Project Title: Real-Time River Water Quality Monitoring and Control System

Project Design Phase-I - Solution Fit

Team ID: PNT2022TMID45388

Define CS, fit into

1. CUSTOMER SEGMENT(S)

Government sector

CS

6. CUSTOMER CONSTRAINTS

CC

Spending power, budget, no cash, network connection, available devices.

5. AVAILABLE SOLUTIONS

AS

Which solutions are available to the customers when they face the problem

Wireless communication developments are creating new sensor capabilities. The current developments in the field of sensor networks are critical for environmental applications. Internet of Things (IoT) allows connections

Explore AS, differ

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

2. JOBS-TO-BE-DONE / PROBLEMS

To identify the temperature and turbidity of the river water. Controlling and monitoring system.

9. PROBLEM ROOT CAUSE

RC

What is the real reason that this problem exists? What is the back story behind the need to do this job?

The main reason for this project is to identify and control the temperature, turbidity and pH value.

7. BEHAVIOUR

BE

What does your customer do to address the problem and get the job done?

The Behavior of water quality monitoring is to obtain quantitative information on the physical, chemical, and biological characteristics of water via statistical sampling

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

3. TRIGGERS

TR

Energy consumption,
Water distribution system,
Genetic algorithm,
Operating cost.

10. YOUR SOLUTION

SL

Using real-time monitoring, instant data allows pre-cursors to potential issues (such as corrosion) to be flagged up and immediately be addressed before major issues occur. The ability to make real-time decisions during critical moments can be vital in preventing expensive repairs and breakdown.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

What kind of actions do customers take online?

The temperature and turbidity of the water can be measured by the customers in online.

8.2 OFFLINE

What kind of actions do customers take offline?

The level of the water can be intimated through the offline mode.

Identify

	4. EMOTIONS: BEFORE / AFTER EM BEFORE: Trouble in identify the turbidity of the river water. Rural peoples affected by the unpurified water. AFTER: Using real-time monitoring, instant data allows pre-cursors to potential issues (such as corrosion) to be flagged up and immediately be addressed before major issues occur. The ability to make real-time decisions during critical moments can be vital in preventing expensive repairs and breakdown.			