2025

VOLUME 2

ELECTROVERSE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DPG INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(APPROVED BY AICTE, DTE AND AFFILIATED TO MDU ROHTAK)

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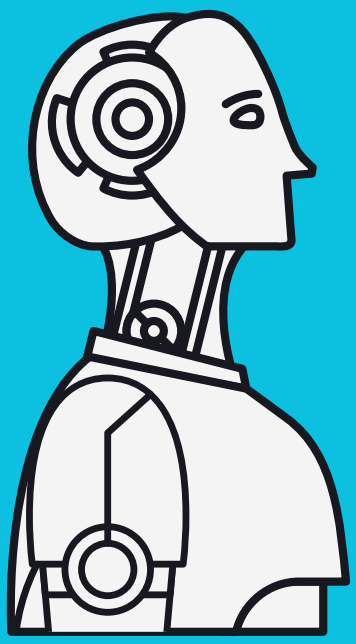
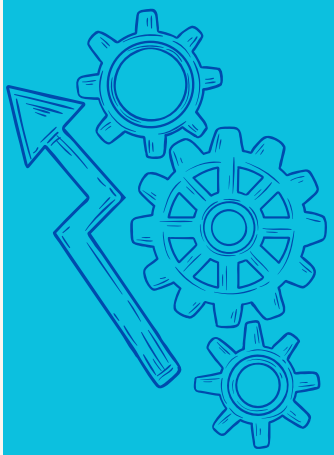
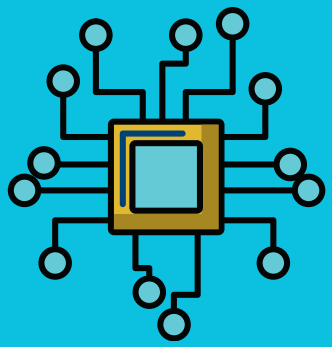


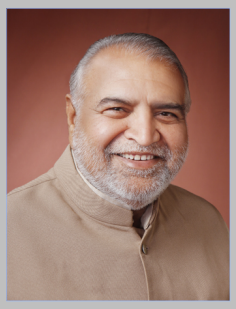




INSTITUTION AT A GLANCE

DPG Institute of Technology and Management (DPGITM), Gurgaon was established in 2011 with the vision of providing quality technical and professional education. The institute is approved by AICTE, New Delhi, and is affiliated with Maharshi Dayanand University (MDU), Rohtak. Spread over a lush green campus of 23 acres, DPGITM offers a well-structured academic environment supported by modern infrastructure. The college has experienced and dedicated faculty members who emphasize both theoretical knowledge and practical skills. Well-equipped laboratories, smart classrooms, and a disciplined, student-friendly campus enhance the learning experience. The institute actively promotes research, innovation, and industry interaction through seminars, workshops, and industrial visits, aiming at the overall personality development and career readiness of students.

FROM THE DESK

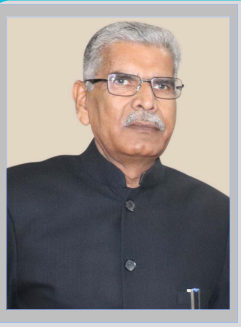


Sh. Gopi Chand Gahlot (Chairman)

DPG Institute of Technology & Management has earned a strong reputation for excellence in Technology and Management under the guidance of Chaudhary Harnarain Singh Trust. I wish the ECE Department the very best for this new initiative and its continued success.

Dr. Preeti Gahlot (Managing Director)

At DPG ITM, we aim to build a better world through education, research, and innovation. We empower students in science, engineering, and management with strong academics and holistic growth. Our focus is on developing talent, driving ideas, and creating real-world solutions for a sustainable future.



Prof. R. C. Kuhad (Director)

I extend my heartfelt congratulations to the faculty and students of the ECE Department. In today's era of rapid advancements like 5G, IoT, AI, and semiconductors, bridging the gap between academic learning and industry skills is crucial. Engineering faculties must adapt teaching methods to prepare students for real-world demands.

Prof. T.R. Narula (Registrar)

We are proud to present the issue of the ECE departmental newsletter—a reflection of our faculty and students' dedication, creativity, and vision. With gratitude to the management and editorial team, this platform aims to inspire, highlight achievements, and pave the way for future milestones.

Dr. Sonu Rana (HOD ECE)

The ECE Department fosters innovation, leadership, and ethical Engineering through a strong academic foundation and hands-on learning. With well-equipped, upgraded labs and regular seminars by academic and industry experts, it supports the growth of both students and faculty. We welcome you to be a part of our undergraduate or postgraduate programs.

DPG INSTITUTE OF TECHNOLOGY & MANAGEMENT, Gurugram

GOOD PRACTICES

Governance Enabling Efficient Resource Management

Enabling Institution for holistic growth through a focussed workplace readiness and optimization approach.

Strengthening Personalized Learning

Focusing onindividual student needs and learning styles to create personalized learning environment.

Mentor-Mentee System

Sharingand caringtoEnhance personal and Professional growth.

Excellence in Teaching and Learning

Setting benchmarking and adopting effective teaching and learning pedagogies to deliver the content in best possible way

Facilitating Faculty Development & Capability Building Program

Encouraging toattendFDPs and organizing various FDPs and capability-building programs.

Promoting Indian Knowledge based System

Inculcating ethical values and acquainting learners with Indian tradition & culture by including it in curriculum and celebrating festivals and organizing cultural programs

Empowering Students With Skills

Preparing students fortherequired skillsto take updemandingjobs/ responsibilities in industries/ corporate sectors/ academic institutions

Establishing Academic-Industry Collaboration

Bridging the gap throughengagingthe industry in Academicadvisory board, departmental committee, and joint organization of workshop, seminar, training and internships for students.

