Review on Electronic Notice Board

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Abstract - *This paper describes the different technologies and features included in wireless electronic notice board by overviewing various research done over time. In today's world displaying message and advertisement is an important part of communication. Many technologies like Bluetooth, GSM, Wi-Fi module, etc are gaining popularity. Wireless is a popular technology that allows an electronic device to transfer data wirelessly and display it. In this paper a brief overview is provided of the technogies used and display devices like LCD display, LED display and also user authenticated system in electronic notice board.*

Key Words: Bluetooth, GSM(Global System For Mobile communication), LCD(Liquid Crystal Display), LED(Light Emitting Diode), Wi-Fi Module.

1. INTRODUCTION

Notice board is a necessary thing in any instituition or public utility places like bus stations, railway stations, schools shopping centets, etc. But pasting various notices day to day is a difficult process. A separate person is required to take care of these traditional notice boards. Even the notices are not able to reach on time as it takes time to circulate amongst people. The traditional notice board is flat solid pbject placed at strategic positions making it an object on which notices and articles are placed. In proffesional college campus , notices spring up from different officials bringing reminders, warnings, results and appointments. As these notices are being placed on the same notice boards, some of the old notices are not removed and with time the board gets covered with several notices and important messages are remained unnoticed.

In India cities are becoming smart and display boards and LEDs are placed at every square for advertisement and many other purposes. But still these technologies are not adapted in many institutions in majority of cities which need the wireless electronic boards the most. Sending the messages with a wireless electronic display board to the people and students which is synchronized using modern technologies will help passing the message without any delay with more reliability rather than traditional way of pasting message on the old notice board. Also important notices will be displayed and will catch a glimpse on time.

These advance notice boards provide multiple user to update notices on the electronic notice board along with security. No printing and photocopying cost is required thus saving time, energy and natural resources. These notice boards are easy to operate and consume less power. By introducing the concept of wireless technology in the field of communication and implementing them in instituitions like colleges and school we can make our communication more efficient and faster. These systems are enhanced to display the latest information instantly.

2. LITERATURE SURVEY

2.1. Message displayed on LCD Screen using GSM and Bluetooth Technology.(September 2015)

Savan Shah

In this paper a project model for electronic notice board is described which uses two different technologies, GSM and Bluetooth for displaying on LCD screen. Here the main part is Microcontroller 8051. The microcontroller is interfaced with GSM Modem via MAX232 level convertor. It is used to convert RS232 voltage levels to TTL voltage level and vice versa. The hardware also has a 64K EEPROM. This EEPROM is used to store the timings and messages to be displayed. While using Bluetooth technolgy, Bluetooth modem fetch thje message and sends it forward to the display board.When using GSM technology, GSM module is used.[1]

2.2 Android Based Wireless Notice Board and Printer.(December 2015)

Prof. Sudhir Kadam, Abhishek Saxena, Tushar Gaurav.

This project deals about an advanced Hi-Tech wireless Notice Board. This system is enhanced to display the latest information through an Android application of smart phones or tablet. While user sends the message from the Android application device, it is received and retrieved by the Bluetooth device at the display unit. The Bluetooth access password password will only be known to the user, it is then sent to the microcotroller that further displays the notice sent from the user on the electronic notice board which is equipped with a LCD Monitor display. It uses an Arduino system system(AVR microcotroller) to control the operation. Bluetooth wireless technology is becoming a popular standard in the wireless technologies. "Wireless printers" refers to printers to printers in which a radio frequency (RF) connects the printer to the network, a controlling PC, a handheld computer or both. [2]

2.3 GSM Based Wireless Notice Board.(March 2016)

Prof. Ravindra Joshi, Abhishek Gupta, Rani Borkar, Samita Gawas, Sarang Joshi.

This paper describes the design and construction of E-notice board using GSM technology. The system cosists of four basic units: GSM modem, Raspberry pi board, LCD monitor and Mobile device. The operation of the system is centered on Raspberry pi Board. The operation of system is such that the notice which is to be displayed is send by the mobile device to the GSM modem and displayed on the LCD monitor using Raspberry Pi board. The system is based on real time process and saves lot of resources i.e. human effort. The main objective of this paper is to develop a wireless e-notice board that displays message sent from the user and to design a simple, easy to install, user friendly system, user friendly system. Wi-Fi provides higher data rates for multimedia access as compared to bluetooth which provides lower data transfer rates. Bluetooth are intended for communication (about 10m), while Wi-Fi is designed for WLAN about 100m.[3]

But when using GSM we cannot display message without Network connectivity.

2.4 Android Controlled Digital Notice Board(May-2016)

Prof. Madhavi Repe, Akshay Hadoltikar, Pranav Deshmukh, Sumit Ingle

This paper presents a model about advanced wireless notice board. The project is build around ARM controller, Raspberry-pi which is most important in this system.Display is obtained on LCD monitor display. Remote control is the most popular system nowadays. The main objective of this project as described in the project is to develop a wireless notice board which can receive and display message sent from the user. The project aims atdesigning A LCD monitor based message display controlled fom an Android mobile phone. The proposed system has a provision to communicate from Android phone to LCD display board. Range of communication is large. Android contains a full set of tools that have been built from the ground up alongside the platform providing developers with high productivity and deep insight into their applications.[4].

As the Android applications is command centre of the notice board and this application is built around Android OS platform it will not support other Os such as IOS, Windows, Blackberry, etc.

2.5 Remotely Controlled Android Based Electronic Notice Board

Prof.P.Yakaiah,Bijjam Swathi, M.Jhansi, B.Nikhala,K.Shiva Prasad

This project is dealing with hitch wireless electronic notice board. The main aim of the project is to have an electronic notice board where the least information can be shorted by the faculty to the students using Wi-Fi through connection terminal app. This message can be sent from any Smart phone with Android OS upon GUI based on touch screen operation. Here 8051 Microcotroller is used. As the Wi-Fi module has its own IP address and port number that will be known only to the user the system becomes more secure. When the user is sending the message from android application device will be received by the Wi-Fi module. Along wih the notice messages, date and time, breaking news can be flashed timely.[5]

3. CONCLUSIONS

This paper review wide range of technologies involved in Electronic notice board. As the technology is getting advanced features of digital notice board are also enhanced. Every technology discuss above have its own advantages and disadvantages and by using them we can make an efficient wireless electronic notice displaying system. But the main parameter is the cost parameter. Our future work is to be based on minimizing cost. Multiple messages can also be displayed by working on these systems.

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