

Project Design Phase – 1

Proposed Solution Template

Date	16 October 2022
Team ID	PNT2022TMID12856
Project Name	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)	Water is used for drinking, domestic use, and food production or recreational purposes, So it is highly imperative for us to maintain water quality balance. Otherwise, it would severely damage the health of the humans and affect the ecological balance. It has been studied that water pollution is the leading cause of mortalities and diseases worldwide. The records show that more than 14,000 people die daily worldwide due to water pollution and other issue is growth of algae called eutrophication This happens due to the lack of water quality monitoring system.
2.	Idea/Solution description	Detecting the dust particles,PH level of water, temperature to be monitored and altering the authorities if water quality is not good.
3.	Novelty/Uniqueness	IoT devices use various types of sensors to collect data about turbidity, temperature, pH, conductivity, etc. of river water continuously. Also, IoT devices have capability to stream the array of collected data wirelessly to the cloud.
4.	Social impact/customer satisfaction	In many developing countries, dirty or contaminated water is being used for drinking without any proper prior treatment. Water pollution is a foremost global problem which needs ongoing evaluation and adaptation of water resource directorial principle.
5.	Business Model (Revenue Model)	It is cost effective and affordable for all stages of people. it is used in industrial water treatment plant, river bodies, aqua forming and river water monitoring system.
6.	Scalability of the solution	Measuring of real time values and continuous monitoring helps in maintaining the quality of water