MAY 2025 VOLUME 2

DPG INSTITUTE OF TECHNOLOGY AND MANAGEMENT

APPROVED BY AICTE, DTE AND AFFILIATED TO MDU ROHTAK

ELECTROVERSE

Technology connects, Sustainability protects. Eco Friendly Innovations are desirable.

Department of Electronics and Communication **Engineering**

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About Department	03
Labs and Infrastructure	04
Good Practices	05
Highlights to Share	06
Testimonials	07
Thrust Areas of Research and Publications	08
Events	09
Workshops & Seminars	10
Electronics Core Companies in India	11
Contributors	12

ABOUT DEPARTMENT

Electronics and Communication Engineering (ECE) is a dynamic and ever-evolving field that forms the backbone of modern technology. From the integrated circuits that power our devices to the wireless networks that connect us globally, ECE innovations are at the heart of our digital world. It's a discipline that requires both deep theoretical understanding and practical application, empowering engineers to design, develop, and advance the systems that shape our daily lives, impacting sectors from telecommunications and healthcare to artificial intelligence and sustainable energy.

This newsletter serves as a vital platform for the ECE department at DPG INSTITUTE OF TECHNOLOGY AND MANAGEMENT, GURGAON affiliated by MDU, ROHTAK to connect with its students, faculty, alumni, and the broader community. Our primary goal is to foster a deeper understanding of the vast scope and exciting opportunities within ECE, debunk common myths, and showcase the cutting-edge trends that define our future. Through engaging articles on career pathways, internship preparation, and even the presence of ECE in pop culture, we aim to inspire, inform, and highlight the vibrant achievements and potential within our department and the field as a whole.

LABS AND INFRASTRUCTURE



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.



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 teambased learning.



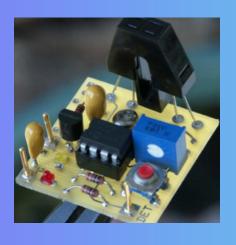
3) Analog Electronics Lab:-

This lab bridges theory and practice, helping students understand analog circuits and their characteristics through practical experiments.



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.



5) Mini Project Lab:-

Students build practical skills in circuit design, soldering, and troubleshooting, culminating in project development using core electronic concepts.



6) Microcontroller Lab:-

Students learn microprocessor concepts and assembly language, while exploring peripheral device interfacing and performance evaluation.



7) Wireless & Satellite Communication Lab:-

This lab offers hands-on training in uplink/downlink, signal transmission, and multiplexing using satellite and CDMA trainer kits.



8) Computer Network Lab:-

Students work on networking concepts like IoT, 5G, and cloud computing through projects and experiments in a hands-on environment.

Page 4

GOOD PRACTICES

"Unique approach that defines governance enabling efficient resource management to achieve excellence in ethics based academics, research and innovation to meet global educational standards."



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 to attend FDPs 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 for the required skills to take up demanding jobs/responsibilities in industries/corporate sectors/academic institutions



Establishing Academic-Industry Collaboration

Bridging the gap through engaging the industry in Academic advisory board, departmental committee, and joint organization of workshop, seminar, training and internships for students.



Creating an Innovative Research Ecosystem

Developing an environment for sharing new and innovative ideas and developing scientific aptitude.
Inculcating habit of ideation and creativity.



Providing Placement Opportunities

Organizing various training programs and placement drives to get maximum placements.



Social Outreach & Community Connect

To uphold the moral values and individual responsibilities towards nature and society by strongly connecting with communities.



Building Strong Alumni

Network

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

HIGHLIGHTS TO SHARE



Inaugration ceremony at Farewell 2025.



Inaugural of
Microcontroller lab



Earth Day 2025.



Poster Making Competition



National Conference at DPG ITM.



Publication of Electroverse Vol-I



Welcome Ceremony



IIT Delhi Virtual lab seminar



Faculty Fashion Show

TESTIMONIALS



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.



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.



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. 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.

THRUST AREAS OF RESEARCH AND PUBLICATION



Dr. Sonu Rana 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 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. Gulrukh Sahab 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 Al-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.



EVENTS



Visit: Yashobhoomi, Dwarka, Delhi



GITM Gurugram Hackathon 2025.



National Science Day at DPGITM



Visit: Income tax office , Gurugram



Hackathon at NSUT, Delhi



Donation drive at Gurugram

WORKSHOPS AND

SEMINAR





Virtual lab seminar conducted by IIT Delhi



Attended IEEE conference at Bennett University, Greater Noida



MATLAB workshop conducted for EE/ME/ECE students



Workshop conducted by Sho-Shin for EE/ECE/ME students



Workshop conducted by ACE Engineering Academy for EE/ECE/ME students



Workshop conducted by Samsung for EE/ECE/ME/BBA students

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, elnfochips, 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

Chief editor



Dr. Sonu Rana HOD ECE DEpartment

Contributors



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