

## ABOUT ELECTRONICS & ICT ACADEMIC AT PDPM IIITDM JABALPUR

The Ministry of Electronics and Information Technology, Government of India, has instituted seven Electronics and ICT Academies with one academy at PDPM IIITDM Jabalpur. The primary objective of the Academy is to prepare manpower for two important missions - 'Digital India' and 'Make in India'. The Academy aims at scalable training programmes in niche areas of Electronics and ICT for the development of required knowledge base, skills, and tools to unleash the talent of the Indian population. In addition to the faculty development programmes on fundamental and advanced topics, the Academy conducts customized training programmes for the corporate sector and research promotion workshops in emerging areas. The Academy is envisioned to become a central hub of activities on training, research, consultancy work, and entrepreneurship programmes.

## ABOUT PDPM IIITDM JABALPUR

PDPM IIITDM Jabalpur was established in 2005 with a focus on education and research in IT-enabled Design and Manufacturing. Since its inception, PDPM IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution in India's mission of inclusive and sustainable growth. The Institute offers undergraduate, postgraduate and PhD programmes in Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Design and PhD programmes in Mathematics, Physics and Literature. Under IIIT act, the Institute has been declared as an Institute of National Importance in January 2015. The Institute campus is being developed on 250 acres of land close to Dumna Airport, Jabalpur. The Institute is 10 km from the main railway station and 5.5 km from Dumna Airport, Jabalpur.

## ORGANIZING COMMITTEE

### CONVENOR COMMITTEE:

**Dr. K. Gopal, I.A.S.,**

Additional Chief Secretary to Government,  
Higher Education Department, Government of Tamil Nadu.  
Chairman, Vice Chancellor Convenor Committee,  
Anna University.

**Smt. J. Innocent Divya, I.A.S.,**

Commissioner, Directorate of Technical Education,  
Government of Tamil Nadu.  
Member, Vice Chancellor Convenor Committee,  
Anna University.

**Dr. S. Usa**

Professor and Chairperson, Faculty of Electrical Engineering,  
Anna University.  
Member, Vice Chancellor Convenor Committee,  
Anna University.

### PATRON:

**Dr. J. Prakash**

Registrar  
Anna University, Chennai

**Dr. P. Hariharan**

Director (CCC)  
Anna University, Chennai

### E& ICT ACADEMY, IIITDM JABALPUR:

**Prof. Bhartendu K Singh**

Director, IIITDM, Jabalpur

**Prof. Aparajitha Ojha**

E&ICT Academy, Chief Investigator

### CORE TEAM:

**Dr. T. Senthil Kumar**

Dean & Nodal Institute Head  
University College of Engineering, BIT Campus

**Dr. P. Vaishnavi**

Nodal Officer  
Department of Computer Applications  
University College of Engineering, BIT Campus

**Dr. A. Valarmathi**

Programme Coordinator  
Department of Computer Applications  
University College of Engineering, BIT Campus

### COURSE COORDINATORS:

**Dr. P. Vaishnavi**

Nodal Officer  
Department of Computer Applications  
University College of Engineering, BIT Campus

**Dr. B. Karthiga**

HOD  
Department of Electronics and Communication Engineering  
Dhanalakshmi Srinivasan Engineering College (Autonomous),  
Perambalur

**Mr. R. Robin Jesubalan**

HOD  
Department of Electronics and Communication Engineering  
PSN Engineering College, Tirunelveli

## ONLINE WINTER FACULTY DEVELOPMENT PROGRAMME

(Live Streaming)

## IoT APPLICATIONS WITH SENSORS, EMBEDDED SYSTEMS AND DATA ANALYTICS

FEBRUARY 17 - 28, 2025

Sponsored by



सत्यमेव जयते

Ministry of Electronics and Information Technology  
Government of India  
(A Pilot Project - Phase II)

Jointly organized by



IIT Guwahati



IIT Roorkee



NIT Patna



MNIT Jaipur



IIITDM Jabalpur

Hosted by



PROGRESS THROUGH KNOWLEDGE

Anna University, Chennai  
University College of Engineering, BIT Campus,  
Tiruchirappalli

