

## A Short Term Course on

### *Design & Simulation of Antenna and Microwave Devices*

(3<sup>rd</sup> -10<sup>th</sup> June, 2015)

#### **Coordinator**

***Prof. S. K. Behera***

#### **Co-coordinator**

***Prof S. Maiti***



Dept. of Electronics & Comm. Engg.  
National Institute of Technology  
Rourkela – 769 008.

#### **COURSE OBJECTIVE:**

The main objective of this short term course is to provide an opportunity for students, research scholars, faculty and industry personnel to get an exposure in the field of Microwave and Antennas. The short term course is to give an insight into field by discussion of necessary theoretical background as well as demonstration through simulation. Participants will get an opportunity 21 hours in hand training of ANSYS EM package.

#### **ABOUT MICROWAVE AND ANTENNA DESIGN LABORATORY**

The main objective of the Department is to impart high quality education and research. The major research areas of the department include Communication engineering, Signal Processing, Image and video Processing, VLSI and Embedded Systems, Microwave and Antenna Engineering. The EC department is handling several research projects sponsored by external funding agencies. The department has resourcefully established Microwave and Antenna Design Lab equipped with different types of state of art Licensed software(ANSYS HFSS, ANSYS DESIGNER, CST Microwave Studio, MATLAB) and hardware.

#### **COURSE HIGHLIGHTS:**

- ❖ Basic Introduction to Microwave Devices and Antenna Systems.
- ❖ Introduction to ANSYS Designer
- ❖ Introduction to ANSYS HFSS

- ❖ Simulation of different microwave components using ANSYS Designer.
  - ❖ Simulation of microwave components using ANSYS HFSS.
  - ❖ Simulation of different types of basic Antennas using ANSYS HFSS (Wire and Planar)
  - ❖ Combined Simulation of Antenna and its supporting systems using HFSS and Designer.
  - ❖ Introduction to Optimization in ANSYS.
- ✓ *All the Lab classes will be followed by background theory classes covered by experts.*

#### **INTENDED ATTENDEES:**

The course is designed primarily to train students, professionals, scholars, faculties to take up microwave, antenna, RF communication as a career option in academic and industry. Students and faculties of Electronics, Electrical and Computer Science & Engineering would find this course extremely useful.

#### **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.



#### WEBSITE:

<http://nitrkl.ac.in/Academic/6ShortTermCourse/Default.aspx>

#### MODE OF PAYMENT:

Payment should be done in DD in favor of "Continuing Education, NIT Rourkela" payable at SBI, NIT Campus Branch. (Code: 2109).

#### ACCOMMODATION:

Accommodation will be provided in Students' hostel or Visitors' hostel of NIT, Rourkela as per availability. For hostel & Visitor Hostel room rent will be charged as per actual.

#### REGISTRATION AND FEES:

Date	Category	Fee
Before 25 <sup>th</sup> May 2015	BTech/MTech/PhD students	INR 5000.00
After 25 <sup>th</sup> May 2015	BTech/MTech/PhD students	INR 5500.00
Before 25 <sup>th</sup> May 2015	Faculty/Industry personnel	INR 7000.00
After 25 <sup>th</sup> May 2015	Faculty/Industry personnel	INR7500.00

#### IMPORTANT DATES:

Last date of receipt: **25/05/2015**  
 (Completed application form with Draft)  
 Selection letters to be e-mailed: **30/05/2015**  
 Course Commences on: **03/06/2015**

#### CONTACTS:

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#### MAILING ADDRESS:

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**NOTE :** Please mention on the envelope "**Design & Simulation of Antenna and Microwave Devices** "

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#### **Registration Form**

1. Name : \_\_\_\_\_
2. Sex (M/F): \_\_\_\_\_
3. Category: Student / Faculty / Industry
4. College / Organization name: \_\_\_\_\_  
\_\_\_\_\_
5. Highest Academic Qualification: \_\_\_\_\_
6. Address for Correspondence:

Phone/Mobile:

Email:

7. Accommodation Required: Yes/No  
(Hostel/Visitor Hostel)

8. Bank Draft Details:

Amount \_\_\_\_\_ Draft No: \_\_\_\_\_

Drawn on \_\_\_\_\_

Date:

Place: Signature of Participant

Forwarding remark of the Head of the Department / Institute

Signature (with seal)