Review on Wireless Electronics Notice Board

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Abstract- This paper outlines the different developments and functions of the Wireless Electronic Notes Board by taking a look at many research ventures over time. Email and advertisements are an integral aspect of connectivity in today's world. Many technologies are becoming popular, such as Bluetooth, GSM and Wi-Fi etc. Wireless is a common technology for wireless data transmission and display on an electronic computer. A quick description of technology and interface devices such as LCD displays, LED displays and the authenticated access interface in the electronic communications board can also be found in this article.

Key Words: GSM (Global System for Mobile communication), LCDs (Liquid Crystal Display), LEDs (Light Emitting Diode), Wi-Fi Module, EEPROM.

1. INTRODUCTION

In any agency or public service, such as bus stations, train stations, shopping, schools etc, a notice board is a must. But it's a complicated task to paste multiple notes every day. These conventional warning boards must be looked at by a specific individual. Even the notifications cannot be reached on time as time is taken to circulate between individuals. The typical notification board is a sturdy flat object, which is positioned on strategic positions and is thus used to position notifications and posts.

In specialised university campus records are made by numerous officials who include reminders, alerts, outcomes, issues and appointments. Because these notifications are posted on the same notice boards, some old notifications are not erased and the board stays ignored with the time of being subject to numerous notices and relevant messages [1][2].
In India, cities are becoming smart, displays and LEDs for advertisements and many other uses are being put on every spot. However, in many organisations in most cities that require wireless electronic boards the most, these innovations are still not adapted. The transmission of

messages to people and students using new technology via wireless electronic display board would help to transfer the message more accurately than the conventional method of pasting the message into the old notice board without any interruption[4][5]. There will also be relevant notices and a perspective on time.
These advance notification boards allow other users to upgrade alerts along with protection on the electronic notification board. There is no need to print and photocopy, so it helps to conserve time, electricity and natural resources. These notification boards are simple and power-efficient. We will make our communication more effective and easier if we adopt and incorporate the idea of wireless technology in the communication sector as well as in organizations including colleges and schools. This devices are updated to immediately show new information.

2. LITERATURE SURVEY

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

This article outlines a project concept for electronic communication boards that uses GSM and Bluetooth to display the required data on the LCD display. Microcontroller 8051 is the core component of this. The GSM modem linked to the microcontroller through a level converter from MAX232. The RS232 voltage levels are translated to TTL voltage levels, and vice versa. The equipment has an EEPROM of 64K. This EEPROM would be used to archive the displayed times and messages. Bluetooth modem receives the message and transmits it to the display table by using Bluetooth technologies. GSM module is used for use of GSM technology.

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

This initiative deals with an innovative wireless networking board with high-tech facilities. This device is improved by an Android Smartphone or tablet to view the latest results. The Bluetooth chip is extracted from the display unit when the user sends the request from the Android application chip. The request is The Bluetooth access password is known only to the user and will be transmitted to the microcontroller and the

message sent by the user is displayed on the LCD monitor display screen.

To monitor the process, it utilises an Arduino system (AVR microcontroller). Bluetooth Wireless Technology in the wireless industry is becoming a common standard. "Wireless Printer" refers to printers in which the printer is connected to the network through radio frequency (RF), a controlling pc, a portable PC or both.

III. GSM Based Wireless Notice Board. (March- 2016)

This paper discusses the concept and development of a GSM technology electronic notice board. The system consists of the GSM, Raspberry and Mobile devices and the LCD monitor [7] r. The Raspberry pi Board is the main function of the system. The system activity means that the message that is being shown is being sent to the GSM modem from the mobile device and seen via the Raspberry Pi board on the LCD panel. This is a real-time system which spares a lot of resources, i.e. human effort. This paper aims primarily to create a wireless e-notice board that shows the message sent out from the user and design a user-friendly device that is easy to use. Wi-Fi promises higher multimedia connectivity data speeds than Bluetooth and offers lower transmission rates. Bluetooth is built for connectivity with approximately 10 metres, while Wi-Fi is accessible approximately 100 metres from wireless internet.

However we cannot display a message without network access by using GSM.

IV. Android Controlled Digital Notice Board. (May-2016)

This article provides a blueprint for specialised wireless communications boards. The project builds the most significant Raspberry-pi ARM controller in the system. On the LCD panel image the image is received. The most famous device today is remote control. The main goal of the project is a wireless notification board which will be able to accept and view a message from the user as defined in the project.

The project aims to create an Android cell phone powered LCD-based message displayed monitor. The device suggested has the right to connect to the LCD display board from Android devices. The contact spectrum is broad. As Android software commands the notification board and this software is designed on Android OS, other operating systems, such as IOS, Windows, Blackberry, etc, are not supported.

V. Remotely Controlled Android Based Electronic Notice Board

This design covers the electronic notification board of hitch wireless. It is primarily targeted at providing an electronic notice board where students can use the Wi-Fi connection terminal app to shorten the least amount of information by the faculty. This message is GUI-based on touch screen operations and can be sent from any mobile phone with Android OS. The Microcontroller is used here 8051. With its own IP address and port number, the Wi-Fi module is just more secure for the user. The notification will be sent by the Wi-Fi module if the user sends it from Android application computer. In addition to the announcement messages, date and time, news should be broken in good time.

3. COMPARISON OF WIRELESS TECHNOLOGIES

The diagram and table below provides an approximate comparison of wireless technology. In nature it is hypothetical. It can nevertheless be used as a simple tool to determine which technologies to use in the application.

	ZigBee	802.11 (Wi-Fi)	Bluetooth	UWB (Ultra Wide Band)	Wireless USB	IR Wireless
Data Rate	*20, 40, and 250 Kbits/s*	11 & 54 Mbits/sec	1 Mbits/s	100-500 Mbits/s	62.5 Kbits/s	20-40 Kbits/s 115 Kbits/s 4 & 16 Mbits/s
Range	*10-100 meters*	50-100 meters	10 meters	<10 meters	10 meters	<10 meters (line of sight)
Networking Topology	*Ad-hoc, peer to peer, star, or mesh*	Point to hub	Ad-hoc, very small networks	Point to point	Point to point	Point to point
Operating Frequency	*868 MHz (Europe) 900-928 MHz (NA), 2.4 GHz (worldwide)*	2.4 and 5 GHz	2.4 GHz	3.1-10.6 GHz	2.4 GHz	800-900 nm
Complexity (Device and application impact)	*Low*	High	High	Medium	Low	Low
Power Consumption (Battery option and life)	*Very low (low power is a design goal)*	High	Medium	Low	Low	Low
Security	*128 AES plus application layer security*		64 and 128 bit encyption			
Other Information	*Devices can join an existing network in under 30ms*	Device connection requires 3-5 seconds	Device connection requires up to 10 seconds			
Typical Applications	*Industrial control and monitoring, sensor networks, building automation, home control and automation,*	Wireless LAN connectivity, broadband Internet access	Wireless connectivity between devices such as phones, PDA, laptops, headsets	Streaming video, home entertainment applications	PC peripheral connections	Remote controls, PC, PDA, phone, laptop links

Fig : Comparison of wireless technology

CONCLUSION

This paper looks at a number of electronic notification board developments. The innovative hardware of the wireless

contact board is also strengthened. Each above-mentioned technology has its own advantages and drawbacks, and with them we can make an effective wireless electronic notification system. However, the expense parameter is the key parameter. Our future work must be focused on cost savings. Running on these systems, multiple messages may also be viewed.

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