCE SB, Chennai, on March 15, 2025. The session, organized with IEEE SSCS and IEEE Bangalore/Madras Sections, explored signal processing in healthcare. Dr. Balodi's interactive session highlighted real-world applications and encouraged student engagement in emerging biomedical technologies.

Dr. Arun Balodi attended the IEEE ICASSP 2025 conference held from April 6–11 at Novotel & HICC, Hyderabad. Marking its 50th Jubilee, the event featured global innovations in signal processing and highlighted DSU's active role in advanced research and academic excellence.

Dr. Arun Balodi served as a Reviewer at the CODE AI 2025 conference, held on April 7–8, 2025, organized by MIT and MAHE. His contribution reflects active engagement in AI research and academic collaboration.

Dr. Arun Balodi was recognized as a Meta-Reviewer at E2ACON 2025, held on March 8–9, and organized by NIT Jalandhar in collaboration with Springer and Newcastle University. His contribution reflects continued excellence in academic research.


Dr. Arun Balodi was acknowledged by Springer Nature for his peer review contribution to Scientific Reports in 2025, reflecting his commitment to academic excellence and scholarly integrity.
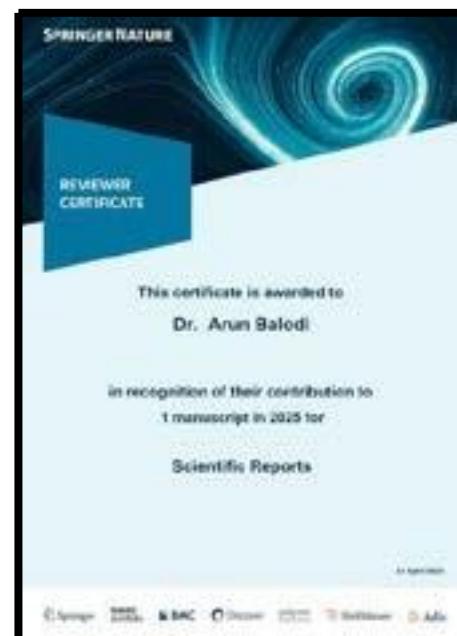
Dr. Arun Balodi has been recognized as a member of the Editorial Board at Deep Science Publishing. His role supports COPE guidelines, reflecting his dedication to ethical, high-quality academic publishing.

Dr. Arun Balodi was recognized for his peer review contribution to Scientific Reports (Springer Nature) in 2025, underscoring his dedication to research quality and global academic engagement.
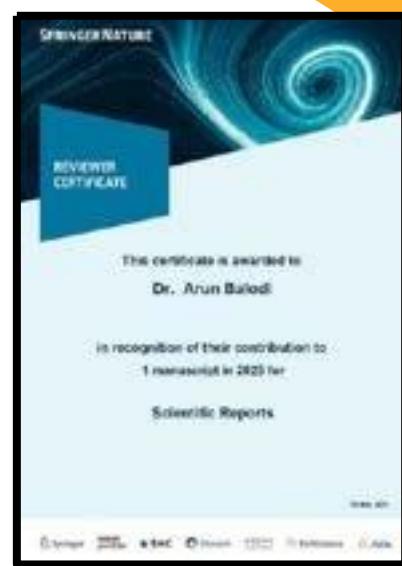
Dr. Arun Balodi delivered a lecture on "Multi-Channel Non-Stationary Biomedical Signal Processing and Applications" on February 17, 2025, as part of the AIIPBM-2025 FDP organized by NIT Patna and NIT Jamshedpur. His talk reflected strong interdisciplinary engagement in AI and biomedical research.
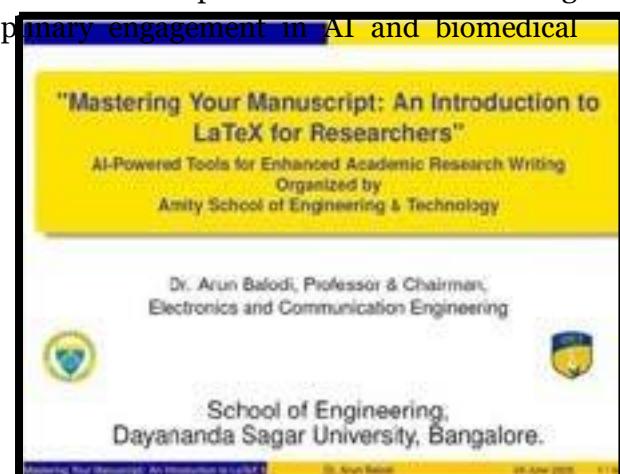
Dr. Arun Balodi delivered a session on "Mastering Your Manuscript: An Introduction to LaTeX for Researchers" on June 24, 2025, during an FDP organized by Amity School of Engineering & Technology, Rajasthan. He shared insights on LaTeX and AI-powered tools for academic writing.
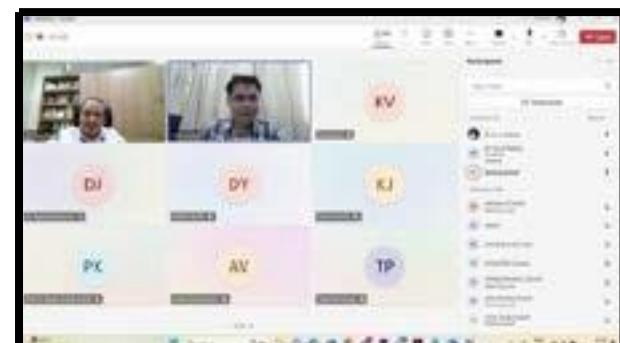
Dr. Arun Balodi has been invited as the Program Committee Chair for the International Conference on Computer Vision and Image Computing (CVIC 2025). The event focuses on cutting-edge research in computer vision and intelligent computing.