Creating an Innovative Research Ecosystem

Developing an environmentfor sharingnew and innovativeideas and developing scientific aptitude. Inculcating habit of ideation and creativity.

Providing Placement Opportunities

Organisingvarioustrainng programs and placement drives to get maximum placements.

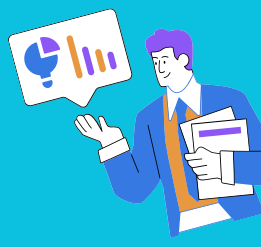
Social Outreach & Community Connect

Touphold themoralvaluesand individual responsibilities towards nature and society by strongly connecting with communities.

Building Strong Alumni Network

Participationofalumni in academic improvement and also playing an inspirational role in professional growth of students.

"Unique approach that definesgovernance enablingefficient resource management to achieve excellence in ethics based academics,research andinnovation to meet global educational standards."



ABOUT DEPARTMENT

Electronics and Communication Engineering (ECE) is a rapidly evolving field that forms the foundation of modern technology, driving innovations in integrated circuits, wireless communication, artificial intelligence, healthcare, and sustainable energy. It blends strong theoretical concepts with practical applications to design and advance systems that shape everyday life.

This newsletter serves as a platform for the ECE Department at **DPG Institute of Technology and Management, Gurugram, affiliated with MDU Rohtak**, to connect students, faculty, alumni, and the wider community. It highlights the scope of ECE, emerging trends, career pathways, and departmental achievements, aiming to inform, inspire, and showcase the department's academic and technological excellence.

Why Electronics & Communication Engineering (ECE)?

Electronics and Communication Engineering lies at the heart of modern technology, powering everything from communication systems and embedded devices to automation, AI-enabled hardware, and emerging nano technologies. With electronics playing a vital role in everyday life, ECE offers vast opportunities across telecommunications, electronics, energy systems, and interdisciplinary domains. The field encourages innovation at the intersection of hardware and software, making it ideal for students who aspire to build, design, and innovate solutions for real-world challenges while staying aligned with rapidly evolving technological advancements.

Academic Programmes:

Programme	Duration	Intake
B. Tech ECE	4 Years	30
B.Tech ECE (LEET)	3 Years	3
M.Tech ECE	2 Years	18

INSTITUTIONAL VISION

DPG Institute of Technology and Management is committed to ensuring that students are provided quality knowledge in engineering & technology and educating them to become engineers that pursue dynamic global careers. The institution guarantees an atmosphere which contributes educational success while providing an environment that values diversity in its community.

INSTITUTIONAL MISSION

DPG Institute of Technology and Management serves to bestow the quality education to produce the broadly educated engineers, conducting quality research, developing breakthrough technologies along with disseminating and conserving technical knowledge, skill and value based holistic education.

VISION OF DEPARTMENT

To produce creative, innovative and skilled Electronics & Communication Engineer with ethical integrity, morality and technical focus to meet socio- economic needs.

MISSION OF DEPARTMENT

- Establish a unique learning & teaching process to provide deep knowledge to prepare the students to face the challenges of Electronics & Communication field.
- Enable student to develop skill to solve complex technological problems through innovations and group learning experiences which enhance the skills, leadership quality and employability.
- To inculcate self-learning attitude through experiential learning process and to imbibe the spirit of responsible professionalism by making the students technically sound.

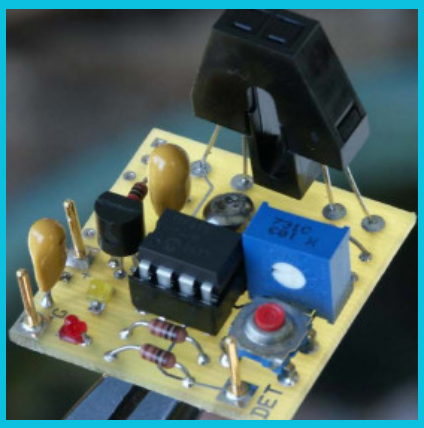
OUR STRENGTHS

1) Communication System Lab:-
Students explore analog and digital communication by building AM, FM, and PM circuits. This hands-on experience deepens understanding and builds interest in communication concepts.

4) Digital Signal Processing Lab:-
This lab trains students to design and simulate signal processing systems using MATLAB, bridging theory with real-world digital applications.

6) Microcontroller Lab:-
Students learn microprocessor concepts and assembly language, while exploring peripheral device interfacing and performance evaluation.

2) Digital Electronics Lab:-
Equipped with advanced tools, this lab helps students design and test digital and mixed-signal circuits. Extended hours and expert guidance support mini projects and team-based learning.



5) Mini Project Lab:-
Students build practical skills in circuit design, soldering, and troubleshooting, culminating in project development using core electronic concepts.

7) Wireless & Satellite Communication Lab:-
This lab offers hands-on training in uplink/downlink, signal transmission, and multiplexing using satellite and CDMA trainer kits.

3) Analog Electronics Lab:-
This lab bridges theory and practice, helping students understand analog circuits and their characteristics through practical experiments.

8) Computer Network Lab:-
Students work on networking concepts like IoT, 5G, and cloud computing through projects and experiments in a hands-on environment.

CULTURAL MOMENTS

The academic year witnessed a vibrant blend of celebrations, national events, and institutional milestones. These moments reflect the cultural richness, unity, and spirited campus life that contribute to holistic development beyond classrooms.

Beginning of a new academic journey.

Earth Day 2025.

