

## **GSM BASED AMR FOR PUBLIC WATER DISTRIBUTION SYSTEM**

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### **ABSTRACT**

Currently, water management has become one of the most controversial issues in the world due to limitations in natural resources, and the measurement of water consumption by means of water meter. Measuring water consumption has been considered a serious matter in order to control and manage the resources of water. Therefore, there are many approaches, which have been offered such as Ultrasonic, Electromagnetic, and Mechanical mechanism. However, there have been a lot of restrictions in them such as providing the power supply for the meter, the cost of implementation etc .This paper uses an approach automation using GSM for measurement of water consumption.

Flow sensor based water meter presents very low cost, reliable, quick water meter system accompanying with existing GSM networks. Paddle wheel flow sensor YF-S201 measures the water flow accurately with the help of rotating paddles. Monthly water usage can be sent to municipal corporation office within fraction of seconds in the form of text message by using existing GSM network. Such metering system reduces manpower, with higher accuracy and less power consumption. It gives better results than any other metering systems such as mechanical, ultrasonic, electro-magnetic systems. By using this system water consumption can be observed in real time with controlled use of precious water resources. Water resources be managed for future planning. Non revenue water will be detected and loss can be avoided in distribution system.

## **AUTOMATIC IRRIGATION SYSTEM USING SENSOR NETWORK**

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### **ABSTRACT**

In past few years, automatic irrigation system has seen a rapid growth in terms of technology. At present cost-saving technology, labor-saving are the addressing key issues in irrigation. This project gives a review of these systems based on existing technologies and also proposes an economical and generic automatic irrigation system based wireless sensors networks with GSM for irrigation system controller and remote monitoring system. This system has simpler features designed with the objective of low cost and effective with less power consumption using sensors for remote monitoring and controlling devices which are controlled via SMS using a GSM module. The sensors are interfaced with the microcontroller AT89S52. The system informs user about any abnormal conditions like less moisture content even concentration of CO<sub>2</sub> via SMS from the GSM module to the farmer's mobile and actions are taken accordingly by the farmer.