

Building a centralized control system model with distributed I/O based on PLC S7.1500 in the practice room of the Faculty of Automation Technology.

Tran Ngoc Duc

Abstract: In the context of increasingly developing automation technology, building a centralized control system model with distributed I/O on the Programmable Logic Controller (PLC) S7.1500 platform in the laboratory of the Faculty of Automation Technology aims to meet the demand for enhancing students' technical capabilities in designing and operating complex control systems. The objective of the project is to develop a comprehensive solution including requirement analysis, system structure design, PLC S7.1500 programming, testing, and system performance optimization. Through a combination of theoretical research and experimentation, the project aims to contribute a practical solution for educating automation control skills in an academic environment.

Keywords: PLC S7.1500, Centralized control, Distributed I/O, Department of Automation Engineering, Practice