Project Design Phase 1
Proposed Solution

Assignment date	19 September 2022
Team Id	PNT2022TMID03762
Project Name	Real Time River Water Quality Monitoring and Control System
Maximum marks	2 marks

S.No	Parameter	Description
1.	Problem Statement	• To prevent the development of algal bloom in the river. • To monitor the presence of water parameters such as pH, turbidity, dissolved solvents and other parameters in the river water • To monitor the quality of the river water in real time
2.	Idea/Solution description	• By using the relevant and accessible sensors at distant location which monitors the water parameters in river. • It can monitor parameters like pH , dissolved oxygen, turbidity, conductivity etc; • Water samples will undergo continuous tests and results are updated in internet or website. • Analysis of water parameter with help of Arduino platform, Sensors and actuators • Control measures are countered using the ultrasonic frequency.
3.	Novelty/uniqueness	• Many methods use chemicals and pollute the water. • Unregulated methods waste the water by using it in large. • Controlling the algal bloom by ultrasonic frequencies.

		• This make this method a more effective one.
4.	Social impact/Customer satisfaction	• This idea can further be developed to track pollution in the water, agricultural output, water borne diseases etc, • People will we able to know about the quality of the water they use • Various spread of diseases can be prevented by this method.
5.	Business Model	• Large scale deployment of monitoring equipment along rivers and lakes with IoT technology as the carrier • Big data, cloud computing technology as the starting point of model. • It is used through the establishment of a system management platform, to provide a full range of water quality monitoring plan.
6.	Scalability of the solution	• The system is easy to install and maintain and control. • Efficient use and water monitoring are potential constraint for home or office water management system. • This system can be implemented for both commercial and domestic usage.