



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON Advancement in Nanoelectronics, Energy Conversion and Storage Technology: Design, Fabrication Methodologies and Applications (14th May - 23rd May, 2025)



Organised by
Electronics & ICT Academy (Hub), NIT Warangal
in association with
E&ICT Academy (Spoke), NIT Raipur, Raipur – 492010, Chhattisgarh
&
Sponsored by
Ministry of Electronics and Information Technology (MeitY), GoI

This workshop is a comprehensive 10 days (**ONLINE**) program with an aim of empowering participants with the essential skills and knowledge required for the emerging field of semiconductors, energy conversion and storage technologies. The proposed workshop aims to bridge the gap between theoretical concepts with fabrication feasibilities and its practical applications, providing participants with hands-on experience in VLSI Design and development. The efficacy of this workshop would be significant for addressing the crucial problems of climate change, efficient utilization of sustainable and renewable energy sources. It will provide comprehensive understanding of the practical applications of semiconductor technologies and its applications along with insights into the latest advancements in this area.

Major Course Content:

- Advances in VLSI Technology: Evolution, VLSI circuit layout design and Challenges
- Low-Power Semiconductor Devices and 2D materials with its application in electronics.
- SoC Design flow and methodologies, microsensors and Instrumentation for smart applications
- Synthesis of emerging materials for optoelectronics and photovoltaic application.
- Recent trends in sustainable technologies: flexible solar cell, energy storage devices, supercapacitors.
- Hands on session on design and simulation analysis of thin film solar cell in SCAPS-1D, SETFOS.
- Design and Analysis of nanoscale devices with Quantum Simulator

Faculty conducting this programme:

The program will be conducted by the faculty members from NIT Raipur; Academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures in the program. Speakers from industries are also expected to deliver as part of the course.

Fee Particulars

Participants need to pay the Registration Fee Online using the following details

Faculty	Rs. 750/-
Industry Participants	Rs. 2250/-

Online Transfer Details

Account Name: **Electronics & ICT Academy NITW**

Account No: **62423775910**

IFSC: **SBIN0020149**

Bank and Branch: **State Bank of India, NIT(REC) Warangal**

How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/jx8XZA5Tf1RNkMdc9>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a preferable maximum number of 50 (fifty). Candidates will be issued satisfactory certificates on successful completion of the course.

Important Dates:

Last date (Application)	15.04.2025
Selection List by E- mail	30.04.2025
Duration:	14.05.2025 to 23.05.2025

About NIT Warangal:

National Institute of Technology, Warangal, is the first among 17 RECs set up as a joint venture of the Government of India and the state government. Over the years, the college has established itself as a premier Institute imparting technical education of a very high standard, leading to B.Tech degrees in various branches of engineering, M.Tech., and Ph.D. programs in various specializations. All B. Tech and M. Tech programs of NIT Warangal are NBA accredited.

About NIT RAIPUR:

The Institute, located in Raipur City of Chhattisgarh State established in 1956 with two engineering disciplines, has shown advancements, innovations and progression in the field of science and technology over past decades in this region. NIT Raipur provides a wide range of undergraduate and postgraduate programs in various engineering discipline. It currently offers 12 undergraduate, 11 Postgraduate and 18 Ph.D programs.

The institute promotes Ph.D. and also under takes R & D activities, provides testing, consultancy and other extension services including continuing education to the industry by facilitating industry-institute interaction in various disciplines of engineering.

The Institute is contributing to the technological, industrial and economical growth of the region and the nation over the years. The focus on industry-relevant courses, and its contribution to the development of the state through research and outreach programs makes it a significant contributor to India's engineering landscape.

Coordinators

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