**GAS LEAKAGE MONITORING AND ALERTING SYSTEM**

**PROBLEM STATEMENT:**

Gas leakage leads to various accidents resulting in both material loss and human injuries.

The major risk of explosion, firing, suffocation are based on their physical properties such toxicity, flammability, etc.

The number of deaths due to explosion of gas cylinders has been increasing in recent years.

To avoid this problem there is a need for a system to detect and monitor the leakage of gas.

**IDEA/SOLUTION DESCRIPTION:**

Leakage of gas is a major issue in the industrial sector, residential buildings, and gas-powered vehicles, to stop this accidents we must detect the gas leakage and toxic acids in industries.

Gas leakage system used to detect and monitor the gas in houses and toxic acids in industries when the leave increase or abnormal it give alter to the industry labour and peoples.

This project detect the smoke and monitor the temperature and humidity readings are taken at infrequent intervals and also keep them in checking.

**UNIQUENESS:**

The gas leakage monitoring and alerting system model was built using the Decision Tree (DT) algorithm.

Provide the quick and accurate results.

User friendly, anyone can access the system for analyzing purpose.

System, which serves the household and industries to control the accident and hazards.

**SOCIAL IMPACT/CUSTOMER SATISFACTION:**

By monitoring the temperature of the room and gas leakage helps to ensure the workers health condition so it save time using automatic monitoring.

Nowadays so many accident may cause due to the gas leakage in the industries and houses to control this cases we use sensors in this project and the sensor detect the level and monitor the level in the frequent and keep checking it.

Prevent the hazard and accidents and reduce both material loss and human injuries and get an immediate alert.

**DESIGN MODEL:**

The system is based on a microcontroller, which uses gas sensors as well as GSM, display and buzzer. As this gas is heavier than air, when it leaks from the cylinder it flows along floor and tends to settle in low spots such as a basement to cause fire or suffocation if not dealt with.

To handle gas leak situations, this project presents the design and construction of a Gas detection system. A gas detection system is an electronic device that detects leakage of liquefied petroleum gas and alerts the user through acoustic indication.

**SCALABILITY OF SOLUTION:**

Gas detectors come packaged into two main form factors: portable devices and fixed gas detectors. The sensor-enabled solution helps prevent the high risk of gas explosions and affecting any casualties within and outside the premises.

The gas sensors help detect the concentration of the gases present in the atmosphere to avoid hazardous consequences like fire breakouts.

It is of great value both for identifying problems, and for protecting employees and management from exposure to harmful concentrations of toxic constituents in the workplace like carbon monoxide, propane butane, etc.