



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Industrial Automation - PLC2

ENGRTEC 4200

Credit Hours:

3.00

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture

Lab

Course Description:

Industrial Automation PLC2 is designed as the second of two courses to provide the students with skills in industrial automation for manufacturing. The course is designed to provide students with the comprehensive review of functions, operation, and communication of automated industrial systems including PID loops, HMIs, data transfer, troubleshooting PLC networks for equipment/process integration

Prerequisites and Co-requisites:

Prereq: 3900.

Course Goals / Objectives:

- Appreciate the complexity of industrial automation systems and processes
 - Become proficient in using analog device control including Proportional, Integral and Derivative (PID) Control
 - Comprehend troubleshooting techniques involved in the process control including maintenance and troubleshooting of PLC systems
 - Understand the integration of human-machine interface systems with the process control
 - Discern the importance of safety in industrial automation
 - Employ effective teamwork, leadership and communication skills needed in automation industry
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Course Topics:

- Introduction to Industrial Automation
 - PLC Interfacing
 - Introduction to Industrial Automation
 - PLC Safety and Interlocking
 - Human Machine Interface (HMI)
 - PLC Networks
 - Industry Speaker Sessions
 - Exams
 - Team Presentations
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Designation:

Required