

ELECTRICAL MACHINE MAINTENANCE MASTERCLASS

Presented by Mike Davis | EMKE



EMKE[®]
Electrical Machine Knowledge Exchange

Electrical Machine Maintenance 1 Day Masterclass with Mike Davis

Join Mike Davis, a well-known and respected Electrical Machines Practitioner and Coach and founder of EMKE, for an engaging and informative 1 day Masterclass on simple electrical machine maintenance and common failure processes.

This Masterclass program is designed to coach attendees to be proactive, confident, and safe around your electrical machines, ensuring that they understand failure processes and how to run your electrical machine equipment at optimum levels.

Attendees will be provided with the tools they need to describe and identify the functions of electrical machine components, various insulation types in stator and rotor windings, failure mechanisms common to electric machines, and electrical and mechanical tests sensitive to specific failure mechanisms.

Masterclass Outline – Level 1

- Electrical Machine Familiarisation
- Electrical Machine Failure Mechanisms
- Common Electrical Machine Tests
- Common Electrical Machine Inspections
- Electrical Machine Visual Inspections

Learning Outcomes

Understand and improve electrical machine maintenance through common standard inspections, test and maintenance procedures.

The masterclass is presented using a mix of presentation, discussion and small group practical exercises using models to consolidate learning.

Attendees will come away with a clear understanding of the various components that make up an electrical machine, including stator and rotor windings, and their respective functions:

◆ IDENTIFICATION OF INSULATION TYPES IN STATOR AND ROTOR WINDINGS:

Participants will be educated on the various insulation materials used in the stator and rotor windings of electrical machines. This segment aims to enhance the ability of attendees to correctly identify and differentiate between the types of insulation, a fundamental aspect of machine maintenance and repair.

◆ RECOGNISING COMMON FAILURE MECHANISMS IN ELECTRIC MACHINES:

The course delves into the typical failure mechanisms of electrical machines, including those stemming from electrical, mechanical, and thermal stresses. Attendees will learn to recognise these failure modes, understand their causes, and identify symptoms, which is crucial for timely diagnostics and intervention.

◆ APPLICATION OF ELECTRICAL AND MECHANICAL TESTS SENSITIVE TO SPECIFIC FAILURE MECHANISMS:

An important training component involves teaching attendees how to perform and interpret electrical and mechanical tests. These tests are designed to be sensitive to specific failure mechanisms, providing an early warning system that can help prevent catastrophic failures by allowing for timely maintenance intervention.

◆ DEVELOPING SKILLS IN SIMPLE ELECTRICAL MACHINE MAINTENANCE:

Finally, the course emphasises the development of hands-on skills in the maintenance of simple electrical machines. Participants will gain understanding and practical experience in conducting routine inspections, utilising component models. This practical knowledge is essential for ensuring the longevity and reliable operation of electrical machines.

Who should attend

Electrical and Mechanical Personnel who work on and around electrical machines, including Technicians, Trainees, Electrical Engineers, Mechanical Engineers, Project Managers, Repair Company Personnel, and Condition Monitoring Engineers.

Business Benefits

- Reduce expensive unexpected breakdowns of electrical machinery within your facility.
- Minimize surprise malfunctions by training your team with the latest and most efficient methods for inspection, testing, and operation of your electrical machines.
- Transform your electrical machinery staff's perspective on their work and perpetually enhance the knowledge base of your plant.
- Close the gap between knowledge and experience and give your team confidence through comprehensive understanding and safety practices when working on electrical machines.

Whats Included

- ◆ Practical Exercises + Workbook (completed by small teams during the day).
- ◆ More than 40 case studies of electrical machine failures.
- ◆ 12 months access to the EMKE Online Electrical Machine Coaching Program.
- ◆ A copy of Mikes Motor Minutes E-Book.
- ◆ Certificate of Attendance.
- ◆ Upon completion of the training, relevant attendees may gain 8 hours of active CPD.
- ◆ Arrival beverages, Morning tea, lunch and afternoon tea.

Presenter – Mike Davis, EMKE

Mike Davis is an electrical machines practitioner and coach who helps users of electrical machinery understand fault processes and operate equipment optimally to avoid costly failures. For more than four decades, Mike has led successful electrical machinery companies. Now he passes on his lifetime of engineering experience and knowledge to the next generation of electrical engineers and technicians by coaching and guiding them and presenting technical papers at national and international conferences.

His areas of experience include repairing, redesigning and maintaining rotating electrical equipment, developing and establishing testing and inspection programmes for rotating electrical equipment in a variety of industries, and developing and presenting training courses on a variety of topics related to rotating equipment maintenance. With his extensive experience and knowledge, Mike is well qualified to help others keep their electrical equipment in top shape.

About EMKE (Electrical Machine Knowledge Exchange)™

The Electrical Machine Knowledge Exchange (EMKE) offers a unique electrical machine learning experience targeted at technical personnel who work on or around electrical machines.

Contact Us

For more information on Masterclasses, In-house coaching and our online academy visit www.emkecoach.com or contact us on admin@emkecoach.com.

