**LITRATURE SURVAY ON REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM**

Team Members : ANUSIYA. M, BENINAL. S, DINGESWARI. S, GOGUL. M

Water is the primary need of every living thing, with the availability of water for living things,it is very helpful for daily needs. River play important roles in human life .for example transportation and economic activities of the inhabitants. However industrial, agricultural and domestic water is discarded into river directly in many developing countries, since drainage systems have not been completely constructed.

River water monitoring system is one of the efforts as a contribution to control the pollution. Web technology is used to monitor and simulate the river water quality achieving goal of controlling water environment condition in real time dynamically.

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| TITLE AND AUTHORS(S) | YEAR | TECHNIQUE | FINDINGS | PROS AND CONS |
| A  demonstration of wireless sensing for long term monitoring of water quality  Fiona Regan, Antoin Lawlor  Brendan O Flynn1,  J. Torres, | 2009 | INTERNET OF THINGS | A multi-sensor heterogeneous real-time water monitoring system. | Current monitoring status in Ireland and globally Issues relating to long-term monitoring Communication capabilities currently available and communication needs Data  value collection |

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| R Martinez- Catala, C.Mathuna John Wallace. |  |  |  | interpretation and reporting and Gaps in the area of water quality monitoring in  Ireland |
| A Design of Radio- controlled Submarine Modification for River Water Quality Monitoring  Sritrusta Sukaridhoto, Dadet Pramadihanto, Taufiqurrahm an, Muhammad Alif,  Andrie Yuwono∗Polit eknik Elektronika Negeri Surabaya, | 2015 | INTERNET OF THINGS | Waterquality monitoring using radio- controlled submarine | The experiment results show that our ROV worked and able to move stably in river to collect information from water quality sensors. Our future works  include the further improvement of sonar device and application to build 3d reconstruction of river and analysis of  water pollution  level. |
| River Water Quality Monitoring and Simulation based on WebGIS –  Anhui Yinghe River as an  Example Niu | 2016 | INTERNET OF THINGS | WebGIS technology is used to monitor the river water quality | It’s applicable for WebGIS technology to be used in river environment.  By Anhui Yinghe river practice, this  theory was |

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| Maojing |  |  |  | verified as reliable.  Moreover, it can also be extended to lake, sea and other related areas, providing analysis research and  decision making  for water department. |
| Floating Robot Control System for Monitoring Water Quality Levels in Citarum River Muhammad Ary Murti Angga Rusdinar Ig.  Prasetya Dwi Wibawa | 2019 | INTERNET OF THINGS | Floating robotic solution to monitor river water quality regularly | The robot control system can be done wirelessly, using the Bluetooth HC05 module..  The response of the moving average based on the number of sample values is  calculated |
| Design of IoT- Based River Water Monitoring Robot Data Transmission Model Using Low Power Wide Area Network (LPWAN)  Communication | 2019 | INTERNET OF THINGS | river water quality monitoring- system using LPWAN  communicate on technology | Transmission range using LPWAN  communication to connect nodes and gateway on river water surface for a maximum range of 500 m  before |