**Project Design Phase-I**

**Proposed Solution Template**

|  |  |
| --- | --- |
| Date | 07 October 2022 |
| Team ID | PNT2022TMID25975 |
| 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** |
|  | Problem Statement (Problem to be solved) | To detect the leakage of gas in industries. The number of deaths due to explosion of gas leakage has been increased in recent years.  The BHOPAL GAS TRAGEDY is example for this. |
|  | Idea / Solution description | Web-app is developed to get notification and this system is used to detect different types of chemical gases and the device is fixed so we can get 24/7 surveillance. |
|  | Novelty / Uniqueness | Recent applications can only detect only one gas component and sensitivity depends on temperature and humidity but the device that’s going to be develop here is able to detect multiple types of gas components and it’s a fixed device so there’s no chance for privation. Here we use sensors to detect the gas concentration in atmosphere and based on the given data to the sensor from the makers, it’ll indicate or alert the admins with the location through web-app and also through buzzer system when there’s a problem. |
|  | Social Impact / Customer Satisfaction | This will help the industry in monitoring emission of harmful gases and with the help of integrated sensors multiple types of harmful gas emissions can be detected we can get the sensor parameters in the web-app and also get notification about danger in the app itself. |
|  | Business Model (Revenue Model) | It helps to reduce vulnerability in harmful situations and also gives assurance to staff to work efficiently. |
|  | Scalability of the Solution | The aim of this paper is to propose and discuss a design of a gas leakage detection system that can automatically detect, alert and control gas leakage. This proposed system also includes an alerting system for the users. The system is based on a sensor that easily detects a gas leakage. The need for ensuring safety in workplaces is expected to be the key driving force for the project. |