Real-Time River Water Quality Monitoring andControl System

Problem statement

The global availability of water resources has never been as scarce as it is today. At the same time, pollution levels in the water are imposing a bigger challenge than ever. Water is often becoming polluted without awareness; often due to the complex water distribution systems, where water is flowing in and out of the pipes.

Existing water treatment systems cannot detect the dissolved contaminants such as chemicals. Using traditional approaches of monitoring water quality in the water management system are not safe. Chlorinating is usually used to protect micro-organisms. However, drinking too much chlorinated water leads to Cancer and other diseases. Thus, chlorine is considered as another contaminant as well as pathogen and viruses. Moreover, there is no single instrument that can detect all the possible water parameters such as pH, temperature, and conductivity. Thus, our model will help curb water borne diseases by developing a real time online water quality monitoring system. With this model we can detect all the possible water quality parameters and availability of water in water tank.