VIBROTECH®
Trainers & Consultants Pvt. Ltd
An ISO 9001 : 2015, ISO 45001 : 2018, ISO / IEC 17025 : 2005 Certified Company

TRAINING CALENDAR FOR 2025

(TRAINING PROGRAMME – NON ISO)

CONDUCTED
BY
VIBROTECH TRAINERS & CONSULTANTS PVT. LTD.

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03 Days Practical Training Programme on Vibration Analysis & Alignment

Note: This Training Programme is conducted at our premises and can be conducted at your Plant/Preferred location.

Training Schedule

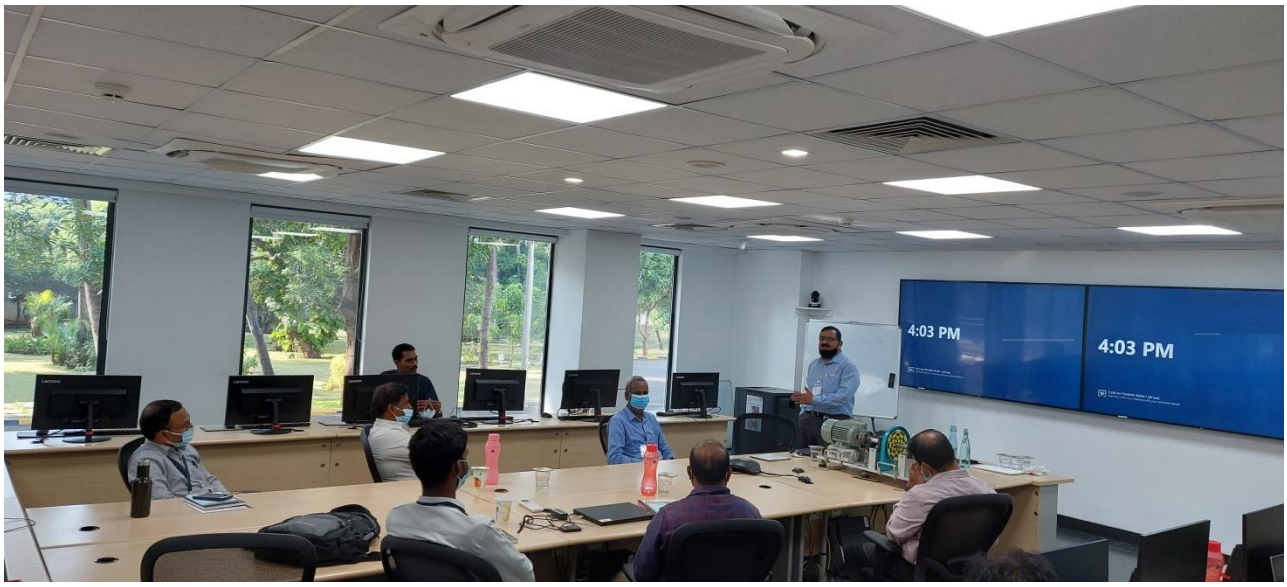
Location*	Programme	Training	Last Date for Registration
Chennai	02 days Vibration Analysis Course & 01 day Alignment Training	13th to 15th March'25 (Thursday to Saturday)	08th March'25
Chennai	02 days Vibration Analysis Course & 01 day Alignment Training	08th to 10th May'25 (Thursday to Saturday)	03rd May'25
Chennai	02 days Vibration Analysis Course & 01 day Alignment Training	03rd to 05th July'25 (Thursday to Saturday)	28th June'25
Chennai	02 days Vibration Analysis Course & 01 day Alignment Training	11th to 13th sep'25 (Thursday to Saturday)	05th Sep'25
Chennai	02 days Vibration Analysis Course & 01 day Alignment Training	06th to 08th Nov'25 (Thursday to Saturday)	01st Nov'25

Two Days Vibration Analysis Training Programme

Programme Overview:

In present Industrial environment, the necessity of equipment availability and reduction of unpredicted failure is of utmost important. Many techniques are being carried out to improve the reliability and availability of equipments.

One such scientifically proved technique which have gained momentum and widely practiced throughout the world is Vibration Analysis and Diagnostic Studies. It is an important tool not only for assessing equipments but also in diagnosing and identifying the cause of defect and inaccuracies in case vibration levels are high.



