DESIGN AND DEVELOPMENT OF MONITORING AND CONTROL OF IOT (INTERNET OF THINGS) BASED FISH FARMS

Josha Decwema Horman
Electrical Engineering Study Program, Faculty of Science & Technology
University of Technology Yogyakarta
Jl. Ringroad Utara Jombor Sleman Yogyakarta
Email: joshadhorman18@gmail.com

ABSTRACT

Fish farming is a form of animal husbandry that is mostly practiced by Indonesian people, both in ponds, in rivers and in the sea, controlled water quality, feed, turbidity, water circulation can improve fish quality. Decreased water quality will cause the accumulation of leftover feed. Automatic water level, turbidity monitoring and regular fish feeding schedule all of which can be controlled automatically System flow chart control system to adjust the water level when the water level changes using a DC pump. The control system starts from reading the water level using the water level sensor. If the reading of the water level sensor detects a high water level, the sensor will send a signal to the microcontroller to operate the DC water pump to reduce the water level to the conditions specified for the pond so that the water does not overflow. The results obtained by this tool at 80 percent monitoring success rate. In this tool there is a water level sensor which only provides data in the form of digital data 0 and 1, it should be replaced with a water level sensor which can provide a distance in centimeters such as an ultrasonic distance sensor which can be applied to measuring water levels in a pond or fish pond For a level monitoring system This IoT-based turbidity can be further developed and the microcontroller can be replaced with one that is better in its specifications.

Keywords: Fish farming, Internet of Things (IoT), microcontroller, Blnyk, monitoring.