Engineer's Day 2025

Freedom Fest

Orientation Program

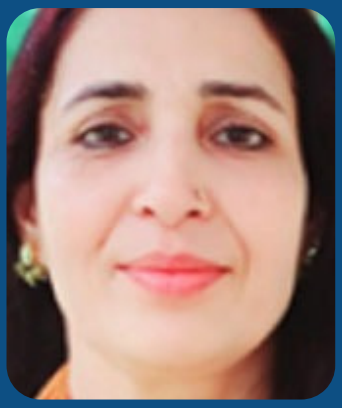
FACULTY PROFILE

Dr. Sonu Rana, HOD (ECE) plans to continue her research on compact and high-performance antennas for next-generation wireless systems. She aims to design reconfigurable and MIMO antennas that can support even higher data rates and better signal quality for 6G and advanced IoT applications. Her goal is to contribute towards the development of smart, energy-efficient communication systems that meet the growing demands of future wireless technologies. She also plans to collaborate with industry and academic institutions to bring innovative antenna designs into practical use.

Ms. Rashmi Wadhwa, Asst. Proff. in ECE department plans to extend her research by enhancing the OLSR protocol through the integration of artificial intelligence and machine learning techniques to further improve routing efficiency and adaptability in highly dynamic networks. She also aims to explore hybrid routing models that combine the strengths of both proactive and reactive protocols for better performance in large-scale MANETs. Her future work will focus on real-time applications in disaster recovery, military operations, and vehicular networks, ensuring reliable communication even in the most challenging environments.

Ms. Mona Gaur, Asst. Proff in department of ECE has actively contributed to research in speech processing and signal analysis. Her work includes published papers in national and international conferences focusing on Hindi phoneme recognition, acoustic analysis of speech signals, and automatic speaker recognition using MATLAB. She has also enhanced her expertise by attending workshops and short-term courses on Artificial Intelligence, Automatic Speech Recognition (ASR), VLSI design, embedded systems, and pronunciation standards for Indic languages, organized by reputed institutions such as JNU, IIT Kharagpur, and Osmania University.

Ms. Gulrukh Sahab, Asst. Proff. in department of ECE plans to expand her research by developing more advanced emotion recognition systems using real-time data and multimodal inputs such as voice, gesture, and physiological signals. She aims to integrate her work into smart healthcare systems, where emotional understanding can support mental health monitoring and patient care. She also plans to collaborate on projects involving human-robot interaction and AI-based surveillance to enhance safety and communication. Her goal is to create intelligent systems that respond to human emotions more naturally and effectively across various fields.



Ms. Archana Dahiya, Asst. Proff. in the Department of ECE, is currently pursuing her Ph.D. in Nanoelectronics. Her research interests include charge, spin, and valley transport in complex oxides and topological insulators, along with nanoelectronic devices and advanced functional materials. She has published 12 journal papers and brings 14 years of teaching experience at undergraduate and postgraduate levels, actively contributing to research guidance, laboratory development, and innovative teaching-learning practices.

Ms. Vimal, Asst. Proff. in the Department of ECE, has completed her B.Tech and M.Tech in Electronics and Communication Engineering. She has published four research papers in reputed journals. Her areas of interest include Digital Electronics, Wireless Communication, and Microprocessors. She is a dedicated faculty member with a strong focus on conceptual clarity. She actively supports and guides students in their academic and technical development.

EVENTS FOR AWARENESS

Visit: Yashobhoomi, Dwarka, Delhi

GITM Gurugram Hackathon 2025.

Visit: Netwok Bulls, Gurugram

Visit: Income tax office , Gurugram

Hackathon at NSUT, Delhi

Donation drive at Gurugram

These visits and events enhanced students' practical exposure and industry awareness.

INDUSTRY–ACADEMIA CONNECT

Industry-oriented training and academic enrichment initiatives of the ECE Department.

Industry Workshop

Hands-on technical training conducted by industry professionals to enhance practical skills of ECE students.

Skill Connnect

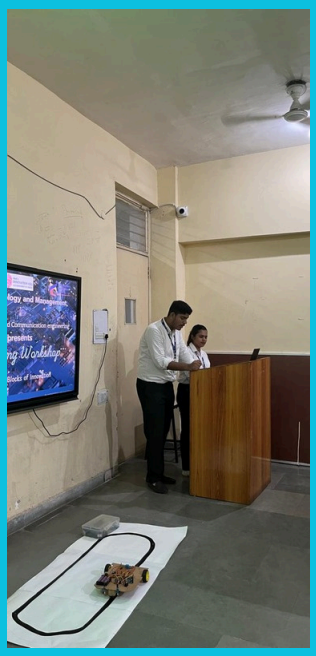
Learning beyond textbooks through industry interaction.

Network Bulls: Industry Interaction

Expert sessions and student exposure visits bridging academic learning with real-world networking technologies.

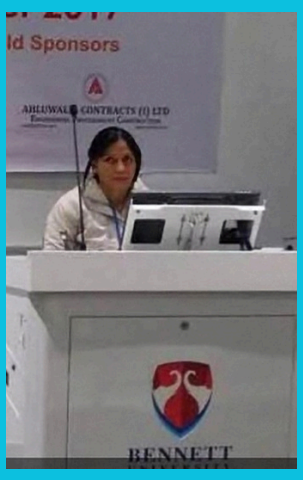
Circuit Crafting Workshop

Peer-led, hands-on session by senior students for first-year students.



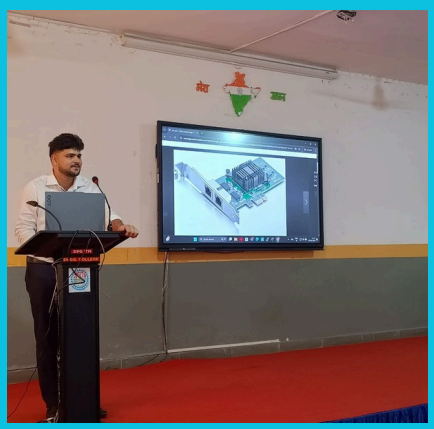
Faculty Academic Engagement

Faculty participation in conferences and formal academic inaugurations.



