

## REGISTRATION FEES:

| Date                             | Category                                  | Fee          |
|----------------------------------|---|--------------|
| By 25 <sup>th</sup><br>Feb. 2018 | B.Tech/M.Tech/B.Sc/<br>M.Sc/Ph.D Students | INR 4,500.00 |
| By 25 <sup>th</sup><br>Feb. 2018 | Faculty/Industry<br>Personnel             | INR 6,000.00 |

\* Registration Fee includes Stationary Kit, Soft and Hard Copy of Study Materials, Participation Certificate, Refreshment etc.

\* Seats are limited for this short term course. Participants will be selected on first-cum-first serve basis.

## IMPORTANT DATES:

Last Date for Receipt of  
Application through E-Mail- **25/02/2018**  
Regn. Confirmation by E-mail - **26/02/2018**  
Course Commencement - **05/03/2018**

## CONTACTS:

**Mr. Kshirodra Kumar Bhoi : +91-9853607311**  
**+91-7978933058**  
**Email\_Id: kkbhoi.1993@gmail.com**

## CONTACT ADDRESS:

**Coordinator, STC on Modelling and Simulation of  
Nano Scale Semiconductor Devices and Recent Trends in VLSI  
Technology.**

Dept. of EE, National Institute of Technology  
Rourkela-769008, Odisha, India. Mobile:  
7008113959, Phone: 0661-2462413 (O), email:  
[pksahu@nitrkl.ac.in](mailto:pksahu@nitrkl.ac.in)

**NOTE :** Mail Subject must be superscribed as  
"Registration for STC on Modelling and Simulation of  
Nano Scale Semiconductor Devices and Recent Trends in VLSI  
Technology"

## Short Term Course on

*Modelling and Simulation of Nano Scale  
Semiconductor Devices and Recent Trends  
in VLSI Technology.*

(05<sup>th</sup> to 11<sup>th</sup> March, 2018)

## Registration Form

1. **Name :** \_\_\_\_\_
2. **Sex (M/F):** \_\_\_\_\_
3. **Category:** Student / Faculty / Industrialist
4. **College / Organization Name:** \_\_\_\_\_

5. **Highest Academic Qualification:** \_\_\_\_\_

6. **Address for Correspondence:**

**Phone/Mobile:**

**Email:**

7. **Accommodation Required:**

Yes/No (In the Institute Hostel)

8. **Online Registration Fee Payment Details:**

Amount \_\_\_\_\_ Transaction Id: \_\_\_\_\_

Transaction Date \_\_\_\_\_ Date:

Place:

Signature of Participant

Forwarded by Head of the Department / Institute

Signature (with Seal)

## Short Term Course on

*Modelling and Simulation of Nano  
Scale Semiconductor Devices and  
Recent Trends in VLSI Technology*



05<sup>th</sup> March 2018-11<sup>th</sup> March 2018

**Coordinator,**  
**Prof.(Dr.) P. K. Sahu**



Dept. of Electrical Engineering,  
National Institute of Technology  
Rourkela – 769008.

### COURSE OBJECTIVE:

Considering the importance of *Modelling and Simulation of Nano Scale Semiconductor Devices* in various applications, the course is mainly intended to train the students, research scholars, faculties and industry personnel for exploring the novel applications. To meet the growing demands in the above mentioned fields, this course will focus on theoretical as well as practical demonstrations for creating opportunities to the professionals in right platform. Participants will get an opportunity with Hands-on training.

### ABOUT DEPARTMENT OF EE:

The main objective of the Department is to impart high quality education and research. The major research areas of the department include Power Electronics and Drives, Control and Automation, Power System Engineering and Electronic Systems and Communication. The EE department is handling several research projects sponsored by external funding agencies. The Department has well equipped with modern laboratories such as Power Electronics Lab., Power System Lab., Control & Robotics Lab., Microwave Lab., Nano Electronics Lab., Signal Processing & Communication Lab., and Real Time Embedded Systems Lab. for pursuing research in the emerging areas of Electrical Engineering.

### COURSE HIGHLIGHTS:

- Basics of Electronics, Band diagram, Types of semiconductor
- Introduction to TCAD software for Modeling and Simulation.
- Simulation of PN junction diode (Energy band diagram, e-field, current flow profile etc.).
- Introduction to MOSFET (Bulk MOSFET, Nano structure, SOI structure, Double gate structure).
- Advances in Transistors (MESFET, HEMT, MOSHEMT, FINFET etc).
- Fabrication Technology (S-visual, S-process, Inspect.).



*All the Lab classes will be followed by background theory classes covered by the experts*

### ABOUT NIT ROURKELA:

National Institute of Technology (NIT), Rourkela was founded as Regional Engineering College, Rourkela in 1961. It is a prestigious Institute with a reputation for excellence at both undergraduate and postgraduate levels, fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied.

The city of Rourkela is a bustling industrial city, cosmopolitan by nature and is well connected to all parts of the country by road and rail. It is en-route Howrah-Mumbai main line of South-Eastern Railway. Nesting amidst greenery on all sides, NIT campus is approximately 7km from Rourkela railway station. The nearest airports are Ranchi, Kolkata and Bhubaneswar, which are well connected by trains.

### MODE OF PAYMENT & REGISTRATION:

Payment should be done through NEFT (Online Banking). **Account Name:** Continuing Education, NIT RKL, **Bank Name:** State Bank of India, **Branch Name:** SBI, NIT, Campus, Rourkela, **Account Number:** 10138951784, **IFSC Code:** SBIN0002109.

Scanned copy of the Registration Form and Online Payment Details should be sent through email.

### ACCOMMODATION:

Accommodation will be provided in Hall of Residences of NIT Rourkela as per availability. At Rourkela mercury level comes down to below 10 degree Celsius in winter, hence participants are required to carry their own winter clothes for the purpose.