**Project Design Phase-I**

**Proposed Solution**

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| Team ID | PNT2022TMID01164 |
| Project Name | Project – Gas Leakage Monitoring and Alerting System |
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**Proposed Solution:**

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Homes and Industrial fires have taken a growing toll in lives and property in recent years. Most gasses used for industrial activities are highly inflammable and can burn even at some distance from the source of leakage. Most fire accidents are caused because of a poor-quality rubber tube or when the regulator is not turned off. The supply of gas from the regulator to the burner is on even after the regulator is switched off. By accident, if the knob is turned on, it results in the gas leaks. Safety plays a major role in today’s world and it is necessary that good safety systems are implemented in places of education and work. |
|  | Idea / Solution description | This project detects the gas leakage by using various sensors. If the gas leakage level is above the threshold level, it sends the alert message through SMS to the user by using GSM module and buzzer the alarm. |
|  | Novelty / Uniqueness | The system provides constant monitoring and detection of gas leakage along with storage of data in database for predictions and analysis. We use location tagging and alert service so that the admin and fire department team will  be notified the exact location. |
|  | Social Impact / Customer Satisfaction | By implementing real-time gas leak detection, industries can monitor their environmental performance, ensure better occupational health, and eliminate potential hazards. Also, early detection of gas leaks can trigger concerned engineers to curtail the spread and keep a safe environment for better health and safety. |
|  | Business Model (Revenue Model) | The project is made compact, cost  efficient and easily installable so that all the  industries from small scale to large scale will be able to afford the model |
|  | Scalability of the Solution | The model is very simple and easy to maintain and cost efficient. It has the capability to work for a long period of time. As technology evolves, this project can be made even more simpler. |