ABSTRACT

For monitoring and controlling fish ponds required a Raspberry Pi Fish Operation Control System that can be controlled via mobile phone connected to a wide area network (WAN) network. This application is a software to control Raspberry Pi Fish Pond Operation Control System, in this application there are features for monitoring and contriling with wide area network (WAN). This application is installed on the mobile phone device with android operating system, in the application monitoring feature displays data from sensors in the form of digital numbers, the sensor provides data in the form of pH of pond water, pond water temperature, and salinity or salt content in pond water. Control feature in this application is to control the supporting device of fish pond connected to the relay. To make this application required a tool called Eclipe. Eclipse is a programming application that can create an application program for mobile phones with android operating system. To obtain sensor data from the Operation Control System Pond-Based Fish Pond Raspberry Pi is using php programming language and display it with json code. In order for the application to be accessed on a wide area network an application tunneling connection is installed on Raspberry Pi. In the test results showed that the sensor data can appear on the application and on the application control feature can control the supporting device of fish pond. Testing with wide area network can be done by accessing the domain that has been given by the application tunelling connection.

Keywords: Fish Ponds, Applications, Operation Control Systems Pond Fish Ponds Based Raspberry Pi, Android mobile phone, Wide Area Network