Project Design Phase-I Proposed Solution Template

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| Date | 19 September 2022 |
| 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) | * Through this, we can monitor the temperature parameters of the hazardous areas in industrial plants. * The area is integrated with smart beacon devices which will be broadcasting the temperature of that particular area. * Every person working in those areas will be given smart wearable devices which will be acting as beacon scanners. * Whenever the person goes near the beacon scanners he can view the temperature on his wearable device and if the temperature is high, he will receive the alerts to the mobile through SMS using API. * Through this wearable device, the data is sent to the cloud and through the dashboard, the admins of that particular plant can view the data and take necessary precautions if required. |
| 2. | Idea / Solution description | * BLE is very similar to WI-FI in the sense that it allows device to communicate with each other. * The handheld devices act as a free gateway to the internet for the BLE network ensuring ease of use and no additional costs. * Bluetooth temperature sensor can carry additional sensors like humidity, shock, tamper etc. |
| 3. | Novelty / Uniqueness | * Temperature raise in electronic devices can be avoided by pre spraying the automatic foam. * Temperature raise in some other places like boilers can be avoided by pre spraying the automatic sprinklers. |
| 4. | Social Impact / Customer Satisfaction | * Avoids large scale hazards in industries and saves the environment and people. |
| 5. | Business Model (Revenue Model) | * Sells BLE beacon with indoor positioning services or build indoor positioning service as service |
| 6. | Scalability of the Solution | * By using BLE device, we can sense more physical parameters of different sensors. * Connect more number of beacons using BLE. |