

Project Design Phase-I
Proposed Solution Template
Real-Time Water Quality Monitoring and Control System

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To improve the water quality monitoring system. Now -a -days the number of industries are more and waste water which contains chemicals from industries are left out into the river, which is the major reason for reducing the water quality level and causes water pollution. Water pollution causes environmental and health issues.
2.	Idea / Solution description	The current water quality monitoring system are monotonous and time consuming. It lacks capability for real time data collection. Hence authorities can't take timely and appropriate decision and actions. Hence to implement the water monitoring and management system based on IOT using Arduino UNO board using real time water quality monitoring and control system and using some sensors(pH sensor, TDS sensor, Turbidity sensor, temperature sensor)with GPS tracking system.
3.	Novelty / Uniqueness	To obtain monitoring system with high frequency, high mobility, low powered by using microcontroller for processing the system and sensors, real time data access can be done using IOT technology. Data can be collected and can be displayed in visual format on server. If the acquired value is above the threshold value automated warning SMS alert will be sent.
4.	Social Impact / Customer Satisfaction	It will be useful for maintaining the quality of water. The system works accurately and user friendly. As the automation of water monitoring system is done, water pollution can be controlled and reduces the side effects caused due to the water pollution.
5.	Business Model (Revenue Model)	It can be used in many industries. If it is made at easy installation there will lot of use for this device and it should be user friendly and eco-friendly as well.
6.	Scalability of the Solution	It could be done in cost effective and work effective. In the field of IOT we proposed to deal with brilliant sensors and other equipments to achieve an "Real time water monitoring and control system" which is more beneficial for water monitoring.

