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Water Quality Monitoring System

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Abstract: *This paper proposes the design and implementation of a low-cost water quality monitoring system aimed at real-time measurement of key water parameters such as pH, turbidity, and temperature. The system integrates three distinct sensors: a pH sensor to measure water acidity/alkalinity, a turbidity sensor to assess water clarity, and a temperature sensor to measure water temperature. The data collected by these sensors is processed by an ESP8266 microcontroller, which sends the information to a local OLED display for real-time monitoring. The system is also capable of remote data logging using the Wi-Fi capabilities of the ESP8266. This paper explores the need for such a system, outlines the methodology for its design, and discusses its potential applications in environmental monitoring.*

Keywords: Water Quality Monitoring System, pH sensor, Turbidity Sensor, Temperature Sensor,ESP8266 microcontroller

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