

**Introduction:**

Present day requirements for enhanced reliability of rotating equipment are more critical than ever before, and the demands continue to grow constantly, mainly in the hydrocarbon, power generation, process and transportation industries. In many cases the rotating machinery are required to operate at very high speed and for a longer period of time. Vibration analysis of the machinery can be made to get information about its health and identify any fault that may be arising or that already exists. Once a defect is detected, corrective measures are to be taken. Statistics indicates that a very large percentage of machine vibration is due to unbalance and misalignment alone. Machine vibration due to unbalance and misalignment not only produces unpleasant sound, but also leads to early failure of the components due to fatigue. There is also more power loss. So rotating machine elements need to be balanced and aligned before being put in to operation. This training program aims to impart theoretical and practical knowledge on vibration analysis, balancing and alignment of rotating machinery.

**Course outline:**

- Fundamentals of M/C vibration, vibration measurement, vibration standards, vibration signature for common faults.
- Concept of unbalance, Balancing methods, Balancing of rigid and flexible rotors, Single and multi-plane balancing, Influence coefficient method, Balancing instrumentation, Balancing M/C, In-situ balancing.
- Types of misalignment, Alignment theory, Manual and laser based alignment techniques.
- **The course also covers a large number of practical training classes.**

**Resource persons:**

Faculty from NIT, Rourkela, IIT, Kharagpur and professionals from SAIL, Rourkela and L & T.

**Who should attend:**

All practicing engineers/technicians working in private, public, government organizations/industries, scientists/engineers from R&D establishments, faculties, research scholars and students from engineering institutions are eligible to apply.

**Course fee**

Professionals from Industry & R&D units:	Rs.5, 000/-
Faculty from Academic Institutions:	Rs. 3000/-
Students/Research Scholars:	Rs.2000/-

The course fee includes course material and working lunch.

Participant who attends the full course will be issued a certificate of participation.

**Mode of Payment:**

All payments should be made through A/C payee demand draft drawn in favour of "Continuing Education NIT, Rourkela" payable at State Bank of India, NIT Campus Branch, (Code-2109).

**How to apply:**

Interested participants may send their application in prescribed form along with the registration fee to the program coordinator on or before 21st December, 2015.

**Boarding and Lodging:**

Accommodation can be arranged in the institute guest houses subject to availability and on prior payment.

Room tariff is as follows (May change without notice).

(South Block)	
Single occupancy per day:	Rs. 450/-
Twin sharing per person per day:	Rs. 300/-

(North Block)	
Single occupancy per day:	Rs. 230/-
Twin sharing per person per day:	Rs. 150/-

Breakfast and dinner can be availed in the guest house on payment.

There are also many good hotels in Rourkela; the same can be booked on request and prior payment.

**Short Term Training Program**

On

**Vibration Analysis, Balancing and Alignment  
of Rotating Machinery  
(VABARM-2015)**

**29th -30th Dec. 2015**

**ORGANISED BY**



**DEPARTMENT  
OF  
MECHANICAL ENGINEERING**

**NATIONAL INSTITUTE  
OF  
TECHNOLOGY**

**ROURKELA -769008**

**ODISHA, INDIA**

APPLICATION FORM

**Short Term Training Program  
On  
Vibration Analysis, Balancing and Alignment of  
Rotating Machineries  
VABARM-2015  
(29<sup>th</sup> – 30<sup>th</sup> Dec 2015)**

*Last date of registration 21st Dec, 2015*

Name: \_\_\_\_\_  
Gender: M / F  
Highest Qualification: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Organisation: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_   
\_\_\_\_\_   
\_\_\_\_\_   
E-mail: \_\_\_\_\_  
Mobile No: \_\_\_\_\_

Details of registration fee:

D.D. No: \_\_\_\_\_  
Amount: \_\_\_\_\_ Date \_\_\_\_\_  
Date: \_\_\_\_\_ Signature \_\_\_\_\_  
Place: \_\_\_\_\_

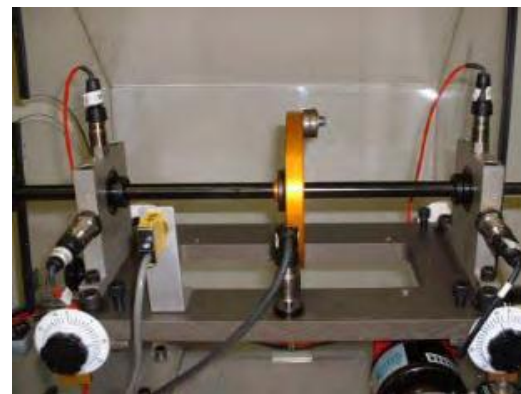


**Program Coordinator**

**Dr. Sukesh Chandra Mohanty  
Program Coordinator, VABARM-2015,  
Department of Mechanical Engineering,  
National Institute of Technology,  
Rourkela – 769008 (ODISHA), INDIA.**

**Ph. No: 0661-2462511(O)  
09437686748(M)**

**Email: [scmohanty@nitrkl.ac.in](mailto:scmohanty@nitrkl.ac.in)**



**The Institute & Mechanical Engineering Department**

The erstwhile Regional Engineering College, Rourkela was converted to a deemed to be university and renamed National Institute of Technology, Rourkela on 26<sup>th</sup> June, 2002. It was declared as an institution of national importance through the act of parliament on 15<sup>th</sup> August, 2007. The institute has made a rapid stride in earning a reputation as a place of higher learning in the field of engineering during the last decade. The mechanical engineering department is one of the oldest departments being set up from the date of inception of the institute in the year 1961. It is the first QIP center of the institute. The department offers four specialisations under M.Tech course and has more than hundred Ph.D. research scholars enrolled. The department is well equipped with infrastructure to meet the requirements of UG, PG courses and to carry out advanced level research work.

**How to reach:**

Rourkela is on the Howrah (Kolkata) – Mumbai main line of South Eastern railway. The railway station and intrastate bus stand are 6kms and 2kms from NIT Rourkela campus respectively. The airports near to Rourkela are Ranchi, Bhubaneswar and Kolkata. Rourkela is well connected to these cities by rail and train frequency is very good.

**Important Dates:**

Last Date of registration: 21st Dec, 2015  
Selection Intimation to the applicant: 21st Dec., 2015  
(Through E-mail only)  
Course date: 29<sup>th</sup>-30<sup>th</sup> Dec., 2015.