

## Project Design Phase-I Solution Architecture

Date	10 OCTOBER 2022
Team ID	PNT2022TMID14819
Project Name	Real-Time River Water Quality Monitoring and Control System
Maximum Marks	4 Marks

### Solution Architecture:

- The temperature sensor, pH sensor, Dissolved oxygen sensor, CO2 Sensor, Turbidity sensor, Ultrasonic sensor and DC motor are connected to the ESP 8266 and power supply.
- Each Sensors communicate with ESP 8266 which detects any anomaly and quickly sends report to IBM Watson
- The IBM Watson IOT platform and IBM node-red creates the API key to transfer data to the Web-UI and MIT application.
- The resulting web page shows the information which includes previously detected anomalies.
- The module can also be capable of detecting floods by calculating turbidity water level.

### Solution Architecture Diagram:

