

Automatic Fire Detection And Suppression Control Unit Using PLC

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Abstract: *The Automatic Fire Detection and Suppression Control Unit using PLC is designed to ensure rapid response to fire emergencies in industrial and commercial environments. The system detects fire using smoke and temperature sensors, and automatically performs safety operations such as triggering an alarm, activating exhaust fans, opening emergency exits, and starting the water spray or fire extinguishing system.*

The Programmable Logic Controller (PLC) is used as the central controller, which continuously monitors the sensors and executes programmed logic for fire control. This project minimizes human intervention, reduces the risk of loss of life and property, and ensures efficient fire management in critical areas like factories, malls, and server rooms

Keywords: Automatic Fire Detection ,Fire Suppression System ,Programmable Logic Controller (PLC), Smoke Sensor, Heat Sensor, Fire Alarm System, Industrial Safety, Automation System, Fire Protection System, Safety Monitoring

