SKILL / JOB RECOMMENDER

Team Members:
Keerthi Vasn S
Manoj S K
Selvabharathi M
Raghul Kumar S

Mentor:
Mrs. Manjula Devi R

PROBLEM STATEMENT

Environmental regulations require the monitoring of the environmental state of the River to preserve or improve its water quality. A manual sensor sample for dissolved oxygen, conductivity, and bacteria is recorded by hand. Also, a rough estimate of turbidity is recorded using a Secchi disk. Testing occurs once a week during the months from May to October, when a set of volunteers would survey sampling sites on the river. The process of traveling and collecting data takes several hours to complete. Upon completion, the manually recorded data is then given to a webmaster for input into a web server. There are a limited number of parameters tested in the current system such as pH, Turbidity,Water Temperature and TDS(Total Dissolved Solids.

BRAINSTORMING

KEERTHI VASAN S

- Using Raspberry Pi4 and Arduino combo.
- Raspberry pi 4 for push the data to mqtt server more efficiently and for remote access too.
- Pushing sensor data to the IBM cloud and store in a database and display it in a web UI to make it as user friendly.

MANOJ S K

- The use of raspberry pi as an embedded system will help in the manufacture of detecting sensor devices and the use of remote communications technology can help the interaction of sending data between things. The result is the IoT water quality monitoring system can be operated as an automated water monitoring system for surface water and its real-time online.

SELVA BHARATHI M

- Using arduino connecting multiple required sensor pushing data to cloud.
- Since MQTT also compatible with arduino there is no problem in pushing data to the cloud

RAGHUL KUMAR S

- Using Raspberry pi4 , the sensors are integrated
- Sensor data to the IBM cloud Platform
- Sending data to Android App which will be user friendly.