Literature Survey

Title & Author(s)	Year	Technique(s)	Findings/Pros/Cons
"Remote monitoring of waters quality from reservoirs" Sona R. Pawara, Siddhi Nalam, Saurabh Mirajkar, S. Gujar, Vaishali Nagmoti	2017	Convergence	Water bodies have seen a rise in chemical pollutants in recent years. Therefore quality testing has become an essential part of treatment. Currently in India, monitoring of water quality is done by physically going to water bodies and collecting samples which are then sent to be tested in laboratories.
"Reconfigurable smart water quality monitoring system in IoT environment" Cho Zin Myint, Lenin Gopal, Y	2017	Computer and Information Science	This paper presents a reconfigurable smart sensor interface device for water quality monitoring system in an IoT environment. The smart WQM system consists of Field Programmable Gate Array (FPGA) design board, sensors, Zigbee based wireless communication module and personal computer (PC). The FPGA board is the core component of the proposed system and it is programmed in very high speed integrated circuit hardware description language (VHDL) and C programming language using Quartus II software and Qsys tool.
"Design of low-cost autonomous water quality monitoring system" A. S. Rao, S. Marshall, J. Gubbi, M. Palaniswami, R. Sinnott, Vincent Pettigrovet	2013	Computing, Communications and Informatics	A low-cost wireless water physiochemistry sensing system is presented and the results indicate that with appropriate calibration, a reliable monitoring system can be established, and will allow catchment managers to continuously monitoring the quality of the water at higher spatial resolution than has previously been feasible.
"Using image processing technology for water quality monitoring system" Cheng-Liang Lai, Chien-Lun Chiu	2011	Machine Learning and Cybernetics	The inferential method as proposed by this study in recognizing two kinds of fish has come to a satisfactory effect and is successfully used in building a water quality monitoring system by utilizing the image processing and fuzzy inference in auto-recognizing the gesture of fish.
"A Survey on smart water monitoring and control using Internet of Things" M.K. Dipshika , Dr. P. Kannan , Mr .S. Arun	2019	ZigBee technology	Nowadays, water scarcity has become an important crisis. Water scarcity is defined as the lack of sufficient available water in all the water resources particularly to meet the demands of water usage all over the world.

"Real-time remote monitoring system for aquaculture water quality" Luo Hongpin, Li Guanglin, Peng Weifeng Song Jie, Bai Qiuwei	2015	ZigBee and GPRS transmission	A multi-parameters monitoring system based on wireless network was set up to achieve remote real-time monitoring of aquaculture water quality, in order to improve the quality of aquaculture products and solve such problems as being difficult in wiring and high costs in current monitoring system.
"AquaStat: An Arduino-based Water Quality Monitoring Device for Fish Kill Prevention in Tilapia Aquaculture using Fuzzy Logic" Mark Rennel D. Molato	2022	Fuzzy Logic	In the Philippines, Tilapia fish farming sector is vital to the economy in providing substantial employment, income and meeting local demand for protein sources of the Filipinos. The water parameters considered in this paper were temperature, dissolved oxygen, and pH level. The overall water quality obtained using the conventional method was compared to the overall water quality generated by AquaStat and obtained an accurate result.
"IoT based Industrial water quality monitoring system using temperature, pH and turbidity sensors" A.Divya, G.Vidhya krishnan	2019	ZigBee technology	Water pollution is one of the biggest fears for the green globalization. In order to ensure the safe supply of the drinking water the quality needs to be monitor in real time. m. This paper proposes a low cost water quality monitoring system using emerging technologies such as IoT, Machine Learning and ting which can replace traditional way of quality monitoring.
"Internet of things enabled real time water quality monitoring system" S. Geetha and S. Gouthami	2017	IoT	Smart solutions for water quality monitoring are gaining importance with advancement in communication technology.The model developed is used for testing water samples and the data uploaded over the Internet are analyzed.
"Smartphone-based Real-Time Water Quality Monitoring System" Aaruththiran Manoharan, Zhang Yujia, Mohammad ali Bagherian	2019	Internet of Things (IoT) and Remote Sensing (RS)	In industrial based countries, most water bodies near urban areas are heavily polluted mainly due to legal or illegal dumping of wastewater laced with harmful organic chemicals, solvents, heavy metals, and urine from both humans and animals. The outcome of the project demonstrated the feasibility of using simple and cheap components, integrated with smartphone for real-time monitoring of water quality.