Real-Time River Water Quality Monitoring And Control System

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Problem Statement:

Real-time river water quality monitoring and control system

1. 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. Farmers put fertilizers and pesticides on their crop so that they grow better but these fertilizers and pesticides can be washed through the soil by rain to end up

in the rivers which causes concentration of nitrate and phosphate in the water increases considerably.

3. The massive growth of algae called Eutrophication, which leads to pollution. When the algae die they broken down by the action of bacteria which quickly multiply using up all the oxygen in the water which leads to the death of many animal

4. Some of the time the water has perilous particles or compound blended and broadly useful water purifier can't refine that. Furthermore, checking the nature of water physically in each time is unthinkable.

5. The ability to make real-time decisions during critical moments can be vital in preventing expensive repairs and breakdown. Water quality analysis is to measure the required parameters of water, following standard methods, to check whether they are in accordance with the standard. If the water quality is poor and it is below the permissible level it makes decision by comparing it with the previous reading date.

6. By timing update we can save to many lives and even save the livestock like cows etc, by preventing them from drinking river water. So a programmed on going checking framework is expected to screen the strength of the water held in our water tank of the general public or loft. So it can caution us consequently assuming that there is any issue with the saved water. What’s more, we can check the nature of the water whenever and from any place.