REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

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ABSTRACT:

The current approach for monitoring water quality is manual, has a tedious procedure, and takes a lot of time. This research suggests a sensor-based method for monitoring water quality. A microprocessor for system processing, a communication system for inter- and intra-node communication, and a number of sensors are the core elements of a wireless sensor network (WSN). Remote monitoring and Internet of Things (IoT) technologies can be used to obtain real-time data. With the aid of Spark streaming analysis through Spark MLlib, Deep Learning Neural Network Models, Belief Rule Based (BRB) system, and comparison to standard values, data gathered at the separate site may be shown visually on a server PC. The agent will receive an automatic warning SMS alert if the obtained value is higher than the threshold value. Our suggested work is unique in that it aims to develop a water monitoring system with high frequency, high mobility, and low power. Therefore, the Bangladeshi community would benefit greatly from our suggested method by becoming aware of polluted water and ceasing to pollute the water.

LITERATURE REVIEW:

The online application allows for the monitoring of river water quality. Can determine whether the water contains any dust particles. It is possible to check the water's PH level . You may check particles. It is possible to check the temperature of the water. If the water quality is poor, letting the authorities know so they may go and tell the community not to consume that water. Now a day's Internet of things (IoT) is an innovative technological phenomenon. It is shaping today's world and is used in different fields for collecting, monitoring and analysis of data from remote locations. IoT integrated network if everywhere starting from smart cities, smart power grids, and smart supply chain to smart wearable. Though IoT is still under applied in the field of environment it has huge potential. It can be applied to detect forest fire and early earthquake, reduce air population, monitor snow level, prevent landslide, and avalanche etc. a real time water quality monitoring system prototype developed for water monitoring in residential home is presented its including availability of cellular network coverage at the site of operation.

AUTHOR: **Abhijit Pathak , Talha Bin Emran**

DESCRIPTION:

The current approach for monitoring water quality is manual, has a tedious procedure, and takes a lot of time. This research suggests a sensor-based method for monitoring water quality. Multiple sensors make up the system, which measures the physical and chemical characteristics of the water. A microprocessor for running the system, a communication mechanism for inter- and intra-node communication, and a number of sensors are the basic elements of a Wireless Sensor Network (WSN). Remote monitoring and Internet of Things (IoT) technologies can be used to obtain real-time data.

AUTHOR: **Karl Anderasson**

DESCRIPTION:

A microprocessor for system processing, a communication system for inter- and intra-node communication, and a number of sensors are the core elements of a wireless sensor network (WSN). Remote monitoring and Internet of Things (IoT) technologies can be used to obtain real-time data. With the aid of Spark streaming analysis through Spark MLlib, Deep Learning Neural Network Models, Belief Rule Based (BRB) system, and comparison to standard values, data gathered at the separate site may be shown visually on a server PC. The agent will receive an automatic warning SMS alert if the obtained value is higher than the threshold value. Our suggested work is unique in that it aims to provide a water monitoring system with high frequency, high mobility, and cheap cost.

AUTHOR: Yashwanth Gowda K. N, Spoorth G.B

DESCRIPTION:

Given water is becoming the most important resource for all humans, operating drinking water utilities in real time might be difficult. These issues came about as a result of factors including an increasing population, scarce water supplies, ageing infrastructure, etc. Better methods of checking the quality of the water are therefore required. To decrease water population growth and to lessen illnesses associated with water Additionally, according to the World Health Organization (WHO), this catastrophe represents "the biggest mass poisoning of a people in history. This paper's major objective is to create a sensor-based water quality in water monitoring system.

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