

Level 2: Advanced Mechatronics

Applied Industrial Motor Controls

This course builds knowledge and skills in the fundamentals of industrial electric motor controllers. The industry recognized certification is specially designed to develop soft skills in addition to technical skills. Equipment allows teachers to insert various faults to develop troubleshooting skills – a must to be well prepared for the workplace. The course first familiarizes students with the operation of individual components, then provides hands-on application opportunities to use them in realistic, industrial motor control circuits. Upon completion of this course, students will be able to install, commission and troubleshoot the most common electric motor controllers using contactors and relays.

Industry Recognized Certification Topics

- Basic control circuits
- Three -phase induction motors
- Motor protections
- Reversible motor starters
- Braking
- Reduced voltage motor starters

Core Competencies

- Demonstrate safe practices and procedures when working with industrial motor controls.
- Describe principles and operations related to industrial motor and control circuits.
- Evaluate industrial motor control circuit performance and apply appropriate troubleshooting techniques.
- Interpret and use wiring diagrams, symbols, and schematics to troubleshoot industrial motor control circuits.
- Demonstrate and describe the use of relays, contactors, motor starters and pilot devices in motor control circuits.

Equipment

Basic Motor Control Technology Trainers

The Basic Motor Control Technology system contains equipment to help you understand the basics of motor controls, which is an essential part of the learning path to master industrial electricity principles.

