# Project Design Phase-II

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

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| Date | 19 September 2022 |
| Team ID | PNT2022TMID06453 |

**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 registered credintials  register confirmation e-mails |
| FR-2 | **User Confirmation** | Confirmation via Email Confirmation via OTP/SMS |
| FR-3 | **Log in to the System** | Enter the OTP  Check the Credentials Check the Access/Server |
| FR-4 | **Manage the Modules** | Manage the system Admins of user  Manage and Monitor Details of System User Manage the User Roles  Manage the User Accessability and User Permission Manage User Details Privacy |
| FR-5 | **Check Process Details** | Temperature Details PH Details Turbitidy Details  dissolved oxygen level in water  presence of chemical substances in water |
| FR-6 | **Log out** | Save the existing measurements  Exit |

# 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** | Make Easier to Use ,More Efficiency to  Use,Reduction of Errors While Using this Techniques |
| NFR-2 | **Security** | end by end encypted protocol in Data Authentication, Sensitive data proctected personally  identifiable information(PII) other information details of users and networks |

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| NFR-3 | **Reliability** | Providees the objective evidence necessary to make decisions on managing water quality today and in future also.  This techniques make good communication between the user and the networks and it also achieves a better trade-off between costs and reliability |
| NFR-4 | **Performance** | Implementing Monitoring River Water, by using sensing sensor to monitor the river water parameters making more useful for various environmental  Usage. |
| NFR-5 | **Availability** | PH Monitoring,Conductivity Analysis,CDOM(Dissolved Organic Matter),Measure of Carbonate and bicarbonate levels in water,this techniques made possible by  linking information in water |
| NFR-6 | **Scalability** | Automatic Water Sampler, PH testing, Recording the  water temparature,chlorophyll flurorescence analysis measuring the dissolved oxygen levels. |