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. 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, the Academy conducts customized academic programmes for students, corporate sectors and researchers.

About ABV-IIITM Gwalior

Atal Bihari Vajpayee Indian Institute of Information Technology & Management 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
IoT and Machine Learning for Advanced Biomedical Signal Processing

The objective of the program is to equip participants with the skills and knowledge to develop and implement cutting-edge healthcare solutions. By integrating IoT technologies for real-time data collection with advanced biomedical signal processing and machine learning techniques, participants will learn to analyze and interpret complex health data. The program aims to foster innovation in predictive health monitoring, early disease detection, and personalized medical interventions, ultimately enhancing patient care and outcomes through the effective use of technology.

Who can attend: Faculty or PhD. Scholars

Important Dates

Last Date of Online Registration: January 3, 2025
https://forms.gle/ptzGx7xVVMSXFKh3A

Online FDP Dates: 15-24 January, 2025

Online Faculty Development Programme
On
IoT and Machine Learning for Advanced Biomedical Signal Processing

Jointly Organized by
ABV-IIITM Gwalior

विश्वजीवनामृतं ज्ञानम्

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
IoT and Machine Learning for Advanced Biomedical Signal Processing

15-24 January, 2025

Resource Persons

Faculty Members from IITs, IIITs, NITs, and Industry experts shall deliver lectures and hands-on.

Coordinators

- Dr. I. A. Ansari, EEE, ABV-IIITM Gwalior (9109106995, iaansari@iiitm.ac.in)
- Dr. Pragya Swami, EEE, ABV-IIITM Gwalior (9008391562, pswami@iiitm.ac.in)
- Dr. Biswabandhu Jana, EEE, ABV-IIITM Gwalior (9062325746, bjana@iiitm.ac.in)
- Dr. Amit Vishwakarma, ECE, PDPM IIITDM Jabalpur (07612794481, amitv@iiitdmj.ac.in)

Course Contents

- Introduction to IoT in Biomedical Applications:
  - Sensor technologies and communication protocols.
  - Data transmission methods in IoT systems.
- Biomedical Signal Processing:
  - Fundamentals of filtering, feature extraction, and noise reduction.
  - Techniques for preprocessing and analyzing physiological signals.
- IoT System Design:
  - Designing and implementing IoT-based biomedical monitoring systems.
  - Working with sensors to collect data (e.g., ECG, EEG, glucose levels).
  - Applying advanced signal processing and machine learning techniques to biomedical data.

Hands-On Sessions

The laboratory sessions offer hands-on experience in designing and Implementing loT based biomedical monitoring systems. Participants will work with various sensors to collect physiological data, such as ECG, EEG, and glucose levels. They will learn to preprocess and analyze these signals using advanced signal processing techniques. Mostly, hands-on sessions will be taken using open-source software like Python, Octave etc.

Theory and Lab: 20 hours +20 hours

Programme Features

- Rigorous training for theoretical and practical knowledge
- Opportunities to connect with experts in the field.
- Instructor-led rigorous hands-on sessions
- Mode of the course: **Online**
- Timing: 15-24 January, 2025
  - Morning Sessions: 10:00 A.M. to 12:00 Noon (2 hours)
  - Evening Sessions: 03:00 PM - 05:00 PM (2 hours)
- E-Certificate will be provided to all the participants.

Registration Details

- **Who can attend**: Faculty and Research Scholars (PhD)
- **Registration link**: Please fill out registration using the following link: https://forms.gle/ptzGx7xVVMSXFKh3A
- **Registration fee**: INR 500
- **Last Date for Registration**: 03 January, 2025
- **Seats Limited to 50* only** (*On first come-first serve basis)

Online Payment Details

- **Internet banking**

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

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

PDPM IIITDM JABALPUR
SCAN & PAY
UPI ID : iiitdmj@indianbk