

Industrial Automation Lab

An Industrial Automation Laboratory offers students hands-on experience with systems that automate industrial processes, enhancing efficiency, precision, and safety. This lab is equipped with simulation software and PLC. Simulations include designing /tuning PID Controllers which are carried out in a computational lab.

The Programmable Logic Controller (PLC) lab contains multiple trainer kits equipped with PLC units and other field devices along with computers to train students. RSLogix- 500 software provides a graphical interface to write ladder logic for PLC. The lab is primarily based on the Allen Bradley family of Programmable Logic Controllers, which are widely used in automation industries.

Hardware in the Lab:

- 1) 4 PLC trainer kits with MicroLogix 1000 PLC with 10 DI/DO
- 2) 1 PLC trainer kits with MicroLogix 1100 PLC with 20 DI/DO
- 3) 2 PLC panels with MicroLogix 1400 PLC with Relay output module having 12 channels, Digital Input-20 nos, Analog input-04 nos, Analog output-02 nos , RTD / Thermocouple Input module, 10 inch HMI.
- 4) Personal Computers
- 5) Stepper Motor unit
- 6) Bottle processing Plant

Software used: RSLogix 500 software, MATLAB

