

ABSTRACT

Smoke is a suspension of small particles in the air (aerosols) that come from improper combustion of a fuel. Therefore smoke can also damage human health. Poisoning smoke is the main cause of death of fire victims in the room. This smoke kills with a combination of thermal damage, poisoning, and lung irritation caused by carbon monoxide, hydrogen cyanide, and other combustion products.

From the above case, the prevention and anticipation of smoke before becoming big and damaging health is necessary. With increasingly sophisticated technology, to detect this smoke we can use a simple technology. The technology used is smoke detector and sender sms to building owner. By using the microcontroller system as the working center and DHT11 temperature sensor, the MQ-2 smoke sensor and also the SIM800l gsm module as smoke marker.

The output results in the form of a warning system and a messenger to the home owner. This system works with DHT11 temperature sensor and MQ-2 smoke detects when there is smoke then, and GSM SIM800l module instantly sends a short message to the owner of the place. So that smoke can be handled even avoided quickly. With the test results the tool works well at a distance of 4 meters to smoke. Calculation of delay or time required at receipt of sms with 10 tests get an average value of 6.959 seconds.

Keywords: microcontroller, GSM module, DHT11 temperature sensor, MQ-2 smoke sensor