NETWORKING ESSENTIALS

SESSION OVERVIEW



INDUSTRY RELEVANCE

The workshop highlighted current industry trends in networking and helped students understand the practical skills required for careers in networking and communication technologies.

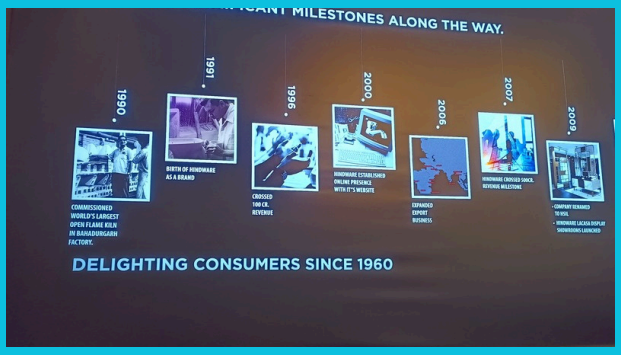
LEARNING OUTCOMES

Students gained practical insights into networking tools, protocols, and industry practices, strengthening the link between theory and application.

STUDENT ENGAGEMENT

The session encouraged active participation and enhanced students' technical awareness and industry readiness.

LEARNING BEYOND CAMPUS



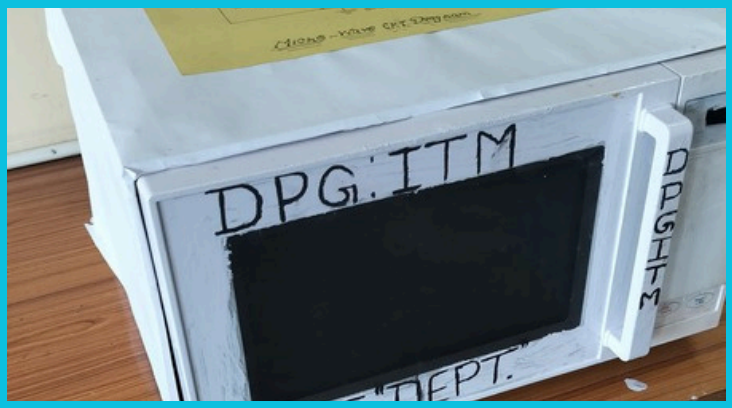
Industrial Exposure

As part of our experiential learning initiative, students participated in an industrial visit that offered real-world exposure to professional work environments and large-scale operations. The visit helped bridge the gap between classroom theory and practical implementation, giving students a clearer understanding of industry standards, workflow management, and emerging technologies used in real production settings. Interacting with industry professionals also provided valuable insights into career paths and workplace expectations.

Professional Experience

Alongside academics, students actively engaged in internships that allowed them to apply their technical knowledge to real projects and problem-solving scenarios. These internships enhanced practical skills, professional communication, and adaptability while working in dynamic team environments. The experience not only strengthened students' resumes but also boosted confidence, clarity of career goals, and readiness for future industry challenges.

TECHNOLOGY IN ACTION

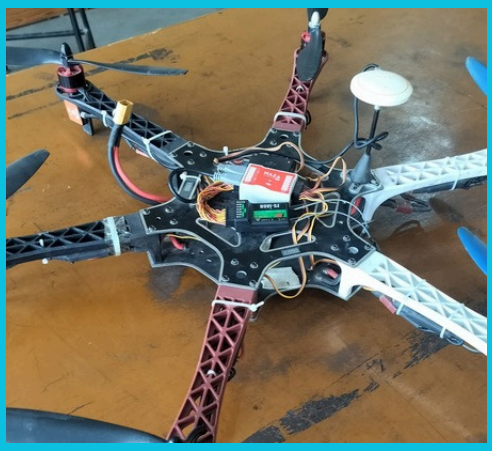


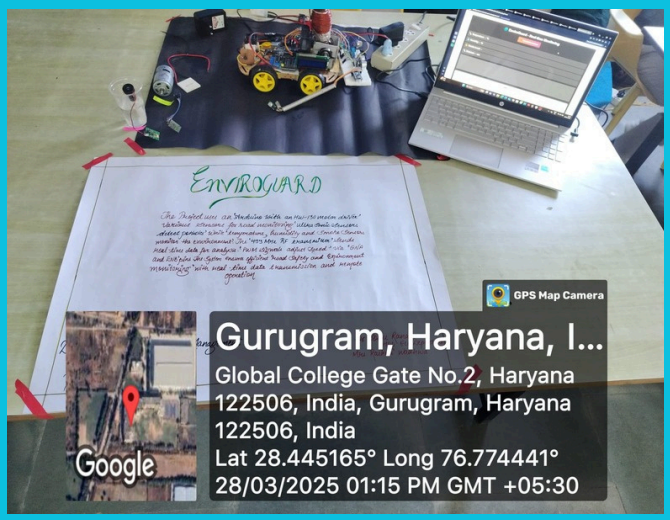
Innovation through Engineering

This section showcases a collection of projects developed by Electronics and Communication Engineering students. Each project reflects practical problem-solving, hands-on hardware implementation, and the application of core ECE concepts to real-world challenges.

Hardware based System Design

These projects focus on embedded systems, sensor integration, and microcontroller-based solutions. Emphasis is placed on circuit design, component interfacing, and real-time system behavior to build reliable and efficient prototypes.





IoT and Smart Technology Applications

Several projects demonstrate the use of IoT in areas such as smart agriculture, automation, and monitoring systems. By combining sensors, communication modules, and data analysis, students explore intelligent solutions for modern technological needs.

Robotic car

This is a hospital service robot model that uses a mobile robot with a robotic arm to deliver or handle medical items inside a hospital, helping reduce human effort and improve safety.

Embedded Robotics

This setup represents an embedded systems and robotics laboratory project where a microcontroller is being interfaced with a robotic vehicle. It demonstrates practical work such as circuit wiring, controller programming, and hardware testing to develop and control a mobile robot.

