

Project Design Phase-I
Proposed Solution Template

Date	27 September 2022
Team ID	PNT2022TMID27071
Project Name	Project - Gas Leakage Monitoring and Alerting System for Industries.
Maximum Marks	2 Marks

Proposed Solution:

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The purpose of this project is to detect the presence of LPG leakage as a part of a safety system and save the workers in the gas industries and casualties in the houses.
2.	Idea / Solution description	If the gas leaks, the sensor will send its data wirelessly to Arduino. Then, explosion prevention system will be activated.
3.	Novelty / Uniqueness	The system will turn the alarm/buzzer on, automatically releases gas regulator, and neutralizes the air with the exhaust fan and also intimate the user.
4.	Social Impact / Customer Satisfaction	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.
5.	Business Model (Revenue Model)	Gas leakage leads to various accidents resulting into both financial loss as well as human injuries. In human's daily life, environment gives the most significant impact to their health issues.
6.	Scalability of the Solution	The result of this project is that the leakage is detected and stopped within 2 seconds, after the leakage starts. This system can detect even 0.001% of leakage. This is an efficient method for automatically detecting and controlling the LPG gas leakage. Moreover, the fire accidents are also prevented by switching off the power supply.