# Project Design Phase-II

**Solution Requirements (Functional & Non-functional)**

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| Date | 31 October 2022 |
| Team ID | PNT2022TMID01003 |
| Project Name | Project - Hazardous Area Monitoring for Industrial Plant powered by IoT |
| Maximum Marks | 4 Marks |

## Functional Requirements:

Following are the functional requirements of the proposed solution.

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| **SN**  **No.** | **Functional Requirement**  **(Epic)** | **Sub Requirement (Story / Sub-Task)** |
| 1 | Data Gathering | The smart beacon must be able to accurately determine the temperature of a given area. |
| 2 | Alarm | |  | | --- | | To alarm the specialists within the adjacent segments | |
| 3 | Beacon | The wearable device and admin dashboard must be able to access the smart beacon's stored data through the cloud. |
| 4 | |  | | --- | | Mobile Application | | |  | | --- | | To caution the clients in the event that the temperature is expanded beyond a certain restrain | |
| 5 | SMS Notification | The worker should be warned through SMS to their phone that they need to leave the location if it is determined that the temperature has reached unsafe levels. |
| 6 | |  | | --- | | Cloud storage | | |  | | --- | | To store and get to the information. |   . |

## Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

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| **SN**  **No.** | **Non-Functional Requirement** | **Description** |
| 1 | **Usability** | |  | | --- | | Accessibility of user-friendly wearable gadgets | |
| 2 | **Security** | * Beacons should be connected securely to the cloud and to wearable technology.  |  | | --- | | * It'll be secure for the specialists by installing the devices within the industry |   . |
| 3 | **Reliability** | |  | | --- | | * Information is spared within the secured server so   they don’t provide any escape clauses for the programmers |  * For reliability, the beacons should also receive routine maintenance. |
| 4 | **Performance** | In order to update temperature values in real time, the device needs sophisticated sensors and CPUs. |

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| 5 | **Availability** | |  | | --- | | Data is accessible through wearable gadgets and portable application. | |
| 6 | **Scalability** | |  | | --- | | * No server crash or server down. |  * It is also very replicable in several plants with various elements to be tracked, making it highly scalable. |