

**ONLINE TRAINING (ZOOM PLATFORM) ON
VIBRATION ANALYSIS & IN-SITU DYNAMIC BALANCING - 02 DAYS
WORKSHOP ON ALIGNMENT - 01 DAY (THEORY & PRACTICE)**



PROGRAMME OVERVIEW:

"Basics of Vibration Analysis, Diagnostic Studies & In-situ Dynamic Balancing - 2 Days"

"Workshop on Coupling Alignment - 1 Day"

It's a competency-based program where the candidate will be taught from the basics of vibration up-to advance level in vibration. The candidate will also be taught on the practical procedure of Balancing. **This training program is conducted Online through ZOOM Platform.**

TOPICS COVERED

DAY 1

✓ **Alignment - Training & Practice**

- About Couplings & Types of Couplings
- Basics of Alignment & Effects of Misalignment
- Deducting Soft Foot & solving
- Types, Causes for Misalignment
- Advantages of Good Alignment
- Alignment methods including RAP Method
- Pre-conditions of Alignment & Alignment Tolerance
- Laser Alignment - Practice

Real Life Case Study

✓ **ISO Standards**

- Classification of Machine based on their Health Condition.
- Fixing up of alarm & limits.
Criteria to be considered for test bed and on-site test.

DAY 3

✓ **Vibration Analysis**

- Approach to Vibration Analysis.
- What to look for most of the time
- Approaching a problem
- Analysis of defects in Bearings, Belt, Gearbox, Coupling.
- Analyzing electrical problem.
- Beat, resonance and elimination of such problems

✓ **Balancing**

- Single Plane Balancing – Theory & Practice
- Prevention and correction of unbalance
- Single plane vs. Two plane unbalance
- Spectral analysis for unbalance
- Preventing unbalance due to assembly errors
- Working with vendors to improve balancing standards.

DAY 2

✓ **Basics of Vibration**

- Define Vibration Analysis Terms – Displacement, Velocity, Acceleration, Frequency, Phase & Spectrum
- Select appropriate vibration meter/analyzer for a particular task
- Identify and locate the vibration pickup precisely with respect to position and orientation for achieving best results
- Measure and record data using vibration analyzer
- Understanding Frequency & Phase Analysis
- Phase and spectral symptoms of Unbalance, Bent Shaft, Looseness & Coupling Misalignment
- Vibration due to coupling and shaft misalignment
- Factors that affect natural frequency

✓ **Vibration Transducers & its Selection Methods**

- Introduction
- Types of Vibration Transducers and Their Optimum Applications
- Selection Criteria
- Mounting of Transducer & its Application

WHO SHOULD ATTEND?

Manager/Engineer/Supervisor/Staff who are involved in direct maintenance, trouble shooting of rotating machinery and those involved in best maintenance practices & continuous improvement.

Maximum Number of Participants (Online) - 15

TRAINING CERTIFICATES WILL BE AWARDED TO ATTENDEES

M/s. VIBROTECH TRAINERS & CONSULTANTS PVT LTD.

(INTERNATIONAL REPRESENTATIVE OF M/s. VIBRATION INSTITUTE, USA)

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COURSE FEES*:

Option 1 - Vibration Analysis & In-Situ Dynamic Balancing - 02 Days

***Rs. 6000/- (RUPEES SIX THOUSAND ONLY) - PER CANDIDATE**

Option 2 - Alignment Workshop - 01 Day

***Rs. 4000/- (RUPEES FOUR THOUSAND ONLY) - PER CANDIDATE**

*** 18% GST Applicable for Company sponsored Participants.**

Last Date of Payment: ON or BEFORE.

This above Fees is inclusive of:

- **Course Material**
- **Training Certificate**

Terms and Conditions

- **Payment terms: 100% Advance payment.**

Course Benefits:

- Exposure to better Vibration Analysis.
- Exposure to Practical Dynamic Balancing.
- In-depth Understanding of Vibration Principles & Techniques
- Alignment concepts & Methodology
- Latest Trends in Alignment

Requisites:

In-plant experience in Mechanical and/or Electrical Maintenance, Troubleshooting. Freshers can also participate.

The Industries / Sectors Targeted

Cement, Sugar, Nuclear, Power, Petrochemicals, Fertilizers, Iron & Steel, Chemicals, Oil rigs, Production Platforms, Automobile including NC & CNC Machines, Processing Plant, etc.

Machineries

All types of industrial machines like Large Fans, Blowers, Motors, Pumps, Mills, Crushers, Fibrizers, Centrifuges, Turbines, Generators, Compressors, Press, CNC Machines, Machining Centers, etc.

Course Trainer / Facilitator:

V. Vijayakrishnan, Director, M/s. Vibrotech Trainers & Consultants Pvt. Ltd., Chennai, Tamil Nadu, India, is an ISO Certified **CATEGORY III** Vibration Analyst, Proctor & Trainer for Vibration Institute, USA is a Mechanical Engineer having more than **40 years** of good practical hands-on experience in Condition Monitoring with reference to Vibration Analysis and Predictive Maintenance for both rotating and reciprocating machineries.

Has conducted more than 120 Training Programs in India and Abroad and has visited more than 650 industries (Automobile, Cement, Sugar, Power (Thermal / Nuclear), Petrochemical, Refinery, Oil & Natural Gas, Pharmaceuticals, Paper, Chemical, etc.,) in India & Abroad to solve Critical Vibration problems.

V. Deenadayalan, has 40 years hands on experience in Mechanical Maintenance, Overhauling, Alignment of various rotating and reciprocating machineries and handling various precision instruments and tools used in industry.

Having a rich knowledge and practical experience in machineries. Has have solved many issues and made maintenance easy task. Apart from other maintenance activities, he also has wide knowledge in coupling Alignment.

VIBROTECH TRAINERS & CONSULTANTS PVT. LTD., CHENNAI RESERVES THE RIGHT TO ACCEPT OR REJECT NOMINATION OF CANDIDATES FOR TRAINING.

* Fees are subject to change.

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