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 IIIT 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

Advanced Semiconductor Devices

The course is designed to provide fundamental knowledge of advanced semiconductor and emerging research areas with an emphasis on generative modeling and fabrication for cutting-edge applications. It seeks to provide comprehensive insights into semiconductor devices and to disseminate knowledge about the latest advancements within the research community. The workshop will help the participants to identify the problems and find solutions for the fundamental aspects to minimize the research gap existing in this domain.

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: Jan 25, 2025

FDP Dates: February 03-08, 2025

Coordinator:

Dr. Dip Prakash Samajdar, Department of ECE, PDPM IIITDM Jabalpur

Contact us:

academy@iiitdmj.ac.in, eict@iiitdmj.ac.in

Ms A Pandey, Managing Associate: 7999863597

Faculty Development Programme

Advanced Semiconductor Devices

February 03-08, 2025 (Hybrid 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

Advanced Semiconductor Devices

February 03-08, 2025 (Hybrid mode)

RESOURCE PERSONS

- Prof. Mahesh Kumar, IIT Jodhpur
- Dr. Jhuma Saha, IIT Gandhinagar
- Dr. Avirup Dasgupta, IIT Roorkee
- Dr. Aviru Kumar Basu, INST Mohali
- Dr. Rahul Pandey, Chitkara University, Panjab
- Dr. Indranil Mal, IIT Delhi
- Dr. Vibhuti Chauhan, MANIT Bhopal
- Dr. Neeraj Jaiswal PDPM IIITDM Jabalpur
- Dr. Dip Prakash Samajdar, PDPM IIITDM Jabalpur
- Dr. Vishal Sharma, Micron Technologies
- Ms. Pooja Kumawat, NVIDIA

Course Contents

- Nanoscience and Nanotechnology
- Modeling of Semiconductor devices
- Simulation and Modeling of Microelectronic Devices
- DFT Studies of 2D Semiconductors
- FET-based Biosensors and Machine Learning
- Quantum Dot Systems
- New-generation Solar Cells
- Fabrication of Solar Cells
- MEMS/NEMS Devices
- CMOS Memories
- Sensors for Smart Applications

Hands-On Sessions

- Simulation of Optoelectronic Devices
- Simulation of VLSI-Nanoscale Devices using Sentaurus TCAD
- DFT Calculations Via Quantum Expresso
- Simulation of Solar Cells using SCAPS-1D

COURSE COORDINATOR

Dr. Dip Prakash Samajdar,
Department of ECE,
PDPM IIITDM Jabalpur
Email: dip.samajdar@iiitdmj.ac.in

Programme Features

- Fundamentals of Advanced semiconductor device
- Opportunities to connect with experts in the field.
- Instructor-led rigorous tutorials sessions with hybrid mode.
- Certificate on successful completion with full access to the course material.

Registration Details

- Registration link – Please fill out registration using the following link: https://docs.google.com/forms/d/e/1FAIpQLSeNwHNgZFhyyk4m8capNJG07RTwsP12YTU5VUpGdcuKAtHFvw/viewform?usp=sf_link
- Registration fee: 1000/- INR for offline participation and 500/ for online participation
- Last Date for Registration: **Jan 5, 2025**

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**