

Save Water & Save Electricity

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Abstract

This system will work on embedded system. It will be used to conserve the overflow water from the syntax tank, tank, etc. In this system have two devices, Transmitter & Receiver. Transmitter will transmit the data from tank and receiver will receive the data in anywhere but it should be under in range. Electricity can be saved by avoiding the overflow water. These systems have been used for initial domestic and industrial users. The result is briefly summarized and issues for further research as outlined.

Keywords: Save Electricity, Save Water

I. INTRODUCTION

In the nature the useful water is limited and this water decreasing day by day.

So we should work for conserve by any Idea or way. That may be hardware or software.

- 70% water is used for domestic and industrial purpose, but only 40% water is used and 30% water waste by overflow.
- But now a days Technology are going fast we can control anything.
- We can handle the overflow water by make a automatic control device (ACD).
- This system can be made by two types-
 - 1) With sensor
 - 2) Without sensor.
- If the water will not be overflow the electric motor will not be run more. It will automatically switch OFF when it will sense the position of water. If motor will not run then the electricity will save.
- Thus system has low maintenance and durable for long time.
- The transmitter of this system will be operate or work on Solar Energy.

II. THE PROBLEMS OF WATER MANAGEMENT

A. Consumptive Water Use

Water user categories can be broken down into the following consumer groups.

Table – 1

Water user categories

Water uses	Estimated % of use
Municipal & Domestic Local government and minor Business single & multi-family Housing.	70.47%
Commercial/Industrial: Include all naval base use	8.00%
Irrigation & non-stock family	6.40%
Fish farms	15.10%
Stock watering	00.03%

Note: Only 40% water is used in Municipal & Domestic purpose, remaining water waste through overflow.

B. Increasing the productivity of water

That water will be saving, we can use it for other purpose and production will be increase day by day. How to be save water is a biggest issue. We can't store it for long time. Because it's a liquid and it is suck very fast to convert in the form of vaporized.

III. ECONOMICAL/DOMESTIC CONSIDERATION AND DIAGRAMMATICALLY REPRESENTATION

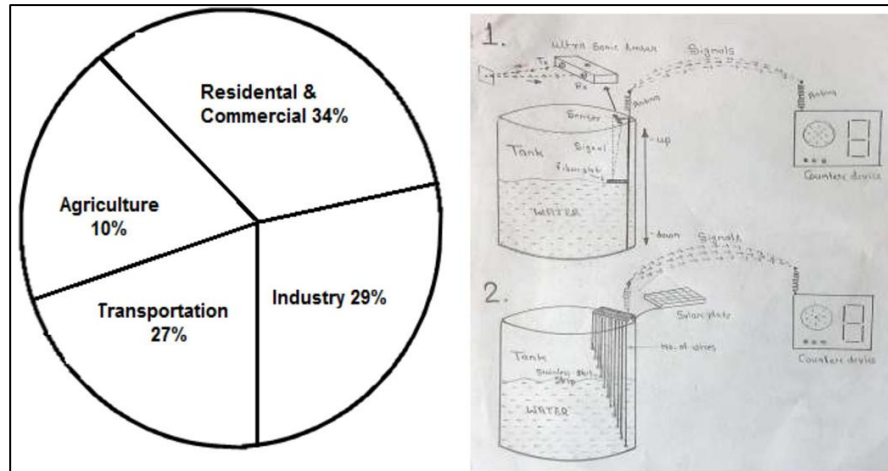


Fig. 1: Water service authority's metered service area.

A. Embedded System

An Embedded system is a combination of computer software and hardware that is designed to perform a specific task or function.

B. How it will be work?

Most water level indicator for water tank are based upon the number of LEDs glow to indicate the corresponding level of water in the container. Here we present a digital version of auto controlled water level indicator. It uses a 7-segment display to show the water level in numeric from 0-9 or decide by own requirement. It will be beep on every level.

C. Working

This device works on 5volt regulated DC power supply. When the water tank is empty, the transmitter will transmit the signal by Air medium on receiver, and receiver will receive the signal then it shows Zero (0) on 7-segment. Because the tank is empty. On this condition motor will automatically switch ON by system. Similarly, when the water level reaches L-1 position, the display shows "1" and when the water level reaches L-8 position, the display shows "8". Finally, when the tank is full, the 7-segment display shows "9" which means tank is full. And the motor will automatically Switch OFF by system.

- It can be made by without any programming.
- It can be made by with programming.

Radio frequency (RF) module will be used in this system. We can measure the depth of water by two methods.

- 1) Ultrasonic sensor
- 2) No. of conductor wire shifted on a sheet.

D. Advantages

- This system is very cheap.
- It has low maintenance.
- Suitable for higher level purpose.
- This system works automatically
- This Occupy less space for Implement.
- Half portion operates by solar power.
- You can see any time, how much water is remaining in your system, where the system is placed.
- Your electricity and water will also be saved. If the water will not overflow.

IV. CONCLUSION

As water basins become closed, they become, by definition more efficient. This is why the scope for improving water use efficiency is low and the degree scarcity in the future will be greater than commonly assumed. This is the central problem of the new era of water resources management. Careful research and work is needed to create overflow water saving. It's clear that the some of the most rapidly growing areas of the world also will require additional water development programs. This is another

challenge in the new era of management to design and implement these project in a much better way, from all the important technical, economic, social and environmental perspectives than they have been in the past.

A. Future Scope

Further we can operate by mobile app. You can see any where any time in your mobile, how much water is remain in your tank. When u want to switch ON/OFF your home appliances than you can do. We will make a mobile app for operate home appliances. i.e., AC, TV, fridge, bulb etc. This app will be depending on online or GSM server.

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