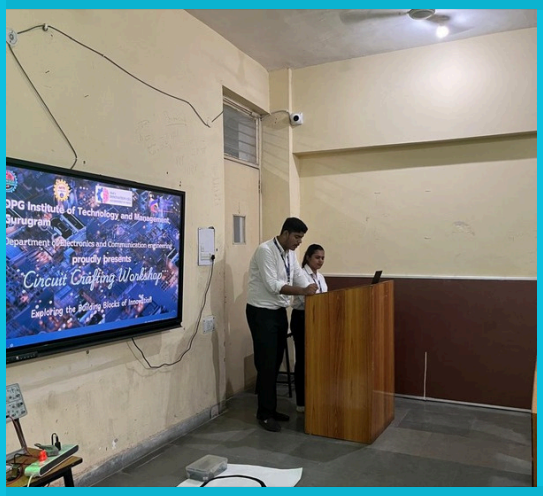
AQI Monitoring Project

The AQI monitoring project is designed to measure and display real-time air pollution levels using environmental sensors and a microcontroller. The system analyzes pollutant data and presents the air quality status on an LED display. Such projects help raise awareness about air pollution and support effective environmental monitoring for healthier living conditions

EXPERIENTIAL LEARNING

PEER LEARNING INITIATIVE

The Circuit Crafting Workshop was conducted as a peer-led initiative, where senior ECE students guided first-year students through basic circuit design and implementation.



HANDS ON LEARNING

The workshop focused on practical understanding of electronic components, circuit connections, and problem-solving through real-time demonstrations and active student participation.

STUDENT ENGAGEMENT

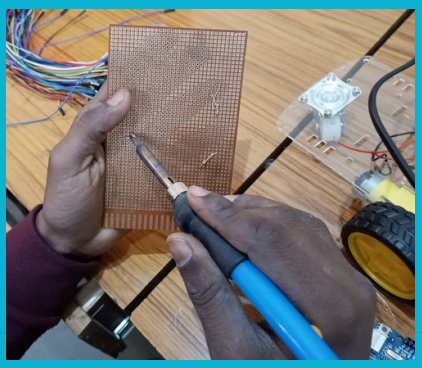
The session encouraged interactive learning, teamwork, and curiosity among first-year students, helping them build a strong foundation in core electronics concepts.

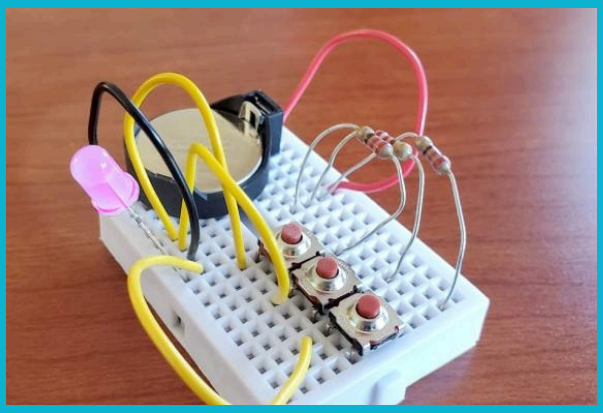
Such peer-led workshops promote collaborative learning and technical confidence among students.

EMPOWERING STUDENTS WITH SKILLS

Students work on advanced trainer kits to understand practical concepts of mobile communication. Real-time signal analysis and waveform observation on CRO helped bridge theoretical knowledge with hands-on experimentation.

The session provided students with hands-on experience in PCB soldering and circuit assembly, enhancing their practical understanding of hardware design and electronic connections.





Students implemented a basic LED control circuit on a breadboard using switches and resistors, gaining hands-on experience in circuit wiring and component interfacing.

INNOVATION SPRINT

The Smart Growth Pole

It is an IoT-based smart agriculture project designed to monitor soil and environmental parameters such as moisture, temperature, humidity, and nutrient levels. Using sensors and an ESP32 microcontroller, the system provides automated irrigation control and crop-specific water and fertilizer recommendations, helping improve crop yield and reduce resource wastage.
The project demonstrates practical applications of embedded systems and IoT in precision farming and was successfully presented at NSUT, Delhi.

Feature Spotlight

Student Innovation

This section highlights innovative student projects that demonstrate practical application of IoT, embedded systems, and problem-solving skills. These projects reflect students' ability to transform ideas into working prototypes while addressing real-world challenges through technology, teamwork, and creativity.

The Enviroguard

EnviroGuard is an Arduino-based smart robotic system developed for road safety and environmental monitoring.

It uses ultrasonic, temperature, humidity, and smoke sensors to detect obstacles and monitor surroundings, with real-time data transmission and remote operation for efficient and safe navigation.

Legacy

The spirit of freedom is etched in the heart of our nation. As we celebrate our independence, we honor the rich traditions and the timeless values that define us. Our past is the foundation of our glorious future.

CULTURAL SPECTRUM

Beyond the colors of the tricolor and the echoes of the anthem, our true independence lies in the courage to innovate, the freedom to learn, and the unity to grow together as one nation.

Independence Day on campus is more than just a ceremony; it is a vibrant display of our shared identity. From the early morning flag hoisting to the patriotic songs echoing through the corridors, every moment was a celebration of the freedom we often take for granted. Seeing our peers come together in such a unified spirit reminds us that the heart of our nation beats strongest in its youth.

Unity, Diversity and Education

The atmosphere across our campus today was nothing short of electric, as students and faculty gathered to celebrate the 79th Independence Day. The morning began with the solemn flag hoisting ceremony, where the sight of the tricolor unfurling against the blue sky filled every heart with a profound sense of gratitude. This celebration isn't just an annual tradition; it is a powerful reminder of the sacrifices made by our ancestors.

