

Project Design Phase-I

Proposed Solution

| S.No. | Parameter | Description |
|-------|---|---|
| 1. | Problem Statement (Problem to be solved) | Workers who are engaged with a busy industries packed with gas either harmful or harmless needs a way to monitor their gas pipelines continuously and detect early if there is any leakage of gas in their surroundings so that they can work efficiently on major crises rather than worrying about monitoring or leakage of gas, this will indeed reduce the manpower of that industry and create a peaceful environment. |

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| 2. | Idea / Solution description | The system can be taken as a small attempt in connecting the existing primary gas detection methods to a mobile platform integrated with IoT platforms. The gases are sensed in an area of 1m radius of the rover and the sensor output datas are continuously transferred to the local server. The accuracy of MQ sensors are not upto the mark thus stray gases are also detected which creates an amount of error in the outputs of the sensors, especially in case of methane. Thus the system at this stage can only be used as a primary indicator of leakage inside a plant. |
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| Date | 1 OCTOBER 2022 |
| Team ID | PNT2022TMID31403 |
| Project Name | Gas Leakage monitoring & Alerting system for Industries |
| Project TEAM members | AISHA REFANA A HARIN VENUGOPALAN JEEVANANDHAM P KAMALI M |

Proposed Solution Template :-

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| 3. | Novelty / Uniqueness | Even though there are many existing solutions for this problem they failed to satisfy the needs of customer. Some of the solutions are only detecting some particular gases where some others failed to alert the main department and other solutions are with some delays. Our solution not only notify the industry person but also notify the fire fighters so that can take control over the situation and our solution will alert the workers even there is a small leak of gases. |
| 4. | Social Impact / Customer Satisfaction | Our solution will be very helpful for the workers and the society which is associated or located nearby the industries. Our solution will prevent great disasters like Bhopal Gas Tragedy so that so many lives can be saved. Through this project the workers mental pressure will be reduced so that they can concentrate on other works or by relaxing them. |
| 5. | Business Model (Revenue Model) | The main target of our solution is Industries so we have planned to visit industries and explain them about the benefits of our products. So that they can aware of the importance of this solution and use it. |
| 6. | Scalability of the Solution | Our solution can be integrated for further future use because the solution we have provided will be lay on the basic or initial stage of any upgraded version. |