**Literature survey**

**1.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

**2.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.

**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.

Keywords:

 Raspberry Pi processor, pH sensor, Turbidity sensor, Temperature sensor, Internet of Things(IoT) technology