## Winter school on

# Embedded System Design 9th Dec - 14th Dec 2013

#### **INTRODUCTION**

Embedded System finds its application in various electronic equipments such as medical equipments, consumer electronics, communication systems, avionics, industrial process plants, robotics and the like. This course is intended to teach the participants various design techniques involved in practice to develop Embedded System. It provides a detailed knowledge about hardware platforms including general purpose processors, software platforms, operating systems, and memory and interfacing devices.

#### **COURSE CONTENTS**

- Introduction to Embedded System
- Design and Development of Embedded Systems
- Embedded Processors & Controllers
- Interfacing of Peripherals
- Control Systems, Memory
- ❖ Real Time Operating System (RTOS)
- Hardware Software Co-Design
- IC Technology
- ❖ DSP/FPGA based Embedded System
- System On Programmable Chip
- Trends in the Embedded Industry

#### TOOLS TO BE USED

 KEIL (8051), Code Warrior(HCS12), Code Composer Studio(DSP 6713), Altera Quartus II & SOPC Builder

Knowledge of Basic and Digital Electronics is a pre-requisite.

## **INTENDED AUDIENCE**

The course is designed primarily for beginners who are interested in pursuing their carrier in the field of Embedded System and its application in industry and academics. Students and Faculties of Electronics, Electrical and Computer Science & Engineering would find this course extremely useful.

### REGISTRATION AND FEE PARTICULAR

Student	5000/-
Faculty	7000/-

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

#### **ACCOMMODATION:**

Accommodation will be provided in Students' hostel or guest house of NIT, Rourkela as per availability with prior request. Guest house accommodation will be provided with an additional guest house charge. However hostel accommodation will be of free of cost.

#### **IMPORTANT DATES**

Last date of receipt: 25/11/2013

(Completed application form with Draft)

Selection letters to be mailed: 20/11/2013 Course Commences on: 09/12/2013

## 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 town, 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.

#### **CORRESPONDENCE**

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