

IOT BASED SMART WATER MANAGEMENT

INTRODUCTION:

Smart Water Management 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.

OBJECTIVE:

Smart water monitoring systems help monitor and maintain water parameters such as pH levels and temperature and study the presence of destructive elements.

LITERATURE SURVEY:

Water is more commonly squandered at residences, and the major supply source is wasted. GPRS and GSM modules are the two IoT devices: a water tank level sensor that sends data to the cloud for analysis and a motor that turns on and off automatically. Using an IoT-SWM system, the water level can be monitored and controlled while leaks in the tank are detected and an estimated measurement is provided.

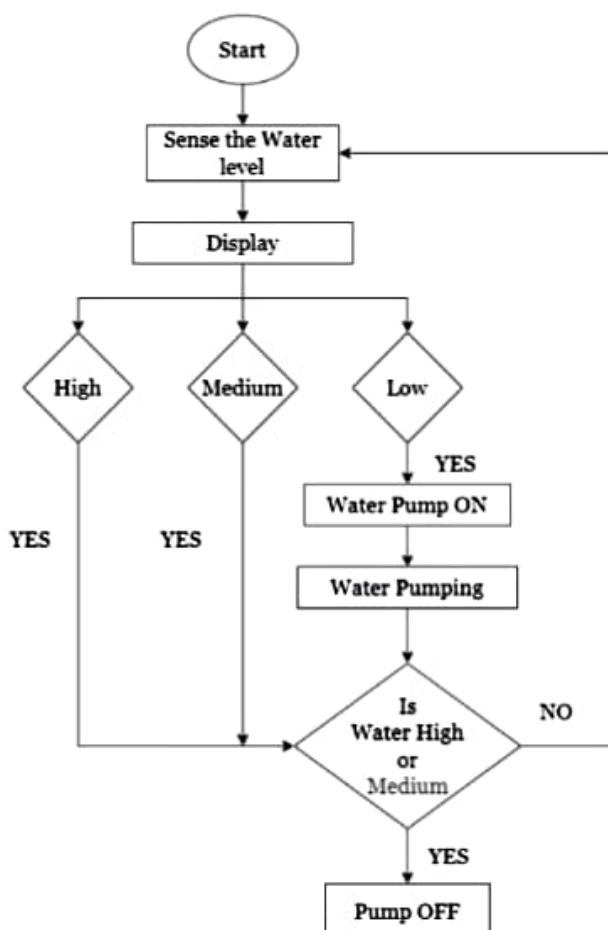
EXISTING MODEL:

These IoT-based systems enable on-demand irrigation. They leverage sensors that check soil temperature and humidity, analyze weather forecasts, consider the watering calendar, and suggest the perfect irrigation strategy based on the collected data.

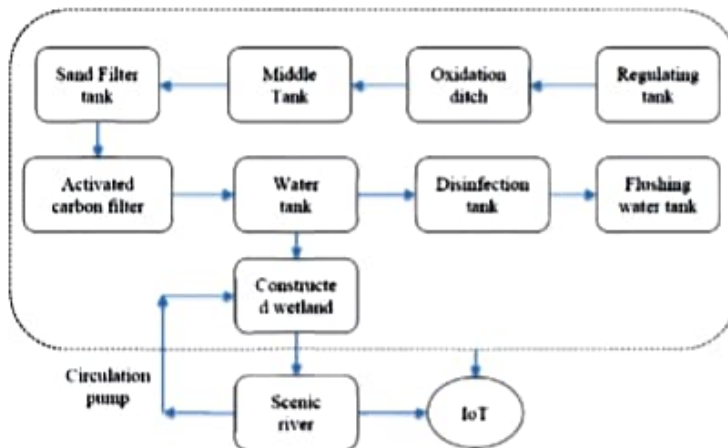
PROPOSED SYSTEM:

IoT water management systems leverage numerous sensors that collect real-time insights on how resources are used. These devices transmit the gathered data to the user's application online. This information empowers analysis of consumption patterns and encourages more rational water consumption.

FLOW CHART:



BLOCK DIAGRAM:



REFERENCE:

Set of sensor like Turbidity, Salt sensor, pH sensor and Water flow sensors were used. This sensor informs about the water level tank and communicate to the monitor section. To maintain the tank without bacteria and microbes the Chlorine powder is sprayed if there is any changes in the ph value is found.

OUTCOME:

IoT-enabled water management systems use sensors, controllers, meters, and other devices connected to mobile, web apps, and data processing and analysis tools. All this creates a platform for efficient water supply management, freshwater quality checking, pollution detection, and more.

CONCLUSION:

The whole water supply chain can become more transparent and easier to control. With the help of sensors, a smart city water management system can enable you to collect real-time data—information that helps you visualize water distribution across the network.