ABSTRACT

Air quality monitoring system uses internet media as a means of providing information about air quality inside and outside the room anywhere, anytime. Pollutant gas compounds such as NOx, CH4, NH3, CO, and CO2, adversely affect health when exceeding normal limits and under-pay. The sources and impacts of air pollution can cause health problems causing concerns. One of the efforts to control air pollution is by measuring air quality to categorize air quality.

The development of this system aims to measure and monitor air quality. The system was built using the Aregaino Uno development board based on ATMega328P, MQ-7 sensor to detect airborne contaminants, DHT11 sensor is used to measure temperature and humidity, light intensity and rainfall as a link to web server. While the software is built using C ++ and php mysql language to build web applications where users can view air quality information through the website. Utilization of MQ-2 sensors to measure air contaminant content is expected to help users minimize the risk of inhaling harmful air. The role of the web server in this system is to inform the air quality to the public through the internet as effectively as possible.

In designing air quality monitoring that has been designed and conducted this test already has a accuracy of a stable value. One of them for temperature sensor has error 0,59%. While for air humidity has error 0.445%. With GSM speed 55Kbps-115Kbps.

Keywords: MQ-7, DHT11, Air Pollution, Arduino, web server