* The water flow sensor is installed at the inlet of water supply to the house.
* The client has to provide us the details about the number of taps that will be installed in the house and also the number of people expected to live in the house, say N.
* The number of litres allotted for each person per day is ‘n’ litres.
* So, the number of litres allocated to the home per day is ‘N\*n’ litres.
* Of this ‘N\*n’ litres, N\*10 litres is allotted for drinking water and the cost for it is 0.01 rupees and N\*70 litres for toilet and bathing purposes and cost for it 0.02 rupees. The rest water is for washing clothes, cleaning home and utensils.
* Any water used above the above specified limits in the respective taps will be charged at the rate of 0.05 rupees.
* The taps that is installed in the house is for specific purposes. Let us assume there is a dedicated tap for drinking and cooking, another tap for household chores (cleaning utensils, washing clothes and cleaning home) and another tap for toilet and bathing purposes.
* The tank installed (if any) should have a water level indicator which gives us information about the amount of litres present in the tank, say T0.
* Any other taps that is installed should belong to either one of the categories.
* The inlet supplies water to the tank (if any), and from here is where the water supply is distributed to various taps or connections made in the house.
* Before the water gets distributed from the tank, we install a water flow sensor in each of the distributed pipelines.
* The water flow sensors are also installed at all taps and any other sources of water supply in the house. This sensors will have a track of the total amount of water used.
* The total water flow through each of the distributed pipelines is recorded, say I1.
* The difference between water flow measured by the sensor installed before the tank and the summation of T0 and I1 gives us idea about water theft. If there is notable difference, then there is water theft.
* The total water flow from the taps is calculated, say O0.
* Installing the sensors at the beginning and end of the distributed network will give us an idea about water leakage, i.e., if there is any difference, there is water leakage.