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**Real Time River Water Quality Monitoring And Control System**

## PNT2022TMID10555



**PREREQUISTE**

How does someone initially become aware of this process?

## PROJECT FLOW

What do people experience as they begin the process?

## WORKING

In the core moments in the process, what happens?

## BENIFITS

What do people typically experience

as the process finishes?

## OUTCOME

What happens after the experience is over?

**TIP**

As you add steps to the experience, move each these “Five Es” the left or right depending on the scenario you are documenting.

**Steps**

HIGH FREQUENCY AND MOBILITY GAURENTEED BY THIS SYSTEM CAN IMPROVE THE WATER QUALITY WHICH CAN BE USED FOR DRINKING PURPOSE.AUTHORITIES LINKED TO THIS PRODUCT CAN TAKE MEASURES IF CONTACTED.

The hazardous nature of water containing unconditional physical and chemical aspects are taken care of and assures perfectly purified river water resource.

A bot interaction system created between IBM cloud and iot platform is constructed to created an data organization. this is inculcated in an android app which is developed for the customers to view the sensor inferences via mobile.A effective message system developed that provide notifications and warnings

**For an small water containment or storage people can handle different methods. But for a large water reservoirs such as lake river and so on it is a water resource used by many and is a huge amount for that this kind of system is imminent.Eventhough there are other methods a dynamic and efficient quality control cannot be gaurenteed.The specality of this system is we use todays trending tech solutions as of IOT and real time remote sensingmakes it efficient for water quality monitoring and control.**

Our goal can be achieved by analyzing and computing of real time data to implement the measures to be taken to purify the River water.For this IOT and WSN play a vital role to group things.

What does the person (or group) typically experience?

**SCENARIO**

**Browsing, booking, attending, and rating a local city tour**

Customer experience journey map

### Use this framework to better understand customer needs, motivations, and obstacles by illustrating a key scenario or process from start to finish.

When possible, use this map to document and summarize interviews and observations with real people rather than relying on your hunches or assumptions.

Created in partnership with

**Survey Details**

What interactions do they have at each step along the way?

So the product is basically a smart technology for river quality monitoring such a way designed to analyse the pH,temperature and turbidity of water

If the safety level of water exceeds base scale an fast sms is sent by the agent as an alert.

An efficient water management system can be developed as said before there are innovative chances given with the platform in the system design.

the knowledge through DBMS gives people consiousness of contaminated water and to stop pollution of it further more,also involves them in teachings.

To access the data collected by the system we just need to use internet of things and time continuous monitoring unit.This can be provided by the WSN which relates the the remote sensing technology handled for data collection.We can have a visual format on desktop using IBM cloud streaming analysis through machine-learning in Python,Convolutional neural networks is used incomparison of values.

**Existing systems** Polluted percentage **need for the project**

**Goals & motivations**

there are two options of storage in this system we can either use cloud storage or external memory that can be locally used to gain sensed parameters.

Manual practices consumes time and energy and are unreliable due to change in readings occationally.which is solved by this system providing energy and time saving and high accuracy.

SINCE WATER CONSISTS OF MORE THAN SEVERAL ISSUES ,TO MEET WITH THE CONSTRAINTS MORE NUMBER OF SENSORS ANALYSING AND COMPUTING RESULTS BASED ON CONDITION OF WATER IS DEMANDED BY THE CUSTOMER

Low cost is the first priority from all users that is satisfied and yet another constraint making our customers happy is that it is a high performance gain sytem in low cost.

the core point is to create a time continuous system that can monitor the quality of water using WSN and zigbee for alow power cost efficient system.

At each step, what is a person’s primary goal or motivation? (“Help me...” or “Help me avoid...”)

**Advantages**

As per design we used an low power consuming high end power source that can create long durability and extra life.Which creates flexible system at low cost.

the interfacing of multiple sensor nodes using WSN architecture is critically implimented in the controller using IOT platform.Which itself make an dynamic powerful system to use.

Iot makes integration of all the componets as analythical inferanacing block,DBMS and iot device for innovation.inturn giving people to learn ,acknowledge and develope the product system.

The different sensor nodes each conneted via WSN are dynamically involving in river water physical and chemical parameter analysis and collection of values which is efficient and quick

Water qualitites analysed through the pH and temperature sensors are computed and are stored in DBMS for the turbidity,pH,temperature factors of river water to be controled using IOT device.

What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?

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**Disadvantages**

What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?

other sensors too can be included.

Since a complex battery for low power unit is used the methods are not abundant and also the resources for maintainace.Hence maintainance may cost some people money.

Animal water crossing,accidental human interpretations and calamitites can affect the mounted WSN to be damaged

The disadvantage is maintainance such as dysfunctional battery power source needs to be periodically replaced.

On one hand customer had disbelif in the product.Also thought may malfunction due to placement of the system deep in the water.

**Required Areas**

**Template**

How might we make each step better? What ideas do we have? What have others suggested?

These types are products highly required in feilds of a portable and real time water quality monitoring system.Also in prototype remote and automatic system in low cast manufacture.

# 24/7 customer is open to the

Now with this system everyone can demand a fresh river water resourse instead of dringing polluted water.

large variety of applications and innovative ideas can be derived from this technology

The water quality is to be maintained.so the important factor is monitoring.this has to be imminent as from the values inferred that water can support living standards and see whether system is functional.

sensing parameter and data

# streams which enables them

to have a reliable system

# providing instantaneous alert

for changes in the system.