Online Faculty Development Programme on

Semiconductor Devices, Circuits & Sensors: Applications and Research Perspective

June 9 – 20, 2025

Online Live Streaming (11 AM To 1PM and 2 PM to 4PM)

Jointly organized by Electronics and ICT Academies
Established by the Ministry of Electronics and Information Technology, Govt. of India

NIT Patna | IIITDM Jabalpur | IIT Guwahati | IIT Kanpur | IIT Roorkee | MNIT Jaipur | NIT Warangal

Objective (Electronics & ICT Academy-Phase II)

1. To conduct specialized FDPs for faculty/mentor training in line with the vision of MeitY by promoting emerging areas of technology and other high-priority areas that are pillars of both the "Make in India" and the "Digital India" programs.
2. To promote synergy and collaboration with industry, academia, universities and other institutions of learning, especially in emerging technology areas.
3. To support the National Policy on Electronics 2019 (NPE 2019) which envisions positioning India as a global hub for ESDM sector, including MeitY Schemes/policies such as Programme for Semiconductors and Display Fab Ecosystem; India AI; National Programme on AI, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.
4. To promote standardization of FDPs through Joint Faculty Development Programmes.
5. To support the vision of the National Education Policy (NEP 2020), which mandates that Indian educators go through at least 50 hours in professional development programmes per year.
6. To design, develop & deliver specialized FDPs on emerging technologies/ niche areas / specialized modules for specific research areas for Faculty in Higher Education Institutions (HEI), besides FDPs on multi-disciplinary areas connected with ICT tools and technologies and other digital hybrid domains, covering a wide spectrum of Engineering. and non-engineering colleges, polytechnics, ITIs, and PGT educators.

Joint-Principal Coordinator
Dr. Koushik Dutta,
Assistant Professor, ECE
Email: koushikdutta@iiitdmj.ac.in
Mobile: 9163080083
PDPM IIITDM Jabalpur

Principal Coordinator
Dr. B. C. Sahana,
Associate Professor, ECE
Email: sahana@nitp.ac.in
NIT Patna

An intensive **40-Hour** training programme is being organized for faculty and doctoral students of various domains, including engineering, science, management and finance. It is also open to working professionals from industry/R&D organizations. The programme will run **11:00 AM to 1:00 PM, 2:00 PM to 4:00 PM.**

Resource Persons

Prof. Sudeb Das Gupta, IIT Roorkee
Dr. Brajesh Rawat, IIT Ropar
Prof. Shreepad Karmalkar Director, IIT Bhubaneswar
Prof. Yogesh Singh Chauhan, IIT Kanpur
Prof. Sneh Saurabh, IIIT Delhi
Dr. Amritanshu Pandey, IIT BHU
Dr. Abhishek Dixit, IIT Delhi
Prof. Jawar Singh, IIT Patna
Prof. Saurabh Pandey, IIT Patna
Dr. Rajesh Saha, NIT Silchar
Dr. Menka Yadav, MNIT Jaipur
Dr. Shubham Tayal, Synopys
Note: Other Experts are also from IIT/NIT/IIIT.

Programme Modules:

- Basics of Semiconductor Device Physics
- Advanced CMOS Devices: FinFETs, GAA-FETs, and Nanosheet FETs
- Device Modeling and Simulation using TCAD Tools (Synopsys/Silvaco)
- Metal Oxide and 2D Nanostructures for Sensor Applications
- Sensor Design for Biomedical and Environmental Applications
- Perovskite and Organic Solar Cells: Physics and Device Design
- Solar Cell Simulation using SCAPS-1D
- Circuit Design and Implementation using Nanoscale Devices
- Flexible and Printed Electronics: Materials and Applications
- Hybrid Heterostructures and Nanomaterials
- Integration of Semiconductor Devices in IoT and AI Systems
- Research Trends, Challenges, and Funding Opportunities in Semiconductor R&D

Registration Link: https://forms.gle/VJ6AKAhyA1CwKM6S8

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

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

Certification Fee: Academic (Faculty / Students): ₹ 500/-
Industry Professionals / Others: ₹ 1500/-
The fee covers course material and certification charges.

Contact for queries: Mr. Durgesh Kushwaha 789 867 0354
academy@iiitdmj.ac.in, eict@iiitdmj.ac.in