

भारतीय सूचना प्रौद्योगिकी संस्थान भागलपुर
Indian Institute of Information Technology
Bhagalpur

(An Institute of National Importance Under an Act of Parliament)



A Five-Day Online
Faculty Development Program

on

Recent Advances and Challenges
in Nanoelectronics Devices
(RACND-2021)

13th - 17th December, 2021

Patron

Prof. Arvind Choubey
Director, IIIT Bhagalpur

Convenor

Dr. Sandeep Raj
ECE, 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. Arvind Choubey, Hon'ble Director of the Institute.

Presently, the institute offers B.Tech in engineering in three disciplines in Computer Science and Engineering, Electronics and Communication Engineering and Mechatronics Engineering. The institute has started Ph.D, M.Tech and Dual Degree M.Tech & Ph.D programs from July 2021.

ABOUT THE DEPARTMENT:

The Department of Electronics and Communication Engineering (ECE) has been evolving since the inception of IIIT Bhagalpur in the year 2017. This department is developed in response to the needs of industry, this course will give you advanced level knowledge and skills in the design of complex electronic and communication systems. The major objective of the department is to impart high-quality education and to encourage the students in pursuing research. Our department has great infrastructure and facilities to bring practical knowledge at par with the global competitive environment.

THEME OF THE FDP

It gives an opportunity for participants to get acquainted with modelling & simulation methodology of recent advances nanoelectronics devices, circuits and its applications in analog and digital domain. Furthermore, it will give to understand the open challenges in nanoelectronics devices such as short channel effect, power dissipation, and switching characteristics with scaling. It will also provide hands-on demonstration of modeling and simulation of recent advances nanoelectronics devices with SPICE and TCAD simulation tool.

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Sponsored by

AICTE Training and Learning
(ATAL) Academy

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organized by

Department of Electronics and
Communication Engineering,
IIIT Bhagalpur

Coordinator

Dr. Sanjay Kumar
ECE, IIIT, Bhagalpur

Co-Coordinator

Dr. Dheeraj Kumar Sinha
ECE, IIIT, Bhagalpur

KEY POINTS

- Keynote speakers from the professors of IITs/NITs/IIITs and industry persons.
- Exposure of recent advances nanoelectronics 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 FinFET, TFET, Junction-less FET etc.
- A discrete view of spintronics, solar cell, optoelectronics devices for the post CMOS era.
- Demonstration of Digital CMOS Logic Design from layout to transistor level circuit design through MICROWIND IC design tool.
- Demonstration of hands-on sessions for fabrication, design & characterization of advanced nano-scale devices by industry partners through COGENDA tool.
- Trends in beyond CMOS technologies and Identify and understand open problems & challenges.

Who Should Attend?

- Academicians, Research Scholars and PG Students from Electrical Engineering, Electronics & Comm. Engineering, Microelectronics and VLSI etc
- Industry Practitioners engaged in research on above relevant area.

Number of Seats (Maximum): 200 (on first come first basis)

Registration Fee: Nil

- Program will be delivered through online mode.
- The participants are advised to apply online at AICTE ATAL registration portal on or before 12th December, 2021 through:

<https://meet.google.com/nnt-jpuk-dwa>

Test & e-Certificate

- A test shall be conducted by the coordinator at the end of the program.
- The e-certificates shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

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REGISTRATION DETAILS

Name (Mr/Ms/Dr).....

Designation

Department.....

Institute/Organization.....

Address

.....

Email:

WhatsApp Number.....

Signature of Applicant

Click the following link for joining the FDP:

<https://meet.google.com/nnt-jpuk-dwa>

CONTACT DETAILS

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Dr. Dheeraj Kumar Sinha

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Phone: +91-7632995205, 9957714542

RESOURCE PERSONS

Prof. Satyabrata Jit, IIT BHU Varanasi
Prof. Sudeb Das Gupta, IIT Roorkee
Prof. Kamalakanta Mahapatra, NIT Rourkela
Dr. Pramod Kumar Tiwari, IIT Patna
Dr. Gaurav Trivedi, IIT Guwahati
Dr. Kunal Singh, NIT Jamshedpur
Dr. Ekta Goel, NIT Warangal
Dr. Gopal Rawat, NIT Hamirpur
Dr. V. Singh Gangwar, LRDE (DRDO)
Dr. Sandeep Raj, IIIT Bhagalpur
Dr. M. Kavicharan, NIT Silchar
Dr. Dheeraj Kumar Sinha, IIIT Bhagalpur
Dr. Amarnath Kulkarni, Yoga & Meditation
Mr. Vinay Sharma, Director, ni logic Pvt. Ltd.

ORGANIZING COMMITTEE

Patron

Prof. Arvind Choubey, Director, IIIT Bhagalpur

Convener

Dr. Sandeep Raj, ECE, IIIT Bhagalpur

Coordinator

Dr. Sanjay Kumar, ECE, IIIT Bhagalpur

Co-Coordinator

Dr. Dheeraj Kr. Sinha, ECE, IIIT Bhagalpur

Advisory Committee

Dr. Gaurav Kumar, HoD, MEA, IIIT Bhagalpur

Dr. P. K. Biswal, HoD, CSE, IIIT Bhagalpur

Organizing Committee

Dr. Prakash Ranjan, ECE, IIIT Bhagalpur

Dr. Suraj, ECE, IIIT Bhagalpur

Dr. Chandan Kr. Jha, ECE, IIIT Bhagalpur

Dr. D. Bhattacharya, ECE, IIIT Bhagalpur

Dr. Chetan Barde, ECE, IIIT Bhagalpur

Mr. Sheelvardhan, ECE, IIIT Bhagalpur

Mr. Rajan Kumar, ECE, IIIT Bhagalpur

SCHEDULE PLAN
A Five-Day Online Faculty Development Program
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Date	10:00 AM to 10:30 AM	10:30 AM to 11:30 AM	11:30 AM to 01:30 PM	02:00 PM to 02:30 PM	02:30 PM to 04:30 PM
13/12/2021	Inauguration	Session 1 Prof. K. Mahapatra, NIT Rourkela	Session 2 Prof. Satyabrata Jit, IIT BHU Varanasi		Session 3 Dr. Dheeraj Kumar Sinha, IIIT Bhagalpur
14/12/2021	10:00 AM to 12:00 PM Session 4 Dr. Gopal Rawat, NIT Hamirpur		12:00 PM to 02:00 PM Session 5 Dr. Pramod Kumar Tiwari, IIT Patna		Session 6 Dr. Gaurav Trivedi, IIT Guwahati
15/12/2021	Session 7 Dr. Amarnath Kulkarni, Yoga & Meditation		Session 8 Dr. Veer Singh Gangwar, LRDE (DRDO)		Session 9 Dr. M. Kavicharan, NIT Silchar
16/12/2021	Session 10 Dr. Sandeep Raj, IIIT Bhagalpur		Session 11 Prof. Sudeb Das Gupta, IIT Roorkee		Session 12 Dr. Ekta Goel, NIT Warangal
17/12/2021	Session 13 Mr. Vinay Sharma, Director, Technical, NI logic Pvt. Ltd. (LAB -I)		Session 14 Dr. Kunal Singh, NIT Jamshedpur		Session 15 Test & Valediction

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