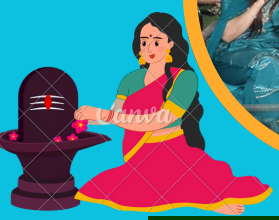
As we look back at the frames captured during today's festivities, we are reminded of our responsibility as students. Freedom gave us the right to education and the power to dream big. These photographs stand as a silent pledge that we will use our knowledge to build a stronger, more inclusive India, honoring the past while fearlessly embracing the challenges of the future.

TEEJ CELEBRATIONS

Teej was celebrated with warmth and cultural pride, highlighting traditional attire, joyful participation, and a strong sense of community among faculty members.

Campus Spirit

The celebration encouraged togetherness, cultural awareness, and a strong sense of community among students, promoting harmony and mutual respect.



Cultural Participation

Students and faculty took part in the celebration wearing traditional attire, creating a joyful and culturally enriching atmosphere across the campus.

Holistic Development

Such cultural events contribute to the overall development of students by nurturing social values, cultural understanding, and institutional pride.

CELEBRATING GROWTH AND GRADUATION

The campus was filled with a sense of new beginnings as we hosted the Orientation Program for the incoming batch of 2026. Celebrated with great enthusiasm, the event served as a bridge between the students' past achievements and their future aspirations. The ceremony began with an inspiring keynote address that highlighted the core values of our institution—integrity, excellence, and the relentless pursuit of knowledge.

The sessions were meticulously designed to provide the newcomers with a comprehensive roadmap of their academic journey. From introducing the world-class faculty to explaining the innovative curriculum and campus facilities, every detail was covered to ensure a smooth transition. The interactive workshops allowed students to engage with their mentors, helping them align their personal goals with the institution's vision for holistic development.

As the program drew to a close, there was a palpable sense of belonging among the new students. The day wasn't just about information; it was about building a community of scholars who are ready to challenge the status quo. With a spirit of curiosity and determination, the new batch is now prepared to embark on a transformative experience that will shape them into the leaders of tomorrow.

NAVAAGAT – CULTURAL EMBRACE FOR NEW JOURNEYS.

The Freshers' Party was organized to extend a warm welcome to the newly admitted students. The event was filled with joy, interactive activities, and vibrant performances that created an energetic and cheerful atmosphere.

Senior students and faculty members actively participated, helping freshers feel comfortable and connected. The celebration encouraged bonding, confidence building, and a strong sense of belonging within the department.

TRENDS TECHNOLOGIES SHAPING THE FUTURE

5G Antenna Technology

Microstrip antennas play a vital role in modern wireless communication systems, especially in IoT and 5G applications. Their compact size, low profile, and lightweight structure make them suitable for small and portable devices. A microstrip antenna consists of a radiating patch, a dielectric substrate, and a ground plane. These antennas can be easily fabricated using PCB technology, which reduces cost and supports easy integration with circuits. In IoT applications, devices require low power consumption and reliable connectivity, which microstrip antennas effectively provide. They are widely used in smart homes, healthcare monitoring, wearable devices, and industrial automation. Multiband and wideband microstrip antennas support multiple IoT communication standards.

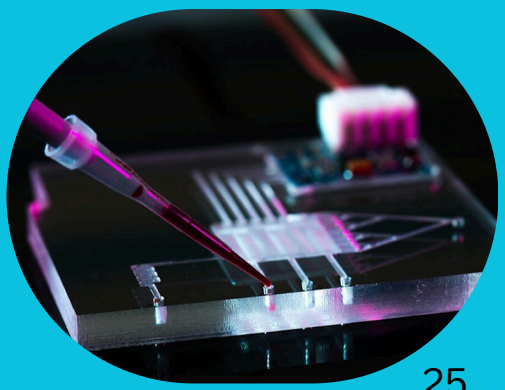
In 5G systems, high data rates and low latency are essential for advanced communication services. Microstrip antennas operate efficiently in sub-6 GHz and millimeter-wave frequency bands used by 5G. MIMO microstrip antenna configurations improve data throughput and signal reliability. These designs help reduce fading and enhance channel capacity. Advanced techniques such as slotting and defected ground structures improve antenna performance. Reconfigurable and compact designs support dense IoT networks. Overall, microstrip antennas are key components for next-generation wireless technologies.

Dr. Sonu Rana

Technologies That Are shaping Nanoelectronics today

Nanoelectronics is an advanced field of electronics that deals with electronic devices and systems at the nanometer scale. It focuses on designing and developing components with dimensions typically below 100 nanometers. As electronic devices continue to shrink in size, nanoelectronics plays a crucial role in achieving higher performance and lower power consumption. This technology enables faster processing speeds and improved efficiency compared to conventional electronic systems. Nanoelectronic devices use novel materials such as carbon nanotubes, graphene, and quantum dots. These materials exhibit unique electrical and physical properties that enhance device functionality. Nanoelectronics is widely used in integrated circuits, sensors, memory devices, and nano-scale transistors. It supports the development of compact and energy-efficient consumer electronics.

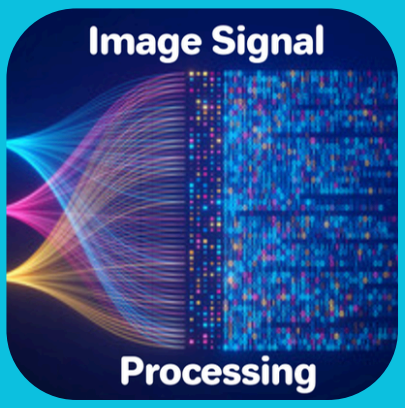
In communication systems, nanoelectronics improves signal processing and data transmission. The field also contributes significantly to medical electronics, including biosensors and diagnostic tools. Nanoelectronics is a key enabler of emerging technologies such as IoT, artificial intelligence, and quantum computing. Despite challenges in fabrication and reliability, continuous research is driving rapid advancements. Overall, nanoelectronics is shaping the future of high-speed, low-power, and miniaturized electronic systems.



