

Vibration Analysis Training

ISO Category 1 / ASNT Level 1

Vibration Analysis Category 1

The "Entry Level" Category I course is intended for personnel who are new to vibration monitoring and analysis. It is ideal for reliability engineers, operators, fitters, planned maintenance personnel and anyone in the engineering field needing to know more about vibration analysis.

The course focusses on periodic, single channel data collection and analysis for condition based maintenance programmes. A foundation is established for in-depth understanding of spectrum and waveform relationships.

Unique Benefits

- 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 1 standard, and the ASNT SNT-TC-1A Level 1 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

Maintenance practices

- Breakdown, preventive, predictive and RCM

Condition monitoring

- Review of condition monitoring technologies: Vibration, oil, wear debris analysis, infrared thermography, ultrasonic acoustic emission, electric motor testing

Principles of vibration

- Motion, r.m.s./peak/peak-peak, frequency/period
- Displacement, velocity and acceleration
- Units and unit conversion
- Waveform and spectrum (FFT)
- Natural frequencies
- Basic forcing frequency calculations

Data acquisition

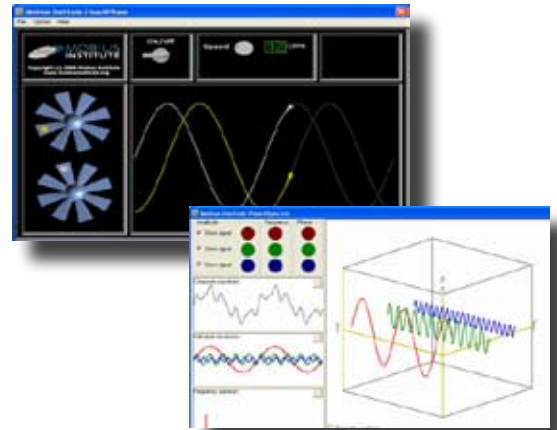
- Instrumentation
- Transducers and transducer mounting
- Measurement point naming conventions
- Routes/surveys: Loading and unloading the route
- Data collection
 - Following a route
 - Repeatable data collection
 - Test procedures
 - Observations: utilising your time effectively in the field
 - Recognizing bad data

Equipment knowledge

- Rotating equipment types and applications
- Rolling element bearings and journal bearings
- Review of failure modes and appropriate use of condition monitoring technologies

Basic vibration analysis

- Overall level measurements
- Spectrum analysis:
 - Harmonics, sidebands and the analysis process
 - Alarm limits, trending and exception reports
- Fault diagnosis:
 - Imbalance, misalignment, looseness, eccentricity, resonance
 - Defects associated with bearings, gears, belts, electric motors



Course duration

The course consists of three full days of training plus an optional 2 hour exam.

Hours

Training days: 8.00 am to 4.30 pm (Days 1-3)

Exam: 2 hour - end of Day 3

Fees

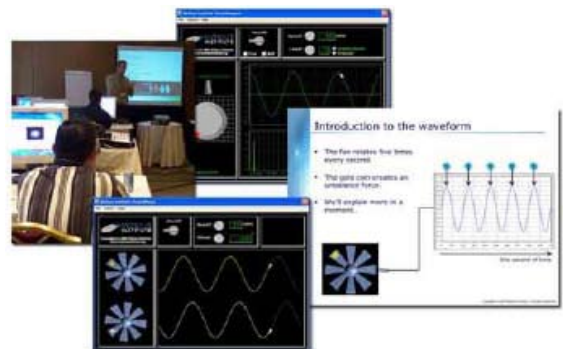
Training without exam:

\$1790 + \$179 (GST) = **\$1969**

Training with exam:

\$2240 + \$224 (GST) = **\$2464**

Prices include lunches and refreshments.



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



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