PROJECT DESIGN PHASE I
PROPOSED SOLUTION

Team ID : PNT2022TMID07790
Project Name Project : Real Time River Water Monitoring and Control system

Solution Requirements (Functional & Non-functional) Date	01 October 2022
Team ID	PNT2022TMID07790
Project Name	Project - lot Based Real Time River Water Quality Monitoring and Control System
Maximum Marks	4 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template. **S.No.**	**Parameter**	**Description**
1.	Problem Statement (Problem to be solved)	The solution for our problem is River water quality can be monitored by the web application. Can be able to know if there are any dust particles present in the water. The PH level of the water can be monitored. Water temperature can be monitored.
2.	Idea / Solution description	In our idea we use PH sensor, Temperature sensor for analysing normal temperature, IOT based LED indication, web user interface for monitoring, Turbidity sensor for water quality check.
3.	Novelty / Uniqueness	Analyze the water quality, check the dust particle in water and filter it, monitor the PH level of water, Alerts the authorities about the adulterated water.

4.	Social Impact / Customer Satisfaction	By logging on the website the official users can access the data. On a web page, the required parameters are shown in real-time. To determine the quality of water, the pH sensor and EC sensor is put into a container which is filled with tap water and 34 drops of acidic is mixed to it. When the pH of water is still around 3 - 4.5 range then the water is acidic in nature. And the surrounding temperature still between 32 to 34 degrees. The waters conductivity is 7 to 9 micro Siemens/ centimeter. The total Dissolved Solids are 0.67*electrical conductivity which is measured from the graph.
5.	Business Model (Revenue Model)	In business view Real-time monitoring relies on the collection of sensor data, including low-quality raw data. This brings additional challenges when it comes to understanding and monitoring water quality. On one hand, measurement of water quality requires continuous monitoring over longer periods of time. On the other hand, in many cases the data describing the status or quality of the water has various restrictions when it comes to access privileges. Therefore, there is a need to be able to provide information to different parties, with different privileges and over extended periods of time.
6.	Scalability of the Solution	This model intended to increase the efficiency of water management systems. In addition, the real time monitoring and operational activates limit the human error, followed by a

prototype in order to validate
the idea by collecting data
and
analyze it.