Report
Alumni Guest Lecture
On
"Electronics and Software: Your Future Starts Here"
Organised by
Department of Electrical & Electronics Engineering
Date: 29.01.2026
Time: 11.00 AM
Venue: SB117

Organized in association with: **Alumni Welfare Association, MITS-Madanapalle**

Submitted by: Mr. M. Venkatesh, Dept. Alumni Coordinator & Assistant Professor, Dept. of EEE

Attendance: 65 participants including faculty.

Faculty attended:
1. Dr A V Pavan Kumar   - HoD/EEE
2. Dr. Gutti Nagaswetha   -Alumni Relationship Officer
3. Mr. M. Venkatesh   - EEE Dept. Alumni Coordinator
4. Dr. T. S. Balaji Damodhar   - Assistant Professor/EEE

Students Attended: EEE: 56
Venue: SB117

The program commenced with a welcome address by **Dr. A. V. Pavan Kumar**, Professor and Head of the Department, EEE. He warmly welcomed the participants and the alumni resource person, **Mr. K. Manideep (EEE – 2023 Batch)**, currently working as an **Associate Software Development Engineer at JUSPAY, Bengaluru**. In his address, Dr. Pavan Kumar emphasized the rapid transformation of the electrical engineering domain and highlighted the importance of integrating electronics knowledge with software skills to meet current industry demands.

The technical session was delivered by the alumni resource person **Mr. K. Manideep**, who expressed his sincere gratitude to the Management, Vice-Chancellor (I/c), Registrar (I/c), Principal, Head of the Department, and faculty members of the Department of Electrical and Electronics Engineering for providing him the opportunity to interact with the students and share his professional experiences.

Mr. Manideep began the session by explaining that **electronics alone or coding alone is no longer sufficient** in today's rapidly evolving technological environment. He emphasized that the **combination of electronics and coding** enables the development of intelligent and efficient engineering solutions.

He discussed how this integration is essential in emerging applications such as **electric vehicles, drones, smart homes, medical devices, satellites, and smart grids**, illustrating how modern engineering systems rely heavily on data, sensors, embedded controllers, and software intelligence.

A comparison between **traditional and modern electrical engineering practices** was presented through the concept of **"Old vs New Electrical Engineering"**. Traditional systems such as **classic electric motors and conventional power systems** were contrasted with **smart motors, EV systems, and smart grids**, which operate using embedded systems, communication networks, and data-driven control.

The speaker elaborated on **where coding fits into electrical engineering**, particularly in:

- **Microcontroller-based systems**, highlighting the importance of C and Embedded C programming using platforms such as Arduino and ESP32

- **Automation systems**, where PLC programming and logical control play a crucial role in industrial automation, safety, and productivity

He also outlined various **career opportunities** available to EEE students who develop combined skills in electronics and software, including:

- Robotics Engineer

- Embedded Systems Engineer

- IoT Engineer

- EV Engineer

- Automation Engineer

- AI + Hardware Engineer

Additionally, Mr. Manideep introduced students to **industry-relevant tools**, including:

- Arduino IDE

- MATLAB

- Multisim

- Proteus

- Visual Studio Code

- GitHub for version control and collaborative development

Towards the end of the session, students were guided on **practical steps to begin their learning journey**, encouraging them to:

- Procure an Arduino or ESP32 development board

- Undertake small, incremental projects

- Focus on hands-on learning through projects such as smart lighting systems, temperature-based controllers, motion-based automation, and IoT-based energy monitoring systems

The session was highly interactive, with students actively participating and seeking guidance on skill development, project selection, and career planning.

