

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID47989
Project Name	Project – Gas Leakage Monitoring System
Maximum Marks	2 Marks

Proposed Solution Template:

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	This project helps the industries identify the gas leakage beforehand to take necessary precautions to stop them.
2.	Idea / Solution description	The operating principle is that the escape of gas from a high-pressure pipeline or other pressurised systems generates ultrasound, which when detected by an acoustic sensor, can provide a measure of the leak rate.
3.	Novelty / Uniqueness	➤ In several areas, the gas sensors will be integrated to monitor the gas leakage. If 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.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> ➤ The sensing of toxic gases such as H₂S, Methane, and CO is of great importance in any industry to avoid unwanted leakage and consequences like poisoning or explosions. ➤ The presence of these gases can be easily detected in the industrial facilities and commercial buildings with the help of IoT-powered gas monitoring solution. ➤ Moreover, a gas detector or sensor device is a crucial part to carry out safe industrial operations. ➤ The sensor-enabled solution helps prevent the high risk of gas explosions and affecting any casualties within and outside the premises.
5.	Business Model (Revenue Model)	Business -To- Business Model (B2B)
6.	Scalability of the Solution	Most of Gas explosions are caused by undetected gas leakage in the pre-detection condition. So that, Gas leakage monitoring and alerting system is needed. The purpose of this system is to detect gas leakage, neutralize it, and prevent the explosion.