# REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

**TEAM ID:**

PNT2022TMID15636

**TEAM MEMBERS:**

1. BALUSAMY V (19BEC4016)
2. BOOBALAN A (19BEC4021)
3. DEEPAK R (19BEC4026)
4. DHINAKAR G (19BEC4039)

**INDUSTRY MENTORS NAME:**

1. SOWJANYA
2. SANDEEP DOODIGANI

**FACULTY MENTOR NAME:**

1. Mr. P. RAMAKRISHNAN

## 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:

A Wireless Sensor Network for River Water Quality Monitoring in India This paper introduces a river water quality monitoring system based on wireless sensor network which helps in continuous and remote monitoring of the water quality data in India. The wireless sensor node in the system is designed for monitoring the pH of water, which is one of the main parameters that affect the quality of water.

**AUTHOR: K. A. Unnikrishna Menon**

**DESCRIPTION:** A Wireless Sensor Network for River Water Quality Monitoring in India This paper introduces a river water quality monitoring system based on wireless sensor network which helps in continuous and remote monitoring of the water quality data in India. The wireless sensor node in the system is designed for monitoring the pH of water, which is one of the main parameters that affect the quality of water. Wireless sensor Network which aids in River Water Quality Monitoring. This paper also proposes a novel technique for the design of a water quality sensor node which can be used for monitoring the pH of water.

**AUTHOR: B. Aswin Kumar**

**DESCRIPTION:** This research paper focuses on Detection on water pollution and water management using smart sensors IOT. To ensure the safe supply of drinking water the quality should be monitored in real time for that purpose new approach IOT (Internet of Things) based water quality monitoring has been proposed. This system consists some sensors. Which measure the water quality parameter such as pH, turbidity, conductivity, dissolved oxygen, temperature. The measured values from the sensors are processed by microcontroller and these processed values are transmitted remotely to the core controller that is raspberry pi using Zigbee protocol. Based on a study of existing water quality monitoring system and scenario of water we can say that proposed system is more suitable to monitor water quality parameters in real time. Based on a studyof existing water quality monitoring system and scenario of water we can say that proposed system is more suitable to monitor water quality parameters in real time.

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