LITERATURE SURVEY

1.Smart Water Quality Monitoring System

Author: Mr. Kumar K

Water is one of the major compounds that profoundly influence ecosystem. But, nowadays it is been exploited heavily due to rapid industrialization, human waste and random use of pesticides and chemical fertilizers in agriculture, which leads to water contamination. Thus, a water monitoring system is necessary to observe the water quality in a large area such as lake, river, and aquaculture. As per the current world situation, Internet of Things (IoT) and remote sensing techniques are used in heterogeneous areas of research for supervising, congregate and analyzing data from the remote locations. In this paper, the suggested system is a minimal price real time water quality monitoring system in IoT environment. This system comprise of numerous sensors for assessing the physical and chemical parameter. The factors of water that can be assessed using these sensors are pH, turbidity, conductivity, dissolved oxygen. Using this system the real time quality of water bodies can be determined and the data uploaded over the Internet are analyzed.

2.Real Time Water Quality Monitoring and Management

Author: Deepika gupta

With the advent of this new era of water crisis, save water is the cry all over. Water sources are encroached from every existence on Earth. Saving water needs a systematic monitoring approach to determine its quality. Availability of Internet of Things (IoT) and remote sensing techniques mark the ease of congregating, analyzing and handling of real time data to further accelerate measures taken upon. Real-time water quality monitoring and management initiates prompt alarm ensuring timely response to water contamination in protecting and conserving the aquatic habitat, improving crop production by controlling quality of irrigated water, etc. This paper upheavals the water quality parameters required due consideration for monitoring real time water quality along with the available remote sensors. Also it briefs the review of parameters covered so far. Further it proposes the methodology suitable to the needs of detecting real time water contaminations based on the challenges of existing management system and IoT

3.The Monitoring of Water Quality in IoT Environment

Author: Anuadha T

In order to ensure the safe supply of the drinking water the quality needs to be monitored in real time. In this paper, a design and development of a low cost system for real time monitoring of the water quality in IOT. The system consists of several sensors are used to measure physical and chemical parameters of the water. The parameters such as temperature, pH, turbidity, conductivity of the water can be measured. The measured values from the sensors can be processed by the core controller. The Raspberry Pi model can be used as a core controller. Finally, the sensor data can be viewed on internet using cloud computing.

4.IoT Based Real-time River Water Quality Monitoring System

Author: Elsevier B.V.

Current water quality monitoring system is a manual system with a monotonous process and is very time-consuming. This paper proposes a sensor-based water quality monitoring system. The main components of Wireless Sensor Network (WSN) include a microcontroller for processing the system, communication system for inter and intra node communication and several sensors. Real-time data access can be done by using remote monitoring and Internet of Things (IoT) technology. Data collected at the apart site can be displayed in a visual format on a server PC with the help of Spark streaming analysis through Spark MLlib, Deep learning neural network models, Belief Rule Based (BRB) system and is also compared with standard values. If the acquired value is above the threshold value automated warning SMS alert will be sent to the agent. The uniqueness of our proposed paper is to obtain the water monitoring system with high frequency, high mobility, and low powered. Therefore, our proposed system will immensely help Bangladeshi populations to become conscious against contaminated water as well as to stop polluting the water.

5.SMART PORTABLE WATER MONITORING

Author: Okoli Chinedu David

Water is one of the critical parts of life and the health of the environment. Water pollution is one of the big problems to the world as a result of sewage discharge, discharge from industries, run-off from agricultural fields and urban run-off causing, thereby causing death as a result of polluted water. In order to safeguard and certify the safe supply of the drinking and useful water for

different purposes like agricultural, the water should be monitored. This report describes and analyse the design of a low-cost system for real time monitoring of a smart portable water monitoring system in IOT (internet of things) that alert water user by SMS or android application the state and condition of the water being supplied to them. The proposed system has several sensors which is used to measuring physical of the water such as monitoring the Turbidity (TU), Oxidation Reduction Potential (ORP), Electrical Conductivity (EC) and pH. These parameters provide facts and figures to either inform or prepare data for further analysis. The measured values from the sensors can be processed by the controller. TI CC3200 is a controller with built in Wi-Fi module and dedicated ARM MCU for wireless communication purpose. The data being sent to the controller through the sensor are sent to the cloud through WI-FI and Zigbee as means of network communication. The application also describes the data analytics solutions to be integrated, and the security consideration.

6.Intelligent System for Monitoringand Detecting Water Quality

Author: Jamal Mabrouki

Testing water quality has a significant role in environment control-ling. Whenever, the water quality is bad it can affect the aquatic life and sur-rounding environment. Due to the importance of some parameters to show thequality of water, we have designed an intelligent system that can measuresremotely

five parameters of water. The captured values are sent to the databasewhich is connected to the platform. The platform can process the receivedvalues. The user can connect to the application via Internet Protocol for mon-itoring the measured parameters. The outcomes demonstrate that with

fittingalignment, a dependable observing framework can be built up. This will enablecatchment administrators to consistently observing the nature of the water at higher spatial goals than has recently been doable, and to keep up this reconnaissance over an all-inclusive timeframe. Moreover, it comprehends the conduct of sea-going creatures in respect to water contamination utilizinginformation investigation.