

Upcoming Training Class:

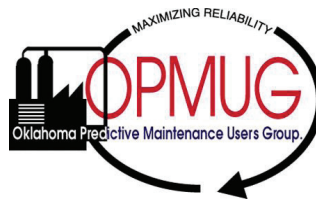
Vibration Analysis & Predictive Maintenance Techniques

Hosted by Tulsa Tech

Sep. 12 - 15, 8 am - 5 pm

Tulsa Tech Training Center
3638 S. Memorial Dr., Tulsa OK

(918) 828-5000 | tulsatech.edu



In Partnership With



*career*tech



ISO Category I Agenda (Entry Level)

Vibration Analysis And Predictive Maintenance Techniques *(Little or No Previous Vibration Experience is Required)*

Predictive Maintenance and Machine Vibration

- » Introduction to Maintenance Systems
- » Types of Maintenance Systems
- » Predictive Maintenance Programs (PdM)
- » Vibration Analysis
- » Goals of a Predictive Maintenance Program
- » Continuous Monitoring Systems
- » Periodic Monitoring Systems
- » Setup of a Predictive Maintenance Program (PdM)
- » Steps in a Condition Monitoring Program for a Successful PdM
- » Conclusion

Machine Vibration - Basic Theory, Part 1

- » Introduction
- » Basics of Vibration
- » Characteristics of Vibration
- » Natural Frequency
- » Displaying Vibratory Motion
- » Conclusion

Machine Vibration - Basic Theory, Part 2

- » Introduction
- » Amplitude - The Magnitude of the Motion
- » Root Mean Square, Peak, Peak-to-Peak Conversions
- » The Period of Vibration
- » Analyzing Frequency Peaks & Amplitude Levels
- » Phase Relationships
- » Conclusion

Preparing for Data Collection

- » Introduction
- » Transducers
- » Transducers - Mounting Location and Techniques
- » Selection Criteria
- » FFT Data Collectors
- » Real-Time Spectrum Analyzers
- » Conclusion

The Data Processing System

- » Introduction
- » Data Collection - Analyzers
- » Setting up the Analyzer
- » Dynamic Range
- » Frequency Definition
- » Conclusion

Data Collection

- » Introduction to Data Collection
- » Setting up a PdM Database
- » Downloading a Route
- » Selecting Required Instruments and Transducers
- » Safety Precautions
- » Collecting Data
- » Uploading the Route
- » Report Printouts
- » Plot Formats
- » Conclusion

Common Machines and Recommended Locations to Acquire Vibration Measurements

Introduction to Data Analysis Using Spectral Pattern Recognition

- » Introduction
- » Definitions of Terminology
- » Diagnosing Vibration Problems
- » Conclusion

Testing Guidelines for Vibration Acceptance Testing of New and Rebuilt Machines

- » Introduction
- » General Acceptance Testing
- » Acceptance Specifications and Standards

Registration

Attendees will receive a Certificate of Completion with credit for contact and professional hours. Register at <https://www.opmug.org/events> or contact chris.groden@tulsatech.edu to reserve a seat for this session.

Course Cost: \$1,750

Registration will be limited to the first 16 OPMUG members that register. For more information about classes or lodging, please call Chris Groden at (918) 828-5433.

Course Cancellation Policy

A training class can be cancelled when, less than 75% funded and is less than 30 days from the start of class (training). In this case there will be a 100% fee refund for registered participants. If a registered participant cancels less than 10 days before the start of class (training) they will forfeit 50% of the registration fee.