DR. ARUNGALAI VENDAN

Dr. Arungalai Vendan S, Professor, Department of Electronics and Communication Engineering, Dayananda Sagar University, has co-authored a research article titled *"Some Studies on Effectiveness of Different Insole Materials in Occupational Shoes on Plantar Pressure Redistribution During Balanced Standing and Normal Straight Gait"*.

The paper is published in the Q1-ranked Arabian Journal for Science and Engineering (Springer) on April 2, 2025, under the Mechanical Engineering section. The research investigates the biomechanical effectiveness of various insole materials and their impact on plantar pressure distribution, contributing valuable insights to occupational health and ergonomics.

DR. PUSHPA MALA S

Dr. Pushpa Mala S attended the SEMICON Conclave 2025 on April 12 at Intel India, Bengaluru. Organized by IEEE Bangalore Section, the event focused on "Beyond Moore with Chiplets." Her participation highlights DSU's engagement with next-gen semiconductor technologies. Photos attached as evidence.

Dr. Pushpa Mala S served as a Session Chair at the IEEE ICKECS 2025 conference held on April 28–29 at SJC Institute of Technology, in association with the IEEE Bangalore Section. She actively led technical discussions and ensured the smooth conduct of the session. Her participation highlights her contribution to academic leadership and research engagement.

DR. THEODRE CHANDRA

Dr. Theodore Chandra S has successfully completed the AICTE-QIP-PG Certificate Programme in Machine Learning conducted at IISc Bengaluru from July 1 to December 24, 2024. He was selected among 48 participants from 593 applicants nationwide. This achievement reflects his dedication to advancing expertise in machine learning.

DR. VINU R

Dr. Vinu R., Associate Professor, and Prof. Jisy N.K., Assistant Professor, from the Department of ECE, Dayananda Sagar University, presented their research paper titled "Artificial Intelligence- based Fast Billing System" at the 5th IEEE-sponsored International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS 2024), held on December 17–18, 2024, at T. John Institute of Technology, Bengaluru. The research highlights innovative AI-driven approaches to enhance billing efficiency and automation. Their work reflects the department's focus on practical AI applications and its contribution to intelligent systems research. This participation underscores DSU's ongoing commitment to technological innovation and academic excellence.

Dr. Vinu R., Associate Professor in the Department of Electronics and Communication Engineering, delivered a technical talk on "AI for Wireless Sensor Networks - Challenges and Future Directions" on 19th February 2025. This session was part of the Five-Day Faculty Development Program on "Modern Applications in Electronics & Communication Engineering," organized by the ECE Department of Gonna Institute of Information Technology and Sciences, Anakapalli, Visakhapatnam, from 17th to 21st February 2025. Her participation underscores her dedication to professional growth and her significant contributions to academic excellence at DSU.

Dr. We are delighted to announce that Dr. Vinu R., Associate Professor in the Department of Electronics and Communication Engineering, from Dayananda Sagar University, Bangalore has successfully published an Indian patent titled "ARM & Kinect-Based Home Automation & Assistance System" on 28th March 2025.

This innovative system integrates ARM microcontroller technology with Kinect-based sensing to deliver an intelligent home automation and assistance platform, offering enhanced convenience and support for users—particularly aimed at assisting individuals with mobility challenges. The patent, filed under Application No. 202541022633 A, was developed in collaboration with co-inventors Hariharan, Omkar S, Prajwal S. Kundargi, and Chinmay G. Bhat. This accomplishment highlights the department's ongoing commitment to cutting-edge research and technological advancement in embedded systems and human-centric design.

Dr. Vinu R, Associate Professor in the Department of Electronics and Communication Engineering, Dayananda Sagar University, has co-authored a research paper titled "Image Processing for Detecting Melanoma Skin Cancer Using an Optimized Rotation-Invariant Coordinate Convolutional Neural Network."

The paper has been published in the Journal of Mechanics in Medicine and Biology, a Q4-ranked journal recognized for interdisciplinary contributions at the intersection of engineering and medical science.

