ABSTRACT

Koi fish are a type of ornamental fish that are often used as pets and trading commodities. Initially, the Koi fish came from Japan with pretty good water quality. There are many influences on water conditions caused by pH, TDS and temperature which are often unstable. The solution used is the filter method assisted by IoT (Internet of Things) based filter media with an ESP32 microcontroller which will be connected to blynk which aims to determine water conditions in real time by controlling and monitoring using pH sensors, TDS (Total Dissolved Solids) and temperature to make it easier Koi fish owners understand from conditioned or reconditioned water. The results are from different times of the morning, afternoon and evening where the average pH is neutral, which is 6.9 because the activity of the fish has not eaten, then the TDS with the lowest average condition during the day is 177 ppm, then at the temperature conditions in the morning , day and night did not change, namely at an average value of 26°C using a 50:50 ratio filter media from pH using ginger coral and oysters then on TDS filter media using activated charcoal and zeolite stone.

Keywords: filter , water quality, filter media, Internet of Things