







Real-Time River Water Quality Monitoring and Control System

TEAM ID:
PNT2022TMID06701

SCENARIO	PREREQUISITE	PROJECT FLOW	WORKING	BENEFITS	OUTCOME
Testing and Experimenting with various water sources					
<div>Steps What does the person (or group) typically experience?</div>	<div><div>Techniques</div><div>Availability of Internet of Things and Remote sensing</div></div> <div><div>purpose</div><div>To purify the water Resources</div></div>	<div><div>sites</div><div>It is necessary to observe the water quality in a large area such as lake, river, and aquaculture</div></div> <div><div>Process</div><div>IoT and remote sensing techniques are used to congregate and analyzing data from the remote locations</div></div>	<div><div>Info Transfer</div><div>An android application will be used to determine the sensor values and examined via cloud and warnings will be provided to user</div></div> <div><div></div><div>The values are then compared with the threshold value</div></div>	<div><div>It Can diminish the contaminants present in water</div></div> <div><div></div><div>It changes to a drinking water</div></div>	<div><div></div><div>The related authorities can take measures to boost the water quality which makes it more usable for human purpose</div></div> <div><div></div><div>It has high frequency, high mobility, and low powered.</div></div>
<div>Interactions What interactions do they have at each step along the way?<ul style="list-style-type: none">■ People: Who do they see or talk to?■ Places: Where are they?■ Things: What digital touchpoints or physical objects would they use?</div>	<div><div>Real-time data access can be done by using remote monitoring and Internet of Things (IoT) technology.</div></div> <div><div>can be displayed in a visual format on a server PC</div></div>	<div><div>To check water quality by analyzing the parameters such as temperature,pH and conductivity, and so on</div></div> <div><div>It supervising, congregate and analyzing data from the remote locations</div></div>	<div><div></div><div>If the acquired value is above the SMS alert will be sent to the user</div></div>	<div><div></div><div>Using IoT integrated Big Data Analytics will immensely help people to become conscious against using contaminated water</div></div>	<div><div></div><div>It can be extended into an efficient water management system of a local area.</div></div>
<div>Goals & motivations At each step, what is a person's primary goal or motivation? ("Help me..." or "Help me avoid...")</div>	<div><div>Customer requires the system consist of several sensors</div></div> <div><div>It is used to measuring physical and chemical parameters of the water.</div></div>	<div><div>The aim is to develop a system for continuous monitoring of river water quality at remote places using wireless sensor networks</div></div> <div><div>With low power consumption, need</div></div>	<div><div>The data will be stored in the cloud or local storage will be implemented</div></div> <div><div>Using the sensed parameters, the customer predicts the water quality</div></div>	<div><div>The customer requires a low cost system</div></div> <div><div>By the sensors, water contaminants must be detected.</div></div>	<div><div></div><div>The issue is that the traditional method, such as workers, needs to go to each tank or river to collect data</div></div>
<div>Positive moments What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?</div>	<div><div></div><div>This project has successfully achieved its objective where water quality data (pH and temperature) can be monitored</div></div>	<div><div></div><div>Implementation by a reconfigurable smart sensor interface device for water quality monitoring system in an IoT environment</div></div>	<div><div>It proposed the system collects parameters of water pH, turbidity on the surface of water</div></div> <div><div>With high speed from multiple different sensor nodes.</div></div>	<div><div></div><div>It will immensely help customer to become conscious against using contaminated waste as well as to stop polluting the water.</div></div>	<div><div>It was satisfied by low-cost water quality monitoring system has been developed for large area of coverage</div></div> <div><div>It was attributed to its long duration operation, flexibility, and reproducibility</div></div>
<div>Negative moments What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?</div>	<div><div></div><div>Customer felt that the sensors are installed very deep inside the water and their positions are fixed.</div></div>	<div><div></div><div>The sensors which work on power source may often required to be replaced in case of malfunctioning.</div></div>	<div><div></div><div>Mounted Sensors may get damage during natural disasters and often by aquatic animals</div></div>	<div><div></div><div>The maintenance cost is also very high.</div></div>	<div><div></div><div>Totest other parameters ,the new sensors can be included.</div></div>
<div>Areas of opportunity How might we make each step better? What ideas do we have? What have others suggested?</div>	<div><div></div><div>The design of a , real time, and low cost water quality monitoring system</div></div>	<div><div></div><div>Track whether protection and restoration measures are working</div></div>	<div><div></div><div>Customer can analyse data continually and instantly alert users to changes in the system.</div></div> <div><div></div><div>It reduces the need for unreliable and expensive sampling.</div></div>	<div><div></div><div>No need to compromise the water quality by the presence of infectious agents, toxic chemicals, and radiological hazards.</div></div>	<div><div></div><div>The system has wide application and it is usable and affordable</div></div>