**Project Design Phase-II**

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

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| Date | 16 October 2022 |
| Team ID | PNT2022TMID50061 |
| Project Name | Real time river water quality monitoring and control system |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through email id and mobile number |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Web application | Node –red-service |
| FR-4 | Configuration to device | IBM Watson IOT platform |
| FR-5 | Database | Cloudant database |
| FR-6 | python | IBM IOT platform |

**Non-functional Requirements:**

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

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| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Sensor and changing the relevant software program |
| NFR-2 | **Security** | Due to the fast growing urbanization supply of safe drinking water |
| NFR-3 | **Reliability** | The estimation of water parameter like turbidity, PH, dissolved oxygen. |
| NFR-4 | **Performance** | Water quality monitoring system using robot |
| NFR-5 | **Availability** | There is need of developing better methodologies to motor |
| NFR-6 | **Scalability** | The impure water from the industry can be purified |