Project Design Phase-I
Proposed Solution Template

Date	1 OCTOBER 2022
Team ID	PNT2022TMID18123
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM
Maximum Marks	2 Marks

Proposed Solution Template :

S.No.	Parameter	Description
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. Thus, this system will help to detect the presence of gas leakage. Furthermore, gas leakage can cause fire that will lead to serious injury or death and it also can destroy human properties. This system was developed by using IoT to give real-time response to the user and the nearest fire station.
2.	Idea / Solution description	To build a system that can detect the liquid petroleum gas leakage. To detect the changes of temperature caused by fire. To send the information to the nearest fire station through Internet of Thing (IoT).
3.	Novelty / Uniqueness	The scope of this project had been performed in order to achieve the objectives of this project. Design and build a prototype of an LPG leakage detector controlled by Arduino Uno using MQ-2 gas sensor to detect the presence of gas leakage and DHT-11 temperature sensor. To give the real time response, Espresso lite V2.0 was used as Wi-Fi module and Blynk act as software that use

		to display all the reading. This system can be implemented in residential area, small industries and restaurant. Besides that, this system also exposes to the community about the important of the LPG leakage detector to be used because it can help to avoid any dangers of gas leakage that not only can give effect to the user but to the other person too.
4.	Social Impact / Customer Satisfaction	➢ Cost efficient ➢ Easy installation and provide efficient results ➢ Can work with irrespective of fear
5.	Business Model (Revenue Model)	➢ The product is advertised all over the platforms. Since it is economical, even helps small scale industries from disasters. ➢ As the product usage can be understood by everyone, it is easy for them to use it properly for their safest organization.
6.	Scalability of the Solution	➢ Since the product is cost efficient, it can be placed in many places. ➢ Even when the gas leakage is more, the product sense the accurate values and alerts the workers effectively.