

भारतीय सूचना प्रौद्योगिकी संस्थान भागलपुर  
Indian Institute of Information Technology  
Bhagalpur  
(Institute of National Importance Under an Act of Parliament)



*Five Days Hands-on Workshop*  
on

**“VLSI & Nano-scale Device  
Design & Simulation”  
(Hybrid-Mode)**

**18<sup>th</sup> – 22<sup>nd</sup> December 2023**



**Patron**  
**Prof. Pradip Kr. Jain**  
Director, IIIT Bhagalpur

**ABOUT IIIT BHAGALPUR**

Indian Institute of Information Technology Bhagalpur (IIIT Bhagalpur) is an Institute of National Importance, MoE (earlier MHRD), Govt. of India in Public-Private Partnership (PPP) mode. Bhagalpur is a city of historical importance on the southern banks of the river Ganges in the Indian state of Bihar and popularly known as Silk City. The institute is actively exploring the technical intervention required for the development of the country under the Make in India Initiative. The institute is in notable progress under the able leadership of Prof. Pradip Kr. Jain, Hon'ble Director of the Institute.

In the Department of Electronics and Communication Engineering course offers on M.Tech in VLSI and Embedded Systems, Signal Processing and Machine Learning, Microwave and Communication Systems and PhD in Communication Systems, Signal and Image Processing, Biomedical Engineering, VLSI & Microelectronics, RF & Microwave Engineering, IoT & Sensors, Artificial Intelligence, Soft Computing.

**THEME OF THE WORKSHOP**

It gives an opportunity for participants to get acquainted with modelling & simulation of Next-Generation Nanoscale Devices, Circuits, and its applications in analog, digital & ESD. Furthermore, individual participants will benefit from hands-on with TCAD Device Simulation tool and Circuit Simulation.

**KEY POINTS**

- Hands-on practice of EDA tools using dedicated PC through Any Desk/parallel RS.
- Exposure of recent trends in nanoscale devices and their circuit application.
- In depth discussion of topics from beginning to advanced level with modeling & simulation examples of advanced CMOS devices such as GG-NMOS, SCR, TFET, FinFET etc.
- Dedicated hands-on training sessions for fabrication, design & characterization of advanced nano-scale devices by industry partners through TCAD tool.

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**Sponsored by**

**DST-SERB (Department of  
Science and Technology-Science  
and Engineering Research Board)**

**18<sup>th</sup> – 22<sup>nd</sup> December 2023**

**organized by**

**Department of Electronics and  
Communication Engineering**



**coagenda**

**cā d e n c e<sup>®</sup>**

**in association with**

**COGENDA & CADENCE EDA TOOLS**

**Coordinator**

**Dr. Dheeraj Kr. Sinha**  
ECE, IIIT, Bhagalpur

**Co-coordinator**

**Dr. Sanjay Kumar**  
ECE, IIIT, Bhagalpur

**Number of Seats (Tentative): 30** (on first come first basis)

### Registration Details

Click the following link for online registration:

<https://forms.gle/ita3mWdLnMXhDgvyk8>

### How to register?

- Step 1. click on google link open with your E-mail ID.
- Step 2. Fill in all required details correctly.
- Step 3. Then Submitted it.

### Important Dates:

Start Date for Registration: **01-12-2023**.

Last Date for Registration: **15-12-2023**.

### Registration Fee: Nil

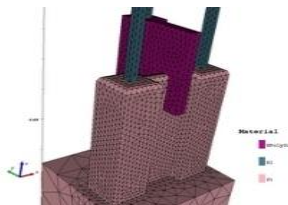
### Test & e-Certificate:

- MCQ based test shall be conducted for the assessment.
- Assessment will also include the performance of the candidate in paper presentation (Team based).
- Candidates must score a minimum of 50% marks in the test.
- The e-Certificate will be provided to the participants, with at least 75% attendance, upon successful completion of the program.

### Who Should Attend?

- Academicians, Research Scholars, B.Tech (UG), and M.Tech Students from Electronics Engineering, and Electronics & Communication Engineering.
- Industry Practitioners engaged in research on control and Conversion of Electrical Power.

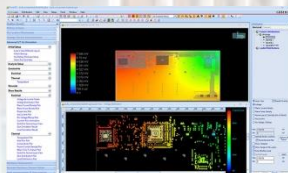
## ABOUT COGENDA



Cogenda provides software products and technical services in semiconductor simulation and other fields of numerical simulation.

Cogenda is a private-owned company with a strong emphasis on research. Having been serving customers from the semiconductor and aerospace industries with challenging and sometimes unconventional engineering objectives, Cogenda has emerged as a partner of in-depth physical insights and practical engineering solutions.

## ABOUT CADENCE EDA TOOL



Cadence design tools are used in a variety of undergraduate and graduate classes to provide practical experience in the design of integrated circuits and systems. Additionally, they are used by several research groups in the design of chips integrating analog, digital, RF and MEMS circuitry, with foundry fabrication.

## CONTACT DETAILS

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## RESOURCE PERSONS

Internationally acclaimed faculty members from premier institutions like IITs, NITs, IIITs and Industries.

## ORGANIZING COMMITTEE

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### Chairperson

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### Co-Coordinator

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### Convenor

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Dr. Suraj, ECE, IIIT Bhagalpur

Dr. Chandan Kr. Jha, ECE, IIIT Bhagalpur

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