



Ministry of Micro, Small and Medium Enterprises,  
Government of India



**MSME TECHNOLOGY CENTRE, BENGALURU**  
**MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES, GOVT. OF INDIA**  
KIADB Industrial Estate, Devanahalli, Bengaluru  
<https://www.msmetcblr.org/>

## **BRIEF DESCRIPTION OF TRAINING PROGRAMME**

### **2 Days Government Certification on INTERNET OF THINGS (IOT)**

**Live Interactive Session**

#### **COURSE CONTENT:-**

Topics to be covered:

**Introduction to IOT** (Understanding IoT fundamentals)

IOT Architecture and Protocol) **Microcontroller Programming-** (Arduino Architecture, Setup of the IDE, Arduino Software)

Arduino Libraries, Interfacing LED, Push button and buzzer with Arduino, Interfacing with LDR)

**Sensor Interfacing with Microcontroller-** (Overview of Sensor working, Analog and Digital Sensor, Ultrasonic distance sensor, IR Sensor Interface)

**Cloud Platforms for IoT-** (Bluetooth Interfacing, Introduction to Node MCU, Study of IoT Cloud platform)

Thing Speak and MQTT, IoT Security - Challenges towards IoT Security)

Smart City using LoRaWAN, Edge Computing, Tensor Flow for IoT

IoT Security, IoT Development, Industrial IoT using.

## **Benefits of IoT Training**

### **Reduced Costs**

### **Higher Efficiency and Productivity**

### **Creating New Business Opportunities**

### **Improved Customer Experience**

## **Manufacturing**

Manufacturers can gain a competitive advantage from IoT-based production-line monitoring because it enables proactive maintenance of equipment when sensors detect an impending failure.

## **Automotive**

Aggregated data collected by IoT-based applications helps automotive suppliers and manufacturers understand how to keep cars running and car owners informed.

## **Transportation and Logistics**

Thanks to IoT sensor data, fleets of vehicles that move inventory can now be redirected in response to climatic changes, modifications in the accessibility of available vehicles, or changes in the availability of drivers.

## **Retail**

With the help of weight sensors integrated into smart shelves, RFID-based data can be collected, sent to an IoT platform, and then used to automatically track inventory and notify users when supplies are running low.

- Personalized And Remote Learning.
- Real-Time Data.
- Management Efficiency.
- Accessibility And Safety.
- Increased Engagement.

- Tracking Devices.
- Smart Classrooms And Textbooks.

**Date- 28 & 29 September 2024 (2 Days) Time- 5 pm to 8 pm**

**1) Course Fee: Rs. 3000/- (Study material in softcopy shall be provided)**

**FOR MORE DETAILS PLEASE CONTACT:**

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