# IRD Mechanalysis Vibration Analysis ISO 18436-2 Category I



#### **About IRD Mechanalysis Training Offering**

IRD Mechanalysis Ltd. offers Vibration Condition Monitoring Training in accordance with ISO 18436-2. IRD boasts of training 40,000 plus engineers world over in Vibration analysis and in India it has trained 3000 plus engineers. The training is compliant to the requirements of ISO 18436-2 & ISO/IEC 17024

### **Vibration Analysis Training Category I**

Individuals Trained and Certified to Category I are recognized as being qualified to perform a range of Machinery vibration monitoring, Data collection and simple analysis activities. They can identify and interpret test results, understand alert conditions against a pre-established alert settings and perform limited diagnostics.



#### **The Trainers**

Senior executives and Vibration analyst of IRD and its associates will conduct the training programme. The faculty members have wealth of experience in Vibration analysis and Reliability. The training is laced with IRD Training lierature and Case studies.

### Methodology

The training will consist of Theory, Case studies and "Hands On" experiments on Motor Demonstrator set in the class room. If the training is being conducted in Training Centre of the Plant, measurements on plant machines and discussions shall form a part of the training

#### Content of the Training as per ISO 18436-2

- 1. Principles of vibration Basic motion, Period, frequency, Amplitude: peak, peak-to-peak, r.m.s., Parameters: displacement, velocity, acceleration, Units, unit conversions, Time and frequency domains, Natural frequency, resonance, critical speeds
- 2. Data acquisition, Instrumentation, Transducers, Sensor mounting, mounted natural frequency, Computer database upload/download, Recognition of poor data
- 3. Signal processing, FFT application
- 4. Condition monitoring, Fault condition recognition
- 5. Fault analysis, General fault recognition
- 6. Corrective action Basic maintenance action
- 7. Equipment knowledge Electric motors, generators and drives, Pumps, fans, Compressors, Rolling mills, paper machines, other process equipment, Machine tools, Structures, piping, Gearboxes
- 8. Acceptance testing Test procedure

## IRD Mechanalysis Vibration Analysis IRD Mechanalysis® Limited ISO18436-2 Category I

### ISO18436-2 Category I other details

#### Duration

4 Days includes Training and Certification examination

#### **Training format**

- On premises
- Star Hotels in principal cities
- Virtual Training Instructor led
- Virtual Training Automatic from IRD website

#### **Certification and Training**

- In accordance with ISO18436-2 and ISO/IEC 17024
- Examination of 2 hours duration
- 60 questions multiple choice
- Pass grade 70%
- Validity 5 years

#### **Education Board**

IRD Mechanalysis Education Board (IMLBoC) overseas the delivery and certification process

#### **Eligibility for Trainees**

6 months of work experience

#### **About IRD Mechanalysis**

IRD Mechanalysis was incorporated in Columbus, Ohio in the year 1955 by Sir Glen H. Thomas. The company made Instruments for Vibration Monitoring and provided Vibration analysis services. During the 1960's, IRD was offering Vibration Analysis services to NASA for their ground support equipment.

IRD was the world's first to introduce Formal Vibration Analysis Training in several levels. IRD was also the world's first to make Vibration data collector and Vibration software (IRD816 Data collector and IRD7090 Software)

IRD Mechanalysis Limited was originally registered in India in 1978 as a Joint Venture Company with IRD Mechanalysis Inc. USA and Chester UK. By the year 2000 these two overseas operations closed after being acquired, but the Indian company became an independent entity and registered as IRD Mechanalysis Limited. It continues to support IRD's Customers worldwide.



#### **About IRD Mechanalysis Training**

IRD created Vibration analysis Training programmes in the 60s in 5 levels. They started with Basic level to working level and then to very advanced level. It also had Training Courses in Balancing Technology, Data collection technology and Maintenance Management.

International Organization for Standardization (ISO) Geneva, created ISO18436 document in 2003 to rationalize and bring order in this very important aspect of Vibration Condition Monitoring. By this time IRD had globally trained 40,000 plus engineers and technicians.

IRD today offers all the four categories of Vibration analysis Training as defined by ISO18436. It also delivers its well known courses of the past - VT1 and VT2 (Vibration Technology 1 and 2). IRD has wealth of experience and documented literature and case studies pertaining to Vibration analysis. The current ISO18436 Training makes use of this priceless legacy of IRD.