## ABOUT UNIVERSITY COLLEGE OF ENGINEERING, BIT CAMPUS, ANNA UNIVERSITY, TIRUCHIRAPPALLI

University College of Engineering (UCE), BIT Campus, Anna University, Tiruchirappalli has been established in 1999 and now functioning as a constituent college of Anna University, Chennai. UCE-BIT Campus, Anna University has become sufficiently multifaceted with 7 Faculties with 16 Teaching Departments including some specialized programmes. Our institute has NBA Accreditation and offers 10 B.E/B.Tech. Undergraduate degree programmes, 8 M.E/ M.Tech Masters degree programmes along with MBA, MCA and Ph.D. programmes in all discipline with 4628 students in the campus. We are the TEQIP II sponsored institution with UGC 2f & 12B status.

The unique dimension of the institute's educational profile harnesses the research and teaching interests of the faculty to forge its own character and to bring an extra value-addition to it. The departments of our institute are carrying out specialized and socially responsive interdisciplinary research. Our institute has 2 Centres funded by DST and AICTE. UCE, BIT Campus received research and consultancy from various funding agencies of India for a total value of 300 Million Rupees. We are the recipient of Anna University Patent Awards for three successive years. Our students grab Hackathon titles for 5 consecutive years from various Ministries of Government of India.

The Institution works towards developing partnerships with industries and academic institutes to provide quality education & opportunities for entrepreneurial development by having EDII-Anna Business Incubation Research Foundation (Section 8, Not for Profit Company). We also have EDII-Academic Innovation & Entrepreneurship Development Programme Hub (EDII-Tiruchirappalli Hub) funded by Government of Tamilnadu. The main objective of the institute is to generate a horde of highly creative professionals, who can contribute not only to the Human Resource Development and also to Nation building exercise.

## FACULTY DEVELOPMENT PROGRAMME IOT APPLICATIONS WITH SENSORS, EMBEDDED SYSTEMS AND DATA ANALYTICS

**Who can attend:** Programme is open to faculty members from all colleges and universities preferably from Tamil Nadu. Faculty members from other states are also eligible. Industry personnel working in the concerned/allied discipline may also apply. Limited seats are available for research scholars and PG Students.

### COURSE CONTENTS

#### Introduction and Fundamentals

- Introduction to Internet of Things, Introduction to IoT Platforms and Programming Environment

#### Arduino Basics and Hardware

- Introduction to Arduino Hardware, Digital Input/Output, Analog Input/ Output

#### Communication Protocols

- Introduction to Serial Communication, Communication Protocols: UART, I2C, SPI

#### Networking and IoT Integration

- Networking in IoT: WiFi and LoRaWAN, IoT and Cloud

#### IoT Data and Analytics

- Data Collection and Analytics in IoT, Experimentation on Tinkercad, IoT Platforms and Programming Environment, Experimentation with Serial Monitor, UART Sensors, Experimentation with Arduino Libraries, Board Manager, Experimentation on Cloud Platform and Database, Experimentation with I2C, SPI Sensors

### RESOURCE PERSONS

- **Prof. Rahul Thakur**, IIT Roorkee
- **Prof. Sudepta Mishra**, IIT Ropar
- **Dr. Anbumunee Ponnaihi**, Chief Technical Officer, IBM India

## REGISTRATION DETAILS

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

<https://docs.google.com/forms/d/e/1FAIpQLSdoADiBuo1F7v2n68hQ5fTeu4coIKZHWPVvVfS7zMJDIr5uQ/viewform?usp=sharing>

**Time:** 04:00 PM to 08:00 PM

**Registration fee:** INR 500/-

**Last Date for Registration:** February 13, 2025

### Online payment details:

#### Internet banking:

Beneficiary Name: PDPM IIITDM Jabalpur  
Bank Name: INDIAN BANK  
A/C No. : 50018692852  
IFSC Code: IDIB000M694

**UPI ID :** iitdmj@indianbk



PDPM IIITDM JABALPUR

SCAN & PAY



UPI ID : iitdmj@indianbk

### CONTACT DETAILS

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