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Automatic Water Distribution and Billing System

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ABSTRACT

Present water distribution system depends on human labor and manual work resulting in less accuracy. Human intervention makes the present system unreliable. An automatic water billing system was introduced for per day billing and recovery of water charges.This project mainly deals with the accuracy and time management in Water distribution. This is achieved by using advanced automation technologies. Such system reduces manpower, with higher accuracy and less power consumption. It gives better results. By using this system water consumption can be observed in real time with controlled use of precious water resources. Water resources are managed for future planning. Non revenue water will be detected and loss can be avoided in distribution system. An automatic water billing system was introduced for per day billing and recovery of water charges. Customer friendly services such as SMS alerts have improved efficiency and generated higher revenues.

Keywords : GSM, ZIGBEE, SMS, LCD

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I. INTRODUCTION

Out of the earth's surface almost 71% surface is covered with water. Only 3% of water can be used as drinking water or fresh water and 97% water is sea water which cannot be used by human out of 71% available water on earth. Tremendous population growth causes insufficient and uneven distribution of drinking water. So measuring the water usage and providing it with proper amount will limit the wastage of water in society.Present system depends on human labor and manual work resulting in less accuracy. Human intervention makes the present system unreliable. This project mainly deals with the accuracy and time management in Water distribution. This is achieved by using advanced automation technologies.Such system reduces manpower, with higher accuracy and less power consumption. It gives better results. By using this system water consumption can be observed in real time with controlled use of precious water resources. Water resources are managed for future planning**.** Non revenue water will be detected and loss can be avoided in distribution system. An automatic water billing system was introduced for per day billing and recovery of water charges. Computerized billing and customer friendly services such as SMS alerts have improved efficiency and generated higher revenues.

II LITERATURE SURVEY

[1] The customer usage water is measured in this system and parameters values are displayed in customer sites using LCD. Then the monthly water usage can be sent to municipal corporation office using GSM Modem. The calculated bill is based on the amount of water consumed by the customer and then the billing amount will be sent to the customer site through SMS. This text message consists of bill amount with due date. If the customer payment process is completed on or before the due date, then water supply will be connected otherwise water supply connection will be disconnected.[2]This paper deals with automatically collecting the Water consumption by a customer and also detecting the leakages in the water distribution system. GSM and ZigBee technology automatically collects consumption, diagnoses, and collects status data from energy meter and transferring that data to a central database for billing, troubleshooting, and analyzing.

[3]In this paper they introduce the motion of water level monitoring and management within the context of electrical conductivity of the water. More specifically, they investigate the microcontroller based water level sensing and controlling in a wired and wireless environment. Water Level management approach would help in reducing the home power consumption and as well as water overflow. Because of disadvantages of traditional meter reading such as errors in reading, inaccuracy, external conditions affecting readings, delayed work they have implemented meter.Reading system based on latest GSM technology. They proposed a web and cellular based monitoring service protocol which would determine and senses water billing globally.

III METHODOGY USED IN PROPOSED SYSTEM

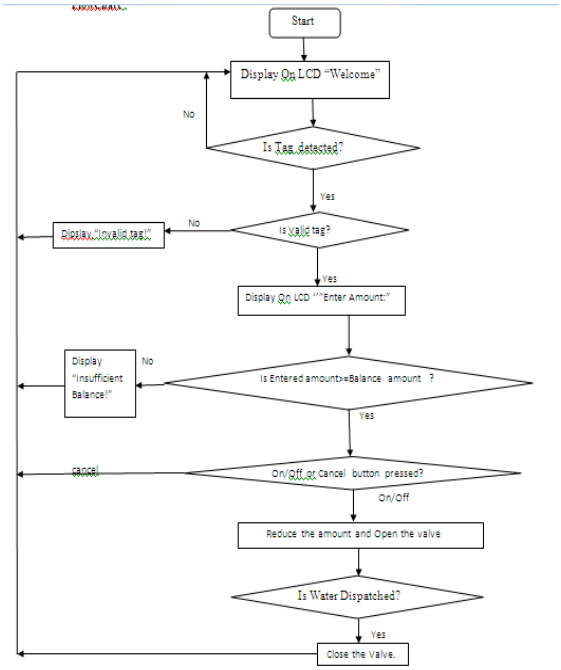

Fig.1 Flow Chart

With the use of automation technologies a higher degree of accuracy can be achieved along with reduction in time .Thus the main aim is to develop a system which is more reliable and user friendly. System reduces manpower, with higher accuracy and less power consumption.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.Water usage can be sent to municipal corporation office /supervisor within fraction of seconds in the form of text message by using existing GSM network.An automatic water billing system was introduced for per day billing and recovery of water charges.

IV RESULT AND ANALYSIS

With the use of this system, a higher degree of accuracy can be achieved along with reduction in time .Thus the main aim is to develop a system which is more reliable and user friendly. System will provide accurate water supply and water billing system.

IV CONCLUSION

Thus we have going to develop "Automatic water distribution and billing" for water distribution. With the use of automation technologies a higher degree of accuracy can be achieved along with reduction in time .Thus the main aim is to develop a system which is more reliable and user friendly. System will provide accurate water supply and water billing system. This overcomes existing systems in terms of cost and manpower require.

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