

**Project Design Phase-I**  
**Proposed Solution**

Date	24 September 2022
Team ID	PNT2022TMID12068
Project Name	Real- Time River Water Quality Monitoring and Control System
Maximum Marks	2 Marks

**Proposed Solution :**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	River water is a finite resource that is necessary for agriculture, industry and the survival of all living things on the planet, including humans. Sometimes the dangerous particles or chemicals are mixed in the river water and general purpose water purifier cannot purify that. And it's impossible to check the quality of river water manually in every time. contaminated river waters causes skin diseases, allergies, and other such ailments. So an automatic real-time river water quality monitoring and control system is required to monitor the water reserved in our river water. And we can check the quality of water anytime and from anywhere.
2.	Idea / Solution description	River water quality can be monitored by the web application. It can be able to know if there are any dust particles in the river water. The PH level of the river water can be monitored. Water temperature can be monitored. Alerting the authorities if the water quality is not good so that they can go and announce the localities not to drink that river water.
3.	Novelty / Uniqueness	After detection of impurities individual notification will sent to the people and also send the separate notification to the department of water resources.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>• Increasing innovation and productivity.</li><li>• Gain a high field for farmer, common man and fisher man.</li></ul>

5.	Business Model	Water monitoring and control model
6.	Scalability of the Solution	This system uses different sensors for monitoring the water quality by determining pH, turbidity, conductivity and temperature. The Arduino controller used will access the sensor data. With the use of IoT, the collected data is analyzed and the pollution of water can be investigated by a stringent mechanism.