**Vivekananda College of Engineering and Technology**

**Department of Computer Science and Engineering**

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Synopsis on

***“Water level indicator”***

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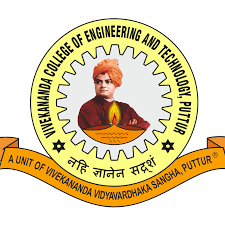
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**1.INTRODUCTION**

The drinking water crisis in India is reaching alarming proportions. It might very soon attain the nature of global crisis. Hence, it is of extreme importance to preserve water. In homebased water tank, the one problem is very common to us that the control of water level of overhead tank, as a result the wastage of water is increasing day by day. But we all know water is very precious to us. This problem can be controlled by a simple electronic circuit consists with some cheap electronic components, that circuit is called ‘Water Level Indicator’. The operation of water level controller works upon the fact that water conducts electricity. 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.

A Water Level Indicator may be defined as a system by which we can get the information of any water reservoir. Water level indicator system is quite useful to reduce the wastage of water from any reservoir, while filling such reservoir. Water is most essential thing on earth. Safe drinking water is essential to human and other life forms even though it provides no calories or organic nutrients. The total amount of water available on Earth has been estimated at 1.4 billion cubic kilo meters, 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 an average of 135 litres per day. This consumption would rise by 40% by the year 2025. This signifies the need to preserve our freshwater resources. However, some observers have estimated that by 2025 more than half of the world population will be faced water-based vulnerability. The presence of water level indicator in reservoir can help control wastage and water inadequacy in such reservoir. Water level indicator is used to show level of water in an overhead tank, this keeps the user informed about the water level at all time avoids the situation of water running out when it is most needed. Indicators circuits have also alarm features. It does not indicate amount of water present in overhead tank but also gives an alarm when tank is full. After assembling the system, what remains is to observe its operation and efficiency. This can be done by breaking down the activity of the controller from the detection of water to the working of the pump. We go over the responses obtained when water reaches the sensors and the logic employed behind it. We also try to justify how a system as simple as ours can compete with those available commercially.

Water Level Indicator is a simple low-cost circuit. First, we introduced this circuit from the web. There the circuit is made with various components like transistors, Resistors, LED’s and etc. After we discussed that how to make the circuit without transistors and after we calculate that we got the result, beside we got help from our teacher about this circuit. At last, we got a simple circuit without transistor and it shows result. We removed the transistors to make the circuit cheap and easy installation to all. The other liquid control circuits, which we have seen those are very critical than this circuit.

**2. OBJECTIVES**

The following points are objectives that are to be focused and achieved from this project.

* To gauge and manage water levels in a water tank.
* To make the most commercial and reliable water level controller using as less resources as possible.
* To study the controller model and observe its characteristics.
* To propose any ideas or improvements that can lead to future development of the controller.

**3. REFERENCES**

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