Ms. Archana Dahiya

Signal Processing

Emotion recognition is a technology that allows computers to identify human emotions from speech, facial expressions, or physiological signals. Recognizing emotions from speech has become an important area in human–computer interaction, mental health monitoring, and intelligent systems. MATLAB provides a powerful platform for developing and testing emotion recognition systems because of its signal processing and machine learning toolboxes. In speech-based emotion recognition, the process begins with recording voice signals using a microphone. The recorded speech is then preprocessed in MATLAB to remove noise and normalize the signal. Key features related to emotions, such as pitch, energy, formants, Mel Frequency Cepstral Coefficients (MFCC), and spectral features, are extracted from the speech signal. These features are then analyzed and classified using machine learning algorithms such as Support Vector Machines (SVM), Artificial Neural Networks (ANN), or k-Nearest Neighbors (k-NN).



MATLAB provides built-in functions for feature extraction, model training, and performance evaluation, which makes it easier to implement accurate emotion recognition systems.Emotion recognition using MATLAB is applied in virtual assistants, healthcare systems for stress detection, call center analysis, and interactive learning systems. With ongoing research and advancements, speech-based emotion recognition is becoming more reliable, enhancing human–computer interaction and intelligent system applications.

Ms. Gulrukh Sahab

Speech and Speaker Recognition using MATLAB

Speech recognition is a technology that enables machines to understand and process human speech. It converts spoken words into text or commands, allowing natural interaction between humans and computers. MATLAB is widely used for speech recognition research and development due to its powerful signal processing and toolboxes.In speech recognition, the input speech signal is first recorded using a microphone and stored in digital form. MATLAB processes this signal by removing noise and extracting important features such as pitch, energy, and frequency components. Common feature extraction techniques include Mel Frequency Cepstral Coefficients (MFCC) and Linear Predictive Coding (LPC).

After feature extraction, pattern matching or machine learning algorithms are applied to recognize speech. MATLAB supports various classification techniques such as Hidden Markov Models (HMM), Artificial Neural Networks (ANN), and Support Vector Machines (SVM). These models are trained using pre-recorded speech samples to improve accuracy.Speech recognition using MATLAB is widely used in applications such as voice-controlled systems, assistive technologies, speech-to-text conversion, and human–computer interaction. Its easy visualization, simulation capability, and built-in functions make MATLAB an effective platform for developing and testing speech recognition systems.

Ms. Mona Gaur

STUDENT PERSPECTIVES AND JOURNEYS

Experience	Learning	Growth	Impact

Learning beyond classrooms

The journey of an ECE student goes far beyond textbooks and lectures. Through laboratory experiments, technical events, group projects, and internships, students gain confidence, practical exposure, and problem-solving skills. These experiences shape not only technical knowledge but also teamwork, communication, and leadership abilities essential for future engineers.

Student's Experience

Hands–on exposure

LAB LEARNING

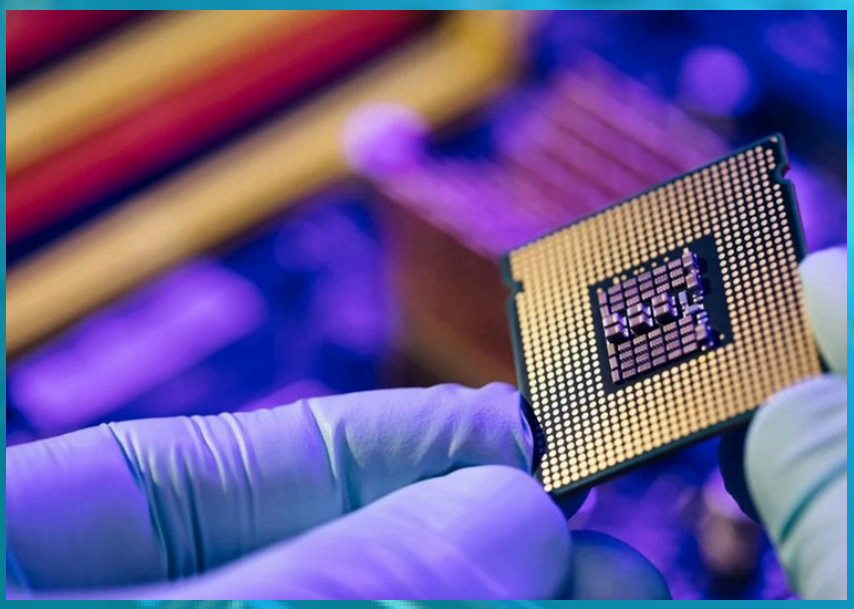
Industry awareness

SKILL GROWTH

Team Collaboration

TEAM PROJECTS

EMERGING TRENDS IN ELECTRONICS



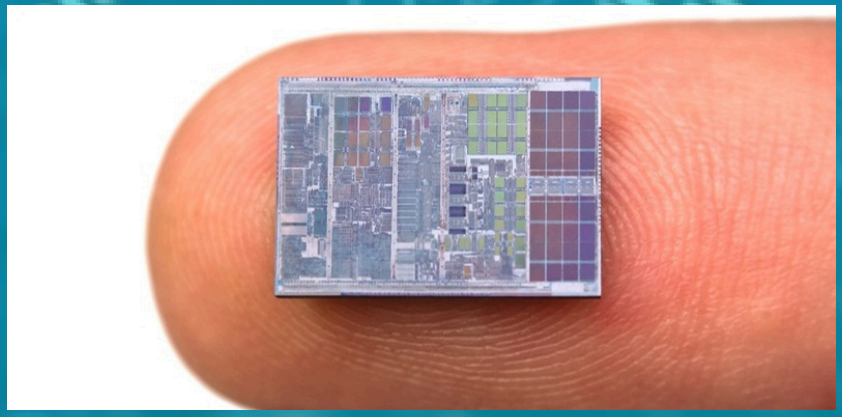
Electronics is rapidly evolving with the integration of intelligent systems, advanced communication technologies, and miniaturized hardware. Emerging trends in this field are reshaping industries and creating new opportunities for innovation, research, and career growth in Electronics and Communication Engineering.

