**A SENSOR TO GAUGE TAP WATER USAGE AND PROVIDE STATISTICS OF THE SAME**

**PROBLEM STATEMENT -** With the acute water shortage that Bangalore is facing right now, it's become nothing but imperative to manage this resource efficiently starting from our houses. This sensor will provide real time analysis of the water usage of the tap it's fitted upon to the user on their phones. Updates on how much water was used on an hourly and daily basis will be compared with the ideal amount of water usage to give an insight to the user on their daily water usage statistics. This will make the user aware of how much water is getting wasted and help in minimising water usage.

**INTRODUCTION -** A sensor is a mechanical device used to measure a property, such as pressure, position, temperature, flow, etc and respond with feedback. This sensor will measure the amount of flow of water from a tap it's fitted upon, in any household and return with the feedback in the form of statistics and analysis of the usage. There will also be a timer fitted on the sensor which will give an indication to the user when water is being overused. The sensor will be built on an Arduino board. The real time statistics is provided on an app in your phones. The hardware and the software parts of the project are connected through IoT. This project will play a pivotal role in management of water.