PRAGATI ENGINEERING COLLEGE

(Autonomous)

3-180, ADB Road, Surampalem – 533 437, Near Peddapuram, Kakinada District, A.P.
(Approved by AICTE, Permanently Affiliated to JNTUK Kakinada & Accredited by NBA)
(Recognized by UGC Under Sections 2(f) and 12 (b) of UGC act, 1956)
Ph: 08852 – 252233, 252234, 252235 Fax: 08852 – 252232, website:www.pragati.ac.in

Learning is Supreme Duty

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Date: 21-06-2025

CIRCULAR

It is to inform to all the students of B.Tech III & IV Year that the Student Chapter Institution of Engineers (India) Department of Electrical & Electronics Engineering is Conducting "**Technical Paper presentations**" on 23-06-2025. This event aims to provide a platform for students to showcase their innovative ideas, research work, and technical knowledge. In this regard All the interested students participate actively.

THEMES:

- Artificial Intelligence & Machine Learning
- Cyber security & Block chain
- Internet of Things (IoT)
- Sustainable & Renewable Energy
- Robotics & Automation
- Cloud Computing & Data Science

Faculty coordinator: Mr. M.VEERA BABU, Asst Professor
Mr. K.NAGAVARDHAN REDDY, Asst Professor

Student Coordinators: K. Anjani Kumari-23A31A0220

N. Sai Teja Vignesh-23A31A0245

Venue: MS-12(Mechanical Block)

HOD-EEE 21/6/25

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Copy to:

1) Circulate among students and staff
2) Department Notice Board
3) Department File
4) Principal for Information

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REPORT ON

TECHNICAL PAPER PRESENTATIONS

Date:24-06-2025

The Department of Electrical & Electronics Engineering & Student Chapter Institution of Engineers (India) organized a **Technical Paper Presentation** event on **30-06-2025**. The objective of the event was to encourage students to research, write, and present innovative technical ideas, thereby enhancing their academic and professional skills.

Power Systems:

1. Smart Grids: Integration of renewable energy sources, energy storage, and advanced monitoring systems.

2. High-Voltage Direct Current (HVDC) Transmission: Efficient long-distance power transmission.

3. Flexible AC Transmission Systems (FACTS): Dynamic power flow control.

Renewable Energy:

1. Solar Energy: Bifacial panels, perovskite cells, and concentrated photovoltaic (CPV) systems.

2. Wind Energy: Larger turbines, floating wind farms, and advanced blade designs.

3. Energy Storage: Lithium-ion batteries, flow batteries, and other emerging technologies.

Electrical Machines:

1. High-Efficiency Motors: IE5 and IE6 classes, using advanced materials and designs.

2. Electric Vehicle (EV) Drives: High-power density, high-efficiency, and compact designs.

3. Permanent Magnet Synchronous Machines (PMSM): Improved efficiency and reliability.

Power Electronics:

Power Electronics:

1. Wide-Bandgap Semiconductors (SiC, GaN): Faster switching, lower losses.
2. Modular Multilevel Converters (MMC): High-voltage, high-power applications.
3. Resonant Converters: High-frequency, high-efficiency designs.

Energy Efficiency:

1. LED Lighting: Improved efficiency, lifespan, and color quality.
2. Smart Buildings: Energy management systems, IoT integration.
3. Energy Harvesting: Piezoelectric, thermoelectric, and vibration-based systems.

Emerging Trends:

1. Electric Vehicles (EVs): Charging infrastructure, battery technology.
2. IoT and Industrial Automation: Smart sensors, actuators, and control systems.
3. Quantum Computing: Electromagnetic applications, cryogenic systems.

Research and Development:

1. Advanced Materials: Graphene, superconductors, and nanomaterials.
2. 3D Printing: Electrical components, magnetic devices.
3. Artificial Intelligence (AI) in Electrical Systems: Predictive maintenance, optimization.

In this need of the hour, Local Chapter IE (India) of EEE Department took a step to make students familiar with the introduction to his Achievements through this lecture.

Students were participated curiously during the event. Participations will be made at MS-12.The picture of the event and glimpses of slides presented were mentioned in the report stated.

Date & Time of Event :23.06.2025 @ 11:00 AM

Venue : MS-12(Mechanical Block)

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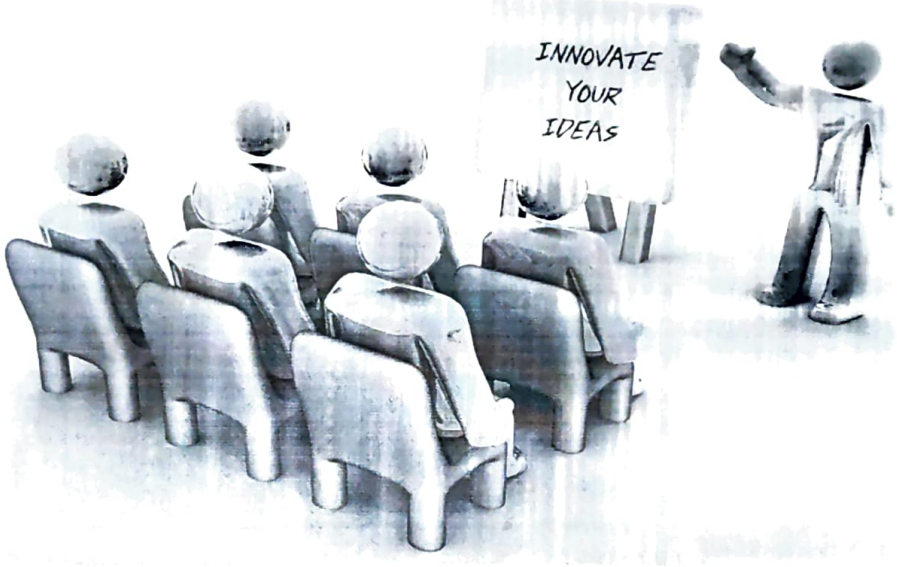
PAPER PRESENTATION



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S. Nani Babu
IE(I) INCHARGE

HOD-EEE

24/6/22

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