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

# LITERATURE SURVEY

| S.No | Title | Published Date | Journal/Conference | Inference |
|---|---|---|---|---|
| 1 | Real time wireless monitoring and control of water systems using Zigbee | 29 Sept, 2013 | International conference on computational intelligence and communication networks | • This paper deals with how to monitor the water level of water systems such as water tanks, rivers and borewells<br>• It can monitor the quality of water with the help of water quality sensors such as turbidity sensors and dissolved oxygen sensor<br>• In this monitoring system, sensors monitor the water level, dissolved oxygen,turbidity,temperature and pH level of the water |
| 2 | Design of IoT based river water monitoring | 7 Nov, 2019 | IEEE International conference on internet of things and intelligence | • In this paper, a design of IoT based river water quality monitoring |

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| | robot data transmission model using low power wide area network(LP WAN) communicati on network | | systems | system using LPWAN communication technology is proposed<br>● It presents the results of the test to implement LoRa communication using mesh network topology as a medium of long distance transmission from the acquisition of river water quality data from several sensors(river water temperature, pH level,metal concentration(Pb and Fe) and river water turbidity |
| 3 | Real-time Water Quality Monitoring and Estimation in AIoT for Freshwater Biodiversity Conservation | 15 August, 2022 | DOI 10.1109/JIOT.2021.3078166, IEEE Internet of Things Journal | ● In this paper, a comprehensive literature review on water quality parameters that impact the biodiversity of freshwater is conducted and identified the top-10 crucial water quality |

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| | | | | parameters<br>● Among these parameters, the interrelationships between the IoT measurable parameters<br>● IoT unmeasurable parameters are estimated using a general regression neural network model and a multivariate polynomial regression model based on historical water quality monitoring data |
| 4 | IoT based smart water quality monitoring system | 14 Oct, 2019 | Science direct | ● In this paper, the proposed system comprises of different sensors like temperature sensor, turbidity sensor and pH sensor that are interfaced with Raspberry Pi via an analog to digital convertor<br>● Based on the data obtained from various sensors and processing of |

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| | | | | data by the Raspberry Pi, the solenoid valve will be directed to either continue or stopped flow of water and it checks if water quality parameters are in the desired range or not |