**Project Title: Real-Time River Water Quality Monitoring and Control System Project Design Phase-I** - **Solution Fit Team ID:** PNT2022TMID26105

**Focus on J&P, tap into BE, understand RC**

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**This work presents the architecture of river water monitoring system based on contemporary IoT communication technology,AI, and Wireless Networks.**

**AI-based IoT applications to boost and save time for results and suggestions to the problems.**

**AS**

**5. AVAILABLE SOLUTIONS**

**River water quality analysis replaces the need for using laboratory checking and reduces the time of delay required for result.The give instant solutions and suggestions like what it is and what can be done to change .**

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

**Government authorities,Farmers and Drinking Water supplier.**

**Explore AS, differentiate**

**Define CS, fit into CC**

**Understand this decision-making process,the study attempts to assess river water monitoring technology model based on available resources,prevailing social and economic conditions and personal aspects of users India.**

**BE**

**7. BEHAVIOUR**

**RC**

**9. PROBLEM ROOT CAUSE**

**Root cause analysis supported by input from the problems-sufferers, instruction manual studies, comparing design and actual operating data, gathering know how from relevant literature,tech journals articles and advertisements especially on new products**

**J&P**

**2. JOBS-TO-BE-DONE / PROBLEMS**

**Check the water quality.**

**Check the level of chlorine in water.**

**Check temperature of water.**

**Check the pH level of water.**

**Find if the water is suitable for drinking,agriculture and aquaculture.**

**Focus on J&P, tap into BE, understand RC**

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**Identify strong TR & EM**

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| **Identify strong TR & EM** | **3. TRIGGERS TR**  **River water quality analysis works by checking the river water quality for providing clean drinking water for the people , farming, promoting ,agriculture and other industries.**  **It is a best replacement for checking water quality in laboratories.The best quality is that it is user friendly.** | **10. YOUR SOLUTION SL**   * **Implement an IOT based river water quality monitoring system to get instant results.** * **Suggestions can be made to solve if any problem arises.** | 1. **CHANNELS of BEHAVIOURS**   **Online portal for making recommendations for problems based**  **on pH parameters using Machine Learning. CH** |  |
| **4. EMOTIONS: BEFORE / AFTER EM**  **Without river water quality analysis it becomes difficult for government authorities, farmers,water suppliers and many more to analyze the analysis, the process is made much simpler and easy to use.** |