

Real-Time River Water Quality Monitoring and Control System

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**SCENARIO**

**Testing and Analysing water**

# Requirement

# Project Flow

# Working

# Benefits

# Outcome

**Purpose**

**Techniques**

**Data Transfer**

**Process**

**Areas**

## Steps

IoT and remote sensing techniques are used to monitor and evaluate the data collected

To monitor the water parameters and test its purity

Use of sensor system based on Internet of Things

The quality of water is monitored in lakes and rivers

An application is used to monitor the sensor values and update to the user

The measured values are compared with the standard values



With the evaluated values the people can take steps to improve the quality of water and make it better

An application is used to monitorand analyse the sensed values via cloud and update to user

The measured values are compared with the standard values

It is low powered and has high mobility

Informs about the quality of water

It detects the presence of contaminants

With IoT and remote sensing techniques measuring and analyzing water

Checking water quality in rivers, lakes

Analysis of river water

Use of Internet of things

Checking the water quality by measuring the parameters like pH temperature

Real-time data access can be done using IoT and monitoring techniques

## Interactions



It can be developed as an efficient water management system of local area

Alert messages is sent to the user when values of the parameters are abnormal

It helps people aware of water quality and importance safe water

The details can be viewed on the screen

It monitors and analyze the data from the remote locations

The main objective is to develop a river water monitoring system using IoT with low power consumption and reduced manual work

Customers want a system to detect the physical and chemical parameters of water

## Goals & motivations



The presence of contaminants should be detected by the sensors

The customers require cost efficient system

Using that data users evaluate the quality of water

The collected data is stored in the cloud

Earlier the water samples have to be collected and tested manually

## 

## Positive moments



The project achieved to monitor the parameters of water and update to the user

Implemented water

Quality monitoring

System using sensors

based system

The device collects the details about the pH, temperature of the water

With different sensor nodes

It helps the customers to know about the contents in water and causes for water pollution

It was attributed to its durability and flexibility

It was developed as low cost water quality monitoring system and covers larger area

## 

## Negative moments



Customers felt that the sensors are installed deep inside the water

Replacement of sensors in case of improper function

Damage to the system by external environment

Feel that cost of maintenance is high

To detect other parameters other sensors need to be added

## 

## Areas of opportunity



Developing a real time, low cost water quality monitoring system

Track the working of sensors

Customers can view the data and make changes to the system

It reduces the time and effort put when the task is done manually

Now people can identify the presence of toxic substances in water and can improve its quality for safe drinking water

The system is affordable and more usable