This research presents an innovative deep learning model that enhances the accuracy and robustness of melanoma skin cancer detection through image processing techniques. The proposed model employs a rotation-invariant coordinate convolutional neural network, offering improved diagnostic support in medical imaging applications.
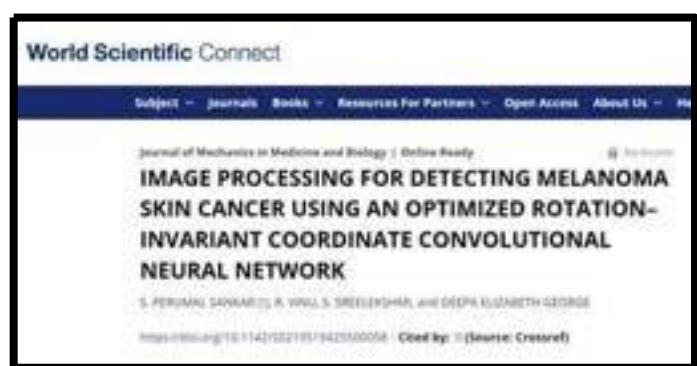
Prof. Jisy N K., Assistant Professor, and Dr. Vinu R. Associate Professor in the Department
of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University published an Indian patent.

The details of the patent published are mentioned below: Patent Title: A SMART ECG SYSTEM USING MACHINE LEARNING FOR EARLY
DETECTION OF SLEEP APNEA AND CARDIAC ABNORMALITIES.

Publication Date: 30/05/2025
Inventors: Meghana A Aathreya, Jisy N K, Ramadhas Vinu,
Application No. 202541045461 A

DR. ARUN ANANTHANARAYANA

We are pleased to announce that Dr. Arun Ananthanarayana, Associate Professor, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, has co-authored a research paper published in a Q2-ranked journal, the International Journal of Communication Systems (Wiley).

Title of the Paper:

Advanced Estimation and Feedback of Wireless Channels State Information for 6G Communication via Recurrent Conditional Wasserstein Generative Adversarial Network.

DOI: https://doi.org/10.1002/dac.70033

Research Highlights:
- Proposes a novel deep learning-based model (AEF-WCSI-6G-RCWGAN) for efficient wireless channel estimation in 6G systems.
- Demonstrates significant improvements in detection success probability and over 24% reduction in Mean Square Error (MSE) compared to conventional methods.
- Addresses critical aspects of 6G communication such as channel parameter estimation, signal delay reduction, and feedback accuracy.

This impactful work contributes to the advancement of AI-powered 6G communication technologies and reinforces DSU's commitment to research excellence.

We congratulate Dr. Arun Ananthanarayana on this noteworthy achievement.

DR. SNEHA SHARMA

Dr. Sneha Sharma from Dayananda Sagar University successfully completed the Faculty Development Program (FDP) on Emerging Technologies for Educators: AI, IoT, and AR/VR. The program was conducted by the Electronics and ICT Academy, C-DAC Mohali, in collaboration with Bahra University, Solan, Himachal Pradesh, from January 6 to January 10, 2025.

The FDP, supported by MeitY, Government of India, provided educators with insights into the latest advancements in Artificial Intelligence (AI), the Internet of Things (IoT), and Augmented/Virtual Reality (AR/VR). This initiative empowers faculty to integrate these emerging technologies into academic and research endeavours effectively.

We are pleased to share that Ms. Sneha Sharma, faculty member of the Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, Bengaluru, presented a research paper titled:

"Enhanced Video Super-Resolution Using Residual Recurrent Convolutional Networks"
at the International Conference on Recent Advancements in Artificial Intelligence & Soft Computing (ICAISC 2025) held on June 5th & 6th, 2025, at Methodist College of Engineering & Technology, Hyderabad, Telangana.

This participation highlights the department's continued contributions to cutting-edge research in artificial intelligence and computer vision.

Date of Recognition: 13 June 2025

DR. NAVYA R

We are pleased to announce that Dr. Navya R, Assistant Professor in the Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University has been awarded a Reviewer Certificate by Springer Nature in recognition of her valuable contribution as a peer reviewer. She reviewed a manuscript for the reputed journal Nanotechnology for Environmental Engineering in 2025.

Peer reviewing is a critical part of the academic publishing process, ensuring the quality and integrity of research. This recognition highlights R. Navya's expertise and active engagement in advancing scientific knowledge in the field of environmental nanotechnology.

Dr. Navya R, Assistant Professor, Department of Electronics and Communication Engineering, School of Engineering at Dayananda Sagar University, Bangalore, actively participated in a five-day Faculty Development Programme (FDP) organized by the Department of Electronics and Communication Engineering at East West Institute of Technology, Bangalore. The FDP, titled "Physical Layout with RTL Design & Verification Using Cadence Tool Flow," was conducted from 17th to 21st February 2025.

This program focused on equipping faculty members with advanced knowledge and practical skills in VLSI physical layout design, RTL design techniques, and verification methodologies using the Cadence tool suite. Experts from academia and industry, including Mr. Sanjay G S, Field Application Engineer at Entuple Technologies Pvt. Ltd., shared valuable insights and guided participants through various sessions.

