Advanced PLC Technology

Allen Bradley or Siemens

FESTO

Level 3

The advanced PLC module builds on foundational and applied knowledge, focusing on deeper integration of PLC programming with other essential elements like Human Machine Interface (HMI) systems. Students learn to program, modify, and adapt PLC functions to address dynamic industrial applications, ensuring seamless integration of all the components within the CP Lab. The PLC acts as the central controller, coordinating interactions between actuators, sensors, and information systems, which are vital for teaching complex automation processes. Mastery of these skills is highly valued in modern industry due to the increasing reliance on automated and connected systems.

Industry Recognized Certification Topics

- Ladder Logic Programming
- HMI (Human Machine Interface)
- Advanced Functions: Operation and Programming
- Advanced Networking
- Program Modifications
- Troubleshooting
- Uploading and Downloading Programs to a PLC

Units - 8 / Labs - 5

Industry Recognized Certification Competencies

- Program Complex PLC Systems
- Design and Implement Industrial Networks
- Upload, Download, and Manage Distributed PLC Systems
- Program Advanced PLC Functions
- Write, Customize and Optimize PLC Programs
- Develop Advanced HMI Applications
- Troubleshoot and Maintain IIoT-Connected Systems