# Mahendra Engineering College

## Namakkal

(Approved by AICTE, New Delhi, Affiliated to Anna University)Department of

Electronics & Communication Engineering IBM NALAIYA THIRAN

**Project Topic**          : Gas Leakage Monitoring and Alerting System

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# PROBLEM STATEMENT

## PROBLEM:

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. Gas leakage can cause explosions or fire that will lead to serious injury or death and it also can destroy human properties.

## SOLUTION:

To overcome this problem, we use Gas Leakage Monitoring and Alerting System. In this project we use some sensors based on IoT (Internet of Things). The sensors are widely used to detect essence of propane, iso-butane, LPG and even smoke. The sensor has an advantage to combine a sensitivity response time. If the LPG sensor senses gas leak from work place or home, sensor output goes to active low (logic-0) condition. Arduino UNO is used in the project; low signals are overlooked by the Arduino and gas leakage is been noticed by the Arduino. The Arduino UNO turns on the LCD and buzzer. It even turns on the GSM modem after that, it continues to send messages SMS to mobile number specifically mentioned in the program of the source code for alerting danger to the people.