## **Smart Water System**

Smart Water System is the activity of planning, developing, distributing and managing the use of water resources using an array of IoT technologies which are designed to increase transparency, and make more reasonable and sustainable usage of these water resources.

Water Monitoring and Sensing:

IoT sensors are used to measure various parameters of water quality, such as pH, temperature, dissolved oxygen, and the presence of chemicals and microorganisms. These sensors can be placed in rivers, lakes, and other bodies of water, and they can transmit data in real-time to a central monitoring system.

## Data Analytics:

IoT-generated data is processed and analyzed using advanced analytics tools and machine learning algorithms. This data can be used to identify temperature, dissolved oxygen, pH, conductivity, ORP, and turbidity.

Water Control and Optimization:

IoT-based smart water systems can dynamically adjust water level signal timings, lane assignments, and variable message signs to optimize traffic flow based on real-time conditions. For example, water level can adapt their timings in response to changing water flow.

Smart water level monitoring:

An Internet of Things (IoT) water level control and monitoring system is a smart, automated solution to manage and maintain water levels in various applications such as tanks, reservoirs, and swimming pools..

## **Emergency Response:**

IoT-enabled smart water systems can support emergency response efforts by prioritizing the movement of emergency vehicles through traffic and providing real-time information to emergency services.

## Data Sharing and Integration:

Data from various IoT devices and systems can be shared and integrated with other urban infrastructure systems, such as smart city platforms, to create a holistic view of urban mobility and improve decision-making.