DATE	19 September 2022
TEAM ID	PNT2022TMID21386
PROJECT NAME	Gas leakage detection and alerting system
MAXIMUM MARKS	4 Marks

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich number of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Step-1: Team Gathering, Collaboration and Select the Problem Statement

We have followed the first step of brainstorming, we have discussed as a team to decide a problem statement .

As per the guideline the following is done

➢ TEAM GATHERING
➢ COLLABORATION
➢ DECIDING THE PROBLEM STATEMENT

PROBLEM STATEMENT:

A homemaker trying to detect the gas leakage, but manual detection of leakage may not be accurate. Because it requires an alerting and monitoring mechanism. Which makes them feel that could cause a field accident.

Step-2: Brainstorm, Idea Listing and Grouping

Brainstorming is done to have a discussion on how we solve the problem as with many people we can have wider perception rather figuring it alone, so we had a discussion to in order to have an overview of our perceptionof the problem.
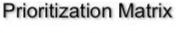
BRAINSTORMING:

TEAM MEMBER	MEMBERS OPNION	IDEAS
MUTHU VENI V	MAY GIV	Collecting various sensor values and reporting to the user through application using Arduino UNO
NANDHINI P	GOOD	Collecting values from sensors and gives alarm through buzzers when the leakage is detected
SWETHA K	BEST	Collecting various sensor values and reporting to the user through application using ESP32
SENTHILKUMAR C	COSTLY	Using raspberry pi instead of Arduino UNO

BY GROUPING IDEAS:

➢ We have planned to use gas sensor for detection
➢ The values when surpasses the threshold value will send a notification to the user
➢ The notification is also sent in case of emergencies

Step-3: Idea Prioritization:

Prioritization Matrix

1) Using gas sensor in order to detect thegas leakage.
2) The sensor is connected to IOT application in order notify the farmers
3) If necessary, use additional sensors to detect the fire
4) Using automation without the knowledge of user