ESE 3202

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Title

Smart Water Level Management System Using ESP32 Microcontroller

Objectives

Controlling water levels is a critical process in various industries. For instance, power plants must maintain precise water levels in boilers and feedwater tanks to ensure efficient and safe operations. Similarly, residential houses require water level control to fill overhead and underground tanks effectively. This task is a regular and essential activity. To simplify and automate this process, a microcontroller-based device can be employed. The goal of this project is to

1. design and automate an efficient microcontroller-based (ESP32) water level control device
2. minimize manual intervention in water level management, thereby reducing water wastage caused by human error and lowering electricity costs
3. measure the performance of the device