



## Remotely Controlled E-Notice Board

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### ABSTRACT

Sharing information is the main motto of any communication technology. The Notice board is a common display for effective mode of providing information to the people, but this is not easy for updating the messages instantly. This project is about advanced wireless notice board. The project is built around ARM controller raspberry-pi which is most important in this system. It acts as heart of the project. The aim of this project is to provide a well flexible and reliable wireless Notice board which can be used in any institution or public utility places like bus stations, railway stations, schools, colleges, malls, etc. Wireless communication is the transfer of information or power between two or more points that are not connected by an electrical conductor. The data is received from authorized user. In this project android phone is used as client which sends text data to server from remote place. Then it sends to raspberry pi. A LCD display is attached to raspberry pi. The message received by server is then displayed on LCD display interfaced to raspberry pi over HDMI.

**Keywords :** Android phone, LCD display, Raspberry Pi3, Web server.

### I. INTRODUCTION

Notice Board is primary thing in any institution / organization or public utility places like bus stations, railway stations and parks. But sticking various notices day-to-day is a difficult process. A separate person is required to take care of this notices display. This project deals about an advanced hi-tech wireless notice board. A authenticated person can send message from a remote place which is visible on the LCD/LED Monitor.

In this world everyone needs a comfort living life. Man has researched different technology for his sake of life. In today's world of connectedness, people are becoming accustomed to easy access to information. Whether it's through the internet or television, people want to be informed and up-to-date with the latest events happening around the world. Wired network connection such as Ethernet has many limitations depending on the need and type of connection. Now a day's people prefer wireless connection because they can interact with people easily and it require less time. The main objective of this project is to develop a wireless notice board that display message sent from the user (phone) and to

design a simple, easy to install, user friendly system, which can receive and display notice in a particular manner. With respect to date and time which will help the user to easily keep the track of notice board every day and each time he uses the system. Wi-Fi is the wireless technology used

### II. LITERATURE SURVEY

**1) GSM based display toolkit [2012]:** The wireless communication has announced its arrival on big stage and the world is going mobile. We want to control everything. This remote of appliances is possible through embedded systems. This project designs a SMS driven automatic display toolkit which can replace the currently used programmable electronic display.

**2) Smart Notice Board [2013]:** 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.

**3) Bluetooth based notice board [2014]:** It is an android based application. In this application, user sends the message from the android application device, and then the message is received and retrieved by the Bluetooth device. The Bluetooth access password will only be known to the user. It is then sent to the microcontroller that further displays the notice sent from the user on to the electronic notice board which is equipped with a 16X2 LCD display. It uses a microcontroller from 8051 family.

**4) Digital–Notice Board [2015]:** 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 will be placed in remote places. Whenever any information or messages have to be displayed the user can send message via user’s android mobile phone to the control unit.

### III. PROBLEM STATEMENT

Traditionally, there were notice boards where any information or notice had to be stick daily. This becomes tedious and requires daily maintenance. Notice Board is primary thing in any institution/organization or public utility places like bus stations, railway stations and parks. But sticking various notices day-to-day is a difficult process. A separate person is required to take care of this notices display.

### IV. METHODOLOGY

#### 1. Login

User needs to get logged in for uploading the notice. By using this module the user can be able to update the notice directly from android phone that will be automatically updated on the digital notice board.

#### 2. Authentication

The purpose of authentication is to see whether the user who logged in is the one who has been given the user id and password by admin. Authentication is used so that only the faculties of the college or an individual who is responsible for updating the notice is able to update the notice on digital notice board.

### 3. Displaying Notice on Notice Board

To display a notice, first user will have to enter it in an android application which will be displayed directly on a digital notice board. This happens with the combination of software and hardware. The notice is entered in a software device and displayed on a hardware device. The interface between software and hardware will be raspberry-pi. The message to be displayed is sent through a remote place from an authorized transmitter.

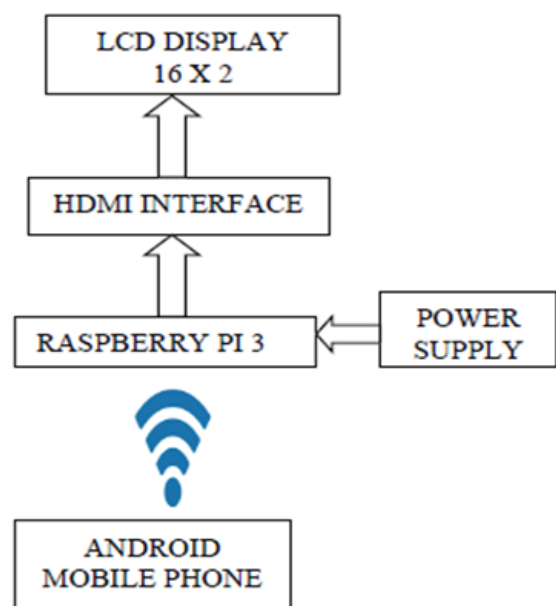
### 4. Clearing Notice Board

There’s an another module called clearing notice board where notice board is being cleared so that another notice can be updated.

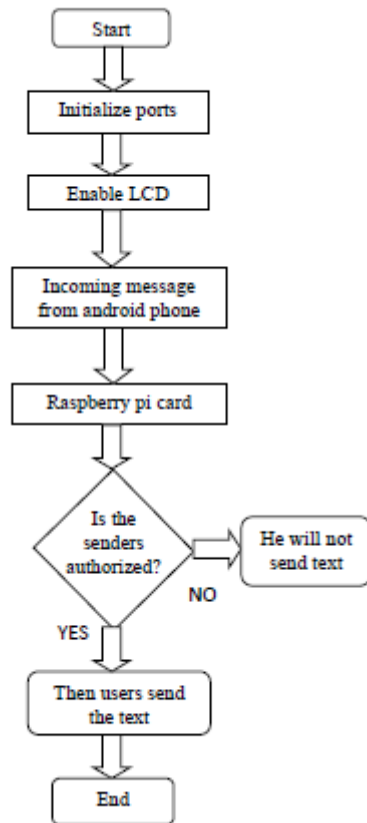
### 5. Logout

When the notice updating work has been completed, users can logout

**Block Diagram:**



Flow chart:



## V. CONCLUSION

Electronic notice board using Wi-Fi is a collaboration of Software and Hardware through which most of the complexity reduces, even systems size and cost also reduced. This system is very efficient as anyone can send the message from remote place without any human intervention. The android application developed in this project makes the user experience great as it is very simple and easy to use.

## VI. FUTURE SCOPE

1. Power Raspberry pi using a solar panel in order to save power.
2. It may be modified for an announcing purpose by adding speaker to it.
3. Display multiple pages with a particular delay.
4. Features to upload images on raspberry pi server.

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