

PLC Based Tank Temperature Control using PID Algorithm

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Abstract: *This project presents a PLC-based tank temperature control system using a PID algorithm for maintaining precise temperature. The water temperature inside the tank is measured using a Pt100 RTD sensor and sent to the PLC as an analog signal. The PLC compares the actual temperature with the setpoint and calculates the error using PID control logic. Based on the PID output, the PLC controls a heater through a Solid State Relay (SSR). The system ensures stable, accurate, and efficient temperature regulation suitable for industrial applications*

Keywords: *PLC-based tank temperature*

