

# E&ICT Academy, PDPM IIITDM Jabalpur

# Online Winter Faculty Development Programme IoT Applications with Sensors, Embedded Systems, and Data Analytics

## February 17 - 28, 2025: Online live streaming

## Jointly Organized by

**IIT Roorkee** 



IIITDM Jabalpur



NIT Patna



IIT Guwahati



MNIT Jaipur



#### **Course Contents and Schedule**

#### [February 17 - 28, 2025, 4:00 PM to 8:00 PM]

- IoT Fundamentals: Introduction to IoT and its applications.
- Hardware and Platforms: Arduino hardware, Tinkercad for simulations, and hands-on prototyping.
- Programming and Communication: IoT programming environments, serial communication, and protocols like UART, I2C, and SPI.
- Networking and Cloud Integration: WiFi, LoRaWAN, cloud platforms, and IoT databases.
- Data Analytics in IoT: Collecting, processing, and analyzing data from IoT devices using cloud-based tools and databases.
- Hands-on skills using platforms like Tinkercad, Arduino, and cloud databases for IoT experimentation.
- Demonstration of effective pedagogy strategies for teaching IoT concepts and tools.

#### **Coordinators**

Prof. Vijay Kumar Gupta,
Joint- Principal Coordinator, IIITDM Jabalpur
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Prof. Sanjeev Manhas and Prof. Rahul Thakur, Principal Coordinator, IIT Roorkee Email: eict@iitr.ac.in

#### **RESOURCE PERSONS**

- Prof. Rahul Thakur, IIT Roorkee
- Prof. Sudeepta Mishra, IIT Ropar
- Dr. Anbumunee Ponnaih, Chief Technical Officer, IBM India

### **Registration Details**

Registration link – Please fill in the registration form using the following link:

https://forms.gle/gJWniP6pnn4Xq9vp7

Registration fee: INR 500/-

Last Date for Registration: February 13, 2025

#### **Contact Details**

- Email: academy@iiitdmj.ac.in, eict@iiitdmj.ac.in
- Mr. Durgesh Kushwaha (+91 7898670354)

Online payment details:

Internet banking

Beneficiary Name: PDPM IIITDM Jabalpur

Bank Name: INDIAN BANK A/C No.: 50018692852

IFSC Code: IDIB000M694

• **UPI ID**: iiitdmj@indianbk



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