**Project Design Phase-II**

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

| Date | 10.09.2022 |
| --- | --- |
| Team ID | PNT2022TMID50829 |
| Project Name | Real time water quality monitoring and control system |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| --- | --- | --- |
| FR-1 | User Registration | Registration through Form  Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 |  |  |
| FR-4 |  |  |

**Non-functional Requirements:**

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

| **FR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | **Usability** | The results were obtained by performing usability evaluation through the use of modified goal usability |
| NFR-2 | **Security** | This system uses different sensors for monitoring the water quality by determining pH, turbidity, conductivity and temperature. |
| NFR-3 | **Reliability** | WSN is used to measure pH, temperature, turbidity and quantity of water using sensors at remote area using Microcontroller. |
| NFR-4 | **Performance** | | | Water quality can be measured by collecting water samples for laboratory analysis or by using probes which can record data at a single point in time, or logged at regular intervals over an extended period | | --- | | | --- | --- | |
| NFR-5 | **Availability** | The water quality measuring system that we have implemented checks the quality of water in real time through various sensors |
| NFR-6 | **Scalability** | The objective of water quality monitoring is to obtain quantitative information on the physical, chemical, and biological characteristics of water via statistical sampling |