ABSTRACT

Raising fish is a hobby that is very popular with some people because of its easy maintenance, but in cultivating fish there are several things that need to be considered such as feeding which must be done regularly and on time, checking the temperature and also the condition of the water that must be considered so that the fish can be cared for properly. What's more in aquascape, biota that live in it more than the biota in an ordinary aquarium. By utilizing several sensors such as the DS18B20 temperature sensor, LDR sensor, servo motor and Internet of things (IoT) technology, temperature monitoring and feeding will be more effective. This system is made with a Nodemcu ESP8266 microncontroller with data communication using Wi-Fi, while the monitoring system used uses the Website. This design produces different accuracy values from each sensor, the LDR sensor which functions to read the light detected in the feed container produces 2 times error and 30 times success, while the DS18B20 temperature sensor has an average error value of 0.86% with accuracy 99.14%, and the last component of the servo motor in 30 times of testing got 6 errors with an average accuracy of 87.12% and the resulting feed was sufficient from the value of the feed requirement.

Keywords: Aquascape, Internet of things, Nodemcu ESP8266, *Monitoring, Website.*