Project Design Phase-I
Proposed Solution Template

Date	16 October 2022
Team ID	PNT2022TMID35759
Project Name	Gas Leakage alerting and monitoring system for Industries
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 is a major issue in the industrial sector, residential buildings, and so on. Because of rising gas leakage, home security has become a major concern. Installing a gas leakage detection kit in sensitive parts is one of the preventive methods for preventing accidents caused by gas leakage. The goal of this project is to propose and discuss a design for a gas leak detection system that can detect gas leaks automatically, alert nearby hospitals, and send messages to emergency services such as ambulances.
2.	Idea / Solution description	❖ If a gas leak occurs within the industry or in a residential area, the surrounding people will be notified via siren. ❖ The LED lights will indicate the presence of a gas leak. ❖ To detect various harmful gases such as methane, hydrogen sulphide, LPG, carbon monoxide, and others using the appropriate sensors. ❖ If a gas leak is detected in any area, the administrators will be notified, along with the location. ❖ Admins can view sensor parameters in the web application. ❖ Gas sensors will be attached in specific areas in each unit of the industry to detect gas leakage, which can be detected through LED's that are monitored in the security and changing room.
3.	Novelty / Uniqueness	❖ Through the IBM cloud, our solution not only notifies the industry person, but also nearby hospitals and ambulances.

		❖ Low latencies
		❖ LEDs can be used to pinpoint the location of a leak.
		❖ The position of the LED displays is on the visible part. It can detect multiple types of gases, not just one.
		❖ As a result, the system becomes more efficient.
4.	Social Impact / Customer Satisfaction	❖ Our solution will be extremely beneficial to the workers and the communities that are associated with or near the industries. Our solution will help to avoid major disasters like the Bhopal Gas Tragedy, saving many lives. Workers' mental stress will be reduced as a result of this project, allowing them to focus on other tasks or relax.
5.	Business Model (Revenue Model)	❖ Because the primary market for our solution is industries and domestic areas, we intend to visit industries and educate people about the use and benefits of our products via social media platforms.
		❖ A profitable business model can be developed by providing services to various industries and households while also upgrading the model on a regular basis.
		❖ The product's tagline could be "Lives matter the most."
6.	Scalability of the Solution	❖ With safety as the primary concern, it will reduce the risk of major mishaps in all areas of gas usage. It will send timely messages to the user and the ambulance service, reducing the risk of an explosion. People are unwilling to risk their health for the sake of industrial development, so this innovation is beneficial and protects an individual's safety.