Key Topics Discussed

- Integration of electronics and software in modern engineering

- Evolution of electrical engineering towards smart and data-driven systems

- Role of coding in embedded systems and automation

- Career opportunities for EEE graduates in emerging domains

- Industry-relevant tools and development platforms

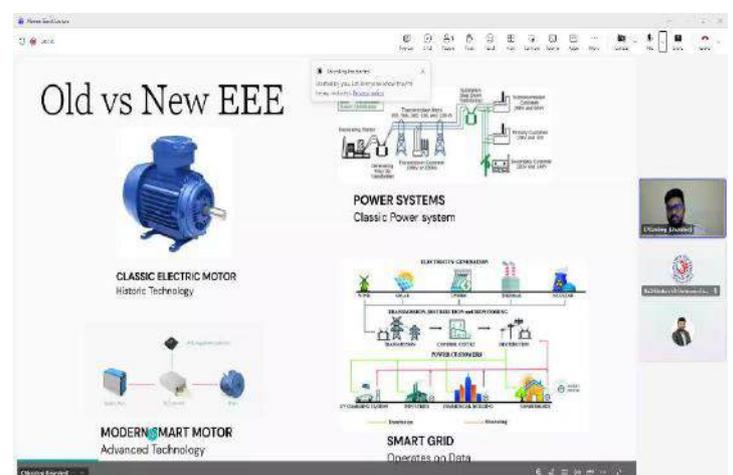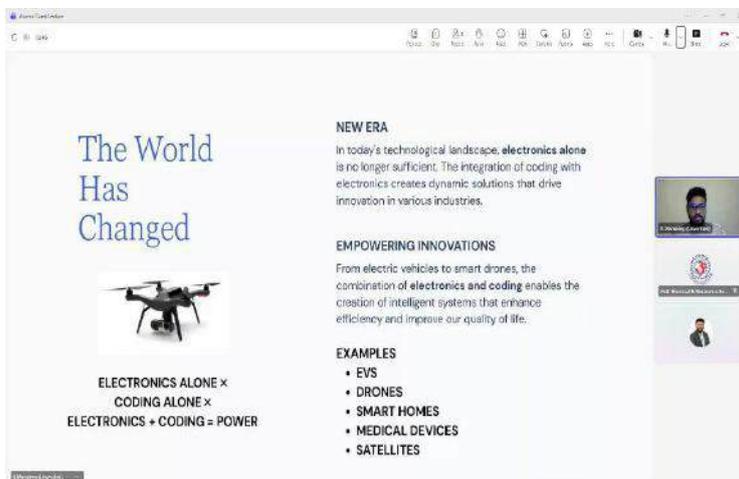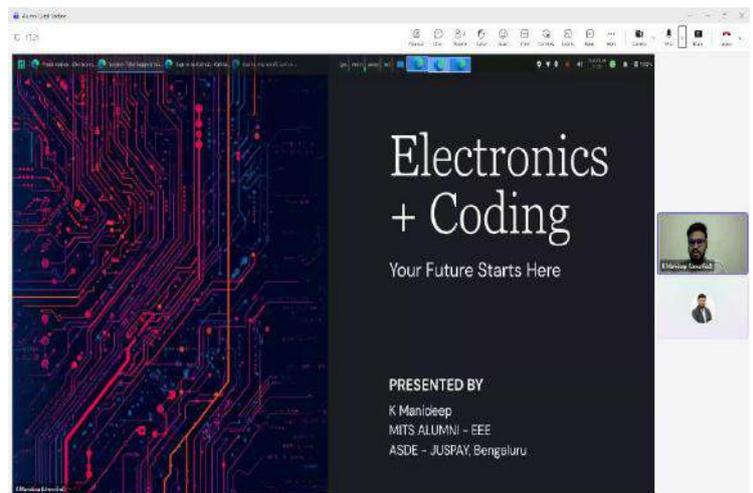- Importance of hands-on projects and continuous learning

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Phone: 08571 – 280255, 280706, Fax: 08571 – 280433.   www.mits.ac.in
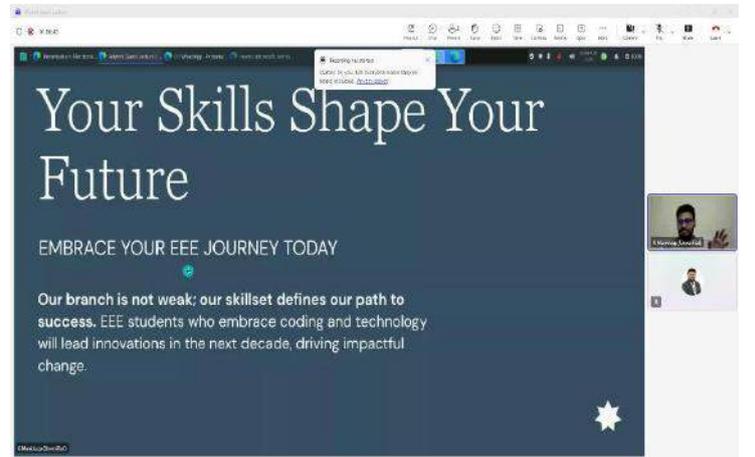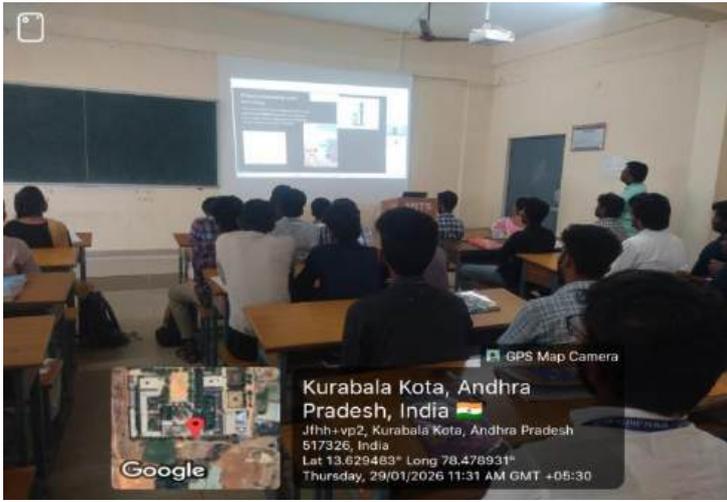
Program Outcomes

