

Electrical / Electronic Maintenance 4 (Industrial Electronics)

Description

This course is designed as the next level (Level 4) of electrical/electronic training for new and updated skill craftsmen or a single unit course for your skilled personnel. Through lecture and hands-on training the students will learn the Theory, operation and application of solid-state devices used in industrial controls. Topics include; semi-

conductors, transistors as switches and amplifiers, solid-state relays, SCR's, photocells, LED's and integrated circuits. This course may be used to train new hires, update skilled craftsmen and cross-train personnel for servicing industrial, electrical and electronic equipment. This course can be customized to fit your industries needs.

Outline

- Solid State Electronic Control Devices
 - Semiconductor Theory
 - Diode
 - Thermistor
 - Solid State Pressure Sensor
 - LED's
 - Transistor Amplifiers
 - SCR's
- Electro-Mechanical and Solid State Relays
 - Electro-Mechanical Relays
 - Solid State Relays
 - Relay Design and Application
 - Troubleshooting Relays
- Photoelectric and Proximity Control and Applications
 - Photoelectric Control
 - Scanning Techniques
 - Environmental Influences
 - Proximity Sensor Types
 - Hall Effect Sensors
 - Sensor Interfacing
- Maintenance
 - Test Equipment, including; Multimeters, Logic Probes, and Oscilloscopes.
 - Troubleshooting

Prerequisites

Electrical/Electronic Maintenance 2. May be used as a Single unit course in Motors for experienced electrical and maintenance personnel.

Performance Objectives

At the completion of this course the participant will have developed an understanding of the solid state electronic control devices, electro-mechanical and solid state relays, photoelectric and proximity control and applications.

Course Length

32 hours/ Up to 12 participants.