



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ తిరుపతి  
 भारतीय प्रौद्योगिकी संस्थान तिरुपति  
 INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

**Indian Institute of Technology Tirupati**

organizes

A Workshop on  
**Industrial Internet  
 of Things**  
*Data Integration &  
 Cloud Analytics for  
 Smart Industry*

**4<sup>th</sup> – 6<sup>th</sup>  
 December 2025**

**CENTRE OF EXCELLENCE**  
 Smart Manufacturing and EV Technologies



**ORGANIZERS**



**Dr. M Nabil**  
 Associate Professor



**Dr. Govind Narayan Sahu**  
 Assistant Professor



**ABOUT US**

The Centre of Excellence in Smart Manufacturing & EV Technologies (CoE-SMEVT) was established under the Government of India’s initiative for Indigenous Technology Development. Supported by Siemens and Wipro, the CoE serves as a national hub integrating academia and industry to drive innovation in Industry 4.0, IoT, automation, and sustainable mobility.

At the heart of this ecosystem, the Industrial Internet of Things (IIoT) Lab at IIT Tirupati’s CoE focuses on real-time industrial data monitoring, predictive maintenance, and smart manufacturing. The lab provides a dynamic platform to explore cloud computing, edge analytics, and IoT-based automation, enabling learners to bridge theory with real-world industrial applications.

**ABOUT THE WORKSHOP**

This 3-day workshop designed to provide practical exposure to IIoT systems. Participants will learn real-time sensor data acquisition, edge and cloud computing open-source tools like Python, Node-RED, InfluxDB, and Grafana. The training focuses on building IIoT data pipelines, visualization dashboards, and cloud-based analytics to enable smart industry applications. By the end, participants will be able to design and implement IIoT solutions for improved connectivity and data-driven decision-making.

## MODULES

Day 1: Introduction to IoT and Edge Sensing

- Introduction to IoT Concepts and Architecture
- IoT Hardware and Communication Protocols
- Hands-on Setup and Data Collection
- Lab Activity – Building a simple data logger using Python and SenseHAT

Day 2: Time-Series Data Management and Visualization

- Time-Series Data, Tools Setup, Data Handling, Visualization, Edge Connectivity.
- Lab: Send structured data to InfluxDB and build a Grafana dashboard.

Day 3: Closed-Loop Control & Industrial Applications

- Overview of closed-loop control & feedback
- Discrete event simulation basics
- System simulation
- Case studies: SenseHAT monitoring & reactor control

## REGISTRATION

This workshop will be held in physical mode. Registration is open for students, faculty, and working professionals.

### REGISTRATION FEE

Students: (₹5000/-\*)

- Final-year B.E. / B.Tech / M.Tech students.

Staff and Faculty: (₹8,000/-\*)

- Teaching and non-teaching staff or faculty members from academic institutions.

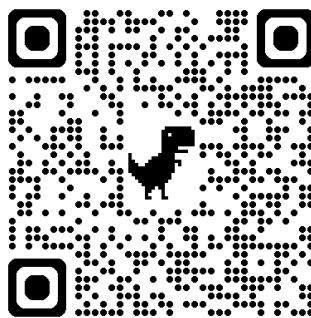
Working Professionals: (₹15,000/-\*)

- Individuals and working professionals.

(\* including GST)

The cost includes training materials, lunch, and refreshments.

### REGISTRATION LINK



Deadline for Registration:  
**1st Dec 2025**



## CONTACT US



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