Dr. Navya R's involvement in this FDP reflects her commitment to continuous professional development and staying updated with the latest trends and tools in VLSI design and verification.
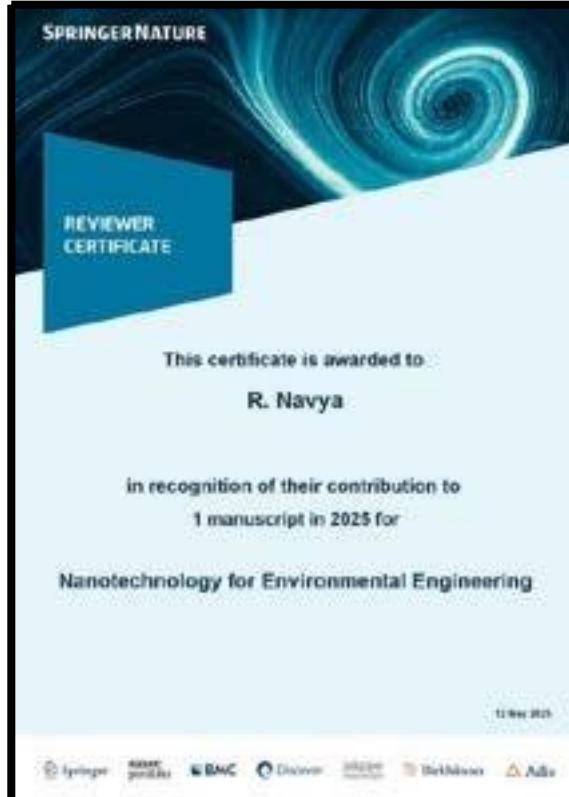
We are proud to announce that Ms. R. Navya, Assistant Professor, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, has been recognized by Springer Nature for her contribution as a peer reviewer for the prestigious Journal of Nanoparticle Research.

On 21 May 2025, Ms. Navya was awarded a Reviewer Certificate in appreciation of her expert evaluation of a manuscript submitted to the journal. The certificate reflects her commitment to academic integrity and research quality, and highlights her active involvement in the global scientific community.

The Journal of Nanoparticle Research is a peer-reviewed, high- impact publication that disseminates cutting-edge developments in the field of nanotechnology, with a strong emphasis on interdisciplinary applications.

This recognition underscores the department's growing influence in frontier areas of research and Ms. Navya's dedication to maintaining rigorous academic standards.

We are delighted to announce that Dr. Navya R, Assistant Professor in the Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, Bengaluru, has been awarded a Reviewer Certificate by Springer Nature. This recognition is in appreciation of her valuable contributions to the peer-review process for the Journal of Nanoparticle Research.

Dr. Navya R reviewed two manuscripts in 2025, showcasing her commitment to academic excellence and contributing to the advancement of research in the field of nanotechnology.

Date of Recognition: 13 June 2025
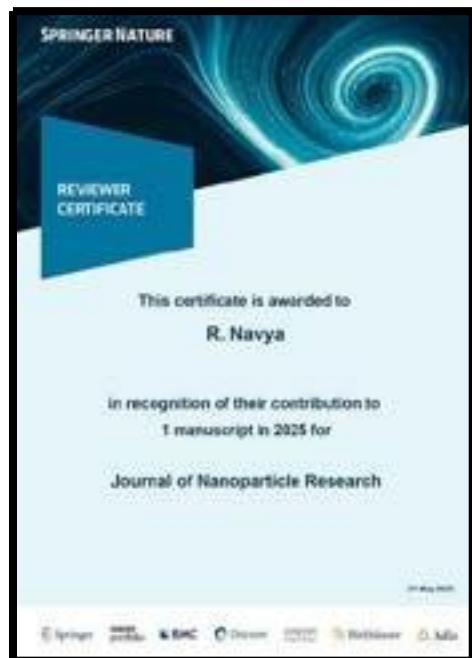
We are pleased to share that Dr. Navya R, Assistant Professor, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, Bengaluru, presented a research paper at the 1st International Conference on Networked Computing and Data Analytics (ICNCDA-2025), held on May 23–24, 2025, at Poornima Institute of Engineering & Technology, Jaipur, Rajasthan.

The paper titled "Ensemble stacking of GNNs, Transformers and Reinforcement Learning for Scalable Personalized Book Recommendations" highlights cutting-edge approaches in AI-driven recommendation systems. The conference was ANRF-SERB sponsored and supported by prominent academic bodies including ISTE, the Computer Society of India, and The Institution of Engineers (India).

Dr. Navya R, Assistant Professor, Department of ECE has received the certificate for presenting a paper titled "A Systematic Survey on IoT-Driven Smart Travel Case: Intelligent Automation, Biometric Security,Autonomous Mobility", in 3rd International Conference on Futuristic Technologies (INCOFT-2025) during 21st to 22nd February 2025.

