



# DATA ANALYSIS & DIAGNOSTIC

## Courses for Power and Mining Industries

VibroSystM's three day analysis and diagnostic courses\* were created to communicate the importance of machine condition monitoring and its influence on predictive maintenance. From the selection of specific, need-oriented monitoring equipment, to data collection interpretation, these courses focus on enlightening its attendees while giving them the required resources to monitor their machines with maximum efficiency.

### Content

#### Hydro and Mining Industries

- Monitoring Equipment Justification
- Introduction to the ZOOM® Software
- ZOOM Software Measurement and Graph Types
- Introduction to the Interpretation of Air Gap Results
- Air Gap Monitoring
  - Basic Terminologies and Standards
  - Rotor Evaluation
  - Stator Evaluation
  - Transient Conditions
- Vibration Monitoring
  - Basic Monitoring Strategies
  - Basic Measurement Principles
  - Installation and Calibration
  - Data Collection and Interpretation
  - Acceleration & Velocity Interpretation
- PD Training (specifically for the Hydroelectric Industry)
  - Theory, Hardware, and Software

#### Turbo Industry

- Monitoring Equipment Justification
- Introduction to the ZOOM Software
- Hardware for Vibration Monitoring
- Introduction to Stators
- Instrumentation Selection Criteria
- Introduction to Basic Measurement Principles
- Vibration Data Analysis
- Rotor Design
- Rotor Inter-Turn Short-Circuit Detection Techniques
- Stray Flux Monitoring
  - Hardware
  - Software and Analysis
- Generator Operation (cycling, VARS & Watts, power factor, etc.)
- PD Training
  - Theory, Hardware, and Software

### Target Audience

- Power and Mining Industry Personnel
- Utility Decision Makers
- Facility Owners
- Plant Managers
- Operation and Maintenance Personnel
- Engineers and Technicians

### Important Information

Each participant will receive the course manual in PDF form. For those wishing to receive a printed version, please advise VibroSystM when placing your order.

Each participant must confirm their presence 4 weeks ahead of time in order to receive the Attestation Certificate at the end of the course.

*\*If translation services are required, the course will be extended over 5 days.  
The content of each course is subject to change.*