

A summary of the skill development program is as follows:

Dr. A. V. Pavan Kumar, Assistant Dean Accrediation and Dr. Manavaalan Gunasekaran, Head of the Department of EEE, graced the inaugural function. The event commenced with a welcome address by Dr. Vineet Kumar., Assistant Professor, Department of EEE. Dr. Sovit Kumar Pradhan introduced the resource person, following which Dr. A. V. Pavan Kumar extended a warm welcome to the guest and highlighted the significance of the training program. He also gave a brief overview of the Three-day technical workshop. Dr. Manavaalan Gunasekaran officially inaugurated the program with an inspiring address, emphasizing the importance of such training initiatives for enhancing students' placement opportunities and career development.

The 55 students from the third year and the second year from the Department of EEE have participated in this Three-day Hands-on workshop.

Training Sessions Overview

A three-day offline Workshop on “Real World Applications of IoT” was held from 19/02/2026 to 21/02/2026 at the Seminar Hall – C and LB-201. The purpose of the workshop was to provide participants with a thorough understanding of the basic concepts and practical experience related to the application of the Internet of Things (IoT).

Date: 19/02/2026 to 21/02/2026

- **Morning Schedule:** 9:30 AM – 1:00 PM
- **Afternoon Schedule:** 2:00 PM – 5:00 PM

Three-Day Workshop on Real-World Applications of IoT

Day 1 – Morning Session : Introduction to IoT

The workshop commenced with an introduction to the Internet of Things (IoT) and its growing importance in modern technological systems. The instructor explained the fundamental concept of IoT, where physical devices embedded with sensors, actuators, and communication modules collect and exchange data through the internet. Participants were introduced to the architecture of IoT systems, including sensors, microcontrollers, connectivity protocols, and cloud platforms. The session also highlighted the role of IoT in enabling real-time monitoring, automation, and intelligent decision-making across different applications.

Day 1 – Afternoon Session: Communications used in IoT

The afternoon session focused on the core components and communication technologies used in IoT systems. Participants learned about various sensors, microcontrollers, and development platforms commonly used in IoT projects. The instructor also discussed communication protocols such as Wi-Fi, Bluetooth, Zigbee, and LoRa, explaining their significance in device connectivity. Practical examples were provided to demonstrate how IoT devices collect and transmit data to cloud platforms for storage and analysis.

Day 2 – Morning Session: IoT applications in smart homes and smart cities

The second day began with an exploration of IoT applications in smart homes and smart cities. The instructor demonstrated how IoT technology enables intelligent energy management, automated lighting systems, smart security systems, and traffic monitoring solutions. Participants also learned how IoT devices contribute to improving urban

infrastructure, public safety, and resource efficiency through real-time data monitoring and analytics.

Day 2 – Afternoon Session: IoT applications in healthcare and agriculture

The afternoon session covered IoT applications in healthcare and agriculture. The discussion included wearable health monitoring devices, remote patient monitoring systems, and smart medical equipment that enhance healthcare services. In the agricultural domain, IoT-based solutions such as smart irrigation systems, soil moisture monitoring, and crop health tracking were discussed, highlighting their role in improving agricultural productivity and sustainable farming practices.

Day 3 – Morning Session: Implementation of IoT in Industrial Automation

The final day began with a session on industrial IoT (IIoT) and automation. The instructor explained how IoT technologies are applied in manufacturing industries for predictive maintenance, process monitoring, and supply chain management. Participants were introduced to the concept of smart factories and Industry 4.0, where connected machines and intelligent systems optimize production efficiency and reduce operational costs.

Day 3 – Afternoon Session: IoT in Data management

The workshop concluded with a session on IoT data management, security, and future trends. Participants learned about the importance of data analytics, cloud computing, and cybersecurity in IoT ecosystems. The instructor also discussed challenges such as data privacy, device management, and scalability. The session ended with a discussion on emerging IoT technologies and their potential impact on future smart systems, providing participants with a comprehensive understanding of real-world IoT applications.





The valedictory session of the three-day “Real World Applications of IoT” workshop was attended by Dr. A. V. Pavan Kumar, Assistant Dean Accreditation, and Dr. Manavaalan Gunasekaran, Head of the Department of Electrical and Electronics Engineering (HOD/EEE), who concluded the session by delivering the closing remarks, emphasizing the increasing significance of IoT in real-world applications. He also highlighted that gaining knowledge in IoT technologies can greatly improve students’ technical and analytical skills, thereby preparing them for future industry opportunities. The event concluded with a vote of thanks and appreciation, signifying the successful completion of a productive and insightful three-day workshop.

Overall Outcomes: -

1. Students gained a clear understanding of the basic concepts, architecture, and components of the Internet of Things (IoT).
2. Students learned how IoT technologies are applied in various domains such as smart homes, healthcare, agriculture, and industrial automation.
3. The program enhanced students’ technical knowledge related to sensors, microcontrollers, communication protocols, and IoT platforms.
4. Students developed the ability to analyze real-world problems and explore IoT-based solutions for improving efficiency and automation.
5. Students gained insight into current industry practices, future trends, and the importance of IoT in developing smart and connected systems.

As event coordinators, we extend our gratitude to the **Management** and Vice Chancellor, **Dr. C. Yuvaraj**, of MITS Deemed to be University, for their ongoing support. We thank **Dr. P. Ramanathan**, Principal, for granting permission and providing financial support to organize this program. We appreciate **Dr. C. Kamal Basha**, Professor and Vice Principal of Administration, for providing the necessary support promptly. Professor and Dean of the School of Engineering, **Dr. Dipankar Roy**, for his ongoing guidance across all parameters. We also thank **Dr. Maanavalan Gunasekaran**, Professor and Head of the Department of Electrical and Electronics Engineering (HOD/EEE), for his ongoing guidance in all aspects. We sincerely thank **Dr. Veerasalingam G.**, Institute Coordinator of IE(I) for accepting our request and sponsoring the event through the IE(I) Students’ Chapter. Finally, we would like to thank all EEE faculty members, non-teaching staff, and students for their involvement, support, and participation in this event.