

### Objective of the workshop:

Optoelectronic devices are basically electronic devices which involves light as one of the parameters for its functioning. Optoelectronic devices have been widely used in telecommunications, medical equipment, military services, display technologies etc. The main objective of this workshop is to impart knowledge through hands on experience in the field of fabrication of optoelectronic devices & sensors to the faculty, researchers and students. This workshop is very useful for teachers and researchers to teach as well as to carryout research in the field of optoelectronic devices & sensors fabrication and characterization techniques.

### Topics to be covered in the Workshop:

#### Lectures / Hands-on training on

- Lectures on fabrication of DSSC, OLED, LCD and Sensors
- Developments in the field of dye sensitized solar cells
- Advancements in Perovskite solar cells
- Recent advances in liquid crystal towards photonic applications
- Advancements in OLED display technology
- Basics and Hands-on training on
  - Thin film deposition (**Thermal evaporation and Spin coating methods**) and characterization (**UV/Vis - DRS, Resistivity by Four probe method, etc.**).
  - Device fabrication (**DSSC, OLED, LCD & Sensors**) and characterization (**I-V, Electroluminescence studies for OLED, voltage and frequency response for LCDs**).

### Resource Persons:

Faculty and scientists from IIT's, centrally funded research Institutes / Universities and NIT Warangal will deliver lectures and demonstrate/assist in fabrication of optoelectronic devices such as DSSC, OLED, LCD & Sensors.

### Registration is open to:

Faculty members / Research Scholars of Institutions of higher education in Science, Engineering and Industry who teach / do research in the related areas of optoelectronic devices and materials.

### How to Apply:

Interested candidates can submit the online registration form (**Online only**) available in the program website (under registration tab) **on or before 31-04-2019**. ([Click here to apply online](#)) As the program is conducted in a workshop mode with hands-on sessions, the number of participants in the workshop is limited to 40. **Candidates are advised to apply early to avoid disappointment. Selected applicants will be intimated through E-mail on or before 05-05-2019.**

*A five day Continuing Education Program*

*On*

## ***Fabrication of Optoelectronic Devices & Sensors – Hands-on Experience (FODS-2019)***

*As part of*

***Diamond Jubilee Celebrations of NIT (REC), Warangal***

**17<sup>th</sup> – 21<sup>st</sup> June, 2019**

*Sponsored by TEQIP - III*

**Coordinators:**

**Dr. D. Paul Joseph**

**Dr. V. Jayalakshmi**

**Dr. K. Thangaraju**



**Organized by**

**Department of Physics**

**National Institute of Technology, Warangal – 506 004,  
Telangana State, India.**



### Payment of Registration Fee:

After receiving the intimation about selection, the applicant has to pay the required registration fee on or before **31-05-2019**. Registration fee must be remitted only through online / NEFT to the Bank Account given below:

Account Name	TEQIP III FUNDS
Account Number	37583198741
Bank	State Bank of India
Branch	REC Warangal (NIT Campus)
IFSC code	SBIN0020149

Only after receiving the proof of payment of registration fee from the participants through E-mail, they will be sent confirmation of their participation through E-mail immediately.

### Registration Fee:

Category of Participants	Local Participants (With working lunch)	Residential Participants (accommodation, breakfast, lunch & dinner included)	Industry Participants
Faculty/Post-doctoral fellow/ Research scholars from other institutions	Rs. 1,000/-	Rs. 2,000/-	Rs. 5,000/-
Internal Faculty/Scholars/Students	Rs. 500/-	-	-

### Accommodation:

Accommodation for outstation participants will be provided upon request in the Institute visitors block and/or international student's hostel. No travel assistance will be provided.

### Brief profile of the Department of Physics:

The Department of Physics is involved in teaching UG and PG students of Engineering and Science Programs. The department has highly qualified, motivated and experienced faculty, who guide Ph. D scholars and execute research projects. The department offers a three year M.Sc. (Tech.) Engineering Physics program with specializations in Photonics, Electronics and Instrumentation. The department is actively engaged in research and has a number of sponsored R & D projects on hand. The areas of research include nanomaterials, glasses and biomaterials, magnetic materials, bio-polymers, photonics, electronics, biomedical instrumentation, transparent conducting oxides, liquid crystal displays, organic LED's and solar cells. The department has MoU's with reputed industries and R & D organizations like BEL, CSIO, ELOIRA, etc.

### 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 32 post-graduate programmes besides doctoral programmes. 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.

**Note:** Experiments related to the above topics will be demonstrated and the participants will be given opportunity to perform the experiments in a team.



### About Warangal:

Warangal is the second largest city of the newly formed Telangana state. It is situated at a distance of 140 km from the state capital Hyderabad (Nearest Airport). It is well connected by Rail (Kazipet Junction is two km away and Warangal Station is 12 km away) and by Road (NH 202). Warangal is renowned for its rich historical and cultural heritage. It was the seat of erstwhile Kakatiya dynasty. It is a seat of tourist attractions with a number of historical monuments like Thousand Pillars Temple, Warangal Fort, Bhadrakali Temple, Ramappa Temple and Lakknavaram Lake located in a radius of 30 kms.



**For any queries regarding this workshop, please contact:**

**Dr. D. Paul Joseph**

**Dr. K. Thangaraju**

Department of Physics  
National Institute of Technology, Warangal  
Telangana State, 506004, India.



**Weblink**

**E-mail :** fods2019@gmail.com

**Ph. :** 8332969475, 8332969476

**Website :** <https://goo.gl/KGRnTS>