

Project Design Phase-I

Solution Architecture

Gas Leakage Monitoring and Alerting System

Team ID	PNT2022TMID06118
Project Name	Gas Leakage Monitoring and Alerting System
Maximum Marks	4 Marks

Solution Architecture

Leakage of gas is a major issue in the industrial sector, residential buildings, and gas-powered vehicles, one of the preventive methods to stop accidents associated with gas leakage is to install gas leakage detection devices. The focus of this work is to propose a device that can detect gas leakage and alert the owners to avert problems due to gas leakages. The system is based on a microcontroller that employs a gas sensor as well as a GSM module, an LCD display, and a buzzer. The system was designed for gas leakage monitoring and alerts with SMS via an Arduino microcontroller with a buzzer and an MQ2 gas sensor. The circuit contains a microcontroller MQ2 gas sensor, buzzer, LCD display, and GSM module, when the sensor detects gas leakage it transmits the information to the microcontroller while the microcontroller makes a decision and then forwarded a warning message to the user as SMS to a mobile phone, glowing of LED bulb, rising of Gas Detection Alarm, and decision to be taken accordingly.

Solution Architecture Diagram

