

**Project Design Phase-I**  
**Proposed Solution Template**

<b>Date</b>	19 September 2022
<b>Team ID</b>	PNT2022TMID28556
<b>Project Name</b>	Gas Leakage Monitoring and Alerting System for Industries
<b>Maximum Marks</b>	2 Marks

**Proposed Solution**

<b>S.No.</b>	<b>Parameter</b>	<b>Description</b>
1.	Problem Statement (Problem to be solved)	Liquid Petroleum Gas (LPG) is a highly flammable chemical that consists of mixture of propane and butane. LPG is used for cooking at home, restaurant, and certain use for industry. They have certain weaknesses that make the gas leakage occur. 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. Furthermore, gas leakage can cause fire that will lead to serious injury or death and it also can destroy human properties.
2.	Idea / Solution description	When the gas leakage is detected, it will alert the user by alarm/buzzer It can send the SMS to the user also We can also make the exhaust fan on while during the gas leakage Detection of the gas leakage is important and halting leakage is important equally
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>• instant detection of gas leakage</li> <li>• send SMS to the concerned user</li> <li>• easy to access and operate</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>• Cost efficient</li> <li>• Easy to access and operate</li> <li>• Easy installation and detect the gas leakage fast</li> <li>• Prevent fires and explosions</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>• This project is mainly for Industries so we can visit to the industries and explain them about the benefits of our project and make aware about the gas leakage also.</li> <li>• We can also use this in household as well as industries</li> </ul>

6.	Scalability of the Solution	<ul style="list-style-type: none"> <li>• Our end-to-end wireless gas monitoring system uses wireless sensors to detect the presence of toxic gases. The solution can hence be scaled up for flexible functionality and offer great extendibility for multi-purpose usage.</li> <li>• We can also upgrade it in future like making exhaust fan on while gas is detected (or) like making automatically close the valve of gas cylinder when the gas is start to leak</li> </ul>
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