**Real-Time River Water Quality Monitoring and Control System**

**LITERATURE SURVEYS**

**1.TITLE :** IOT based Smart Water Quality Monitoring System.

**AUTHOR :** Varsha Lakshmikantha, Anjitha Hiriyannagowda, Akshay Manjunath, Aruna Patted,

Jagadeesh Basavaiah, Audre Arlene Anthony.

**YEAR :** 2019.

**ABSTRACT :** Pollution of water is one of the main threats in recent times as drinking water is getting contaminated and polluted. The polluted water can cause various diseases to humans and animals, which in turn affects the life cycle of the ecosystem. If water pollution is detected in an early stage, suitable measures can be taken and critical situations can be avoided. To make certain the supply of pure water, the quality of the water should be examined in real-time. Smart solutions for monitoring of water pollution are getting more and more significant these days with innovation in sensors, communication, and Internet of Things (IoT) technology. In this paper, a detailed review of the latest works that were implemented in the arena of smart water pollution monitoring systems is presented. The paper proposes a cost effective and efficient IoT based smart water quality monitoring system which monitors the quality parameters uninterruptedly. The developed model is tested with three water samples and the parameters are transmitted to the cloud server for further action.

**2.TITLE :** Real Time Water Quality Monitoring System Using IoT And Machine Learning **.**

**AUTHOR :** Mayuri Malunjkar, Sadhana Mare, Monika Nagawade, Snehal Patil, Prof. D. R. Patil**.**

**YEAR :** 2019

**ABSTRACT :** There is need for effective monitoring, evaluation and control of water quality in different areas.Ensuring safe water supply of drinking water is big challenge for today’s generation. The excessive use of fertilizers in farms and also in other sectors such as mining and construction have contributed in overall reduction of water quality. To ensure the safe supply of the drinking water the quality needs to be monitor. So we can give a design and development of a low cost system for real time monitoring of the water quality using IoT(Internet of Things) and machine learning. The system include of different sensors is used for measuring physical and chemical parameters of the water.

**3.TITLE :** Literature Survey on Smart Water Quality Monitoring System

**AUTHOR :** Vaishnavi V, Varshitha R C, Tejaswini M, Needhu Rebecca Biju

**YEAR :** 2018

**ABSTRACT** : 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.

**4.TITLE** : A Literature Review on Controlling and Monitoring Plant Respiration System Using Cloud Computing and Internet of Things (Iot).

**AUTHOR :** Prof. Anil Bavaskar, Reena Mudliar

**YEAR :** 2020

**ABSTRACT :** For development of a novel and multipurpose smart agriculture, different physiological parameters of plants are control, monitor and analyse using cloud computing and internet of things (IOT). Analysis of different physiological parameter of plants such as Temperature, Humidity, soil moisture, water level, light intensity, CO2 emission, transpiration rate, & pH value for monitoring and controlling plant respiration system. Wireless Sensor and IOT provides the data acquisition with multiple node place in different location of the country. The final product is to develop the smart agriculture benefit of the farmer growth.

**5.TITLE** : IOT Based Water Quality Monitoring System

**AUTHOR**  : Chayanika, Arundhati Walia

**YEAR** : 2021

**ABSTRACT :** Water pollution has become a common problem. The conventional methods of monitoring water quality involve the manual collection of water sample from different locations and these water samples were tested in the laboratory. This process is wastage of man power, time consuming and not economical. By focusing on these problems, a low cost monitoring system is using that can monitor water quality in real time using IoT. The measuring system of water quality that we have implemented checks the quality of water in real time through various sensors (one for each parameter: pH, conductivity, temperature, turbidity) to measure the quality of water. A unique identification has been given to each device and must be able to capture real-time data autonomously. The basic building blocks of IoT consist of sensors, processors, gateways, and applications. This system can keep a strict check on the pollution of the water resources and be able to provide safe drinking water.