PROJECT NAME: REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

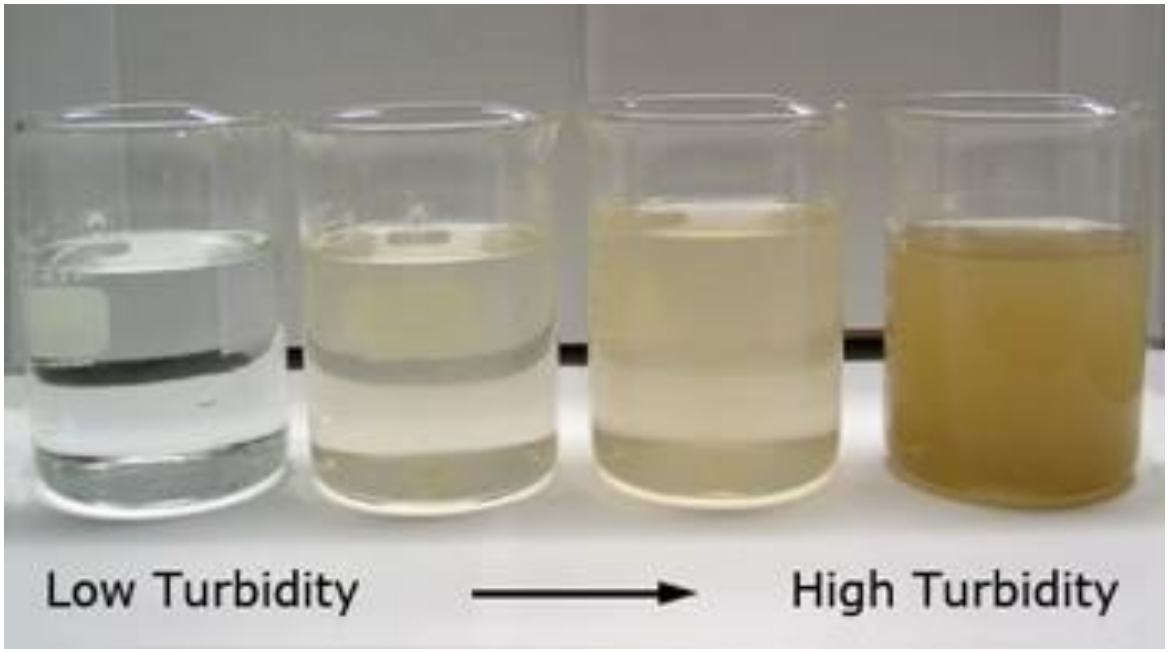
TEAM ID : PNT2022TMID01820

Design your UI to display the water Turbidity, PH values

Materials and system design.

The proposed domestic water temperature, pH and turbidity monitoring system consisted of a network of 3 sensors for collecting data on temperature, pH and turbidity of water. These sensors were connected to an Arduino microcontroller which processes the data before relaying it to a cloud platform through a Wi-Fi module.

The cloud platform, the information is pulled and displayed on a website. The authorities in charge are then able to monitor the data for the different water quality parameters as well as analyse the data in form of graphs. Should the data collected vary from the set standards, then the authorities are alerted instantly. Figure 1 shows the block diagram of the proposed system.



Turbidity is the cloudiness or haziness of a fluid caused by large numbers of individual particles that are generally invisible to the naked eye, similar to smokein the air. The measurement of turbidity is a key test of water quality

When it was placed in clear tap water, the system indicated that the pH was7.54 and turbidity was 0.00 which is in line with the NWSC standards for pumped and treated water. When placed in water with settled dirt, the system displayed that the turbidity was 2969 NTUs which makes the water unpalatable since it lies out of range of the acceptable standards (greater than 5 NTUs). When placed in muddy water, the system displayed that the turbiditywas 3000 NTUs which means the water was unpalatable since its turbidity was beyond the acceptable limit. All the data were captured and displayed on the website as the most recent parameter status reading. The graphs and tabular format as presented in Additional file