MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

VIBRATION ANALYSIS BY MOBIUS INSTITUTE

"Mastering Condition Monitoring through World-Class Vibration Analysis Techniques"

Schedule

Date	Venue	Fees (Face-to-Face)
18 – 19 Jun 2026	Dubai, UAE	USD 1995 per delegate
22 – 23 Jul 2026	Doha, Qatar	USD 1995 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Vibration analysis is a critical component of condition-based maintenance strategies, helping detect faults early, avoid unplanned downtime, and extend asset life. As a global leader in vibration training, Mobius Institute offers a structured approach that combines visual learning, real-world examples, and internationally recognized certification pathways.

This intensive 2-day course provides hands-on training on vibration fundamentals, measurement techniques, signal analysis, and diagnostic skills. Designed to align with ISO standards and Mobius Institute methodologies, this course is ideal for professionals seeking to advance their reliability and predictive maintenance programs.

Objectives

By the end of this course, participants will be able to:

- Understand the principles of vibration and machine dynamics
- Use vibration instruments to collect and analyze condition data
- Identify common machine faults like imbalance, misalignment, and looseness
- Interpret FFT spectra and waveform data for diagnostics
- Support condition monitoring programs in line with ISO 18436

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Why Attend

- Build foundational knowledge of vibration analysis with Mobius-aligned training
- Practice using tools and interpreting real data from rotating equipment
- Enhance your ability to detect and diagnose machine faults early
- Support predictive maintenance and reduce unplanned shutdowns
- Prepare for ISO Category I or higher certification (if applicable)

Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Condition monitoring and vibration technicians
- Rotating equipment specialists
- Plant and operations engineers
- Asset management and maintenance planners

Individual Benefits

Key competencies that will be developed include:

- Effective vibration measurement and fault detection
- Use of spectrum and time waveform analysis techniques
- Understanding failure modes and machine health indicators
- Basic data collection and route setup for monitoring programs
- Compliance with ISO standards and best practices

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved asset reliability and reduced maintenance costs
- Stronger predictive maintenance strategies and data interpretation
- Enhanced technician competence in diagnostics and reporting
- Support for ISO-compliant vibration analysis programs
- Reduction of unnecessary repairs and improved equipment uptime

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Key principles of vibration and condition monitoring
- Case Studies – Real-world fault scenarios and resolution
- Workshops – Interpreting spectra and vibration signals
- Peer Exchange – Sharing diagnostics insights and field techniques
- Tools – Vibration sensors, analyzers, Mobius visual animations

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Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals and Measurement Techniques

- Module 1: Principles of Vibration (07:30 – 09:30) • Amplitude, frequency, acceleration, velocity, displacement • Machine dynamics and vibration causes
- Module 2: Vibration Data Collection (09:45 – 11:15) • Sensor types, mounting, orientation, and safety practices • Route planning and data collection procedures
- Module 3: Introduction to Vibration Signals (11:30 – 01:00) • Time waveform and FFT spectra fundamentals • Using software to visualize signals
- Module 4: Workshop – Practice with Data Acquisition Tools (02:00 – 03:30) • Hands-on simulation using demo instruments and software

Day 2: Signal Analysis and Fault Diagnosis

- Module 5: Fault Detection Techniques (07:30 – 09:30) • Imbalance, misalignment, looseness, bearing issues • Signature patterns and symptom recognition
- Module 6: Spectral Analysis & Interpretation (09:45 – 11:15) • Harmonics, sidebands, and resonance identification • Using peak and overall vibration trends
- Module 7: Case Study – Diagnosing a Faulty Pump (11:30 – 01:00) • Real data interpretation, diagnosis, and corrective actions
- Module 8: Final Workshop – Fault Diagnosis Drill (02:00 – 03:30) • Team-based diagnostic challenge using provided data sets

Certification

Participants will receive a Certificate of Completion in Vibration Analysis by Mobius Institute, confirming their competence in conducting vibration assessments, detecting mechanical faults, and supporting condition monitoring programs in line with international standards.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**

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