

KALLAM HARANADHAREDDY INSTITUTE OF TECHNOLOGY (AUTONOMOUS)



(Approved by AICTE, New Delhi; Affiliated to JNTUK, Kakinada) NH-5, Chowdavaram, GUNTUR-522 019 Accredited by NAAC with 'A' grade

EEN)

PROGRAMS ACCREDITED BY NBA: B.Tech in CE, ME, EEE, ECE & CSE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Report on Six-Day Skill Development Training Program on "Internet of Things (IoT)" The Department of Electrical and Electronics Engineering, Kallam Haranadhareddy Institute of Technology, Chowdavaram, Guntur, organized a Six-Day Skill Development Training Program on "Internet of Things (IoT)" from 30th December 2024 to 4th January 2025.

Organized by: Department of Electrical and Electronics Engineering (EEE) **Resource Person:**

• Mr. B. Mahidhar

Designation: Trainer cum Developer, APSSDC, Tadepalli, Guntur.

Coordinators:

1. Dr. P. P. Sharma

2. Mrs. P. Kavitha

Topic: Six-Day Workshop on Internet of Things (IoT.)

Venue: 1G-07

Date & Duration: 30th December 2024 – 4th January 2025 (Six Days)

Target Audience: III- B. Tech Students





A FIVE DAY WORKSHOP
on
INTERNET OF THINGS



Organized by

Department of Electrical and Electronics Engineering

Resource Person

Sri. B. Mahidhar

Trainer - APSSDC

Schedule 30/12/2024 to 04/01/2025 Participants
III B.Tech. Students

· APSSDC

Shock proof has Venue

HOD

Co-ordinators
Dr. P. P. Sharma
Mrs. P. Kavitha

& Skill Development (1G-07) Dr. K. Hari Krishna

Objectives of the Event:

- > This program aims at providing an opportunity for participants to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society.
- > This program serves as a platform for research scholars, faculty, engineers and students to interact on cutting edge technologies in IoT.
- The main objective of this workshop is to help students to develop research skills and competencies, acquaint them with contemporary real life aspects of public administration, and improve the effectiveness of their independent project work.
- The Internet of Things (IoT) has evolved from the convergence of wireless technologies, micro-electromechanical systems (MEMS) and the Internet. By connecting things in the real world such as cars, buildings, and industrial equipment, IoT promises to revolutionize how we live and work.
- The IoT market is likely to experience around 34%year-on-yeargrowth, rising to 9.4 billion connections across the globe by 2030, counting cellular, fixed line, satellite and short range wireless connections, up from 1.2 billion devices.

Outcome of the Event:

Student learning outcomes of the workshop and talks include the ability to:

- ➤ Knowledge and understanding of fundamental IOT paradigms, architectures, possibilities and challenges, both with respect to software and hardware,
- ➤ A wide competence from different areas of technology, especially from computer engineering, robotics, electronics, intelligent systems.
- Learn the basics of Internet of Things and its applications.
- ➤ What "the Internet of Things" means and how it relates to Cloud computing concepts.
- ➤ How open platforms allow you to store your sensor data in the Cloud.
- ➤ The basic usage of the Arduino environment for creating your own embedded projects at low cost.
- ➤ How to connect your Arduino to your Android phone.
- ➤ How to send data to the Internet and talk to the Cloud.
- ➤ How to update sensor readings on Twitter (Social Networking Sites).
- Control a Relay Switch by texting from your Phone.

The schedule of tour and places covered as follows.

| S. No. | Date & Day | Topics | | | | | | |
|--------|---------------------------|---|--|--|--|--|--|--|
| 1 | 30/12/2024 (Monday) | Introduction and importance of IoT, Robotics and Embedded systems. | | | | | | |
| 2 | 31/12/2024 (Tuesday) | Introduction to programming in embedded. Introduction to Relay Driver IC. | | | | | | |
| 3 | 01/01/2025 (Wednesday) | Introduction to ADC. Introduction to GPRS. | | | | | | |
| 4 | 02/01/2025 (Thursday) | Introduction To Wifi. Introduction to ESP 8266 module. | | | | | | |
| 5 | 03/01/2025 (Friday) | Introduction to TCP/IP. Introduction to Raspberry Pi | | | | | | |
| 6 | 04/01/2025 (Saturday) | Projects on ESP 8266 Projects on IOT | | | | | | |

Description / Report on Event:

Department of Electrical and Electronics Engineering have organized a six day workshop on "Internet of Things (IoT)" in APSSDC lab (1G07). It was conducted for the students of III B. Tech of EEE Branch from 30th December 2024 to 04th January 2025. A total of 54 students were registered and attended for the event in offline mode. The workshop aimed to design IoT boards the students and an important of IoT in real time applications and The HOD given the detail explanation of department vision and mission to the students.



Dr. K. Hari Krishna, Head of the Department of EEE went onto demonstrate the agenda of workshop. He told how students will be benefited from this workshop on their way to becoming an expert in their field and initiated the event with an inspirational speech.

Mr. B. Mahidhar, Trainer, APSSDC, Vijayawada, Andhra Pradesh, Resource Person of the event congratulated and appreciated the efforts of the students for conducted workshop in the EEE department of KHIT. He told that workshop of benefits specifically targeted for students in order to fill the void and increase the positive experience for students with a token of appreciation from entire EEE department who graced the event with his presence.









| Course Outcomes | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 | PSO 1 | PSO 2 | PSO 3 |
|--|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| CO1: Understand the fundamental concepts of IoT, including architecture, components, and communication protocols. | 2 | 1 | 1 | ı | 1 | 2 | 2 | ı | ı | ı | ı | 2 | 2 | 3 | 2 |
| CO2: Develop skills in designing and implementing IoT applications using sensors, microcontrollers, and cloud platforms. | 2 | 1 | 1 | ı | - | 2 | 2 | 2 | 2 | ı | - | 2 | 2 | 3 | 2 |
| CO3: Enhance problem-solving and teamwork abilities by working on real-time IoT projects and applications. | 2 | 1 | ı | 1 | 1 | 2 | - | 1 | 2 | 3 | - | 2 | 2 | 3 | 2 |
| AVG | | | 1 | ı | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 3 | 2 |

CONCLUSION

Things (IoT), covering both theoretical concepts and practical applications. Through hands-on sessions, participants gained valuable insights into IoT architecture, sensor integration, data processing, and real-world implementations. The workshop successfully enhanced their technical skills, problem-solving abilities, and innovative thinking. With IoT rapidly evolving across industries, this workshop has equipped attendees with the foundational knowledge to explore advanced IoT applications, contribute to technological advancements, and drive future innovations in the field.