

Project Design Phase-I
Proposed Solution Template

Date	23 September 2022
Team ID	PNT2022TMID33614
Project Name	Project – Gas Leakage Monitoring and Alerting System
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Gas leakage leads to various accidents resulting into both financial loss as well as human injuries. 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. Thus, this system will help to detect the presence of gas leakage and alert the users.
2.	Idea / Solution description	There is a need for a system to detect and also to prevent leakage of flammable gas. It detects the gas leakage by using sensors. If the gas leakage level is above the threshold level, it sends the alert message to the user by using GSM module and the gas leaking knob will automatically turned off.
3.	Novelty / Uniqueness	The system provides constant monitoring and detection of gas leakage along with storage of data in database for predictions and analysis.
4.	Social Impact / Customer Satisfaction	By implementing real-time gas leak detection, industries can monitor their environmental performance, ensure better occupational health, and eliminate potential hazards for optimum safety. Also, early detection of gas leaks can trigger concerned engineers to curtail the spread and keep a safe environment for better health and safety.
5.	Business Model (Revenue Model)	The IOT components used in this system, makes much more cost effective in comparison with traditional gas detector systems.

6.	Scalability of the Solution	The system is very simple and easy to maintain. It has the capability to work for a long time without any damage in the system components.
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