DR. DIVYASHREE H B

Dr. Divyashree H B, Assistant Professor, Department of ECE, along with co- authors, Department of ECE presented a research paper titled "Heart disease detection using funds imaging and ML algorithm" at the International Conference on Innovative Computing & Communication (Scopus Indexed, Springer - ICICC 2025). The conference was organized by university of Delhi, New Delhi in association with National Institute of Technology, Patna on February 14-15,2025. The research, a significant contribution from the Department of Electronics and Communication Engineering, Dayananda Sagar University, highlights innovative combination of fundus imaging and machine learning being used for early screening, monitoring cardiovascular health, and predicting long-term outcomes for individuals at risk of heart disease. This work underscores the department's commitment to advanced machine learning algorithms and artificial intelligence for improving the accuracy and efficiency of medical diagnostics. Congratulations to Dr. Divyashree H B for this accomplishment.

Dr.Divyashree H B presented paper titled "An efficient smart agriculture monitor system using IOT" in scopus indexed Ninth International conference on Smart trends in computing and communications (Smartcom-2025)

Dr.Divyashree H B presented paper titled " Robotic Operating system based ground control station for unmanned aerial vehicles " in scopus indexed Ninth International conference on Smart trends in computing and communications (Smartcom-2025)

Dr. Divyashree H. B. presented a paper titled "Enhanced Design and Optimization of Hexapod Robot" at the 8th International Conference on Innovative Computing and Communication (ICICC-2025). The conference was organized by Shaheed Sukhdev College of Business Studies, University of Delhi, in association with the National Institute of Technology Patna, India, and the University of Valladolid, Spain. The event took place on 14th-15th February 2025 in New Delhi, India.

Dr. Divyashree H. B. has contributed a significant research paper titled "QoS Aware Secure Cluster-Based Routing for Wireless Sensor Networks Using Enhanced Multi-Objective-Trust Centric Artificial Algae Algorithm". This paper has been published as a chapter in the book "Security and Privacy Issues for IoT and WSN-based Real-time Applications", a comprehensive volume edited by leading experts in the field : Manoj Tolani, Arun Balodi, Ambar Bajpai, Vishal Jain, Piya Kovintavewat

The research focuses on the critical challenges related to Quality of Service (QoS), security, and energy-efficient routing in Wireless Sensor Networks (WSNs). The study introduces an enhanced version of the Multi- Objective-Trust Centric Artificial Algae Algorithm (MO-TCAA) to address these challenges. The algorithm is designed to improve the robustness of routing protocols in WSNs, ensuring efficient and secure data transmission while maintaining high levels of QoS. Through this innovation, the paper provides a novel approach to enhance trust management, security protocols, and the overall efficiency of data routing in IoT- enabled applications.

This research offers a meaningful contribution to the field of Wireless Sensor Networks (WSNs), especially in real-time IoT applications where security, QoS, and network sustainability are paramount.

Book Details:

Title: Security and Privacy Issues for IoT and WSN-based Real-time Applications
Publisher: CRC Press, Taylor & Francis Group
Book DOI: https://doi.org/10.1201/9781003491910

QOS Aware Secure Cluster Based Routing for Wireless Sensor Networks Using enhanced Multi Objective-Trust Centric Artificial Algae Algorithm

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Abstract. Wireless sensor networks (WSNs) are being evolved as a vital mechanism to monitor and pursue various implementation these days. Security and energy usage, however, are seen as crucial WSN challenges. The multi objective-trust centric artificial algae algorithm (M-TCAAA) is presented in this study as a means of achieving secure broadcasting over the WSN. Based on many fitness criteria including trust, leftover energy, node degree and transmission cost, the suggested M-TCAAA is utilized to select the routing path and secure cluster head (SCH). As a result, M-TCAAA is employed to guarantee safe data transfer although lowering node power consumption. The power utilization, proportion of packets delivered (PDR), overall delay (EED), throughput, normalized routing load (NRL), and network durability are utilized to assess efficiency of M-TCAAA. For evaluating the M-TCAAA, the following research works are taken into consideration: energy aware trust and opportunity-based routing with mobile nodes (ETOR-MN); grey wolf updated whale optimization (GUWO); secure cluster-based routing protocol (SCBRP); secure routing protocol based on multi-objective ant-colony optimization (SRPMA); and multi objective trust aware hybrid optimization (MOTAHO). Compared to the ETOR-MN, GUWO, SRPMA, and MOTAHO, the PDR of the M-TCAAA for 100 nodes is larger at 99.87%.

Keywords: Multi objective-trust centric artificial algae algorithm, Packet delivery ratio, Power consumption, Wireless Sensor network

DR. SUPRAJA EDURU

Dr. Supraja Eduru, Assistant Professor, Department of Electronics and Communication Engineering from Dayananda Sagar University (DSU) has been recognized for her outstanding contribution as an Academic Mentor in the Student Mentorship Program (SMP) 2024, organized by the IEEE India Council Industry Academia Young Professionals Committee (IAYPC).

The mentorship program, conducted from August 20, 2024, to December 20, 2024, aimed at enhancing the professional growth of mentees by fostering knowledge exchange and skill development. Dr. Supraja's dedicated involvement and expertise significantly benefited the mentees, making a substantial impact on their academic and professional journey.

This achievement highlights DSU's commitment to academic excellence and active participation in prestigious IEEE initiatives.

