





# 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<sup>®</sup> 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.

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