

***PROTOTYPE MONITORING AND DETECTION
EARLY FLOOD BARBATION INTERNET OF THINGS USING
NODEMCU ESP8266***

Nama Mahasiswa : Teguh Tri Asrianto
NIM : 6103201423
Nama Pembimbing : Tengku Musri, M.Kom

ABSTRACT

Flood is a problem that frequently occurs in Indonesia. In addition to that, floods can also disrupt the activities of the surrounding community. To address this issue, an early flood detection system was developed using ultrasonic sensors for water level measurement, the NodeMCU ESP8266 microcontroller for data processing, and the system is equipped with a Buzzer as a warning alarm. Users can remotely monitor the water level from a distance using a website to view the water level and the highest recorded water level data through the graphs on the website. The test results demonstrated that the system can work well; the system was tested using a prototype. There are three water level statuses in this flood monitoring and early detection system: the SAFE status occurs when the water level distance from the sensor is ≥ 20 cm, the ALERT status occurs when the distance is ≥ 11 cm and ≤ 19 cm, while the DANGER status occurs when the distance from the sensor is ≤ 10 cm. In the ALERT status, an alarm sound is triggered by the Buzzer with a 5-second delay. In the DANGER status, the alarm sound will continuously trigger or be without delay.

Keyword: *Monitoring, Ultrasonik, Buzzer, Esp8266, Internet of things (IoT), website*