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Training Topics

Basics on Condition Based Maintenance

- Define Predictive maintenance
- Bath Tub Diagram
- Trending
- Various CBM techniques

Vibration Analysis

- What is Vibration and how can it be used to Evaluate Machinery Condition
- Define Vibration Analysis Terms – Displacement, Velocity, Acceleration, Frequency
- What is Vibration Phase?
- What is the Vibration spectrum?
- Difference between RMS, Peak and Peak-Peak Vibration Amplitude?
- When to use Displacement, Velocity or Acceleration?
- How much is too much Vibration?
- What is overall Vibration?
- Understanding Phase and Its Application?
- Using **Phase Analysis** in Vibration Diagnostics?
- Common pitfalls in every day Vibration Measurements
- Choosing Measurements Location

Vibration Frequency Spectrum Analysis and How to Diagnose Machinery Problems

- Mental Approach to Vibration Analysis
- Approaching a machinery vibration problem
- Mass Unbalance
- Eccentric Rotors, Bent Shaft Misalignment, Mechanical Looseness
- Rolling Element Bearings Failure & Journal Bearings Failure
- Understanding, Preventing, and Correcting **Gear Vibrations**
- Machinery Soft Foot and Foot-Related
- **Differentiate Electrical Defects from Mechanical Defects** Bent Shaft, Looseness (Including Bearings) and Belt Vibrations
- **Resonance** - Static tests and running machine tests
- Hydraulic and Aerodynamic Forces Problem
- Rubbing

Overview of Vibration Transducer and How to Properly Select Them

- Types of Vibration Transducers and Their Optimum Applications
- Accelerometers, Velocity Pickups, Noncontact Eddy Current Displacement Probes
- Shaft Contact Displacement Probes
- Shaft Sticks, Shaft Riders
- Selection Criteria
- Mounting of Transducer & Mounting Application

Single Plane Balancing – Theory

- Prevention and correction of unbalance
- Single plane vs. two plane Balancing
- Spectral analysis for unbalance
- Preventing unbalance due to assembly errors

ISO Standards classification of machinery in Good, Fair and Rough

- How to fix limits for equipment
- Criteria considered for Test Bed & On-Site Test

Proven Method for Specifying Spectral Band Levels and Frequencies Using Predictive Maintenance Software System

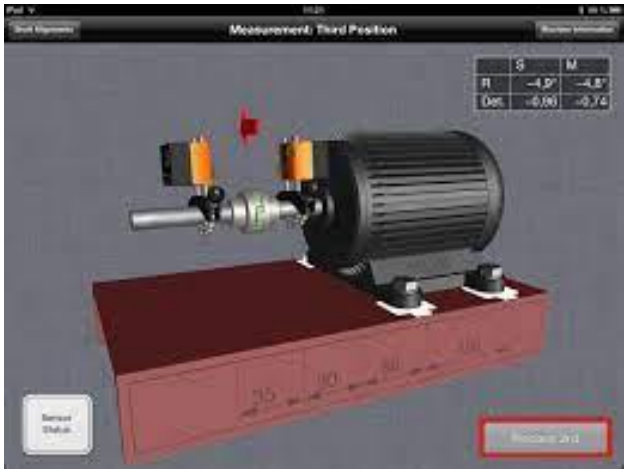
Course Outcome

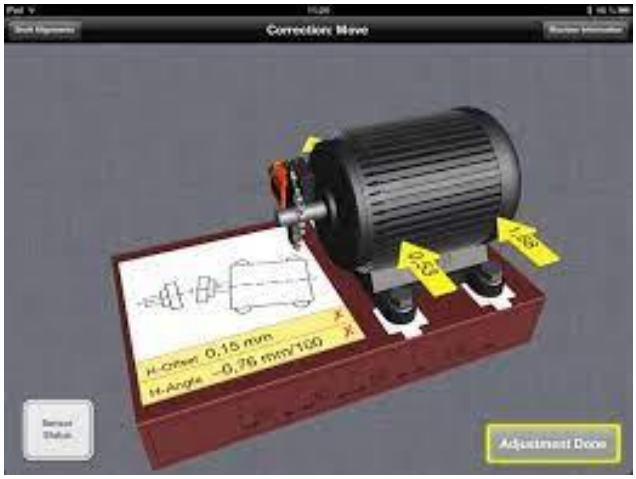
- To understand the Basics and Fundamental of Vibration.
- **To gain knowledge in identifying the Root Case of Problem in Machinery.**
- To Know about Latest Technologies used in Condition Monitoring.
- **To perform Vibration Analysis (Signature / Frequency Spectrum Analysis) and know more on Phase Analysis & Balancing.**

One Day Alignment Training Programme with Laser Alignment Technique

Programme Overview:

This training is devised to understand the Alignment concepts, Methodologies and Calculations. Also to know about Latest Trends in Alignment.





Alignment Training Topics are

- 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**

Requisites:

In-plant experience in Mechanical and Electrical Maintenance, Troubleshooting.

M/s. VIBROTECH TRAINERS & CONSULTANTS PVT. LTD.

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

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