#### **ONLINE TRAINING (ZOOM PLATFORM) ON**

## VIBRATION ANALYSIS & IN-SITU DYNAMIC BALANCING - (07<sup>th</sup> & 08<sup>th</sup> JULY 2023) - 02 DAYS WORKSHOP ON ALIGNMENT - (06<sup>th</sup> JULY 2023) - 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 CO	VERED
DAY 1 (06 <sup>th</sup> JULY 2023) 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	<ul> <li>✓ ISO Standards</li> <li>Classification of Machine based on their Health Condition.</li> <li>Fixing up of alarm &amp; limits. Criteria to be considered for test bed and on-site test.</li> </ul>
<ul> <li>Advantages of Good Alignment</li> <li>Alignment methods including RAP Method</li> <li>Pre-conditions of Alignment &amp; Alignment Tolerance</li> <li>Laser Alignment - Practice</li> <li>Real Life Case Study</li> </ul>	<ul> <li>DAY 3 (08<sup>th</sup> JULY 2023)</li> <li>✓ Vibration Analysis</li> <li>Approach to Vibration Analysis.</li> <li>What to look for most of the time</li> <li>Approaching a problem</li> </ul>
<ul> <li>DAY 2 (07<sup>th</sup> JULY 2023)</li> <li>Basics of Vibration</li> <li>Define Vibration Analysis Terms – Displacement, Velocity, Acceleration, Frequency, Phase &amp; Spectrum</li> <li>Select appropriate vibration meter/analyzer for a particular task</li> <li>Identify and locate the vibration pickup precisely with respect to position and orientation for achieving best results</li> <li>Measure and record data using vibration analyzer</li> <li>Understanding Frequency &amp; Phase Analysis</li> <li>Phase and spectral symptoms of Unbalance, Bent Shaft, Looseness &amp; Coupling Misalignment</li> </ul>	<ul> <li>Analysis of defects in Bearings, Belt, Gearbox, Coupling.</li> <li>Analyzing electrical problem.</li> <li>Beat, resonance and elimination of such problems</li> <li>Balancing         <ul> <li>Single Plane Balancing – Theory &amp; Practice</li> <li>Prevention and correction of unbalance</li> <li>Single plane vs. Two plane unbalance</li> <li>Spectral analysis for unbalance</li> <li>Preventing unbalance due to assembly errors</li> <li>Working with vendors to improve balancing standards.</li> </ul> </li> </ul>
<ul> <li>Vibration due to coupling and shaft misalignment</li> <li>Factors that affect natural frequency</li> <li>Vibration Transducers &amp; its Selection Methods</li> <li>Introduction</li> <li>Types of Vibration Transducers and Their Optimum Applications</li> <li>Selection Criteria</li> <li>Mounting of Transducer &amp; its Application</li> </ul>	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 - (07 <sup>th</sup> & 08 <sup>th</sup> July 2023) 02 Days	
*Rs. 6000/- (RUPEES SIX THOUSAND ONLY) - PER CANDIDATE	
Option 2 - Alignment Workshop – (06 <sup>th</sup> July 2023) 01 Day	
*Rs. 4000/- (RUPEES FOUR THOUSAND ONLY) - PER CANDIDATE	
* 18% GST Applicable for Company sponsored Participants.	
Last Date of Payment: ON or BEFORE 04 <sup>th</sup> July 2023. This above Fees is inclusive of: • Course Material • Training Certificate Terms and Conditions	
Payment terms: 100% Advance payment.	
Course Benefits:	The Industries / Sectors Targeted
<ul> <li>Exposure to better Vibration Analysis.</li> <li>Exposure to Practical Dynamic Balancing.</li> </ul>	Cement, Sugar, Nuclear, Power, Petrochemicals, Fertilizers, Iron & Steel, Chemicals, Oil rigs, Production
<ul> <li>Exposure to Practical Dynamic Balancing.</li> <li>In-depth Understanding of Vibration</li> </ul>	Platforms, Automobile including NC & CNC Machines,
Principles & Techniques	Processing Plant, etc.
<ul> <li>Alignment concepts &amp; Methodology</li> </ul>	
<ul> <li>Latest Trends in Alignment</li> </ul>	Machineries
Requisites:	All types of industrial machines like Large Fans,
In-plant experience in Mechanical and/or Electrical	Blowers, Motors, Pumps, Mills, Crushers, Fibrizers,
Maintenance, Troubleshooting. Freshers can also	Centrifuges, Turbines, Generators, Compressors, Press,
participate.	CNC Machines, Machining Centers, etc.
Course Trainer / Escilitator:	

#### **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 **36 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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