ABSTRACT

Indonesia is one country that has a high level of rainfall. Therefore, natural disasters such as floods often occur in some areas in Indonesia that can cause environmental damage and even casualties, as well as harm to citizens and government. Along with advances in technology today, it can be anticipated by relying on technological developments capable of detecting floods.

Flood detection devices based on sensor reed switches and ESP8266-12E, using the Internet of Things is a tool capable of monitoring and alerting floods by dividing the three levels of water level. This tool works by relying on a reed switch sensor that serves as a water level detector and utilize the Internet of Things as the point of the location information.

The results of this Final Project are able to measure the surface height of the water discharge by displaying it into LCD display aplication MQTT and transmitting information over the internet network. Sensors used by the writer can be used to monitor the level of surface water level anytime and anywhere with the condition connected with internet network access and IP server. The result of the test found that the biggest error is 4%, while the average delay of message display from sensor to MQTT application is 1.84 seconds.

Keywords: ESP8266-12E, Internet Of Things, Reed Switch