Asian Journal of Applied Science and Technology (AJAST)
(Open Access Quarterly International Journal) Volume 2, Issue 2, Pages 121-124, April-June 2018

Design of Water Supply System

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Article Received: 24 January 2018 *Article Accepted: 27 February 2018* *Article Published: 08 April 2018*

ABSTRACT

These systems consist of sensors, networks, storage devices and computer systems. In this computerized and automated world for the betterment of society we need to bring new technologies in the existence which provides the accuracy, time saving with less human power consumption. In this paper, we are focusing on the different applications in water resource engineering. Water supply to different wards or areas is one of the most important activities for the municipal corporations. The current system of water supply costs a major waste of water as the people don't get the time information of water supply is started. The main purpose is to provide an environment where people will know the information about the time and date of water supply in their area through phones. This solution does not seek perpetuating intermittent water supply. On the contrary, this methodology can be a useful tool in gradual transition processes from intermittent to continuous supply.

Keywords: IoT (Internet of Things), sensor, MySQL.

1. INTRODUCTION

Water is an essential resource for all life on the planet. As time advances, water is becoming scarcer and having access to clean, safe, drinking water is limited among countries. At present only about 0.08 percent of all the world's fresh water is exploited by mankind for sanitation, drinking, manufacturing, leisure and agriculture. Due to the small percentage of water remaining, optimizing the fresh water we have left from natural resources has been a continuous difficulty in several locations worldwide. Much effort in water resource management is directed at optimizing the use of water and in minimizing the environmental impact of water use on the natural environment. And also, people's daily routines will not be affected as supply is systematic. The proposed system overcomes the problems of household women or peoples who do not know the information about today's water supply. The proposed system also consists of module which provides information for user to directly know water supplying time from the corporation of the local area. In this paper, our aim is to focus on applications of IoT in water supply system which reduces the time and human effort and overcomes the drawbacks in the system.

2. BACKGROUND AND RELATED WORK

In proposed system, all corporations are manually processed. One of the methods for water supply systems with intermittent supply is the peak flow produced at some hours of the day, which is usually much larger than that in a system with continuous supply of water. So, this makes unnecessary waste of water. This problem is not rectified.

3. SYSTEM ARCHITECTURE

This system provides majorly four modules, which are mentioned below. The four major modules of the system are, Modules:

1. Admin
2. Messaging

3. Recruits
4. Sensor

3.1. Admin

Administrator module that uses a class file to add/edit/delete entries from a MySQL database and add the user details for area wise.

3.2. Messaging

The purpose of this module is to provide message facilities to send about water supply time in user phone. In data base store, all corporation circle user database Access to a corporation staff stored data for correspond messages send correct time to the end user.

3.3. Recruits

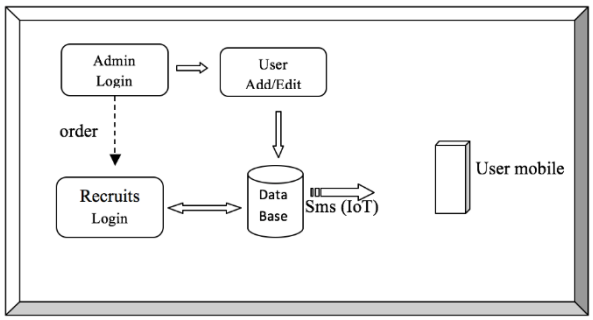
The Employees module consists of various features allowing you to perform general human resource management tasks such as new user update, water flowing time arrangements and incident reports.

3.4. Sensor

This module fully designed by embedded based architecture, it checks and generated the water flowing signal this signal converted to text message using AT commands and pass to the correspondent department higher officer.

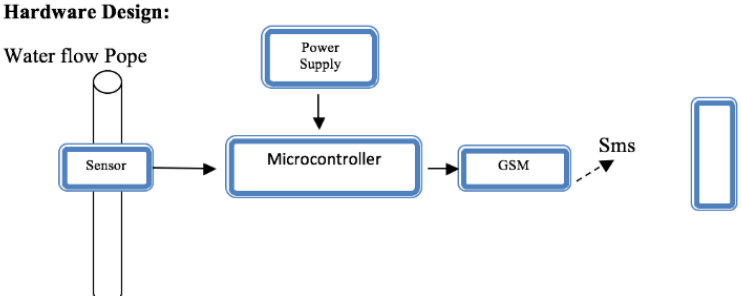
4. DESIGN SYSTEM DESIGN

System Design:



Hardware Design

Hardware Design:



5. CONCLUSION

In current system, all corporations are manually processed. The proposed system overcomes the problems of household women or peoples who do not know the information about today's water supply. It also consists of module which provides information for user to directly know water supplying time from the corporation of the local area, which reduces the time and human effort and overcomes the drawbacks in the system.

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