Patent Search

Invention Title	ECO AQUA – AN INTERNET OF THINGS (IoT) ENABLED REAL-TIME WATER QUALITY MONITORING AND MANAGEMENT SYSTEM WITH MU STAKEHOLDER ALERT MECHANISM
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Abstract:

ABSTRACT: Title: ECO AQUA – Real-time water quality monitoring system The present invention discloses an Internet of Things (IoT) based water quality monitoring sy Aqua, which provides real-time assessment and automated monitoring of water quality parameters. The system comprises a three-tier architecture: a sensor tier with sensors measuring pH, turbidity, Total Dissolved Solids (TDS), and temperature; a cloud data management tier for processing and analyzing real-time data; and an ale notification tier for automated communication of quality deviations. The invention incorporates a centralized cloud-based platform that processes data from multiple stations, generating actionable insights and detailed reports for various stakeholders including government authorities, industries, and consumers. The system featu automated notifications for quick response from local governing bodies like panchayats and includes a scalable design suitable for applications in drinking water safe agricultural irrigation, industrial water management, and environmental monitoring. This innovative solution enables proactive water quality management through c monitoring and immediate intervention capabilities.

Complete Specification

Description:PREAMBLE TO THE DESCRIPTION:
The following specification particularly describes the invention and the manner in which it is to be performed:
Since water is essential for human survival, agriculture, industry, and environmental sustainability, its continuous monitoring is a requirement for its quality. Nonetl water quality maintenance has long been a problem that plagues every sector.
The Eco Aqua System
This product innovation introduces the Eco Aqua system, which is the next generation of advanced water quality monitoring with real-time and automated assessm IoT.
Technological Framework
Eco Aqua is fitted with high-performance sensors that are capable of measuring critical parameters of water, such as pH, turbidity, TDS, and temperature. All these give accurate, continuous monitoring of water quality.
Real-Time Data Transmission
The system uses the IoT technology to transmit data in real-time to a centralized cloud-based platform, which allows for uninterrupted monitoring and the delivery actionable insights to users.
Applications Across Sectors
Eco Aqua serves the following sectors:

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