

ABSTRACT

Gas leak is an event of leaking natural gas or gas produced in a place that is not supposed to. Natural gas is an element that is lighter than air so that it is easy to spread. If the gas spreads in a closed room it will cause an explosion if there is a large amount of oxygen, fire source and gas concentration. Of these problems, an LPG gas leak detection system is needed. LPG gas will be stored in the chamber to measure gas concentration using the MQ-2 gas sensor. The measurement results will be processed by an ATmega 328 based microcontroller then the measurement results will be displayed on the monitor. At a different gas flow rate with an hour-long trial time and a gas explosion threshold value of 2100 PPM, it was found that a gas explosion could potentially occur in the range of minutes 13 to 50 minutes.

Key Word: MQ-2, microcontroller, sensor, lpg gas