**Gas Leakage Monitoring and Alerting System**

Literature Survey – 4

**Done by:** Anto Nidhish M

**Name:** Microcontroller Based Low Cost Gas Leakage Detector with SMS Alert.

**Authors:** Mr. Arijit Banik, Mr. Bodhayan Aich, Mr. Suman Ghosh, Department of Electrical Engineering, Guru Nanak Institute of Technology, Kolkata, West Bengal, India.

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**Summary:**

The aim of this project is to develop a device that can automatically detect and notify gas leakages in those permeable areas. The system detects the leakage of the LPG (Liquefied Petroleum Gas) using a gas sensor (MQ-5 Sensor) and uses the GSM to alert the person about the gas leakage via SMS. When the LPG concentration in the air exceeds a predetermined level, the gas sensor senses the gas leakage and the output of the sensor goes LOW. This is detected by the microcontroller and the LED and buzzer are turned ON simultaneously. The system then alerts the customer by sending an SMS to the specified mobile-phone.

**Merits:**

* + SMS based Alert Mechanism and send 3 SMS (3 alert messages) to 2 specified mobile numbers specified inside Arduino Program.
  + Produces an alarm sound upon gas leakage and stops the alarm once gas leakage is under control.
  + Displays status in an LCD using a 16×2 LCD module.
  + Low cost, low power consumption, and high accuracy.
  + It also detects alcohol, so it can be used as liquor tester.
  + The sensor has excellent sensitivity combined with a quick response time.

**De Merits:**

* + No prevention of fires is possible with the kit.
  + It works only when 5v power supply is given.
  + Its sensitivity depends on humidity and temperature.
  + It is a little sensitive to smoke.
  + MQ-5 sensor can only detect H2, LPG, CH4, CO and Alcohol.