

ABSTRACT

Water is origin of life and safe & clean drinking water is the most important element of good health. In Pakistan almost 16 million peoples are deprived of having access to safe drinking water. The leading water borne diseases are Cholera, Diarrhea, Typhoid and Hepatitis. Poor sanitation services, untreated municipal and industrial wastewater affect the surface and ground water. In past the main causes for the failure of the water supply projects were lack of engineering, monitoring, transparency and lack of local community engagement. In order to deal this situation, Punjab Government has established Punjab Saaf Pani Company with a mandate to develop, plan, design and execute projects for providing purified drinking water solutions. For efficient monitoring and better management of water filtration plants, an automation system SCADA is applied, resulting in improved efficiency of water treatment plants. SCADA is abbreviated as "Supervisory Control and Data Acquisition". SCADA applied to water filtration plants for monitoring and controlling different processes spread over wide range remote areas, gives an advantage in terms of monitoring and effective working and also provides the required data to control the processes. The automated water treatment and distribution systems will be an effective tool against the water quality and distribution problems. The water purification system needs to be efficiently monitored and the available water resources must be effectively consumed in Pakistan. The SCADA system shall carry out monitoring of facility operation status, instrument status, and communication status as well as data collection and storage in order to provide information for the upper system monitoring. . Use of SCADA system for water treatment plants gives the efficient way to operate it economically and effectively.