

REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

BATCH:A10

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WHY DO WE NEED THIS ?

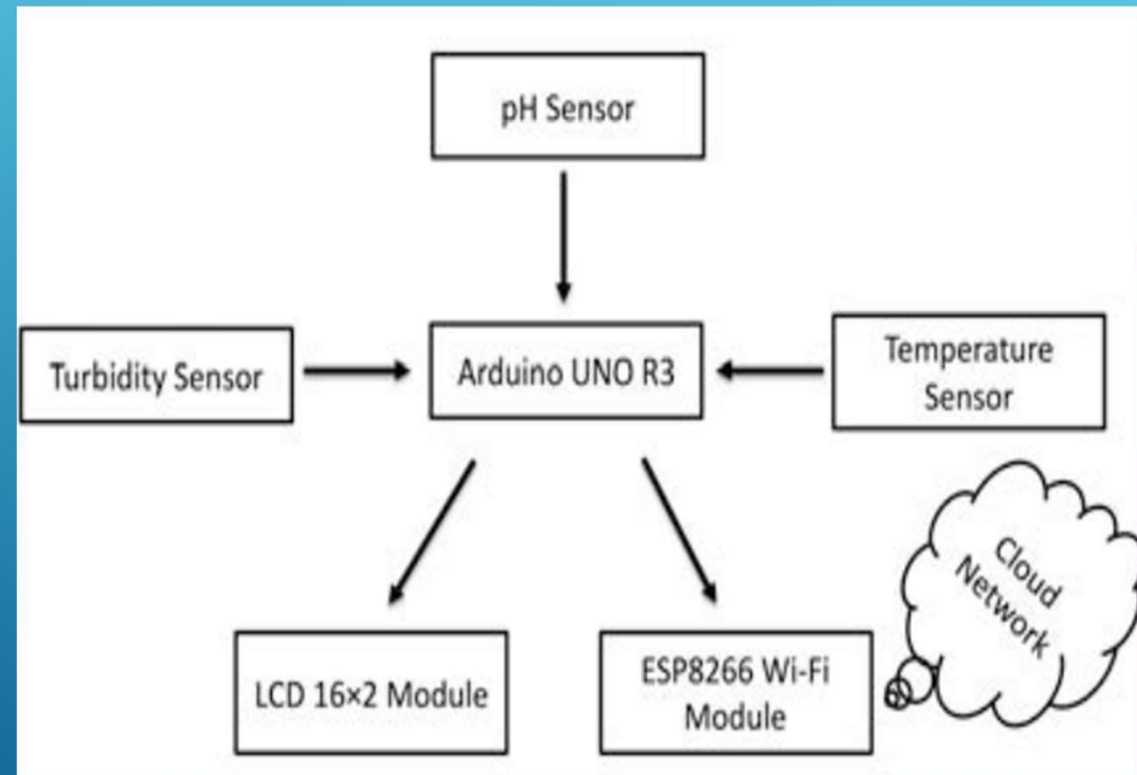
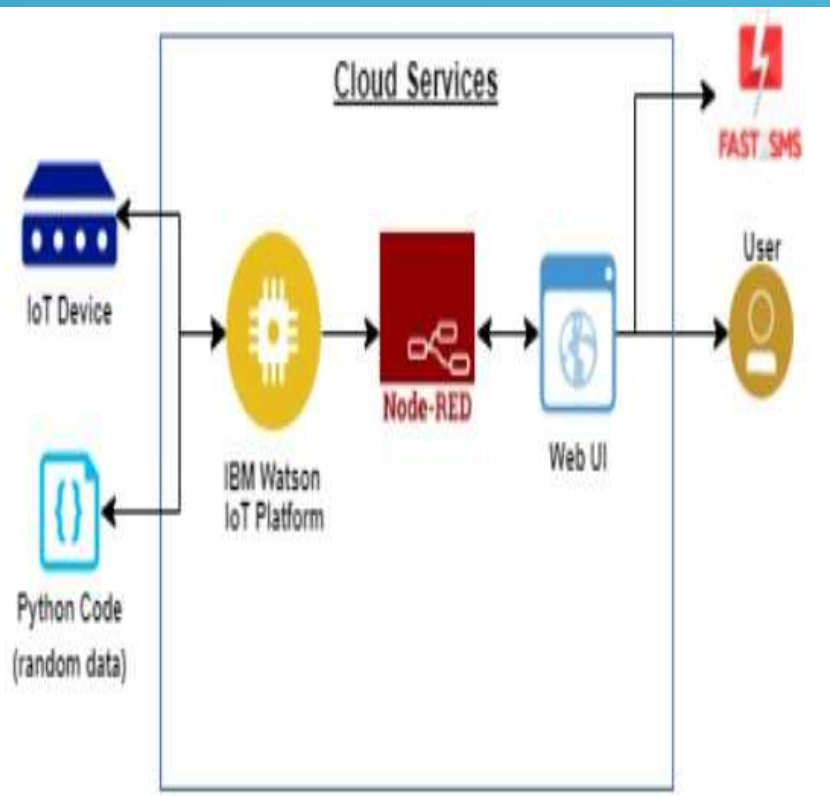
- The environment around consists of five key elements e.g., soil, water, climate, natural vegetation, and landforms. Among these water is the utmost crucial element for human life. It is also vital for the persistence of other living habitats .
- The records show that more than 14,000 people die daily worldwide due to water pollution. In many developing countries, dirty or contaminated water is being used for drinking without any proper prior treatment.

- ▶ In many developing countries, dirty or contaminated water is being used for drinking without any proper prior treatment. One of the reasons for this happening is the ignorance of public and administration and the lack of water quality monitoring system which makes serious health issues.

INTRODUCTION:

- ▶ Now a day's Internet of things (IoT) is an innovative technological phenomenon. It is shaping today's world and is used in different fields for collecting, monitoring and analysis of data from remote locations.
- ▶ Using different sensors, this system can collect various parameters from water, such as pH, dissolved oxygen, turbidity, conductivity, temperature, and so on. Using IOT, the clients can get ongoing water quality information from far away.

BLOCK DIAGRAM OF THE PROJECT



WORK PROGRESS

- Real-Time River Water
Quality Monitoring And
Control System

+ Prerequisites

Project Objectives

+ Create And Configure
IBM Cloud Services

+ Develop The Python
Script

+ Develop A Web
Application Using Node-
RED Service.

+ Building Mobile App

+ Ideation Phase

+ Project Design Phase – I

+ Project Design Phase -II

+ Project Planning Phase

+ Project Development
Phase

FUTURE WORKS

- ▶ Real-time monitoring of water quality by using IoT integrated Big Data Analytics will immensely help people to become conscious against using contaminated water as well as to stop polluting the water. The research is conducted focusing on monitoring river water quality in real-time. Therefore, IoT integrated big data analytics is appeared to be a better solution as reliability, scalability, speed, and persistence can be provided.

LITERATURE SURVEY:

- ▶ K. S. Adu-Manu, C. Tapparello, W. Heinzelman, F. A. Katsriku, and J.-D. Abdulai, "Water quality monitoring using wireless sensor networks: Current trends and future research directions," *ACM Transactions on Sensor Networks (TOSN)*, vol. 13, p. 4, 2017.
- ▶ B. Paul, "Sensor based water quality monitoring system," BRAC University, 2018.
- ▶ N. Vijayakumar and R. Ramya, "The real time monitoring of water quality in IoT environment," in *2015 International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS)*, 2015, pp. 1-5.

THANK YOU

