

Electronics & ICT Academy at PDPM IIITDM Jabalpur



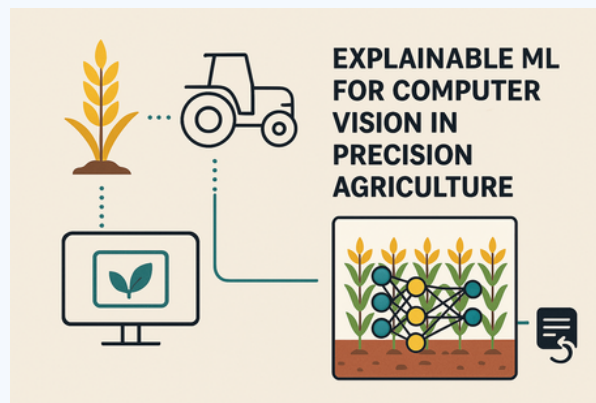
MeitY, Government of India has instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDPM IIITDM Jabalpur aims at scalable training programmes in niche areas of Electronics and ICT for the development of the required knowledge base, skills and tools to unleash the talent of the Indian population. The Academy is identified by the MeitY as a hub of activities for capacity building through training, internships, research, and consultancy programmes in fundamental and advanced topics in electronics, information and communication technologies.

ABV-IIITM Gwalior



ABV-IIITM Gwalior, established in 1997 by the Ministry of Human Resource Development, Government of India, is India's premier institute offering quality education in Information Technology and Management. Located in Gwalior, Madhya Pradesh, it fosters a culture of inquiry and research in a competitive academic environment with strong industry connections. Certified NAAC 'A' and declared an Institute of National Importance, ABV-IIITM focuses on excellence in education and collaboration with the corporate world.

Online Faculty Development Programme on “Explainable AI in Computer Vision for Precision Agriculture” 23-30 April, 2025



This Program aims to equip faculty members with advanced knowledge of Explainable AI (XAI) techniques and their role in transparent decision-making for agricultural applications. It focuses on leveraging computer vision for precision agriculture tasks like crop health monitoring, smoke detection, etc. while ensuring interpretability through methods like SHAP, LIME, and Grad-CAM. The program includes hands-on training, integration with edge and cloud computing, and discussions on ethical considerations and policy frameworks. Additionally, it fosters research capabilities and encourages academia-industry collaboration to drive innovation in AI-driven precision agriculture.

Who can attend: Faculty, PhD Research Scholars, and Industry personnel

Important Dates

Last Date of Online Registration: April 22, 2025

<https://forms.gle/U2AiV3jnZXKXqM5d6>

Online FDP Dates: 23-30 April, 2025

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**Jointly Organized by
ABV-IIITM Gwalior**



and

**Electronics and ICT Academy
IIITDM Jabalpur**



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



Online Faculty Development Programme on “Explainable AI in Computer Vision for Precision Agriculture”

23-30 April, 2025

Resource Persons

Faculty Members across the globe will provide lectures and hands-on sessions.

Prof. Aparajita Ojha, PDPM IIITDM, Jabalpur.
Prof. P. B. S. Bhadoria, IIT Kharagpur.
Prof. T. K. Bhattacharya, IIT Kharagpur.
Prof. Pritee Khanna, PDPM IIITDM, Jabalpur.
Prof. Partha Pratim Roy, IIT Roorkee.
Prof. Mahua Bhattacharya, ABV-IIITM Gwalior.
Prof. João Mendes-Moreira, University of Porto, Portugal.
Prof. Sanjay Kumar Sharma, RVSKVV Gwalior.
Prof. Rajendra Machavaram, IIT Kharagpur.
Dr. Sourasekhar Banerjee, Uppsala University, Sweden.
Dr. Nabajyoti Mazumdar, IIIT Allahabad.
Dr. Akshay Pandey, PDPM IIITM, Jabalpur.
Dr. Manish Bhanu, RGIPT.

Coordinators

- Dr. Poornima Singh Thakur, IT, ABV-IIITM Gwalior (+91 90980 90553, poornima@iiitm.ac.in)
- Dr. Saswata Roy, IT, ABV- IIITM Gwalior (+91- 7761807224, saswata@iiitm.ac.in)
- Prof. Mahua Bhattacharya, Head of Department, IT, ABV-IIITM Gwalior(+91-78989 47142, mb@iiitm.ac.in)
- Dr. Akshay Pandey, CSE, PDPM IIITDM Jabalpur (+91-90745 25228, drakshay@iiitdmj.ac.in)

Programme Features

- Develop AI models that provide transparent and interpretable explanations for agricultural decision-making.
- Highly Interactive Sessions with theoretical and practical applications.
- Instructor-led, hands-on sessions.
- Worldwide connections with prominent researchers.

Course Contents

- Precision Agriculture & Its Importance.
- Introduction to AI & ML.
- Introduction to Computer Vision.
- Importance of Object Detection Algorithms & Federated Learning in Agriculture.
- What is Explainable AI (XAI)?
- Implementation of various Trendy DNN models using Keras and PyTorch platforms.
 - Advanced Convolutional Neural Networks (CNNs) models such as AlexNet , VGGNet , ResNet etc.
 - Region-Based Models such as Faster R-CNN, YOLO etc.
 - Transformer Network based models such as ViT, Swin Transformer.
 - CAM, LIME, SHAP etc.

Hands-On Sessions

We have designed Practice Sessions that aid the participants in understanding different applications in real-world datasets and development of research techniques for each of the previous topics

Registration Details

- **Who can attend:** Faculty and Research Scholars
- **Registration link** – Please fill out registration using the following link: <https://forms.gle/U2AiV3jnZXKXqM5d6>
- **Registration fee:** Rs.500/- (INR)
- **Last Date for Registration:** April 22, 2025
Seats are Limited to 50* only (*On a first come-first serve basis)

Online Payment Details

- **Internet banking**

Beneficiary Name	MS. ABV-IIITM FDP ACCOUNT, ABV-IIITM
Bank Name	BANK OF INDIA IIITM CAMPUS
A/C No.	945210110009380
IFSC Code	BKID0009462

- **UPI ID and QR Code:** boi-945263969380@boi