The Department of Electronics and Communication Engineering at Dayananda Sagar University is delighted to recognize Dr. Supraja Eduru for her outstanding contributions as a peer reviewer for esteemed international journals.

Dr. Supraja Eduru has been awarded Reviewer Certificates by Wiley for her expert reviews in the following journals:

- International Journal of Communication Systems – for reviewing two manuscripts in 2024
- International Journal of Antennas and Propagation – for reviewing one manuscript in 2024

These prestigious recognitions highlight her dedication to academic research and her valuable contributions to the field of communication systems, antennas, and propagation. The department congratulates her on this achievement and appreciates her commitment to advancing scholarly research.

Dr. Supraja Eduru, Assistant Professor in the Department of Electronics and Communication Engineering at Dayananda Sagar University, has successfully contributed to the transcription editing of multiple NPTEL courses using advanced Machine Learning tools.

She actively participated in the NPTEL TransLingua and Chitralekha platforms, refining course content for accessibility and clarity. Her contributions include:

- "Introduction to Soft Computing" (IIT Kharagpur) – 6.25 hours of transcription editing
- "Engineering Fracture Mechanics" (IIT Madras) – 4.5 hours of transcription editing
- "Sociology of Science" (IIT Roorkee) – 6 hours of transcription editing

Her efforts enhance the accessibility of technical and interdisciplinary content, supporting learners across diverse backgrounds. This contribution highlights the department's commitment to academic excellence and technological advancements in education.

We are pleased to announce that Dr. Supraja Eduru, Assistant Professor, Department of Electronics and Communication Engineering from Dayananda Sagar University has been recognized for her valuable contribution as a Reviewer at the 3rd IEEE International Conference on Knowledge Engineering and Communication Systems (ICKECS-2025). The prestigious event was organized by SJC Institute of Technology in association with the IEEE Bangalore Section on April 28–29, 2025.

Her efforts in reviewing research papers have significantly contributed to upholding the quality and integrity of the conference.

Dr. Supraja Eduru, Assistant Professor, Department of Electronics and Communication Engineering, School of Engineering at Dayananda Sagar University, Bangalore, has been honored with a Certificate of Appreciation for her role as an Expert Reviewer at the prestigious IEEE Bangalore Humanitarian Technology Conference (BHTC) 2025.

The conference was held on 25th April 2025 and was organized by the IEEE Bangalore Section in collaboration with IEEE NKSS, hosted at KLS GIT Belagavi. As a reviewer, Dr. Supraja played a key role in evaluating technical papers, contributing to the high-quality standards of the conference and supporting impactful humanitarian technologies.

This recognition highlights her dedication to academic excellence and her valuable contributions to the global research community. We extend our heartfelt congratulations to Dr. Supraja for this significant achievement.

We are pleased to share that Prof. Supraja Eduru, Assistant Professor, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, was honoured with a Certificate of Appreciation for her valuable contribution as a reviewer at the Second IEEE International Conference on Electronics, Communication, Computing and Control Technology (IEEE ICECCC 2025).

The conference was hosted by the Department of Electronics and Communications Engineering, CMR Institute of Technology, Bengaluru, on 1st and 2nd May 2025. Prof. Supraja reviewed research papers submitted to the conference, contributing to the maintenance of high-quality academic standards and promoting scholarly excellence.

This recognition reflects her active engagement in the international research community and reinforces the department's commitment to academic leadership and professional development.

Certificate of Appreciation — BHTC 2025, IEEE Bangalore Humanitarian Technology Conference. This is to recognize the contribution of Dr. Supraja Eduru, Dayananda Sagar University, as Expert Reviewer for IEEE Bangalore Humanitarian Technology Conference BHTC - 2025, held on 25th April 2025, organized by IEEE Bangalore Section in collaboration with IEEE NKSS hosted at KLS GIT Belagavi. IEEE Conference ID: 64616

Certificate of Appreciation — CMR Institute of Technology

Dr. Supraja Eduru Assistant Professor, Department of Electronics and Communication Engineering has successfully completed the transcription editing task using the Machine Learning Tool - Chitralekha for the NPTEL course "Cloud Computing and Distributed Systems (106104182)" offered by IIT Kanpur. The task involved meticulous editing and verification of course content, contributing a total of 5.5 editing hours. This accomplishment demonstrates her commitment to fostering accessible and accurate educational resources.

Congratulations to Supraja Eduru for this commendable achievement and for supporting open learning initiatives.

Dr. Supraja Eduru Assistant Professor, Department of Electronics and Communication Engineering has successfully completed the transcription editing task using the Machine Learning Tool - TransLingua for the NPTEL course "Integral and Vector Calculus (111105122)" offered by IIT Kharagpur. Her contribution involved 4.75 editing hours, ensuring the accuracy and accessibility of educational content for learners.

This accomplishment reflects her dedication to supporting the dissemination of quality academic resources. Congratulations to Supraja Eduru for her continued commitment to impactful learning initiatives.