- Students gained clarity on the importance of integrating electronics with software skills.

- Participants developed awareness of diverse and emerging career opportunities.

- The session motivated students to focus on project-based and experiential learning.

- Students understood the tools and technologies required for industry readiness.

- Alumni interaction strengthened professional motivation and career orientation among students.

A total of 56 participants, including 4 faculty members, attended the interaction, making the program a successful and enriching experience for all.

The session concluded with a vote of thanks proposed by Mr. M. Venkatesh, Assistant Professor, EEE, who expressed his gratitude to the **Management, Vice-Chancellor(I/c), Registrar(I/c), Principal, Head of the Department,** faculty members, and all those who directly and indirectly contributed to the successful organization of the program.
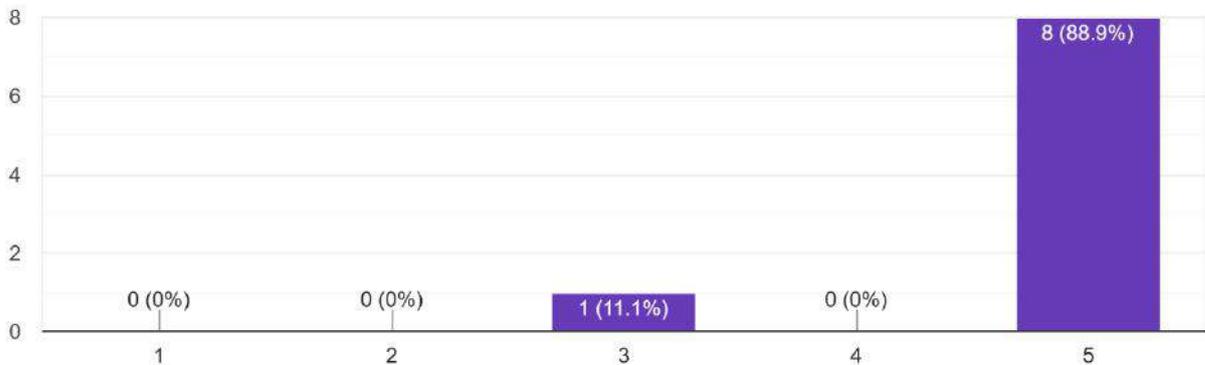
Photos:

Feedback:

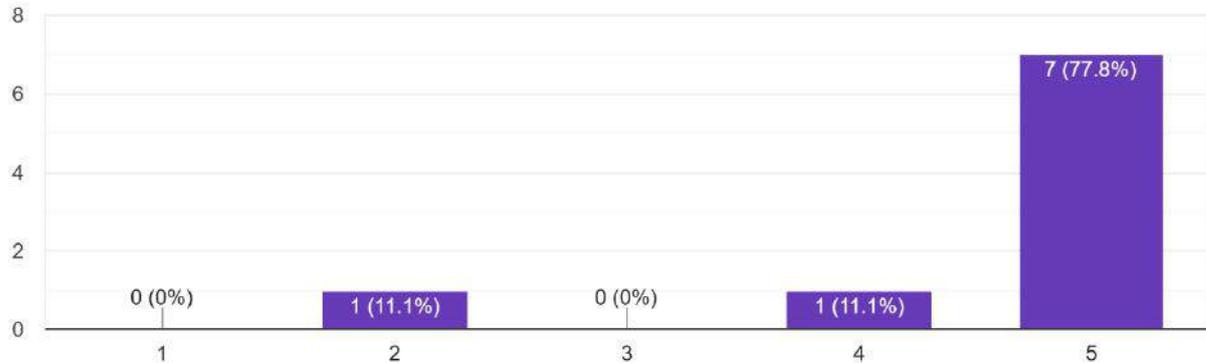1. The interactive session was scheduled at a suitable time

