SMART WATER MANAGEMENT

**Project Definition:**The project involves implementing IoT sensors to monitor water consumption in public places such as parks and gardens. The objective is to promote water conservation by making real-time water consumption data publicly available. This project includes defining objectives, designing the IoT sensor system, developing the data-sharing platform, and integrating them using IoT technology and Python.

**PROBLEM IDEA :** Internet of Things has been associated with cities, smart homes and also to manage traffic system. A unknown fact that about internet of things technology is also application across many other fields in our everyday life. Another such area where the internet of things technology can play a major role in water management. IOT is evolving fast and latest innovation occurring in wireless technology and embedded technology. This work focuses on a solution for water management in colleges, building and commercial area with the help of IOT. Water is precious and supply the needs to be regulated. To maintain the water in a proper way, should prevent the overflow of water in tanks and usage of the water in proper manner. In traditional days there is no proper maintenance of water. In conventional tanks there is need of human being to ON/OFF the motor. In this paper the automated system is introduced which is used to save the human work and cost. In this system the motor is automatically ON/OFF by using level sensor. The usage of water is observed by the water flow sensor

**DESIGN THINKING :** Water is the most important need for all living beings. This project helps to regulate the proper maintenance of water tank using IOT. Water management problems such as water usage ,water consumption in public places such as parks , gardens , overflow in the water tank .To overcome this problem by implementing proper monitoring and information updation system along with awareness among public.

Ultrasonic sensor is used to indicate the level of water in real time. When the water level falls below the threshold level the motor will automatically ON and alerts the respected authority. Temperature sensor is used to sense the temperature in the water tank. Water flow sensor is used to know the usage of water litre per hour. By using ESP8266 WI-FI module the data is recorded in real time and updated in cloud.

¬ The level of water in the tank by using the ultrasonic sensor and can reduce overflow of the water.

¬ The usage of the water in the tank can be used to control the wastage of the water.

¬ To know the temperature in the water tank in real time

BLOCK DIAGRAM :

