

# **COIMBATORE INSTITUTE OF TECHNOLOGY**

## ***NALAIYATHIRAN PROJECT (2022-23)***

### **REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM**

#### **TEAM MEMBERS**

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#### **PROBLEM STATEMENT:**

Now a days water pollution is one of the biggest fears for the green globalization. In order to ensure the safe of water quality is needs to be monitor in real time. water quality is affected by both point and non-point sources of pollution, which include sewage discharge, discharge from industries, run-off from agricultural fields and urban run-off. It is difficult to maintain river water quality monitoring. This paper presents a detailed overview of a power efficient, simpler solution for in river water quality monitoring based on Internet of Things technology. The model developed is used for testing water samples and the data uploaded over the Internet are analyzed. The system also stores the data in Cloudant DB and provides an alert to a remote user via SMS utilizing API, when there is a deviation of water quality parameters

from the pre-defined set of standard values. Data management subsystem includes the application which accesses the data storage Cloudant DB and displays the same to the end user and data collection subsystem consists of multi-parameter sensors and optional wireless communication device to transmit the sensor information to the controller. The main advantage of the proposed model is the automation that helps in maintaining the river water quality.

### **OBJECTIVE:**

By the end of this project, you will:

- To provide a solution by designing a real time river water quality monitor and control system which helps to clean the river water and helps to maintains it to avoid river pollution and water related disease
- Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
- Gain knowledge of Watson IoT Platform and Cloudant DB
- Creating a Web Application through which the user interacts with the device.

### **SOFTWARE REQUIRED:**

- ✓ Python IDLE

### **PROPOSED MODEL:**



