**Faculty Development Programme Advances** 

Materials for Sustainable Energies

### 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, and Communication Electronics Engineering, Mechanical Engineering, Design and PhD programmes in Mathematics, Physics and Literature. Further, the Institute offers an undergraduate programme in Smart Manufacturing. The Institute has been declared an Institute of National Importance. The Institute campus is developed on 250 acres of land near Airport, Jabalpur.

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### About Faculty Development Programme

Over the past few years, there have been fast-changing technological advancements in the area of Renewable energy, Electric vehicles etc. Renewable energy systems that comprise of Solar, Wind, Biomass and small Hydro contributes to around 162 GW of installation capacity of total power generation in India. In the recent past, the application of solar energy to electric vehicles is being explored for the sustainable energy solutions. The knowledge about the latest trends in Advance materials for Renewable and sustainable energy needs to be disseminated amongst faculty, students, and research scholars. Hence this course is designed to provide fundamental knowledge of advanced semiconductors and research areas based on emerging material with an emphasis on sustainable energies.

This program is designed to equip educators with cutting-edge knowledge and practical skills in the field of sustainable energy solutions. As the global demand for clean, renewable energy sources grows, understanding the materials that make these technologies possible is crucial. Participants will explore advancements in photovoltaic cells, battery storage, fuel cells, and other innovative materials. By fostering expertise in these areas, we aim to empower faculty to inspire the next generation of engineers and scientists dedicated to creating a sustainable future

**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. Faculty Development Programme Advances Materials for Sustainable Energies



#### **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

# **Broad contents of the FDP**

- Sustainable Energy aspects
- Clean Energy Conversion Technologies
- Renewable and Non-renewable energy sources
- Solar Photovoltaics
- Solar Thermal Energy Conversion
- Fuel Cells
- Supercapacitors
- Hybrid Energy System
- Batteries & Electrodes
- Hydrogen Production, Storage and Utilization
- Novel Energy Storage Materials
- Climate Change and Sustainable
  Development

# **Resource Persons**

The programme will be conducted by the faculty members from IIITDM Jabalpur. Various eminent experts and academicians in the related fields from IITs/NITs/IIITs/ CSIR Labs are invited to deliver lectures in the programme.

## **Important Dates**

FDP dates May 26-31, 2025 (Hybrid/Online mode)

Last Date of Online Registration: May 20, 2025

# **Course Coordinator:**

Dr. Pankaj Sharma, Assistant Professor Department of ECE, PDPM IIITDM Jabalpur

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# **Registration Details**

• Registration link:-

Please fill out registration form using the following link: https://forms.gle/P1DDELsc4GR8w8nt8

• Registration fee:-

Rs.1000/- (for offline participation) Rs. 500/- (for online participation)

#### **Online Payment Details**

• Internet banking

Beneficiary	PDPM	IIITDM
Name	Jabalpur	
Bank Name	INDIAN BANK	
A/C No.	50018692852	
IFSC Code	IDIB000M69	94

#### • UPI ID: iiitdmj@indianbk

