

Vibration Analysis Training

ISO Category 2 / ASNT Level 2

Vibration Analysis Category 2

The Vibration Analyst Category 2 course is intended for personnel who have at least twelve 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

Unique Benefits

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.

- 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 exam. The training course and exam follows the ISO 18436.2 Category 2 standard, and the ASNT SNT-TC-1A Level 2 standard.

Course materials

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



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

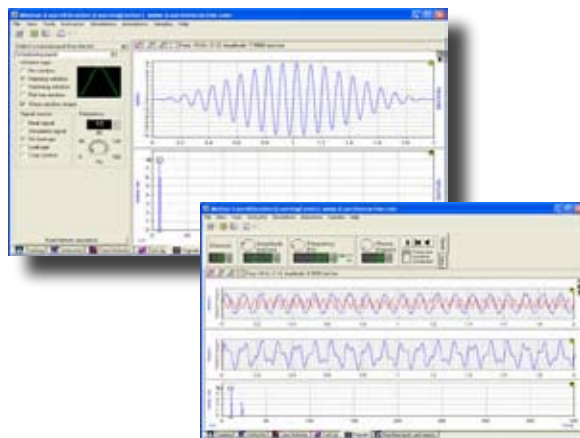
Corrective action

- 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



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 4.30 pm
Day 5: 8.00am to 2.00pm
Revision + 3 hour Exam

Fees

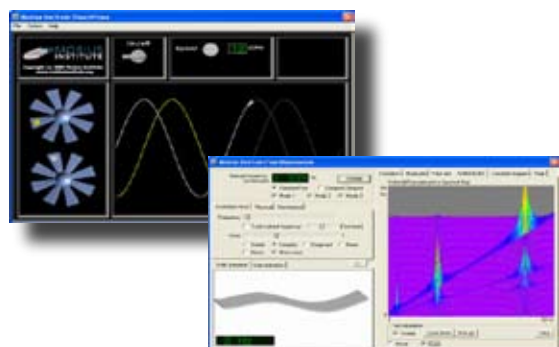
Training without exam:

\$2170 + \$217 (GST) = **\$2387**

Training with exam:

\$2650 + \$265 (GST) = **\$2915**

Prices include lunches and refreshments.



See live simulators at:
www.viaustralia.com.au
and www.ilearninteractive.com



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