IBM NALAIYA THIRAN

Project Topic : Gas Leakage Monitoring and Alerting System

Team Leader : R. Dinesh
Team Member : M. Arunkumar,
G. Deepakraj,
S. Mahavishnu.

PREPARE SOLUTION

Liquid Petroleum Gas (LPG) is a highly flammable chemical that consists of mixture of propane and butane. LPG is used for cooking at home, restaurant, and certain use for industry. They have certain weaknesses that make the gas leakage occur. The leakage of gases only can be detected by human nearby and if there are no human nearby, it cannot be detected. But sometimes it cannot be detected by human that has a low sense of smell. Thus, this system will help to detect the presence of gas leakage.Furthermore, gas leakage can cause fire that will lead to serious injury or death and it also can destroy human properties. This system was developed by using IoT to give real-time response to the user and the nearest fire station.

SOLUTION:

The results obtain from the implemented of the gas leakage system. The lighter was used as a gas that be detect by the detector and using the hairdryer to get the changes of the temperature. The response of the reading was obtained using the phone application blynk and the liquid crystal display. The sensitivity of the MQ-2 sensor to detect the concentration of the gas is by changing the sensor resistance value. The resistor value obtains from the serial monitor display by Arduino Ide.

The resistor value (RO) that be testing is from 6.00 Ω to 9.30 Ω. From the result obtained, the relationship between the resistance value and the concentration of gas per time. The result that show by the Blynk application is real-time response. The MQ-2 sensor not only detect the concentration of the gas but it's also detect the concentration of the smoke.