9 responses

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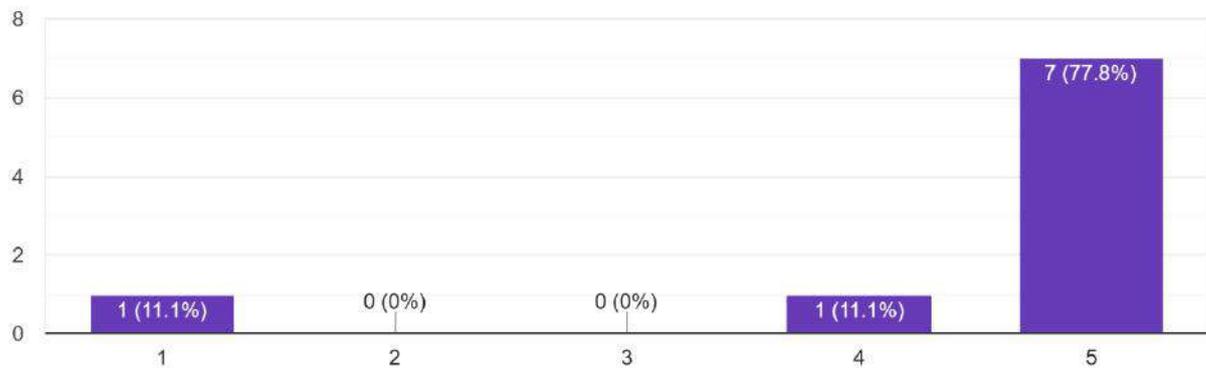Phone: 08571 – 280255, 280706, Fax: 08571 – 280433.   www.mits.ac.in

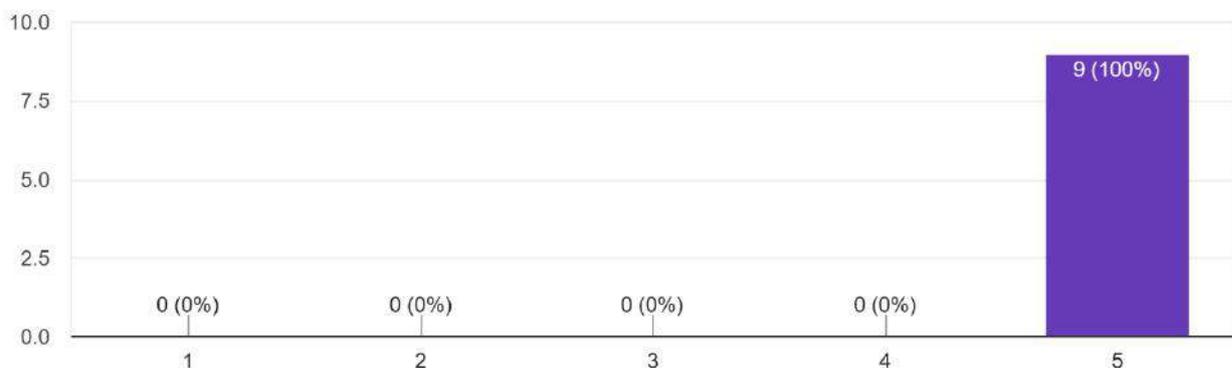2. The interaction was useful and resource person explanation.
9 responses

