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

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| Date | 23 September 2022 |
| Team ID | PNT2022TMID33019 |
| Project Name | River Water Quality Monitoring |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in the proposed solution template.

| S.No. | Parameter | Description |
|---|---|---|
| • | Problem Statement (Problem to be solved) | It is important to monitor and maintain the PH level and turbidity of the river water.Since, the current water monitoring system is a manual system with a monotonous process and is very time consuming. |
| • | Idea / Solution description | The continuous monitoring of river water quality at remote places using wireless sensor networks with low power consumption,low-cost and high detection accuracy of PH,turbidity level etc..are the limits that are analyzed to improve the water quality. |
| • | Novelty / Uniqueness | The main aim is to develop an application which includes the measurement of total dissolved salt(TDS) and temperature of the water samples using sensors.The smartphone-based application also opens up the possibility to share the data and warnings using different options such as SMS,Whatsapp and E-mail. |
| • | Social Impact / Customer Satisfaction | Monitoring water quality is an important part of helping us to determine whether or not we are making progress in cleaning up our waterways.it reveals the health and composition of rivers at a snapshot in time,as well as over weeks,months,and years.it is used to determine the quality of water so we know how much the water is polluted and how much PH levels it contains and a lot. so it helps us to get good and quality river water. |
| • | Business Model (Revenue Model) | ● observation of the infrastructure of the water distribution network and any potential leaks |

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| | | ● detection of changes in quality of the water in the distribution supply network<br>● instant messaging services to customers and citizens when problems arise<br>● monitoring the functioning of the water storage structures<br>● management of water balance in a mine production area<br>● detection of contamination in the water<br>● automated collection of information to be reported to the environmental authorities |
| • | Scalability of the Solution | This application promotes simplicity over complexity which helps the customers to use this application in an effective manner. |