**Project Design Phase-I**

**Proposed Solution Template**

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| **Date** | **19 September 2022** |
| **Team ID** | **PNT2022TMID19515** |
| **Project Name** | **Real Time river water quality Monitoring and Control System** |

**Project Title : Real-Time River Water Quality Monitoring And Control**

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**Team ID: PNT2022TMID19515**

**Team Members:**

1. **Harish V - Team Leader**
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4. **Jaisherma J Team - Member**

**Proposed Solution Template:**

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | The majority of river water is impacted by chemical- and medical-laden industrial waste, and when cars are cleansed, engine oil combines with river water, which causes the impurity of water. |
| 2. | Idea / Solution description | \* To measure various chemical and physical parameters of water like pH, temperature, turbidity, conductivity and dissolved oxygen of water using sensors.  \* By adopting IoT and machine learning algorithms has to considered to control and monitoring of water bodies. |
| 3. | Novelty / Uniqueness | \* If the acquired value exceeds the threshold value of the specific parameters, automated warning SMS will be sent to the respective departments.  \* Our suggested work is unique in that it aims to develop a water monitoring system with high accuracy, high frequency, high mobility and less power. |
| 4. | Social Impact / Customer Satisfaction | \* Humans and animals will consume pure water.  \* The risk of water-borne diseases can be reduced.  \* Good environment surrounding the river.  \* The good quality water will be rich in minerals.  \* The good quality river water can be very useful to farming |
| 5. | Business Model (Revenue Model) | Since river water serves as the primary source of raw materials for the food and drinks industries, we can assess the water quality using this approach. |
| 6. | Scalability of the Solution | \* High geographical and temporal accuracy water quality data for thousands of lakes at once.  \* By monitoring changes in water quality and spotting dangerous growth of algae, it aids as in evaluation of environmental problems and related health risks. |