Project Design Phase-I Proposed Solution Template

| Date | 24 September 2022 |
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| Team ID | PNT2022TMID14052 |
| Project Name | Real Time River Water Quality Monitoring & Control System |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

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

| **S.No.** | **Parameter** | **Description** |
| --- | --- | --- |
| 1. | Problem Statement (Problem to be  solved) | Water can be polluted any time. So, the water we reserved in the water tank at our roof top or basement in our society or apartment may not be safe. Still in India most of the people use simple water purifier that is not enough to get surety of pure water. |
| 2. | Idea / Solution description | The systemuses different sensors for monitoring the water quality by determining pH, turbidity, conductivity and temperature. The Arduino controller used will access the sensor data. With the use of IoT, the collected data is analyzed and the pollution of water can be investigated by a stringent mechanism. |
| 3. | Novelty / Uniqueness | The main goal to build a Sensor- based Water Quality Monitoring System and provide a purified water. |
| 4. | Social Impact / Customer Satisfaction | Prevent Legionella with IoT flow monitoring. Detect and fix wasteful leaks with flow monitoring. Low energy-requirements. |
| 5. | Business Model (Revenue Model) | Provide a product like a water purifier using sensors, solar in commercial platform. |
| 6. | Scalability of the Solution | The hardware part has sensors which help to measure the real time values, another one is Arduino ATMEGA328 converts the analog values to digital and LCD shows the displays output from sensors, Wi-Fi module gives the connection between hardware and software. |