

## 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 the MeitY as the central hub of activities on training, internships, research, and consultancy 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 to 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. Further, the Institute offers an undergraduate programme in Smart Manufacturing. Under IIT act, the Institute has been declared as an Institute of National Importance. The Institute campus is developed on 250 acres of land close to Dumna Airport, Jabalpur. The Institute is 10 kms from the main railway station and 5.5 kms from Dumna Airport, Jabalpur.

## Faculty Development Programme

### Modern Machine Learning & Deep Learning Paradigms for Signal and Image Analysis

This course is designed to provide participants with in-depth knowledge of modern ML and DL techniques for signal and image analysis. It focuses on emerging approaches for processing and interpreting complex signals and visual data. The programme aims to equip educators and researchers with practical skills to develop intelligent systems for real-world applications including medical imaging, remote sensing, and multimedia analysis.

**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 30, 2026**

**FDP Dates: July 06-12, 2026**

### Coordinators:

**Dr. Amit Vishwakarma,**  
Assistant Professor, ECE Department  
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### Contact us:

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## Faculty Development Programme

### Modern Machine Learning & Deep Learning Paradigms for Signal and Image Analysis

**July 06-12, 2026 (Online mode)**



## Electronics and ICT Academy, Phase II



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



PDPM Indian Institute of Information Technology,  
Design and Manufacturing, Jabalpur  
Dumna Airport Road, Jabalpur 482005

# Faculty Development Programme Modern Machine Learning & Deep Learning Paradigms for Signal and Image Analysis

**July 06-12, 2026 (Online mode)**

## RESOURCE PERSONS

- Sessions will be led by experienced faculty members, distinguished domain experts from reputed academic institutions, and accomplished industry professionals. Some of our esteemed resource persons include:
- Dr. Varun Bajaj, MANIT Bhopal
- Dr. Anurag Singh, IIIT Naya Raipur
- Dr. Irshad Ahmad Ansari, ABV-IIITM Gwalior
- Dr. Vinal Patel, ABV-IIITM Gwalior

## COURSE COORDINATORS

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## Course Contents

- Fundamentals of Signals, Image Processing, and Mathematical Foundations for ML/DL
- Machine Learning Techniques for Signal and Image Analysis (Feature Extraction, Classification)
- Deep Learning Architectures (ANN, CNN) for Image and Signal Processing
- Convolutional Sparse Representation for Signal and Image Modeling and Denoising
- Advanced Topics: Image Enhancement, Segmentation, and Signal Analysis
- Transfer Learning and Multi-Modal/Image Fusion
- Emerging Trend: Edge AI, and Real-Time Applications

## Hands-On Sessions

- Python-based Implementation using NumPy, Pandas, PyTorch/Keras
- Image and Signal Processing using OpenCV, Scikit-Image, SciPy/Librosa
- Implementation of ML/DL Models for Classification and Segmentation
- Implementation of Convolutional Sparse Representation for Denoising and Feature Extraction
- Transfer Learning using Pre-trained Models (e.g., ResNet, VGG)

## Programme Features

- Fundamentals of data representation and processing for signal and image analysis.
- 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/qrb2vEXi3iejwz5h8>
- Registration fee: 500 INR/-
- Last Date for Registration: **June 30, 2026**

## 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](mailto:iiitdmj@indianbk)**

