ASSET PERFORMANCE MANAGEMENT

ISO 18436-2 CATEGORY III VIBRATION ANALYST

This course provides the ISO 18436-2 Category III coursework towards certification.

Students will explore the condition monitoring technologies and discover how a well-designed program and a reliability centered maintenance approach improve the bottom line. The course will cover the analysis of vibration spectra, time wave forms, envelope and phase measurements. Students will diagnose a wide range of fault conditions and learn how to balance and align a machine, correct resonance conditions, and employ isolation.

Format

Duration: 35 hours **Schedule:** 5 Day(s) **Delivery:** Classroom

Who should attend

Engineers who are confident in spectrum but willing to learn about signal processing, time waveform and phase analysis

Engineers involved in condition monitoring

Anyone willing to get certified to international standards (ISO-18436)

Objectives

Prepare the participant for the ISO 18436 category III certification test

Learn how to be capable of managing the condition monitoring program, diagnosing the widest range of fault conditions, verifying and correcting resonance problems, performing complex balancing machinery

Required Prerequisites

36 months of experience is required for certification, Recommended ISO CAT II

Program Outline

Day 1:

- Condition monitoring and the ISO standards
- Condition monitoring technologies
- Signal processing
- Time waveform analysis

Day 2:

- Phase analysis
- Dynamics (natural frequencies and resonance)
- Natural frequency testing
- Operating deflection shape (ODS) analysis

Day 3:

- Modal analysis and introduction to FEA
- Correcting resonances
- Rolling element bearing fault detection
- Journal bearing fault detection

Day 4:

- Electric motor testing
- Pumps, fans and compressors
- Gearbox fault detection
- Corrective action

Day 5:

Running a successful condition monitoring program

Acceptance testing

Review of ISO standards

Exam (100 multiple-choice questions in 4 hours)

Exam:

The exam and the associated certification is provided by Mobius . Baker Hughes can provide a proctored environment for the paper or online exam.

CERTIFICATION
ISO Certification
Global Partner: Mobius Institute