Vibration Analysis: ISO Category 3
2- 6 March 2020-TAURANGA, NZ

Vibration Analysis Category 3

The Advanced Category 3 is for a candidate who is committed to reliability through condition monitoring, and who has at least two years vibration analysis experience.

It is ideal for those who lead a vibration team or take a pivotal role in diagnosing faults and making final recommendations. The candidate should understand all of the data collector options, special test capabilities, and analysis tools, and understand the widest range of fault conditions. This course will give the analyst all of the skills and knowledge necessary to solve all fault conditions, run a successful condition monitoring program and drive a reliability culture.

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: 5 days training including optional 4-hour exam

Hours: Training Days 1- 4 - 8.00am to 5.00pm

Training Day 5: 8.00am to 12.00pm

Exam Day 5: 1.00pm to 5.00pm

Format: Classroom learning

Optional: Certification examination, 4 hours, 70% passing grade

Compliance: ISO 18436 Category 3 – 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 certification requires 36 months of experience AND ISO Category 2 certification - or a minimum of 60 months experience in lieu of Category 2 certification.

Outcome: You will come away from this course with a complete understanding of vibration and phase analysis, dynamic balancing and shaft alignment, and a developing knowledge of machine dynamics and all condition monitoring technologies.

Vibration Analysis Category 3 – 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

Principles of vibration

- Very quick review of fundamentals
- Waveform, spectrum, phase, vectors and orbits
- Signals: transients, pulses, modulation, beating, sum/difference
- Force, response, damping, and stiffness
- Cepstrum analysis

Data acquisition

- Planning routes, test locations and programs

Signal processing

- Sampling, resolution, Fmax, averaging, windowing, dynamic range, signal-to-noise ratio
- A/D conversion: constant and variable sampling rate

Vibration analysis

- Spectral, time waveform and envelope analysis

Equipment testing and diagnostics

- Impact testing (bump tests)
- Phase analysis
- Transient analysis
- Operating deflection shape analysis
- Introduction to modal analysis
- Cross channel measurements

Fault analysis in detail

- Natural frequencies and resonances
- Imbalance, eccentricity and bent shaft
- Misalignment, cocked bearing and soft foot
- Mechanical looseness
- Rolling element bearing analysis
- Analysis of turbo-machinery and sleeve bearings
- Analysis of AC, DC and variable frequency drives
- Analysis of gears and belt driven machines
- Analysis of pumps, compressors and fans
- Lots of case studies and exercises for participants

Corrective action

- Balancing and shaft alignment
- Resonance control, isolation and damping

Successful condition monitoring program

- Alarms, reports, management, finances

Acceptance testing and ISO standards

Course Fees

Course (& Materials)	AUD $3840
5 day training	
Online pre-study	
Diagnostic Reference Guide	
Course Notes	
Optional Exam	AUD $ 700
4 hours exam	
Total Course & Exam	**AUD$4540**

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.

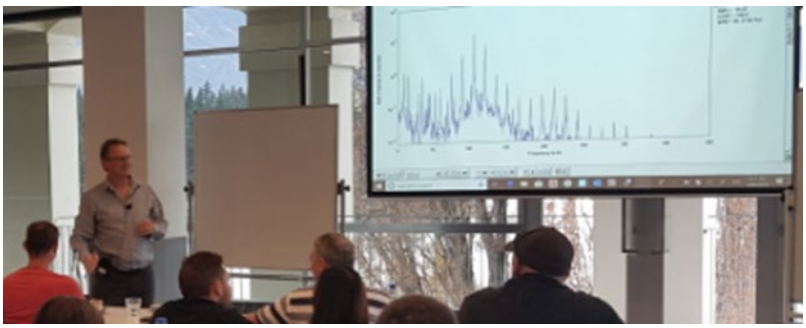
For further information contact Jennie at jennie@viaustralia.com.au

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'. He 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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