

Vibration Analysis Training

ISO Category II / ASNT Level 2

Vibration Analysis Category II

9 - 13 December 2019
Perth, WA

The Vibration Analyst Category II course is intended for personnel who have at least 18 months vibration analysis experience and an understanding of vibration theory and terminology. The course provides an in-depth study of machinery faults and their associated spectrum, time waveform and phase characteristics. Additional topics covered include: signal processing, signal analysis, data collection, and proactive

measures. You will come away with a very good understanding of the fundamentals and you will feel comfortable analysing vibration spectra, time waveforms, envelope data, and phase data.



See live simulators at:
www.viaustralia.com.au
www.mobiusinstitute.com

Course materials

- Pre-study materials iLearnvibration internet logon sent on registration
- interactive assessments during course
- 300 page course notes
- short-form booklet
- diagnostic mousepad
- certificate
- membership card



When you register for this course, you will receive the iLearnVibration pre-study internet logon. Prepare and you will succeed!

Our course utilises modern slides, animations, innovative simulations, and live case studies - all delivered by certified instructors.

You can take the optional certification examination. The training course and optional examination are accredited, providing certification by the Mobius Institute Board of Certification according to the ISO 18436-2 Category II standard, and the ASNT SNT-TC-1A Level 2 standard.



U4, 5 Dickens Street
Parkdale, Victoria, 3195
Australia

Vibration Institute of Australia

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Course Summary

Review of maintenance practices

Review of condition monitoring technologies

Principles of vibration

- Complete review of basics
- Waveform, spectrum (FFT), phase and orbits
- Understanding signals

Data acquisition

- Transducer types, selection, and mounting
- Measurement point selection
- Following routes, test planning, measurement errors

Signal processing

- Filters, sampling, aliasing, dynamic range, windowing
- Resolution, Fmax, data collection time, averaging

Vibration analysis

- Spectrum analysis methodology
- Introduction to time waveform, phase and orbit analysis
- Enveloping, shock pulse, spike energy, Peak Vue™

Detailed fault analysis

- Natural frequencies and resonances
- Imbalance, eccentricity and bent shaft
- Misalignment, cocked bearing and soft foot
- Mechanical looseness
- Rolling element bearing analysis
- Analysis of induction motors, gears, belts, pumps, compressors, and fans
- Lots of case studies and exercises for participants

Equipment testing and diagnostics

- Impact testing (bump tests)
- Phase analysis

Corrective action

- General maintenance repair activities
- Review of the balancing and shaft alignment process

Successful condition monitoring program

- Setting baselines and alarm limits
- Report generation, reporting success stories

Acceptance testing and ISO standards

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Venue - To be confirmed



Course duration

The course consists of four full days of training plus an optional 3 hour exam.

Hours

Days 1-4: 8.00 am to 5.00 pm

Day 5: 8.00 am to 2.00 pm

Revision + 3 hour Exam

Fees

Tuition & Materials \$3110

4.5-day training

Pre-study materials

Diagnostic Reference Guide

Course notes

Exam & certification \$380

3 hour exam

Prices exclude GST

Lunches and refreshments included



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