

Course Title: Diagnostics on AC Electric Motors Course Code: EEA 139**Course Background / Summary:**

The course offers the total solution for AC motor control needs. Participants will obtain knowledge of the construction of AC motors, the control pilot device used, and the proper techniques to troubleshoot the motor failure. They will also be trained to perform wiring and testing motor control circuits. The contents include the description of the single and three-phase AC motors and the method to control the speed of the motor will be explained.

Course Objectives:

- Describe the construction of single and three-phase AC Motors.
- Test wiring circuits and troubleshooting.
- Master the techniques in controlling the directions and speed of an AC motor.

Target Audience:

- Electricians, Technicians, Engineers, Instructors

Course Duration: 3 Days**Course Contents****1.0 Theory Subjects**

- Introduction to Electric Motors
- Control Pilot Devices
- Basic Troubleshooting Principles
- Troubleshooting Control Circuits
- Three Phase and Single-phase AC Motors
- Variable Speed Drive/AC Drive
- Motor Failure
- Motors Overload Protection

2.0 Practical Tasks

- Control Circuit: Construction And Troubleshooting
- Diagnosis Contactors
- Assemble and Disassemble AC Motors
- D.O.L for Three-phase and single-phase motors
- Autotransformers Starting Method
- Manual and Automated STAR-DELTA Starting
- Reversing AC Motors
- Speed Control for AC Motors