



International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijircce.com

Vol. 8, Issue 2, February 2020

Design E - Notice Board: A Survey

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ABSTRACT : Notice boards are seen as a means of disseminating useful information but challenges arise when there is need to update this information. In this paper, we present the development of an SMS controlled E-notice board which can be updated automatically and remotely. The system was implemented using a GSM Module IC controlled by a Microcontroller and an LCD display. The GSM module receives the message to be displayed as SMS, then transmits the message through the COM port to the microcontroller to validate the SMS and then displays the message on the LCD display. The results from the testing show that the E-notice board performs excellently on the various test conducted although there are some challenges that can be taken as further research.

KEYWORDS: Automated system, E-notice board, GSM module, Microcontroller, SMS

I. INTRODUCTION

In educational institutions, the organization use circulars and notice boards for conveying information to the students. This methodology takes additional time for updating also many students may not be aware of the information displayed on notice boards due to non-eye catching notices. Digital Notice board is one of the ways of displaying notices in which the notices are display on a LCD Display Screen. These notices are changed dynamically .We have to only type the notices and send that notice for displaying on display screen. The Display screen and the System are connected with the help of the different mechanisms. Also another advantage is that more than one notice is visible on the screen as the notices scroll across.

An online notice board is a place where people can leave any types of messages and notifications, for example, to advertise things, announce events or provide any information. Notice board online it can be placed on digital devices such computers, tabs, mobile phones etc. This online notice board project is very helpful for all type of users like existing users and new users. So admin can leave and erase notification for other people to read and see. The main aim of this free online notice board project is make information dissemination much easier in a paperless community as the world tends to interact with the online notice board facility as an project.

Online notice board admin can send the notification to the particular students regarding fee payments, results, any new activity happen in college campus or college fest participation, libraries dues, hostel room payments, any workshop registrations, warnings and reminders etc for this work online notice board project is make all work much easier and understandable to all. Online notice board work generally intends to act as a support system for the all users. By the help of free online notice board, users can access the notifications and articles quickly not only in the particular premises, also wherever and whenever they need to know. Online notice board usability is fully capable of passing relevant notices and announcements and keeping the users update from time to time.The students are kept updated each time with the online notice board for college is uploaded based on their preferences with respect to the departments and categories through a notice board online. notice board is one of the applications to improve the usage of a notice board of the college by making it available online.

II. LITERATURE SURVEY

In this GSM supported e-notice board, the module comprises of two major units. The first unit is a simple user's mobile handset. The second unit is the control unit. For instance, this system can be achieved with the help of Android application, GSM modem and LCD display. The control unit comprises of a display, the Arduino board and the GSM



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module. The control unit will be placed in remote places. Whenever any information or message have to be displayed the user can send the message via user's android mobile phone to the control unit. This smart notice board can be used in many applications including educational institutions, banks, public places like bus and railway stations.

1) GSM Wireless Communication System [2010] : [1] This paper is mainly show the character of GSM (Global System for Mobile communications) network. GSM system is today a worldwide standard for second generation mobile telephony. GSM system is very popular and important in whole world. It is have a lot of advantage and conveniences.

2) Display Message on Notice Board using GSM [2013]: [2] This paper proposed the notice board system which saves time, energy and hence environment. Cost of printing and photocopying is also reduced as information can be given to a large number of people from our fingertips. Thus we can conclude that this paper gives an idea to make use of GSM in communications to a next level.

3) Wireless Electronics Display Board Using GSM Technology [2013]: [3] This paper develops a photo type laboratory model wireless notice board system with GSM modem connected to it, which displays the desired message of the user through an SMS in a most populated or crowded places. Notice boards are one of the widely used ones ranging from primary schools to major organizations to convey messages at large.

4) SMART NOTICE BOARD [2013] : [4] This technical paper provides a discussion on present trends in technology and how exactly, simple carry-to-use devices play a vital role in day-to-day life. Using the present technological devices, how an efficient and smart notice board can be made is explained in this paper.

5) A Protocol for End-to-End Secure Transmission of SMS [2014] : [5] explain the EasySMS protocol is successfully designed in order to provide end-to-end secure communication through SMS between mobile users. The analysis of the proposed protocol shows that the protocol is able to prevent various attacks. The transmission of symmetric key to the mobile users is efficiently managed by the protocol. This protocol produces lesser communication and computation overheads, utilizes bandwidth efficiently.

6) Transmission Policies for Multi-Segment Short Messages [2015]: [6] This paper proposed analytic models to investigate two multi-segment short message transmission policies. The analytic models were validated against by more than 100 millions measured data obtained from a 6-month commercial SMS operation. This analytic model can effectively speed up network planning for commercial SMS operation.

III. DISCUSSIONS

The main objective of digital notice board is to the reduction paper work a lot of papers has been used and which are later wasted by the organizations, schools, colleges. The main aim of this paper is to design a SMS driven automatic display Board which can replace, currently used electronic display and conventional notice boards. Small innovative steps in making use of technology for regular purposes would have a more positive effect on the environment issues which we are presently facing about.

The digital notice board which are also called as Campus Display System (CDS) is aimed at the colleges, organizations, schools, hospitals and universities for displaying day-to-day information continuously at regular intervals during the working hours. As it is GSM-based system, it offers the flexibility to display flash news and announcements faster than the programmable system. GSM-based campus display system can also be used at other public places like, hospitals, railway stations, schools, public places, etc. without affecting the surrounding environment which displays messages on LCD display.

The project is an electronic notice board that is controlled by an android device and displays messages on it. Traditionally there where notice boards where notice had to be stick daily. This project overcomes this problems by introducing an electronic display notice board interface to an android device through Bluetooth connectivity. This project can be used in college offices, railway stations or airports for displaying any information.



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The user sends the message from the device, it is received and retrieved by the Bluetooth device, it is receive and retrieved by the Bluetooth device unit. It is then sent to the micro controller that further displays the notice sent from the user on the electronic notice board using which is equipped with a 16 X 2 LCD display. It uses a microcontroller family 8051.

Advantages:

1. No need of any component to display information on LCD as it is wireless.
2. It is use to operate.
3. Multiple users can be authorized.

Disadvantages:

1. As it is remote connection operational connection is limited.
2. Android device is required.
3. It is platform independent

1. RPS (Regulated power supply):- a regulated power supply is used to convert unregulated an alternate current or voltage to a constant direct current.
2. Crystal: - It is used to generate an electric signal of precise frequency by utilization and vibrating piezoelectric material.
3. Bluetooth modem:- It is used to share the information or data within short distances from the devices.
4. Micro-controller:-A micro controller is a IC chip that executes programs for controlling other devices or machines.

IV. CONCLUSION

As the technology is getting advanced day by day the digital notice board are moving from manual based to display board. We have developed the model of wireless digital notice board system through Raspberry Pie connected to it, which display the desired message of the user through a notification on the mobile. Thus Raspberry being a small yet powerful device and work efficient ly in digital notice board connected with software. This proposed system has much upcoming application in educational, institution, railways, malls, advertisement etc.

V. FUTURE WORK

As the technology is advancing every day the display board systems are moving from Normal hand writing display to digital display. Further to Wireless display units. This paper develops a photo type laboratory model wireless notice board system with GSM modem connected to it, which displays the desired message of the user through an SMS in a most populated or crowded places. By developing Android application in this proposed methodology we can enhance the security system and also make awareness of the emergency situations and avoid many dangers.

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