

INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

UNIVERSITY OF WESTMINSTER (UOW)

BEng/BEng.(Hons) in Software Engineering

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TANK WATER LEVEL DETECTING SYSTEM

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Abstract

Basically automation in systems would help reduce wastage of resources in various ways, one such way for the Prevention of wastage of water resource to control the water tanks from overflow. In this automated world, the handling of any kind of devices with comfort is made to be the easiest factor everywhere. Considering this aspect of comfort zones and the prevention of wastage of resources, a design of an automated overflow control circuit unit was proposed in this paper. The proposal was designed on the perspective of controlling the flow of water into the tanks automatically, by setting the requirements as per the user needs using a Mobile Application in android. The connectivity of the circuit and the application is accomplished using Bluetooth device for handling the communication between the mobile and the overflow circuit. The entire system was tested in its operation and was scrutinized on the whole.

Anyway, the main objective of this project is to save the water. This is going to help people have an easy access to their own home's water tank and stop wastage of water, regardless of other ethical aspects, which would also cost them a considerable amount of money.

Also, speaking in a more conventional aspect, another very helpful benefit of this project is being able to know the water level of your tank before a water cut.

The drinking water crisis in Asia is reaching alarming proportions. It might very soon attain the nature of global crisis. Hence, it is of utmost importance to preserve water for human beings. In many houses there is unnecessary wastage of water due to overflow in overhead tanks. Automatic Water Level Indicator and Controller can provide a solution to this problem. The operation of water level controller works upon the fact that water conducts electricity due to the presence of minerals within it. So water can be used to open or close a circuit. As the water level rises or falls, different circuits in the controller send different signals. These signals are used to switch ON or switch OFF the motor pump as per our requirements. The total amount of water available on Earth has been estimated at 1.4 billion cubic kilometers, enough to cover the planet with a layer of about 3 km. About 95% of the Earth's water is in the oceans, which is unfit for human consumption. About 4% is locked in the polar ice caps, and the rest 1% constitutes all fresh water found in rivers, streams and lakes which is suitable for our consumption. A study estimated that a person in India consumes on an average of 140 litres per day. This consumption would rise by 40% by the year 2025. This signifies the need to preserve our fresh water resources.