

Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID44629
Project Name	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. In human's daily life, environment gives the most significant impact to their health issues. The poisonous gas in the atmosphere will cause the human and I will be burnt.
2.	Idea / Solution description	IOT gas leakage detector, device will get connected to WIFI, the minimum and maximum parameter can be set accordingly. Such IOT as well as Arduino based gas leakage detector systems can be installed in homes, hotels LPG gas storage areas. In this LPG gas detector system senses the LPG gas using gas sensor. This device will continuously monitor the level of LPG gas present in the air. While monitoring, if the value of LPG gas in air is within the set limit then the LED on the circuit will glow green giving a safe sign. And whenever the gas exceeds above the predefined limit then the LED will glow red and simultaneously solenoid valve will turn off and update it over IOT. This Arduino and IOT project will help in detecting gas leakage in the surrounding.
3.	Novelty / Uniqueness	<p>1. Get real-time alerts about the gaseous presence in the atmosphere</p> <p>2. Prevent fire hazards and explosions</p> <p>Supervise gas concentration levels</p> <p>3. Ensure worker's health</p>



		<p>4. Real-time updates about leakages</p> <p>5. Cost-effective installation</p> <p>6. Data analytics for improved decisions</p> <p>7. Measure oxygen level accuracy</p> <p>8. Get immediate gas leak alerts</p>
4.	<i>Social Impact / Customer Satisfaction</i>	<i>The Internet of Things is increasingly finding a place at the heart of many business automation strategies. Companies are using sensors in the logistics chain to help them track where delivery is with incredible accuracy.</i>
5.	<i>Business Model (Revenue Model)</i>	<i>The GSM is Remote Management, Speed, Super-Fast Deployment.</i>
6.	<i>Scalability of the Solution</i>	<i>The advantage of this simple gas leak detector is its simplicity and its ability to warn about the leakage of the LPG gas . This system uses GSM technique to send alert message to respective person if no one is there in the house and then gas leaks occurs, GSM module is there to send immediate messages to the respective person regarding the gas leak . The main advantage of this system is that it off the regulator knob of the cylinder automatically when gas leakage detected.</i>