Jointly Organized by
Electronics & ICT Academy

MNIT Jaipur, NITP, IITR, IITG, IITK, NITW, IIITDMJ
http://www.mnit.ac.in/eict

Online Programme on
Semiconductor Devices, Circuits & Sensors: Applications & Research Perspective (Part-II)

9th June –20th June, 2025

Faculty Development Programme
Electronics & ICT Academy under aegis of

Ministry of Electronics and Information Technology
Government of India

meity.gov.in/content/schemes-projects

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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 specialised FDPs on emerging technologies/ niche areas/ specialised 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.

An intensive 40 Hours Training Programme in Online mode is being organized for faculty and doctoral students of engineering and technological institutions. It is also open to working professionals from industry/organizations. The main theme of the training program will be oriented around exploring the state-of-the-art methods for Semiconductor Devices & Sensors: Applications & Research Perspective.

Experts/Speakers-

Prof.Sudeb DasGupta, IIT Roorkee
Dr.Brajesh Rawat, IIT Ropar
Prof. Shreepad Karmalkar Director, IIT Bhu
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.**

***Online Live Streaming of the program**
*** Recorded Lectures and PPTs will be provided**
*** Time: 11 AM To 1 PM and 2 PM to 4 PM**

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

MNIT Jaipur -Coordinator:

Dr. Menka Yadav 9549650791(M)

Registration:(Email: fdp.academy@mnit.ac.in)
Registration is open to faculty, working professionals, industry persons, doctoral, postgraduate and graduate students.Participants will beadmitted on first-come first-served basis. Register online at– (http://online.mnit.ac.in/eict/)

CertificationFee:

	Online
From Academia (faculty/PhD scholars):	500/-
Working professionals, Industry, research staff/technical staff/students& Others	1500/-

(A)Fee once paid will not be refunded back.
(B)The fee covers participation in the programme, tutorial notes and examination, certification charges& food charges (classroom only)
(C) The organizers should receive the registration amount through online mode-NEFT/UPI,provided at the registration portal.(D) Detailed schedule will be shared after receiving registration form

MNIT Jaipur one of the oldest NITs, the institute has a rich heritage of sixty years producing world class engineers, managers, architects and scientists. Ranked 43rd nationally in the NIRF ranking-2024 (Engineering), the institute offers learning opportunities for undergraduate, postgraduate students, and researchers in various domains.Having a lush green campus of over 317 acres within the heart of the pink city, close to Jaipur International Airport, the campus offers a safe and lively environment. A world class teaching infrastructure, state-of-art laboratories welcome you at the campus.The institute has a vision to impart education of international