

ABSTRACT

High rainfall accompanied by several factors such as rubbish being thrown carelessly into river, less water catchment areas, river flows that have been eroded into settlements. This causes floods disaster happened in various areas. Floods¹ bring property loss, infrastructure damage, even take live. Because of that a tool² is needed that able to measure the water level and able to detect anomaly rising water levels early so that can warn as soon as possible to local civilian to minimize the impact of losses caused by flood. The focus on this research is to send real time data to appointed website and send early warning to locals around flood-prone areas. There are 2 locations where the research was conducted, at the Cikaro Ibum river, Bandung and the Gunuang Nago dam, padang. For the average measurement results using an ultrasonic³ sensor is 21.9 cm for the Cikaro Ibum river and 12.7 cm for the Gunuang Nago dam. The data will be sent using internet of things⁴ technology with normal delivery once every 10 minutes to a website that already created. The delivery accuracy is 68% by taking samples of 100 measurment data. And also there are 3 categories for sending early warnings, namely an increase of 40 cm from the last reading, Alert and Danger, when the categories fulfilled, the SIM800L module will send the data by ignoring normal delivery and also send the early warning message to appointed number.

Keyword : Flood Prevention, Water level sensor, Ultrasonic-Sensor, Early Warning.