PROJECT 9: SMART WATER SYSTEM

PHASE-1

TEAM MEMBERS:

JAMES E

KANNAN E

KARTHICKRAJA V

MOHAN R

MOHAN KUMAR P

1. PROJECT DEFINITION

AIM OF THE PROJECT:

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. 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.

Fig: water management systems using sensors

2. DESIGN THINKING

2. Related work:

Many researches are working in the field of IOT and its application. One such application is Smart Water Management. The researchers are creating a system which can indicate level of water in tanks, usage of water in water,quality monitoring suchas turbidity sensor, PH sensor, salt sensor in the water tanks to know contamination, alkaline nature and salts in the water which causes diseases to living beings. Another work presented an IOT system which is capable of detecting and displaying level of water in the storage tanks and used for managing and planning use of water. Divyapriya et.al in continuously keeps tracks of the level of the water in water system like overhead water tanks. Proposed the client can send the message to the framework realize the water level subtleties of the tank? This is intended to control the dimensions of water with help of ultrasonic sensor and GSM innovation. Kumar et.al in IOT based water management system for a campus proposed real time monitoring system for campus recommended that work utilized an off /on the track ultrasonic sensor HC-SR04 which is mounted at the highest point of the tank. It sends the ultrasound beats at 40 kHz towards the water surface and measures the reflected wave's backs to the sensor. IoT-enabled water management systems use sensors, controllers, meters, and other devices connected to mobile, web apps, and data processing and analysis tools.