About the Institute

National Institute of Technology Jamshedpur was originally founded as Regional Institute of Technology in1960. Later, it was upgraded to National Institute of Technology on 27th December 2002, with the status of Deemed University. It is now totally under the control of Ministry of Human Resources Development (MHRD), Government of India, New Delhi, since April 2003. The Institute offers B. Tech, M. Tech, M.C.A., M.Sc., and PhD degrees in various disciplines of Engineering, and Sciences.

About the Departments

Department of Electronics and Communication Engineering was established in 1989, has its core strength in the leading area of electronics and communication technology. Department offers an undergraduate program in Electronics and Communication Engineering and post graduate program in Embedded Systems Engineering and Communication Systems Engineering and PhD program in various research area. The Department has highly motivated faculty and well established laboratories to meet the requirements of UG, PG and PhD students.

Eligibility

This program is open to
UG/PG students,
research scholars,
faculty members and
industry personnel.

Mode of Conduction of the Course

The course will be conducted in online mode preferably through Google Meet. Links will be sent to the participants via email.

Registration Procedure

The registration will be in online mode. The link for online registration is https://docs.google.com/forms/d/e/1FAIpQLSdpr8hsnEZaC-Cl5H4bSBIxr3M6OAZ34XwBgwfixGNW5DIOnQ/viewform

There is no registration fee for the course. Brochure and registration link can also be found in the institute website: **http://www.nitjsr.ac.in. Registration Deadline: Upto 23rd November 5 pm IST.** However, first 80 participants based on first come first acceptance will be considered for the course

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Short Term Course On

Recent Advances in Electronic Devices for Real Life Application (REDA-2020)

24th -28th November, 2020

Coordinators

Dr. Swagatadeb Sahoo
Dr. Basanta Bhowmik
Dr. Kunal Singh

Organized By
Department of Electronics and Communication Engineering

National Institute of Technology Jamshedpur
(An Institute of National Importance)
Jamshedpur, Jharkhand, India, PIN-831014
www.nitjsr.ac.in

Abstract

The Electronic Devices is often receives an external input or stimuli and converts it into an equivalent or amplified signal in different form. The world of Electronic Devices plays a dominant role in the evolution of human civilization. The term "Device" is used in a broader sense that covers almost everything from human artificial transplant devices to the location of a space vehicle. Mostly demands from non-invasive disease diagnosis, agriculture, aerospace, defence, automotive and bio-medical branches led to the development of high speed new generation devices with much better performance and capabilities than the existing conventional one. Evolution of the Vacuum tube to three pin contact transistor and then nano technology based sensor devices for real life application will be the main agenda in this course. Further, course will offer starting from nanomaterial synthesis to material characterizations, device fabrication and finally their intended use in real life application. Attendee will be given idea about clean room device fabrication employing both chemical and physical process.

Topics to be covered

Smart Devices for disease diagnosis
Nano Sensor for Agriculture
Materials for thermoelectric application
MEMS based Chemical Sensors
Resistive sensor Devices
Capacitive sensor Devices
Graphene based sensor
Microwave sensors
Thin film Devices

Resource Persons

The speakers will be from IITs, NITs, and Central University.

PATRON

Prof. K.K. Shukla, Director, NIT Jamshedpur

CHAIRPERSON

Dr. Shiva Nand Singh, Professor,
HOD, Dept. of ECE

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