

Design and construction of a PID controller for water level control in an industrial tank using PLC connected to a variable frequency drive

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Abstract: In practice, precise control of water levels in industrial tanks plays a crucial role in system operational efficiency. This project focuses on designing and building a PID controller applied to a PLC connected to a variable frequency drive for managing water levels in tanks. The research method is based on a blend of PID theory and experimental implementation in an industrial environment. The expected outcome of this project is to provide an effective, easy-to-apply solution for industrial water level control systems, while contributing to the enhancement of PLC design and integration skills in the field of automation.

Keywords: PID controller, PLC, industrial water level control, inverter, automation