Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	03 October 2022
Team ID	PNT2022TMID33851
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.

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	Objective	The objective is to obtain quantitative information on the physical, chemical and biological characteristics of water.
FR-4	Testing	It is used for monitoring the water quality by determining pH, turbidity, conductivity and temperature.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The main aim is to develop a system for continuous Monitoring of river water quality at remote places using wireless sensors networks with low power consumption, low cost and high Detection accuracy.
NFR-2	**Security**	
NFR-3	**Reliability**	The consequences of using poor quality data include faulty decisions, higher risk to the environment or human health, Wasted resources and loss of credibility.
NFR-4	**Performance**	The system consist of several sensors which is used to measure Physical and chemical parameters of the water. It can be done by using remote monitoring and Internet of Thin gs(IoT)
NFR-5	**Availability**	Consideration is given to demands from human and ecosystem Needs. Equitable apportionment of water among uses, and

		indicators of stress to the water resource.
NFR-6	**Scalability**	It obtains quantitatitve information on the physical, chemical. And biological characteristics of water via secchi disks, probes, nets. Gauges and metres.