

ABSTRACT

The urban environment that is the center of civilization and the center of human life is currently polluted due to high levels of pollution. One result of the pollution of the urban environment is a flood disaster, which can harm humans themselves. Therefore, we need a system that can see the state of the urban environment and can be used easily by humans. The system designed in this final project serves as a tool that can see the environment directly, this system is equipped with several sensors to detect environmental conditions. Arduino as an input processor for each sensor, NodeMCU ESP8266 as the sender of all the input received by the sensor, and several sensors as environmental condition detectors (Rain Sensor, DHT-11, Ping Ultrasonic, and LDR). So that produced a monitoring system tool that can see the state of the urban environment through an Android smartphone easily.

Keywords: android, arduino nano, disaster prediction, sensors, smart city