



# Three Days National Workshop on Recent Advancements in Semiconductor Devices (NWRASD)-2024



**JULY 1-3, 2024**

**Organized by**

Department of Electronics and Communication Engineering  
PDM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur

**Supported by**

Anusandhan National Research Foundation (Formerly, SERB)  
IEEE Nanotechnology Council Chapter, OPTICA Student Chapter, PDM IIITDM Jabalpur, Madhya Pradesh

## ABOUT PDM IIITDM JABALPUR

PDM IIITDM Jabalpur was established in 2005 with a focus on education and research in IT-enabled Design and Manufacturing. Since its inception, PDM IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution in India's mission of inclusive and sustainable growth. The Institute offers undergraduate, postgraduate and PhD programmes in Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Design and PhD programmes in Mathematics, Physics and Literature. Under IIIT Act, the Institute has been declared an Institute of National Importance in January 2015.

## ABOUT ECE DEPARTMENT

The discipline of Electronics and Communication Engineering (ECE) has a perfect combination of teaching and research activities in the field of Electronics and Communication. Since its inception, the main objective of the discipline has been to impart quality education, hands-on training and research in the frontier areas of Electronics and Communication Engineering with a broad focus on IT-enabled design and manufacturing. Interdisciplinary research between the research groups of the discipline and with other disciplines and institutes is also in practice. The broad areas of research and academic activities in the discipline are Microwave and Communication Engineering, Signal and Image Processing, Micro & Nano Electronics and Power and Control. The Department has a current faculty strength of 18.

## ABOUT WORKSHOP

The primary aim of this Workshop on Recent Advancements in Semiconductor Devices (NWRASD) is to facilitate the enhancement of technical education standards across the nation while aiding technical institutions in promoting research, innovation, and entrepreneurship in emerging scientific fields. Specifically, the NWRASD seeks to provide comprehensive insights into semiconductor devices and to disseminate knowledge about the latest advancements within the research community. The workshop will help the participants to identify the problems and find solutions for the fundamental aspects to minimize the research gap existing in this domain.

## CALL FOR ABSTRACT

Authors are invited to submit abstracts for poster presentation to be presented at NWRASD-2024. For more information, please visit the workshop website.

## TOPICS TO BE COVERED

- Nanoscience and Nanotechnology
- Modelling of Semiconductor devices
- Simulation and Modeling of Microelectronic Devices
- DFT Computation
- FET-based Biosensors and Machine Learning
- Photonics and Nanofabrication
- New-generation Solar Cells
- Fabrication of Solar Cells
- MEMS/NEMS Devices
- Tandem solar cell & Related Topics

**TUTORIAL SESSIONS ON VARIOUS SIMULATION TOOLS :  
SCAPS-1D, QUANTUM ESPRESSO AND CADENCE**

## Speakers



**Prof. Satyabrata Jit**  
IIT (BHU), Varanasi



**Prof. S. Chakrabarti**  
IIT Bombay



**Prof. Haranath Ghosh**  
RRCAT, Indore



**Prof. Jawar Singh**  
IIT Patna



**Prof. Mukesh Kumar**  
IIT Indore



**Prof. Bhartendu Singh**  
PDM IIITDM Jabalpur



**Dr. Dhiman Mallick**  
IIT Delhi



**Dr. Aviru K. Basu**  
INST Mohali



**Dr. Rahul Pandey**  
Chitkara University



**Dr. Jaya Madan**  
Chitkara University



**Dr. Chithraja Rajan**  
RCOEM Nagpur



**Dr. Indranil Mal**  
IIT Delhi

## Organizing Committee

### Chief Patrons

**Prof. Bhartendu Kumar Singh**  
(Director, PDM IIITDM Jabalpur)

### Advisory Committee

**Prof. Pritee Khanna**  
(Dean RSPC & Professor, Dept. of CSE)

**Dr. Matadeen Bansal**  
(HoD & Asst. Prof., Dept. of ECE)

### Prof. P. N. Kondekar

(Professor, Dept. of ECE)

**Prof. Prabin Kumar Padhy**  
(Professor, Dept. of ECE)

**Dr. Mukesh Kumar Roy**  
(Dean Students & Asst. Prof., Dept. of NS)

### Convener

**Dr. Dip Prakash Samajdar**  
Assistant Professor, Dept. of ECE

### Co-Convenor

**Dr. Neeraj K. Jaiswal**  
Assistant Professor, NS-Physics

**Dr. Koushik Dutta**  
Assistant Professor (ECE)

### Student Coordinators

Neelesh Jain, Sadhna Singh, Srishti, Gagan Kumar,  
Babban K. Ravidas, Rituraj Jain, Arya Narayanan,  
Omkar R. Lunge, Divyansh Tiwari

## Contact

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[osasc@iiitdmj.ac.in](mailto:osasc@iiitdmj.ac.in)

## Who can participate?

This workshop is beneficial for faculty members, scientists, industrial professional, doctoral fellows, post-doctoral fellows, PG and UG students.

**Accommodation is available inside the campus for offline participants (Payable).  
Food is included in the registration fee.**

## Registration fee (Non-Refundable)

Type	To attend Workshop			Only Poster Presentation
	Offline		Online*	
	IEEE or OPTICA Member	Non-IEEE or OPTICA Member		
Students	Rs. 1500/-	Rs. 1800/-	Rs. 500/-	Rs. 500/-
Faculty	Rs. 2200/-	Rs. 2500/-	Rs. 1000/-	Rs. 1000/-
Industry	Rs. 2800/-	Rs. 3000/-	Rs. 1200/-	Rs. 1200/-

## Note -

- Certificate of participation will be provided to all registered participants.
- \* Hands-on training will be available only for offline participants.
- Access to lectures will be available to all the participants except for poster presenters.

## Important Dates :

**Last Date of Registration: 10 June 2024**

**Extended Date : 20 June 2024**

**Workshop : 1-3 July 2024**

## Registration Form

Participants are requested to register and make payment compulsorily at the following link.

## Registration Link:

<https://forms.gle/LrNwgmCDEtGbb8Ar5>

## Website:

<https://sites.google.com/iiitdmj.ac.in/nwrasd2024>



(Registration Form)



(Website)