ABOUT ROURKELA

Rourkela is one of the centers of Indian SAIL industry. It is situated in northern region of the state Orissa and close to Ranchi and Tatanagar. It is the headquarters for Sundhargarh district which is known for green valleys of the nature. With German sponsorship, the steel plant has started in early 1950s and has now developed in its full scale. The city is situated in the north eastern railway division of Kolkata-Mumbai route. There are good number of waterfalls, and dams around the city. It is approximately 400 km from Bhubaneswar, 100 km from Ranchi and 300 km from Kolkata. NIT Rourkela campus is located in residential sector which is around 10 km from Rourkela railway station.

ABOUT NIT ROURKELA

National Institute of Technology, Rourkela (founded as Regional Engineering College, Rourkela) has been presently offering B.Tech, M.Tech, MBA and MCA Courses in various disciplines with annual intake of about 2000 students. Institute also offers excellent facilities for advanced research in the emerging areas of Science and Technology leading to Ph.D. degree. The institute has well qualified and dedicated faculty along with finest supporting staff, laboratories and other infrastructure. The syllabus and the curricula are constantly being updated to meet the growing demands and need of the country in different areas of technology. The infrastructure is geared to enable the Institute to turn out technical personnel of a high quality.

ABOUT DEPARTMENT

Department of Mechanical Engineering is a oldest department in NIT Rourkela. The department imparts training for the students in different practical disciplines for pure Mechanical Sciences as well as those under interdisciplinary programs. Department presently offers four streams of post graduate programs: (i) Machine Design and Analysis (ii) Production Engineering (iii) Thermal Engineering and (iv) Industrial Cryogenics. The department has good number of laboratories with latest facilities. There are various research and development projects in Mechanical Engineering. It also incorporates labs to carry out design, simulation and development on latest computer systems. The department lays strong emphasis on helping students acquire practical knowledge. It has played a key role in motivating and assisting the students to freely explore the departmental resources and carry out academic activities.

IMPORTANT

Extended last date for registration: 31st May
Total seats : 25

CONTACT DETAILS

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Short Term Course and training On

Modern Vibration Principles for Engineering (MVPE 2019)

10-14^{tn} June, 2019

Organized by

Mechanical Engineering Department
National Institute of Technology
(An Institute of National Importance)
Rourkela– 769008
Odisha, India

INTRODUCTION

Today noise and vibration concepts are essential for engineering education. Pioneering works of earlier scientists in analytical and numerical modeling along with application of modern techniques such as transfer matrix, finite element and boundary element methods have made the subject vast and ambiguous. In this regard, to simplify and refresh the important related principles and applications, this short term course is intended. This course acts as foundation/building block for application branches like tribology, rotordynamics etc. Detailed lectures on the modern principles used for fault/instability identification and control as aids in condition monitoring are proposed. A kind of exposure on the vibration and sound measurement sensors and circuits is also planned along with some standard working platforms like fault simulators and noise measurement set-ups.

OBJECTIVES OF THE COURSE

Noise and vibration monitoring are two most widely used techniques for fault diagnosis of machines and structures. This short-term course is aimed at providing the state-of–the-art knowledge of these principles. Participants are given an opportunity to explore the equipment and facilities available here. The working professionals and engineering faculty in the areas of machinery/structural dynamics can mix and match their learned concepts with the modern aspects entered in this line. Balancing techniques, new signal analysis methods, approaches to solve nonlinear vibration problems and instability prediction techniques are some of the issues discussed in the course. Main objective is to acquaint the participants an application oriented approach.

SCOPE

- Modeling of discrete and continuous systems.
- Free and forced vibration analysis procedures.
- Some practical case studies and introductory experimental modal analysis.
- Balancing of machines and engines, whirling studies of rotors, design of isolators and absorbers.
- Fundamentals of nonlinear and random vibrations.
- Review of sound waves and principles of acoustics and application areas.
- Practical and computational exercises on vibration and sound measurements.

Lectures/demos will be delivered by distinguished faculty members from reputed institutes and professionals from industries.

WHO CAN ATTEND

Faculty members, research scholars and professionals from Industry & R&D units can attend the course and send their application online along with the registration fee as follows:

Participants	**Amount (Rs.)***
Academic Faculty and students	2500/-
Professionals from Industry & R&D Units	4000/-

DD/Cheque should be on the name of '**Continuing Education, NIT Rourkela'**. Online transaction number is 10138951784 payable at SBI NIT RKL (IFSC: SBIN0002109) Fee includes well prepared course material, working unch, tea and snacks. Accommodations are available for outstation participants in the institute guest house with prior intimation. Boarding charges are Rs.400 per day.

APPLICATION FORM

Self Sponsored
Short Term Course/training
on
Modern Vibration Principles for Engineering
(MVPE-2019)

(10-14th June, 2019)

Name:

Designation:

Gender:

Qualification:

Area of interest:

Organization:

Address:

E-mail:

Mobile No:

DD/cheque No:

Bank Name:

Signature of Applicant