Vibration Analysis

Vibration Analysis

This three-day course begins with an introduction to condition monitoring, the types of data, and sequence of operations. Next, the fundamentals of vibration are introduced, followed by monitoring equipment, programs, considerations for balancing machines, and vibration sensors is provided.

I. Introduction to Condition Monitoring

- Types of Monitoring
- Types of Data Available
- Sequence of Operations

II. Fundamentals of Vibration

- Common Measurement Systems
- Harmonic Motion Equations
- Power Equations
- Relationships
- Beat Frequencies
- Real World Machinery Harmonics
- Decibels

III. Monitoring Equipment

- Transducers
- Mounting Transducers
- Analyzers

IV. Condition Monitoring Programs

- Mechanical Monitoring Objectives

V. Considerations for Balancing Machinery

- Setting Up a Monitoring Route
- Taking Readings
- Interpreting
- Sensor Selection Guide

VI. Common Vibration Sensors

- Displacement Sensors
- Choosing an Industrial Sensor
- Primary Sensor Considerations
- Typical Questions

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