DR. OWAIS AHMAD SHAH

Dr. Owais Ahmad Shah, Assistant Professor, Department of Electronics and Communication Engineering from Dayananda Sagar University, Bangalore, Karnataka, actively participated in an AICTE-Recognized Faculty Development Programme (FDP) hosted by the National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh.
The one-week FDP, conducted from March 3 to March 7, 2025, was organized by the Electronics and Communication Engineering Department and focused on the theme: "Teaching ECE Lab Subjects Using Free Simulators."

We are proud to announce that Owais Ahmad Shah, Assistant Professor, Department of Electronics and Communication Engineering from Dayananda Sagar University, Bangalore, Karnataka, has successfully participated in the AICTE Recognized Faculty Development Programme on Outcome-Based Education and Accreditation Process.

This program was conducted by the Curriculum Development Centre Department of the National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, from November 25, 2024, to November 29, 2024.

We congratulate Mr. Owais Ahmad Shah on this accomplishment and his commitment to academic excellence.

We are proud to announce that Dr. Owais Ahmad Shah, Assistant Professor, Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, has contributed to a research paper published in IEEE Xplore.

Titled "Predictive Modeling of Compressive Strength in Coconut Shell-Embedded Concrete Using Ensemble Regression Models," the study applies machine learning techniques to optimize sustainable concrete materials. Dr. Shah's expertise in AI-driven predictive modeling enhances the accuracy of compressive strength estimations, contributing to eco-friendly construction innovations.

This achievement underscores his commitment to interdisciplinary research and sustainability. Congratulations to Dr. Owais Ahmad Shah on this well-deserved recognition.

MR. SHARANBASAVARAJU

Prof. Sharanabasavaraj S. R., Assistant Professor, Department of Electronics and Communication Engineering, served as a mentor during the 30-Day On-the-Job Training (OJT) Program for employees of Strides Pharma Science Limited, Bengaluru, held from 13th February to 25th March 2025 at the School of Engineering, DSU – Harohalli Campus. The program witnessed participation from 28 employees.

He also conducted a One-Day Training Session on "CCTV Monitoring System" on 19th March 2025, organized by the Department of Mechanical Engineering. His valuable contributions were recognized with a Certificate of Appreciation.

MR. PUNEETH S

Mr. Puneeth S, Assistant Professor at Dayananda Sagar University, successfully completed the AICTE- ATAL Faculty Development Program on "Importance of Artificial Intelligence in Robotics" at IIITDM Kurnool from January 20-25, 2025. The program focused on AI applications in robotics, enhancing research and teaching methodologies. This achievement reflects his dedication to advancing expertise in emerging technologies.

Mr. Puneeth S, Assistant Professor at the Department of Electronics and Communication Engineering, Dayananda Sagar University, successfully completed the AICTE Training and Learning (ATAL) Academy Faculty Development Program (FDP) on Next-Gen Computing: Exploring Supercomputing, AI, and Quantum Technologies.

The FDP was conducted at National Institute of Technology Sikkim from February 10 to February 15, 2025.

This program provided valuable insights into emerging computational technologies, including high-performance computing, artificial intelligence, and quantum computing, equipping faculty with the latest advancements to enhance research and pedagogy.
Such professional development initiatives align with the department's vision to stay at the forefront of technological innovations and contribute to high-quality education and research.

We are pleased to announce that Puneeth S, Assistant Professor Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, has co- authored a research paper titled "Integrating Beetle Swarm Optimization into Cross-Layer Routing for Improved QoS in Cluster-Based WSNs".

This paper was presented at the 2024 IEEE 4th International Conference and focuses on enhancing the efficiency of cluster-based wireless sensor networks (WSNs) using Beetle Swarm Optimization (BSO) integrated with an improved Dynamic Source Routing (DSR) approach. The research highlights the advantages of Cross-Layer Design (CLD) in optimizing energy consumption, network bandwidth, and routing efficiency in wireless sensor networks.

This significant achievement showcases the department's commitment to cutting-edge research in wireless communication, optimization algorithms, and IoT networking.

Congratulations to S. Puneeth and the entire research team for their outstanding contribution to the field of Wireless Sensor Networks and Cross-Layer Optimization.

Integrating Beetle Swarm Optimization into Cross-Layer Routing for Improved Qos in Cluster-Based Wsns

MR. NADEEM PASHA

We are proud to announce that Mr Nadeem Pasha, Assistant Professor, Department of Electronics and Communication Engineering successfully presented a research paper titled "QoS-Driven Cluster Head Selection Optimization in Heterogeneous Wireless Sensor Networks for IoT Applications" at the 2nd IEEE International Conference on Innovations in High-Speed Communication and Signal Processing (IEEE-IHCSP 2024). The event took place from 6th to 8th December 2024 at Maulana Azad National Institute of Technology, Bhopal.

The presentation showcased innovative research on optimizing cluster head selection in IoT- enabled wireless sensor networks, emphasizing enhanced Quality of Service (QoS).

We congratulate Mr. Nadeem Pasha on this remarkable achievement and his valuable contribution to this prestigious conference.

