ABSTRACT

In this final project a system that can monitor the quality of ornamental fish aquarium water through Android is created. The tool can detect water turbidity, water temperature, and water pH in the aquarium. Monitoring the condition of aquarium water quality using the arduino mega 2560 microcontroller, water turbidity detection sensor, temperature sensor and pH sensor.

This system is made in stages starting from mechanical design, microcontroller configuration, synchronization of sensor readings, display monitoring and measurement parameters to Android. The final result of this research is to remotely monitor the quality of water in an aquarium using the *Internet of Things* and *Thingspeak*

This study uses a pH sensor, turbidity sensor and DS18B20 sensor. During three consecutive days of testing the water temperature of the DS18B20 sensor (23.45,23.37,18.53) ̊C, water pH from the pH sensor (6.77, 6.36, 6.05), and turbidity water from the turbidity sensor (20.63, 22.86, 23.34)NTU

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Keywords: Internet of Thing, Thingspeak