SECTION HEADING

MECH 2136: Programmable Logic Controllers

Description

This course demonstrates the use of programmable logic controllers and circuits to control and power all phases of industrial automation.

Credits

3

Prerequisite

MECH 1135

Corequisite

None

Topics to be Covered

1. Basic Programmable Logic Controller (PLC) theory.2. Analog and digital theory.

3. PLC hardware.

4. Input/Output Field Devices.

5. PLC and system interfacing.

6. PLC installation and startup procedures.

7. PLC maintenance.

8. Troubleshooting principles and testing for hardware and software.

Learning Outcomes

1. Identify and control potential safety hazards and implement safe working practices.

1. Describe PLC industry function.

2. Describe PLC program methods.

3. Design PLC logic circuits.

4. Describe various manufacturing hardware layout.

5. Identify and wire Input/Output field devices.

6. Troubleshoot PLC wiring and programming logic.

Credit Details

Lecture: 2

Lab: 1

OJT: 0

MnTC Goal Area(s): None