MS. JISY N K

Prof. Jisy N K presented a research paper titled "Fundus image Classification – A Comparison of GAN-based Augmentation Techniques," in the 9th International Conference on Information System Design and Intelligent Applications, ISDIA 2025. The conference was held on January 3-4, 2025, organized by the University of Wollongong in Dubai.

Prof. Jisy N K., Assistant Professor, and Dr. Vinu R., Associate Professor in the Department of Electronics and Communication Engineering, published an Indian patent. The details of the patent published are mentioned below:
Patent Title: A SMART ECG SYSTEM USING MACHINE LEARNING FOR EARLY DETECTION OF SLEEP APNEA AND CARDIAC ABNORMALITIES.
Publication Date: 30/05/2025
Inventors: Meghana A Aathreya, Jisy N K, Ramadhas
Vinu, Application No. 202541045461 A


Prof. Jisy N K has successfully presented a scholarly research work at ISDIA 2025, held on January 3–4, 2025, contributing significantly to academic knowledge and innovation."
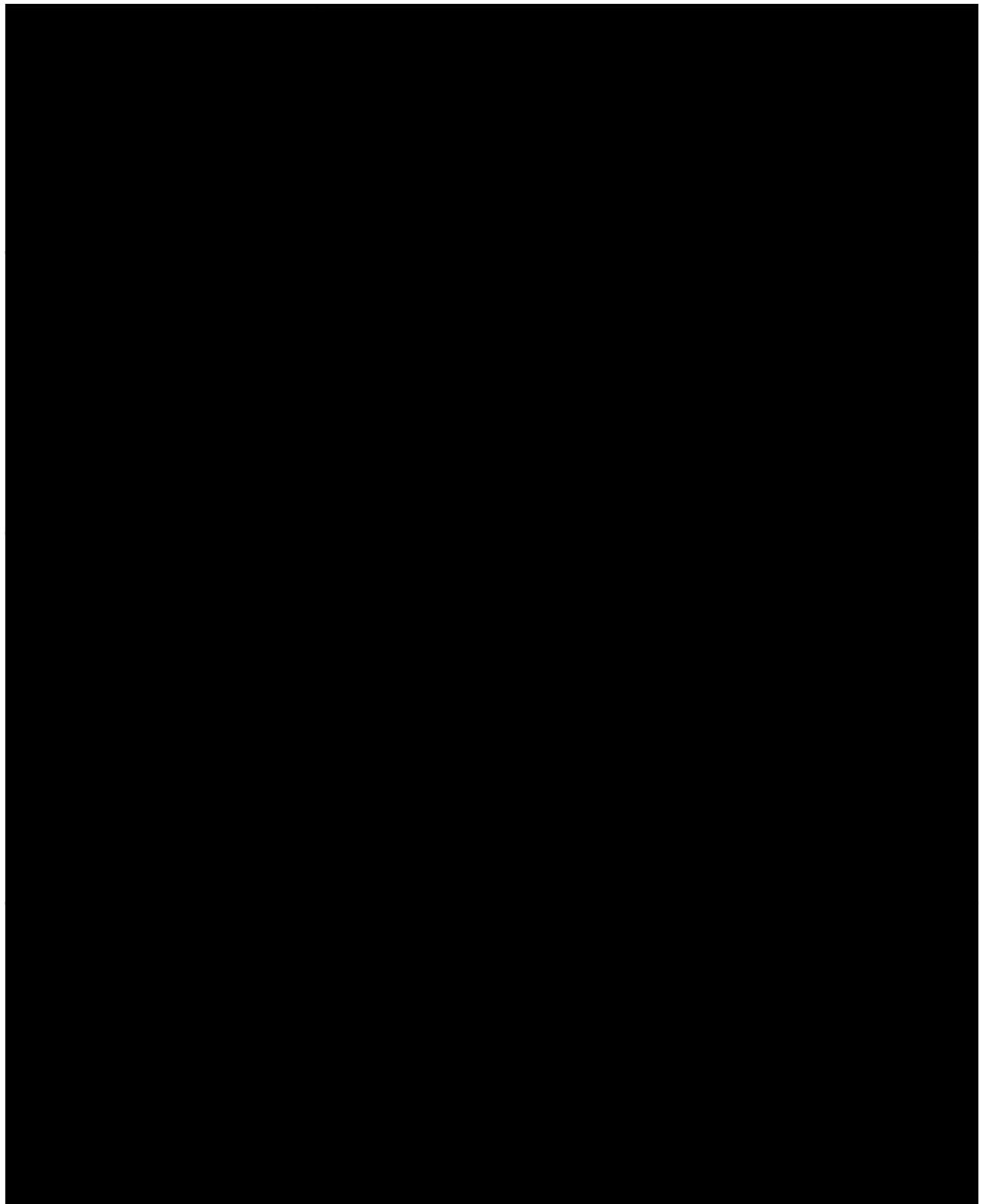
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PRATHAMESH M NAIK

SAATVIK S

VINOD

SHRAVAN GADAVI

VIKRAM ADHITYA

JEEVAN K M

SAI INCHARA

ANKITHA N S

DEPARTMENT FACULTY

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Assistant Professor