BASIC MACHINERY VIBRATIONS

- *ISO 18436-2–Category II*

The "Entry Levell" Category II course is intended for personnel who are new or have 18 months vibration monitoring & analysis experience.

Course Fee : RM7,800.00

(Include Certification)

• 5 Days Including Certification Exam

HRDF MALAYSIA
REGISTERED TRAINING PROVIDER

HRDF CLAIMABLE

LUBETRAIN RESOURCES SDN BHD

Vibration Institute

ENROLL TODAY!
Call : 03 - 7886 8550 or +6017-699 7196 Email / : mail@lubetrainresources.com

This course prepares attendees to perform Basic Machinery Vibration Analysis on industrial machinery using single-channel measurements, with or without triggers signals, according to established and recognized procedures, It covers basics of sensors, database and data collector setup, data collection, signal processing, fault analysis, and basics of single plane balancing. It is partial preparation for the Vibration Analyst Category II Certification Exam. The workshops and demonstrations, scheduled throughout the training course, are used to illustrate theory and applications.

WHO SHOULD ATTEND ?

- Those who had minimum **18 months** of experience in relevant machinery vibrations.
- Individuals who **MORE EXPERIENCE** to vibration analysis and to prepare for the Vibration Institute's Category ll Vibration Analyst Certification Examination

TRAINING COURSE CONTENTS INCLUDE :

All registered attendees in the Basic Machinery Vibrations training course receive the following:
Course power points
Basic Machinery Vibrations textbook
Workshops containing examples, workshop problems and the Body of Knowledge found in ISO 18436-2 Annex A
Training course examination study guide
Calculator and a ruler
Certificate of completion (3.8 CEUs)

Basic Machinery Vibrations I
Period, frequency, amplitude, phase, measures, and conversions.

Basic Machinery Vibrations II
Analysis, units, natural frequencies, forcing frequencies, resonance, critical speeds, and damping.

Workshop I: Machinery Vibrations
Period, frequency and amplitude.
Workshop II: Basic Vibrations
Basic Data Collector Setup I
Measure selection; frequency spans; time, frequency, and orbital displays.
Transducers
Proximity probes, accelerometers, optical pickups, selection, location and mounting.
Workshop III: Data Acquisition
Basic Data Collector Setup II
Data sampling, triggering, window selection, resolution, dynamic range, and averaging.

Basic Analysis Techniques

Orders, spectrum analysis – direct frequency, side bands.

Workshop IV: Data Processing
Analysis of Operating Speed Faults
Orders, mass unbalance, misalignment, looseness, distortion, rubs, resonance, bearing wear, and case histories.
Gear and Bearing Analysis
Measurement methods, frequencies, analysis techniques, and case histories.
Motors, Fans, and Pumps
Basics, frequencies, techniques, and analysis.

Workshop V: Fault Analysis
Evaluation of Machine Condition
Measures, procedures, severity charts, and alarm settings.
Workshop VI: Condition Evaluation
Machine Testing
Test plans, impact testing, and acceptance testing.
Periodic Monitoring
Screening, alarm setup, frequency of measurement, trending, and reports.
Balancing
Fundamental aspects of single-plane balancing.

Workshop VII: Machine Analysis