PROBLEM STATEMENT

Due to the fast-growing urbanization supply of safe drinking water is a challenge for every city authority. Water can be polluted any time. So, the water we reserved in the water tank at our roof top or basement in our society or apartment may not be safe. Still in India most of the people use simple water purifier that is not enough to get surety of pure water. Sometimes the water has dangerous particles or chemical mixed and general-purpose water purifier cannot purify that. And it's impossible to check the quality of water manually in every time. So, an automatic real-time monitoring system is required to monitor the health of the water reserved in our water tank of the society or apartment. So, it can warn us automatically if there is any problem with the reserved water. And we can check the quality of the water anytime and from anywhere. By keeping this mind, we designed this system especially for residential areas.

The suggested system utilizes Internet of Things (IoT) through using sensors to measure the water quality factors such as (pH, temperature and turbidity) for home applications. The system should allow for autonomous decision making for controlling the water quality factors such as (acidity, alkalinity, temperature and amount of total suspended solids expressed by cloudiness or haziness) measured by mentioned sensors within the acceptable limits and keeping records of the historical recordings on a cloud-based platform. The system will lead to real time data acquisition, transmission and processing of water quality data. This will give the ability to automatically react to the changes in the system outputs. Using Internet of Things (IoT) means the system can be accessed from anywhere through Internet, for example through a mobile or web application remotely.