

Project Design Phase-I
Proposed Solution Template

Date	06 October 2022
Team ID	PNT2022TMID34127
Project Name	Gas leakage monitoring and alerting system
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To develop gas leakage monitoring system in Industries by using IoT to give real-time response to the user and the nearest fire station.
2.	Idea / Solution description	Design and build a prototype of an gas leakage detector controlled by Arduino Uno using MQ-2 gas sensor to detect the presence of gas leakage.
3.	Novelty / Uniqueness	If the sensor detect the level of gasses is exceeding the normal level it will send an information through the phone apps through Internet of Thing (IOT).
4.	Social Impact / Customer Satisfaction	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.
5.	Business Model (Revenue Model)	Gas sensor MQ2 is a sensor that detects gases, specifically hydrogen (H ₂), Liquid Petroleum Gas (LPG), Methane (CH ₄), Carbon Monoxide (CO), Alcohol, Propane, Smoke at the atmosphere. DHT11 is use to detect an increment of temperature if the fire happens, it will send an alert message through android apps and location via GPS through IOT to the nearest fire station.
6.	Scalability of the Solution	Any leakage can be recognized through the receiver module and automatically will convey the information to the firefighters. Since the system being monitored 24 hours by the Fire Station therefore this system may avoid the dangerous of the leakage gas.