ABSTRACT

This final project is based on the occurrence of floods in Indonesia which is often a problem for many people in Indonesia.

Flood is one of the natural disasters that often hit Indonesia in recent years. The flood disaster has also been in the spotlight by the government to be handled swiftly. This can be seen from the government's role in the establishment of the National Disaster Management Agency (BPBN) which acts as a government agency in disaster management in Indonesia.

For this reason, the authors designed a prototype that could be implemented from the housing sector for the initial trial of the prototype. The author develops a flood management system with an IoT-based reservoir with this tool in the hope that it can anticipate flooding from a residential area and can also provide information about the flood situation that occurs in the environment.

This prototype also comes with an excellent result. The devices work exactly like the way they have to, and the *website* is accessible and shows the needed information. QoS testing to both system and *website* access also have good results. In testing the system with wireshark, the average *delay* is 0.17959 s, *packet loss* is 0%, and the *throughput* is 50.94 Kb/s. In testing the *website* with Apache JMeter, the average *delay* is 0.307413 s and the *throughput* is 30.96 Kb/s.

Keywords: Flood, IoT, NodeMcu, MySQL, Arduino IDE, VPS