Global Horizon
TRAINING CENTER

# *Training Course:*
# *Vibration Analysis – Category II*

*13 - 17 April 2026*
*London (UK)*
*Landmark Office Space - Portman Street*

# Training Course:
# Vibration Analysis  Category II

Training Course code: EN235913 From: 13 - 17 April 2026 Venue: London (UK) - Landmark Office Space - Portman Street
Training Course Fees: 6500  Euro

## Introduction

Vibration Analysis is a crucial component in ensuring the health and performance of machinery in various industries. Vibration analysis helps detect mechanical faults and maintain the integrity of rotating equipment, preventing breakdowns and costly repairs. The "Vibration Analysis Category II" program, designed by Global Horizon Training Center, is specifically tailored for those who have a basic understanding of vibration analysis and want to enhance their expertise. This course will provide participants with advanced techniques to identify and analyze machinery vibrations in-depth, enabling more effective diagnostic and maintenance strategies.

By the end of this course, participants will have the skills and knowledge to perform vibration analysis using advanced tools and techniques, contributing to the efficient maintenance of rotating machinery.

## Objectives:

- Equip participants with advanced vibration analysis skills and techniques.
- Enable participants to identify and diagnose common machinery faults through vibration data.
- Enhance the ability to use vibration analysis tools and interpret results.
- Train participants on how to conduct effective machinery condition monitoring and predictive maintenance programs.
- Develop a comprehensive understanding of the principles of vibration, including spectral analysis, waveform interpretation, and fault diagnosis.
- Provide practical knowledge on vibration troubleshooting and corrective actions.

## Course Methodology:

- Instructor-led sessions: Expert trainers will provide in-depth theoretical and practical knowledge.
- Hands-on workshops: Participants will use vibration analysis equipment to perform real-life measurements and analysis.
- Case studies: Analysis of actual industry scenarios to develop practical problem-solving skills.
- Interactive discussions: Engage in group discussions to clarify doubts and share experiences.
- Exams and assessments: Regular assessments to test understanding and reinforce learning.

## Organizational Impact:

- Reduced downtime: Enhanced vibration analysis skills allow for early detection of mechanical issues, leading to fewer breakdowns.
- Cost savings: Preventive maintenance can significantly reduce repair costs by identifying and fixing minor issues before they escalate.
- Increased equipment lifespan: Through effective vibration monitoring, companies can extend the operational life of their equipment.
- Improved reliability: Proactive maintenance increases the overall reliability and efficiency of machinery, improving operational productivity.

## Target Audience:

- Maintenance engineers
- Mechanical engineers
- Reliability professionals
- Technicians involved in machinery maintenance and diagnostics
- Asset managers
- Anyone interested in advancing their skills in vibration analysis

## Outlines:

### Day 1: Introduction to Vibration Analysis

- Overview of Vibration Analysis and its importance
- Basic vibration theory and principles
- Introduction to vibration measurement tools and sensors
- Understanding vibration signals and frequency analysis
- Key parameters: amplitude, frequency, and phase
- Hands-on session with vibration measurement equipment

### Day 2: Vibration Data Collection and Tools

- Vibration measurement techniques and best practices

- Sensor placement and data collection methods
- Overview of vibration meters, accelerometers, and FFT analyzers
- Introduction to spectral analysis
- Data storage and management strategies
- Case study: Interpreting basic vibration data

### Day 3: Advanced Fault Diagnosis Techniques

- Understanding fault frequencies and pattern recognition
- Balancing and alignment issues
- Mechanical faults: bearing defects, misalignment, unbalance, gear problems
- Vibration signatures for different fault types
- Hands-on session: Diagnosing common mechanical faults using vibration data

### Day 4: Machinery Condition Monitoring and Preventive Maintenance

- Setting up vibration-based monitoring systems
- Continuous monitoring and data analysis techniques
- Predictive maintenance strategies using vibration analysis
- Vibration thresholds and alarm limits
- Case study: Developing a predictive maintenance plan based on vibration analysis

### Day 5: Troubleshooting and Corrective Actions

- Advanced fault diagnosis using spectral analysis and waveform interpretation
- Vibration troubleshooting techniques and corrective actions
- Understanding and handling complex vibration problems
- Documentation and reporting of vibration analysis results
- Final assessment and hands-on exam

# Registration form on the Training Course: Vibration Analysis  Category II

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

## Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
Telephone / Mobile: .....
Personal E-Mail: .....
Official E-Mail: .....

## Company Information

Company Name: .....
Address: .....
City / Country: .....

## Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....
Position: .....
Telephone / Mobile: .....
Personal E-Mail: .....
Official E-Mail: .....

## Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
- ☐ Please invoice me
- ☐ Please invoice my company

## Easy Ways To Register

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| Telephone: +201095004484 to provisionally reserve your place. | Fax your completed registration form to: +20233379764 | E-mail to us : info@gh4t.com or training@gh4t.com | Complete & return the booking form with cheque to:Global Horizon 3 Oudai street, Aldouki, Giza, Giza Governorate, Egypt. |