**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 24 September 2022 |
| Team ID | PNT2022TMID09994 |
| Project Name | Hazardous Area Monitoring for Industrial Plant powered by IoT. |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| **S.No.** | **Parameter** | **Description** | |
| 1. | Problem Statement (Problem to be solved) | To keep an eye out for any harmful or dangerous gases and warn any industrial workers who may be nearby, protecting their safety. | |
| 2. | Idea / Solution description | Providing a wearable gadget that uses beacon sensors to collect and show temperature-related data. When excessive temperatures or dangerous gases are found in the region, a warning message is also sent by SMS utilising API to mobile devices. Ensuring worker safety and precautions. | |
| 3. | Novelty / Uniqueness | * Makes it simpler to know the temperature or the presence of any dangerous gases in the region without the need for the worker to perform manual checks on a regular basis. * Offers several solutions to protect the worker’s safety. * The temperature in the area is constantly displayed on wearable technology. * SMS alerts sent to employee’s mobile devices when a high temperature is found. * To stop the worker from approaching dangerous locations, alerts are sent simultaneously to the wearable gadget and the mobile application. | |
| 4. | Social Impact / Customer Satisfaction | * Safety is ensured, employee’s lives are saved, it's comfortable and user-friendly, and it's straightforward and dependable. | |
|  |  | * The mobile application can be improved by adding new features and any necessary updates. |  |
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| 5. | Business Model (Revenue Model) | * Wearable gadgets can be priced and offered to workers by the industry through our mobile application in the form of pop-up advertisements and overlay ads from third-party services. |  |
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| 6. | Scalability of the Solution | * Wearable technology can safeguard the safety of a large number of people. * Beacon sensors provide data more rapidly and precisely while covering a larger region. * Hazardous gas alerts and notifications can be sent concurrently to multiple users without any delay. * Each user has a unique mobile device and wearable that give information specifically for them. |  |
|  |  | * It guarantees each employee's safety when working in an atmosphere with hazardous gases and high temperatures. |  |
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