Electronics is no longer just about circuits—it's about intelligence, connectivity, and impact.

Nanoelectronics is driving device miniaturization, low-power operation, and high-performance integrated circuits using nano-scale materials and technologies.

The development of 6G communication aims to provide ultra-high data rates, extremely low latency, and seamless connectivity for future smart applications.

AI-enabled hardware is transforming electronic systems by enabling faster data processing and intelligent decision-making directly at the hardware level.



ELECTRONICS CORE COMPANIES IN INDIA

EMS/Msnufactruring:

- Dixon Technologies
- foxconn India
- Tata Electronics
- Kaynes Technologies
- Avalon Technologies
- PG Electroplast
- VVDN Technologies
- SFO Technologies
- Centrum Electronics
- Sahasra Electronics

Semiconductor & VLSI Design:

- MosChip, eInfochips, Tessolve
- CircuitSutra, Trident Tech Labs
- SignalChip, Digicomm Semi
- Signoff Semi, Blueberry Semi
- LeadSoc, Sankalp Semi
- Qualcomm, ST, NVIDIA, AMD
- Intel, Cadence, TATA Elxsi, Wipro

Consumer Electronics & FMEG:

- Havells India, Orient Electric
- Polycab India, Bajaj Electricals
- Blue Star, Godrej, Symphony, Voltas

Public Sector and Defence:

- Bharat Electronics Ltd. (BEL)
- Electronics Corporation of India Ltd. (ECIL)
- Centrum Electronics

Specifically in Haryana :-

- Luminous Power Technologies, Gurugram
- Siemens, Gurugram
- Exicom, Gurugram

PLACEMENT HIGHLIGHTS

1. Rohit

Company: **JC Eletronica Pvt. Ltd.**
Designation : R&D Engineer (Hardware & Software)
CTC: 5.5 LPA

2. Naveen Sharma

Company: **Panasonic**
Designation : Area Service Manager, Customer Service
CTC: 15LPA

3. Prasoon Tripathi

Company: **Radio Design India Pvt. Ltd., Gurugram**
Designation : JE
CTC: 3.8 LPA

4. Anjalli

Company: **Gainwell Commosales Pvt. Ltd.**
Designation : JE
CTC: 4.65 LPA

5. Gaurav Pant

Company- **Deerfos India Pvt. Ltd.**
Designation- Sr. Sales Engineer
CTC- 6.2LPA

RESEARCH AND PUBLICATIONS

Naveen Sharma, M.Tech (ECE), 4th Semester, has achieved a notable academic milestone with the acceptance of his research paper titled "A Wide Band Folk Shaped MIMO Antenna for WLAN, WiMAX, and IoT Applications" at the International Conference on Sustainable Engineering and Technology Innovations-2026 (ICSETI-2026), organized by IEEE. This accomplishment reflects the department's strong emphasis on research excellence and innovation.

K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

IEEE
Delhi Section

2nd International Conference on Multidisciplinary Research and Innovations in Engineering (MRIE-2025)

30th-31st July 2025 (Hybrid Mode)

Certificate of Appreciation

This is to certify that Dr. Sonu Rana is recognized for their invaluable contribution as a Reviewer for the 2nd International Conference on Multidisciplinary Research and Innovations in Engineering (MRIE-2025) organized by K.R. Mangalam University, Gurugram, Haryana, India, on 30th-31st July 2025. Their expertise and diligent efforts were crucial to the success of the conference.

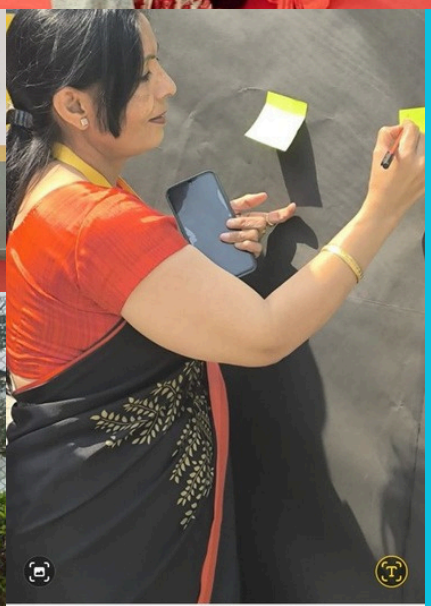
Conference Chair | General Chair | Vice Chancellor

Dr. Sonu Rana was honored with a Certificate of Appreciation for his valuable contribution as a Reviewer at the 2nd International Conference on Multidisciplinary Research and Innovations in Engineering (MRIE-2025). The conference was organized by K.R. Mangalam University, Gurugram, Haryana, in collaboration with the IEEE Delhi Section, and was held in hybrid mode from 30th-31st July 2025.

She, along with her co-authors, has published a significant research paper titled "High Gain, Self-Isolated S-Shaped Dual Wideband MIMO Antenna for 5G Wireless Applications" in a reputed Springer (SCI-indexed) journal, published online in January 2026.

Snapshots Of Smiles ....

Where every picture tells a happy story....



THE EDITORIAL TEAM

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Assistant Professor
ECE Department

Ms. Archana Dahiya
Assistant Professor
ECE Department

Muskan Saini
6th Sem ECE
(2023-2027 batch)

Om Singh Saini
6th Sem ECE
(2023-2027 batch)