Sistem Peringatan Dini Bencana Banjir Bersasis Internet of Things

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ABSTRACT

Rain is an event of falling water droplets from the sky that fall to the ground. Rain has several benefits, including increasing water sources, watering plants, as electricity and can prevent drought. On the other hand, high rainfall can cause floods. The lack of an early warning system for floods is very detrimental to the community.The purpose of this thesis is to be able to build an Internet of Things-based flood warning system using Wemos D1 R1 and be able to design software to monitor flood early warning systems. In this study using the JSN SR04T sensor which will measure the height of the river and the Tipping Bucket Rainfall sensor to measure rainfall in the area. The sensor data will be processed by the Wemos D1 R1 microcontroller via the I/O port and then sent to the MySQL database. Data from the two sensors will be displayed through a website based on the Laravel Framework.The results of the research are as expected, namely monitoring the condition of river heights and rainfall through the website. The website is full of information about rainfall (mm), the number of tips, the number of tips per minute, the number of tips per hour and the weather.

Keywords : flood, rainfall, river, warning system, internet of thing