

ABSTRACT

Currently the flood is still one of the disasters that often occur in Indonesia, especially in the district of Bandung. Floods also have a very detrimental impact for the community, especially the people who live near the banks of the river. As a result of this flood disaster many houses are damaged and cause injuries and casualties. Therefore there should be an early warning sign to the community to be able to anticipate the overflow of rivers that can cause the flood disaster.

This early flood hazard detection system is designed with water flow sensors and ultrasonic sensors. Both sensors are sensors that can measure the discharge / volume of water and measure the water level. In addition, the system is also equipped with an alarm that will signal to the community about the condition of the river water under study, whether the river water is safe or not. This alarm is useful to warn people of the coming flood so that people can prepare themselves and save their property.

In this final project, the results showed accuration rate for the water flow sensor was 98,311% with an error rate of 1,689% and the accuration rate for ultrasonic sensors was 99.7756% with an error rate of 0.2244%. With the early detection system of this flood hazard is expected to be one solution to the problem of flood disasters that often occur. In addition, it is expected also early detection system of this flood hazard can help reduce casualties due to flood disaster.

Keywords: Flood detector, water flow sensor, ultrasonic sensor.