

Project Design Phase-I Proposed Solution

Date	3 October 2022
Team ID	PNT2022TMID27922
Project Name	Gas leakage monitoring and alerting system
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Gas leakage is a major problem in the industrial sector, residential premises, etc. Nowadays, home security has become a major issue because of increasing gas leakage. One of the preventive methods to stop accidents associated with the gas leakage is to install a gas leakage detection kit at vulnerable places. The aim of this project is to propose and discuss a design of a gas leakage detection system that can automatically detect, it aims in alerting the nearby hospitals and has ability to send message to the emergency service like ambulance.
2.	Idea / Solution description	<ul style="list-style-type: none"> ➤ If there is any gas leakage occurs inside the industry or at any residential area the surrounding people will be notified through a siren. ➤ The gas leakage will be indicated by the LED lights. ➤ To detect the different harmful gases like methane,hydrogen sulphide,LPG,carbon monoxide etc.,by using the required sensors. ➤ If in any area gas leakage is detected the admins will be notified along with the location. ➤ In the web application, admins can view the sensor parameters. ➤ In each and every unit of the industry gas sensors will be attached in specified area so as to detect the gas leakage which can be detected through LED's which is monitored in the security and alerting room.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> ➤ Our solution not only notify the industry personbut also notify the near by hospitals and ambulances through IBM cloud. ➤ Low latency ➤ Location of leakage can be noted through LED's.

		<ul style="list-style-type: none"> ➤ The position of the LED displays is placed on the conspicuous part ➤ It has the ability to detect various type of gases, not just of single type. Hence the system makes more efficient.
4.	Social Impact / Customer Satisfaction	Our solution will be very helpful for the workers and the society which is associated or located nearby the industries. Our solution will prevent great disasters like Bhopal Gas Tragedy so that so many lives can be saved. Through this project the workers mental pressure will be reduced so that they can concentrate on other works or by relaxing them.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> ➤ The main target of our solution is Industries and domestic areas so we have planned to visit industries and educate people through social media platforms and explain them about the usage and benefits of our products. ➤ A efficient business model can be achieved by providing services to various industries and houses and also upgrading the model time to time through which a great profit can be achieved. ➤ The pickup line for the product can "Live's matter the most".
6.	Scalability of the Solution	Safety being the major concern, it will reduce the risk of major mishap in every area of gas usage. It will send timely message to user and ambulance service, hence reduce the risk of explosion. People are not ready to compromise their health over industrial development and hence this innovation is helpful and respects the safety of an individual.