

# Real Time Digital Display Notice Board on Multiple Screens

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**Abstract**– The old traditional notice board system provide a scope for digitization with replacement using faster and efficient digital notice board system that is paperless and reduces physical efforts of maintenance and operations. This project propose an real time digital display notice board on multiple screens for college level and can act as seed model for smart universities in India. In this scheme notice is send by authentic user through website and displayed different-different message or images on different- different LCD monitor screens at time. The propose approach uses PHP language for website design and my php admin server is used for development of database. Whenever Raspberry receives any wireless message or Images from Web browser, it displays on the LCD monitor. A small micro-computer Raspberry Pi is used for display purpose on monitor by projecting a web browser. The entire system is modular and secure authentication level. The system provides individual department as well as college level notice feed.

**Keywords**- Raspberry-Pi, Wireless Communication, LCD, Web Browser.

## I. INTRODUCTION

Wireless Communication is the fastest growing and most vibrant technological areas in the communication field. Wireless Communication is a method of transmitting information from one point to other, without using any connection like wires, cables or any physical medium.

Nowadays conveying messages at large using notice boards are widely used ones ranging from schools to organizations. We know the significance of notice boards in public areas like bus stands, railway stations, airports, and banks, etc. But day to day changing these boards is a very difficult task and a waste of time. The major drawback of designing these boards is; not flexible and cannot be located anywhere due to messy wire. To overcome this problem, a wireless board is designed to display the latest information. The main concept of this project is to design a wireless notice board that displays various notices sent from the mobile phone. It is very easy to operate and consumes less power.

The Digital Notice Board consists of two major units. The first unit is the user's mobile handset. The second unit is the control unit. For information, this system

can be achieved with the help of LCD monitor. The control unit comprises of a display, the Raspberry Pi board. Whenever any information or message have to be displayed the user can send the message via user's 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. Previously the System had been done using a microcontroller, a 16x4 LCD display and a GSM module. It enabled the user to display a notice by using SMS. No doubt it was a good System, but it failed to display the notice in an attractive manner, the number of characters were limited, also the display was too small and couldn't be implemented for an actual use. Sometimes also there occurred some network problems, leading to slowing down of its process. This provided a luxury to interface a big LED or LCD screen as a display component of the System. Moreover this also reduced the process time. Now the process of authentication was also enabled and only authorized user were allowed to display the notice. Further for displaying the notices in the form of image and for a better speed of operation, the control unit was replaced by a Raspberry Pi Board which was like a mini computer. Now the user was not only able to display a notice by using a SMS but also by an Android Application with all facilities of accessing the notice board with a strong authentication system. Further the use of internet was also introduced and now the user was all set to display the notices using a webpage from anywhere in the world. Our System deals with the displaying of notices on multiple LCD monitor screens by using pi boards. This System also takes care of security concerns also the System mechanism takes care about the records of previously displayed notices. Moreover it helps to display a large size files without any android application. Raspberry Pi is the heart of system, so the focus is to use maximum of its features in a very effective manner.

## II. LITERATURE SURVEY

Digital Notice Board using Raspberry Pi [1] In paper author's proposed system is to ensure that information



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