



# ONLINE FACULTY DEVELOPMENT PROGRAM (FDP)

ON

## Recent Research Trends and Applications of Nanoelectronics

3<sup>rd</sup> Oct - 7<sup>th</sup> Oct 2023

Organized by

**CENTRE FOR TRAINING AND LEARNING, NIT Warangal**

(Established under the PMMMNMTT Scheme, Ministry of Education, Govt. of India)

in association with

**Department of Electronics and Communication Engineering**

**National Institute of Technology, Warangal**

### PREAMBLE

The Centre for Training and Learning (CTL) has been established at NIT Warangal with grants from the Min. of Education, through its scheme "Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)". Under this Scheme, a separate building has been built exclusively for the CTL activities, with the state-of-art training facilities that include a studio for production and uploading of video and e-lectures on various subjects of higher education, training halls to train the faculty in various theme areas of Science and Technology, Humanities and Social Sciences, Linguistics and Communication skills, Pedagogy and Cognition Evaluation, etc. among others. One of the important objectives of the Centre is to conduct training programs for the aspiring, newly inducted and in-service faculty in science, engineering, social sciences disciplines in higher education. Other activities of the CTL include preparation of print and e-learning materials, offering on-line courses, curriculum design, carrying out research in educational technology and pedagogy and integrating with ICT into teaching-learning process. The CTL has special programs of training for the marginalized and women-faculty.

### ABOUT FDP

This FDP is devoted to address the need to enhance the knowledge about the latest development pertaining to recent research trends and applications of nanoelectronics and is being conducted at National Institute of Technology, Warangal. The course will offer learning relevant to nanoscale device and circuit design and development including modelling, simulation, device fabrication and their application in real time. The topics will focus on basics, advances and applications to benefit people from academic and research communities associated with Science and Engineering. The whole course is handled by academicians and industry experts.

### MAJOR COURSE CONTENTS

- Impact of Self-Heating on Linearity Performance of Gate-All-Around MOSFETs
- Point-Contact Diodes to Nanosheet Transistors
- Metal Oxide Nanostructures for Sensing Applications
- TCAD based Investigations of Some Nonconventional Nanoscale Transistors
- Analysis of Vertical GAA Tunnel FET
- Biomedical Applications of Nanoelectronics Devices
- Nanosheet FET: Low Power Applications
- Smart Cities and Health care Application
- Energy Harvesting Circuits using novel semiconductor devices

### FACULTY CONDUCTING THIS PROGRAM

The program will be conducted by the faculty members from NIT Warangal and Academicians in the concerned field from

IITs/NITs/IIITs have been invited to deliver lectures in the program.

### REGISTRATION FEE PARTICULARS

Faculty	Rs.1000/-
Students / Research Scholars	Rs. 500/-
Industry Participants	Rs.2000/-

Participants need to pay the registration fees online using the following details

#### Online Transfer Details

Account Name: **Head, CTL NITW**  
Account No: **40376545007**  
IFSC: **SBIN0020149**  
Bank and Branch: **SBI, NIT (REC) Warangal**

### HOW TO APPLY

Participants are required to fill the online registration form by clicking on the following link: <https://forms.gle/Qra3zJKqVmBQcPRb8>

### SELECTION CRITERIA

Selection will be done based on first-come-first-serve to a maximum number of 100 (Hundred). The list of selected participants will be intimated through e-mail. In case the candidate is not selected, the registration amount will be refunded. Candidates will be issued certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

### IMPORTANT DATES

Last date for Registration	29 <sup>th</sup> September, 2023
Selection List by E- mail	30 <sup>th</sup> September, 2023
Duration	3/10/2023 to 7/10/2023

### ABOUT NIT WARANGAL

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 31 post-graduate programs besides doctoral programs. About 5000 students across the country and about 500 international students' study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state-of-the-art library, seminar halls, guest houses and research laboratories.

### COORDINATOR

**Dr. Ekta Goel**

Assistant professor, Department of ECE

NIT Warangal

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For more details, please visit: <https://www.nitw.ac.in/tlc/>