

ABSTRACT

Natural disasters are natural events is a large impact for human life. One of the events that often occurs in Indonesia is flood. Flood caused by rain and human factors that underestimate the warning of throw garbage & housing that forgets the disposal of water (sewers) around the environment with the rapid development of technology, technology can be one of solutions in resolving and reducing flooding problems. In this final project, one solution will be discussed to reduce the problem of flooding by utilizing technology, which is to make an SMS-based flood height detection tool combined with IoT

Flood height detection devices are designed using a water level sensor, a microcontroller. The sensor is used to detect water level using an ultrasonic sensor, the data received from the sensor will be managed by a microcontroller. The microcontroller will read the data from the sensor that will send a message form of a warning "status in alert and danger" if the height of the flood reaches a status in alert and danger. And the microcontroller function to read the sensor data that will be stored in the data base and send messages to the IoT web speak thing. The message sent can be seen through thing speak With Esp 8266 connect to wi-fi, it is expected that the community can prevent a greates loses and obtain information about themselves to prevent valuables so that losses can be prevented to a minimum and make it easier to obtain this information.

Based on data from research on the Final Project the accuracy of the 95% ultrasonic, sensor while sending data to thing speak. Delay in delivery in 20 second.

Keywords: *Flood, flood height detection devices, ultrasonic, microcontroller, Massage gateway, Internet of things*