3. The information in the interaction was presented in a clear and organized manner.
9 responses

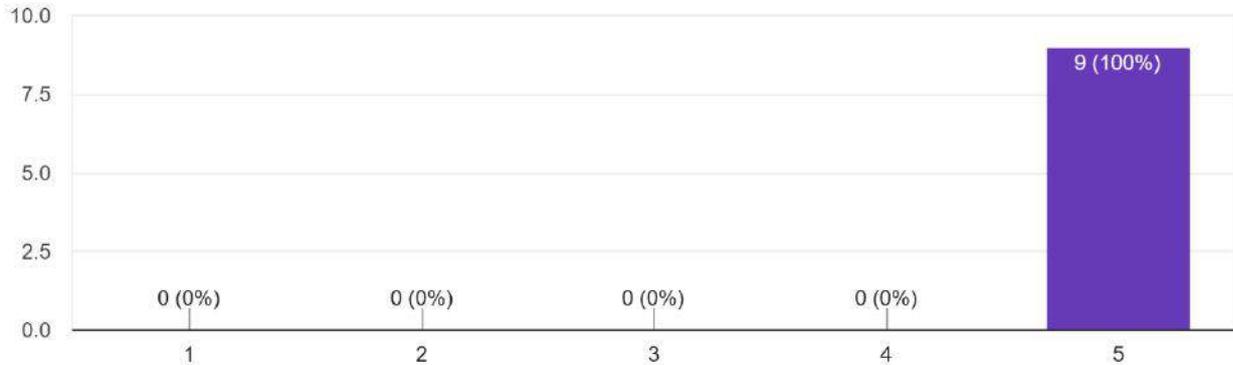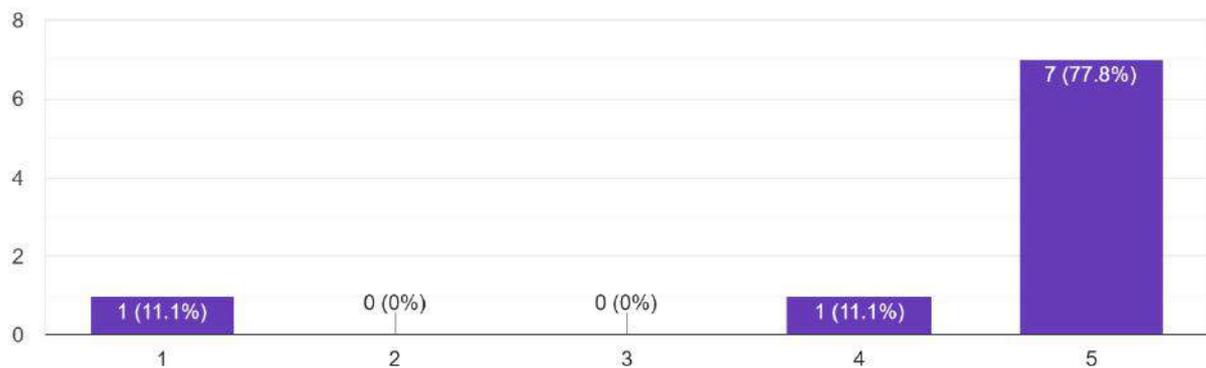4. The presenter responded to questions an informative, appropriate and satisfactory manner.
9 responses

5. your impression of facilities provided by the institute for interaction.
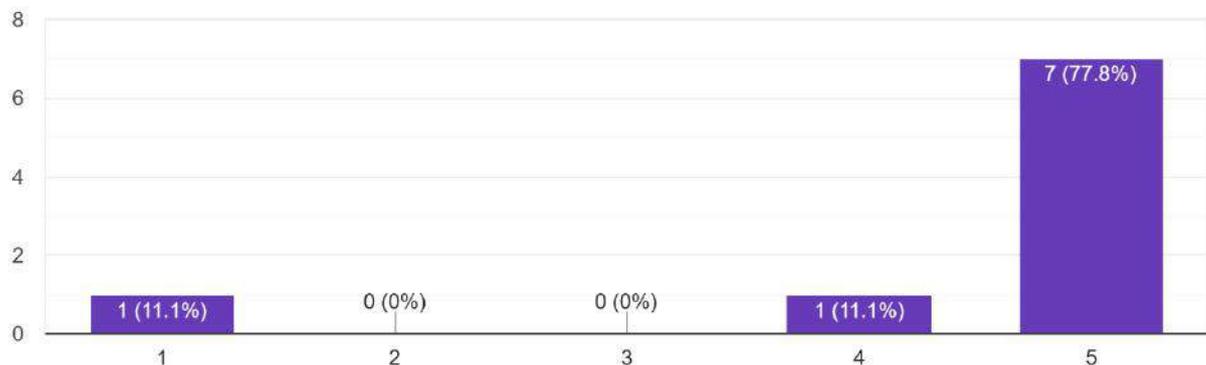9 responses

6. Overall, the session was informative and valuable.
9 responses

7. In what ways could this interaction have been improved to better suit your needs?
9 responses

Signature of the Coordinator   Signature of HoD, EEE

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