Vibration Analysis: ISO Category 1

5 - 8 May 2020 - PERTH, WA

ISO Vibration Analysis Category 1

The 'Entry Level' Category I course is intended for personnel who are new or have 6 months vibration monitoring and analysis experience.

It is ideal for **reliability engineers, asset managers, maintenance planners, fitters plant operators, electricians, mechanics, mechanical engineers, condition monitoring and lubrication practitioners**. Anyone who is interested in the reliability of their machinery and want 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.

Course Materials

- Pre and post online course online study
- Interactive assessments during the course
- 300-page course notes
- Short-form booklet
- Diagnostic mousepad
- VIA Certificate of Attendance
- Mobius Certificate
- Mobius membership

Course Description

Duration: 3 .5 days training plus optional 2-hour exam

Hours: Training Days 1-3: 8.00am to 5.00pm

Training Day 4: 8.00am to 11.00am

Exam Day 4: 11.00am to 1.00pm

Format: Classroom learning

Optional: Certification examination, 2 hours, 70% passing grade

Compliance: ISO 18436 Category I – Vibration Analyst

Pre-Study: Registered students are given access to the online version of the course via the Mobius Institute Learning Zone™ before the class and for six months after course completion to assist them with converting the course information into practice.

Certification Prerequisite: Prior experience is not required for attending the training course, but 6 months of experience is required for certification.

Outcome: You will come away from this course with a very good understanding of vibration analysis fundamentals, you will understand how to take good measurements, and you will be ready to begin analyzing vibration spectra.

Vibration Analysis Category 1 – Certification

All VIA trained, Mobius certified analysts receive personalized logos with their certification number and name for their own professional use. Mobius Institute also maintains a listing of all certified analysts on our website and provides each analyst with a certification confirmation webpage.
For more information about Mobius Institute's accreditation, and the recognition of your certification by the ISO 18436 standard, please visit www.mobiusinstitute.com/certification.

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 Fees

Course (& Materials) AUD $3113 (Incl GST $283)
3.5 day training
Online pre-study
Diagnostic Reference Guide
Course Notes

Optional Exam AUD $ 528 (Incl GST $ 48)
2 hours exam

Total Course & Exam **AUD$3641** (Incl GST $331)

Lunches and refreshments included
Parking and transport at own cost

Registration

Visit www.viaustralia.com.au/registration to download a form to complete and return or register online.

For further information contact Jennie at jennie@viaustralia.com.au

About VIA

Clyde Volpe is the founder of VIA - the Vibration Institute of Australia, and is a Mobius Training Partner for Category 1, 2, and 3 Vibration Analysis.

Mobius Institute awarded Clyde 'Instructor of the Century'. Clyde has trained in over 30 countries, spanning 30 years to over 12,000 students. Clyde has a reputation for his energy, and his motivating and entertaining courses. With his hands-on experience, with the Mobius simulators, he has the ability of making the very complex easy to understand. His courses are designed to use vibration analysis to drive capability.

Contact Clyde at clyde@viaustralia.com.au

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