



Category II Vibration

ISO 18436-2

This course is intended for students who will be involved in the day to day measurement and analysis of machinery vibration data. Category I certification is recommended but not required. Anyone may take the course and exam but 12 months experience is required for certification.



4 Days
3 Hour Certification
Exam on Day 5



Why Take This Course?

- * Certification opens up new career paths
- * Set up machine tests and routes
- * Analyze data and detect faults
- * Use relevant standards
- * Write reports

Ensure employees have the competency to do their jobs!

What Are People Saying?

"Alan is an expert at explaining technical concepts to non-technical people. He takes the time to make sure everyone's questions are answered. Ample animations and videos make the concepts easier to understand. You will be surprised at how much you learn in this course!"

32+ Years
1000's Trained
English + Spanish
Live Online + On-Site
Public + Private

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Course Schedule



ZencoVibrations.com/shop



ZENCO
VIBRATION EXPERTS



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Alan Friedman, aka the Vibe Guru, is the founder and CEO of Zenco and the author of "Audit it. Improve it: Getting The Most from Your Vibration Monitoring Program."



Alan is Cat IV Certified. He has taught 1000's of students worldwide for over 32 years in both English and Spanish and he has visited hundreds of industrial sites of all types to set up condition monitoring programs. All courses are taught by Alan personally.



Partial Topic List

Vibration Fundamentals

- Amplitude: RMS, peak and peak-peak
- Frequency Hz, CPM, Orders
- Phase
- Units of vibration (D, V, A)
- ISO RMS overalls and alarms
- Crest factor
- Complex vibration, Time waveform
- Vibration spectrum and FFT
- Forcing frequencies
- Orders and order normalization

Data acquisition

- Instrumentation
- Sensor types
- Test points
- Orbits, centerline diagrams
- Sensor mounting
- Triggers
- Test procedure
- Data formats
- Uploading the route
- Recognizing bad data

Signal processing

- A/D Conversion
- Filters (high, Low, Band Pass)
- Data Collector settings
- Windows / leakage
- Sampling, aliasing and Fmax
- Resolution and Bandwidth
- Averaging

Understanding Signals

- FFT
- Harmonics
- Noise
- Modulation
- Beats

Fault Analysis

- Unbalance, Misalignment
- Looseness / Rubs
- Journal bearings
- Bearings
- Motors
- Gears, belts
- Pumps, fans and compressors
- TWF Analysis

Corrective Action

- Shaft Alignment +

Tolerances

- Single Plane Balancing
- Vectors and Polar plots
- No phase balancing
- Balance standards + Safety
- Resonance

Standards, Alarms and Reporting

- ISO, IEC, API etc.
- Alarm types
- Fault severity determination
- Acting on reports
- Acceptance testing

Learn!
Get Certified!
Earn More!



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