ABSTRACT

Situ Tekno Lake is a lake located in the Telkom University area. Many of the lakes in densely populated areas have polluted water, water is an important resource for living things. Water that has good quality can be beneficial for humans and animals. Several parameters such as temperature, pH and turbidity need to be considered in testing water quality.

In this final project, create a mobile-based water quality monitoring application using a pH sensor, temperature sensor and turbidity sensor. This system also uses Firebase as a real time data receiver which is sent via the ESP32 microcontroller, then data from the temperature sensor, pH sensor and turbidity sensor will be displayed on Firebase..

The results of the tests carried out in this Final Project are a tool designed to measure water quality in Situ Tekno Lake. Obtain results in the form of a temperature value of 18-23°C, a pH value of 6-8, and a turbidity value of 215-305 NTU.

Keywords: *internet of things, water quality, esp 32, sensors, lake situ tekno, firebase.*