

## ***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*