About Electronics & ICT Academy at PDPM IIITDM Jabalpur

The Ministry of Electronics and Information Technology (MeitY), Government of India has instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDPM IIITDM Jabalpur aims at scalable training programmes in niche areas of Electronics and ICT for the development of the required knowledge base, skills and tools to unleash the talent of the Indian population. In addition to the faculty development programmes (FDPs) on fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized training programmes for students, corporate sectors and research promotion workshops in emerging areas. The Academy is identified by MeitY as the central hub for training, internships, research, and consultancy programmes.

About NIAMT Ranchi

The **National Institute of Advanced Manufacturing Technology (NIAMT)**, Ranchi formerly NIFFT is a premier **CFTI** & Deemed University established in **1966** under the Ministry of Education, Government of India. Originally a specialized foundry & forge centre, it has evolved into a 65-acre multidisciplinary hub for **Industry 4.0** and smart manufacturing.

The institute offers specialized **B.Tech, M.Tech, and Ph.D.** programs in branches like Manufacturing, Metallurgy, Mechanical, & **Computer Science & Engineering**. With a curriculum integrating AI, IoT, and Cyber-Physical Systems, NIAMT bridges traditional engineering with future-ready technologies. Renowned for its cutting-edge research in secure intelligent networks and deep industry ties, NIAMT provides the academic rigor and practical expertise essential for leading in the global industrial landscape.

Faculty Development Programme

Next Generation Technologies for Smart Networks: Zero Trust, Federated Learning and Blockchain

Modern smart networks are revolutionizing infrastructure across Industry 5.0 and smart cities. As connectivity expands, traditional perimeter security becomes insufficient, emphasizing the need for advanced defenses against sophisticated cyber-attacks and identity spoofing. This FDP helps you stay ahead in cybersecurity and protect future infrastructure.

This FDP explores the powerful convergence of Zero Trust Architecture (ZTA), Blockchain, and Federated Learning (FL), offering you a chance to learn about innovative security solutions. Participants will master decentralized identity (DID), smart contract security, and AI-driven threat detection. Join us to navigate this innovative roadmap and secure the future of autonomous intelligence and critical infrastructure.

Who can attend: The Programme is open to faculty from all colleges, universities, and technical and professional institutes. Students, fresh graduates, researchers, and industry personnel working in allied disciplines can also attend.

Important Dates:

Last Date of Online Registration: June 07, 2026

FDP Dates: June 10 -19, 2026

Coordinators:

Dr. Ranjeet Kumar Ranjan, PDPM IIITDM Jabalpur

Dr. Rahul Mishra & Dr. Madhu Kumari, NIAMT, Ranchi

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Faculty Development Programme

Next Generation Technologies for Smart Networks: Zero Trust, Federated Learning and Blockchain

June 10-19, 2026 (online mode)

Jointly Organized by

Electronics and ICT Academy IIITDM Jabalpur

AND

National Institute of Advanced Manufacturing and Technology, Ranchi

An Initiative of Ministry of Electronics and Information Technology, Government of India

Faculty Development Programme

Next Generation Technologies for Smart Networks: Zero Trust, Federated Learning and Blockchain

RESOURCE PERSONS

- Dr. Arup Kumar Pal, Associate Professor, IIT(ISM), Dhanbad
- Dr. Abdul Wahid, Assistant Professor, IIIT Dharwad
- Dr. Jitesh Pradhan, Assistant Professor, NIT Jamshedpur
- Dr. Preeti Soni, Assistant Professor, NIT Warangal
- Dr. Pankaj Kumar, Assistant Professor, MANIT Bhopal
- Mr. Ranjan Kumar Singh, Barco Electronics, Belgium
- Dr. Aasish Tomar, Assistant Professor, MITS Gwalior
- Dr. Satya Prakash Maurya, Assistant Professor, MMMUT, Gorakhpur
- Dr. Sangram Ray, Associate Professor, NIT Sikkim

COURSE COORDINATORS

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Course Contents

- Zero Trust Maturity Model
- Decentralized Identity (DID)
- Password less Ecosystems
- Enterprise Blockchain
- Smart Contract Security
- Federated Learning (FL) Foundations
- Privacy-Enhancing Technologies
- Blockchain-Orchestrated AI
- Identity of Things (IDoT)
- Intelligent Network Convergence

Hands-On Sessions

- **Provisioning Bot Identities:** Hands-on lab on generating **Decentralized Identifiers (DIDs)** for autonomous agents
- **Smart Contract Driven Resource Allocation**
- **Real-Time Threat Detection for Bots**
- **Threat Modeling for Smart Ecosystems:** Analyzing evolving attack vectors in Industry 5.0, including **Side-Channel Attacks**, **Man-in-the- Middle (MITM)** on IoT, and advanced persistent threats (APTs).
- **Privacy-Preserving Cryptography**
- **Implementing Zero Trust for Machine-to- Machine (M2M) Interaction**
- **Security Orchestration, Automation, and Response (SOAR)**

Programme Features

- Exposure to advanced security frameworks including Zero Trust Architecture, Federated Learning, and Blockchain for smart networks.
- Opportunities to connect with experts in the field.
- Instructor-led rigorous hands-on sessions with online (live streaming) sessions.
- Certificate on successful completion with full access to the course material.

Registration Details

- Registration link – Please fill out registration using the following link: https://forms.gle/7QksMkjEpKTULDjv8
- Registration fee: 500/- INR
- Last Date for Registration: June 7, 2026

- **Internet banking**

Beneficiary Name	**PDPM IIITDM Jabalpur**
Bank Name	**Indian Bank**
A/C No.	**50018692852**
IFSC Code	**IDIB000M694**

- **UPI ID: iiitdmj@indianbk**
- **QR Code:**

PDPM IIITDM JABALPUR
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