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| **Team Id** | PNT2022TMID19330 |
| **Project** | Real – Time River Water Quality Monitoring and Control System |

**Project Development – Delivery of sprint 1**

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**Abstract**

The surrounding environment is composed of five main components, such as soil, water, climate, native plants, and landforms. The most essential component for human life among these is water

Untreated water that is contaminated or unclean is frequently used for drinking in impoverished nations.One of the causes of this is the public's and administration's ignorance, as well as the lack of a system to check the water quality, which creates major health problems.

**Introduction:**

It is essential for the survival of other living ecosystems as well

[1].Safe and easily accessible water is essential for maintaining public health, whether it is utilised for drinking, home use, food production, or recreational activities

[2].So maintaining a balance in water quality is crucial for us.

Otherwise, it would seriously jeopardise human health and disturb the natural balance of other species.

[3]. Managing water resources from the global level to individual wellheads requires ongoing assessment and adaptation due to the significant worldwide problem of water pollution.More than 14,000 deaths each day are attributed to water poisoning, according to records.

**Related works:**

In order to create a high-quality model, we examined various existing systems created by researchers.By examining variables like temperature, pH, and conductivity, among others, various authors have suggested distinctive models to evaluate the quality of water.We created a smart water surveillance system that can carry out all of these monitoring functions by taking into account all of these factors.Stephen Brosnan looked into a WSN to gather water quality measurements in real time (WQP).Based on GPRS/GSM, Quio Tie-Zhn created an online system for tracking water quality [15].The data was transmitted using the GPRS network, which made it possible to check the WQP remotely.Web-based WSN for detecting water pollution utilising ZigBee and WiMAX networking was presented by Kamal Alameh.

To monitor water quality from a great distance in real time, the system gathered, processed, and forwarded data from sensors over a ZigBee gateway to a web server using a WiMAX network.DongBased on WSN, he created the WQM system [14].The ZigBee network was used to power the remote sensor.WSN used GPRS to test WQP and provide data to the Internet.Information was acquired at a remote server using the web.A low-cost system for real-time IoT water quality monitoring was developed by Vijayakumar et al. [16] and uses sensors to assess numerous significant physical and chemical aspects of water.Water characteristics like turbidity, temperature, pH, and conductivity of dissolved oxygen can be measured.We suggested a water quality monitoring system in our project.