Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID28239
Project Name	Project - **Real-Time River Water Quality Monitoring and Control System**
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	River water is polluted by many sources like excess fertilizer from farms, algal blooms, and many industrial wastes are let into the river ….So river water becomes polluted. People consume it causes disease and children are suffering from many diseases at young age …So river water is needed continuous quality checking and controlling system…. The old manual method is time-consuming and the accuracy rate is less.
2.	Idea / Solution description	The proposed method is placing a sensor for ph, conductivity, dissolved oxygen, and turbidity level it is measured at a regular interval of time. If the level from the sensor is above the threshold value should be sent out to water treatment plants. Checking where the level changes high whether it is from factories or farms it should be taken into action for improper letting of water without filtration.
		Algal blooms formed due to excess fertilizer from farms can be controlled using ultrasonic frequencies
		Cloud storage is available for storing the collected data from various places on rivers.
		Using the GSM module message can be sent to authorities of river water management on level changes in the quality of river water
		Real-time data access can be done using remote monitoring and IOTtechnology
		A web application is created that is connected with cloud storage . Users can access a web application to check the water status of an area…it can be displayed in a visual format with help of ML lib and Deep learning Neural network models.

3.	Novelty / Uniqueness	This technology can automatically monitor the water quality. The water detection sensor has a unique advantage.
		It consumes less time than a manual method for checking polluted level.
		Information is sent at in faster rate to authorities and action can be taken immediately….affected rate of pollution is reduced
4.	Social Impact / Customer Satisfaction	People come to know about the quality of water. River pollution can impact all living beings. Better monitoring and control measures can impact vegetation, and health The system can control water quality automatically and does not require People on duty
5.	Business Model (Revenue Model)	This method is very adaptable. As a result, water quality testing will be more cost-effective, convenient, and quick.
		It can make use of water for drinking and other purposes
6.	Scalability of the Solution	Can be used to monitor the water quality of rivers and lakes.
		Whatever may be the water quality either good or bad the device does not fail to give the result correctly