Wi-Fi based smart wireless flipchart

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Abstract. Notice Board plays a vital role in many places like educational institutes, railway stations, school’s colleges and everywhere. Presently a person will stick a notice on notice board in offices, schools and colleges. This causes a lot of time to stick the information on notice board. So reduce the time to build a new device as wireless flip chart by using this flip chart we reduced the time, manual power, paper and printer ink. The main aim of this paper is to display the information on LCD screen from the user’s mobile device through internet.

1. Introduction

Online Notice Board is an application which will automate a lot of activities in a school or college or office etc., depending upon the usage that is expected by different organizations. If it’s a school they can use it for displaying information related to different extracurricular events and winner’s info. They can display info of all teachers in various departments, display timetable for students, display results of students. They can display info related to any holidays or info related to any fees collection scenarios or any common regulators that are announced by management. In the same way, it can be used by colleges also.

This paper is a flip chart board that is operated by a mobile and shows a message on it. Previously, we use manual power to display any information on notice board .this causes the delay to know the information.

To avoid this problem by producing a flip chart board, that is connected to a mobile. Then message from the mobile that is sent to a microcontroller. The microcontroller shows the information on LCD screen. This project can be used in anywhere in the public places that means schools, shopping malls, bus stations or airports for showing any information.

In this paper, we will aim to provide a way to automate the way in which notice board messages can be updated, deleted or removed. Provide access to students/professors or administrative etc., officers to different features which will provide various information. We will also provide roles and basing on its permissions will be granted to add or remove data to notice board features.

2. Proposed System
This paper is used to establish the communication between microcontroller and mobile phone, which shows information on the notice board when a notice is sent from the android device of the user. The operation of this device can be attained by any android application, upon a Graphical User Interface [8, 9, and 10].

The functionality is achieved by sending a message from the user interface through mobile phone, the cloud searches for the messages, if any message is found, cloud transfer the data to the receiver. This paper is done to reduce the manual work of changing the notice board daily. Instead, we can display the messages through mobile phone from remote areas with high security.

3. Block Diagram of Implemented Module

3.1 Block Diagram

The implemented module is integrated with NodeMCU which is interfaced with an android application which sends the information to the cloud. This is used to collect the data and sends the information to the NodeMCU using this app. Thereby the information is displayed on the LCD Screen. Power supply is also being given to the NodeMCU.

![Figure 1. The proposed system block diagram](image)

4. Flowchart
4.1 Flow Chart Description

Step 1: - If want to send any message to print and notify all we need to open the mobile application and enter the application pin/password.

Step 2: - Application password is known only to the admins and if the entered password matches, a new screen will be displayed

Step 3: - Then after entering the text message and submitting it, the message will be showed on the 16x2 LCD.

Step 4: - If in case the password entered is wrong, then it shows invalid user text on the screen. Step 5: - Once the text set on the LCD we can clear the message with the help of clear option provided

Based on the size of LCD the message is going to be displayed, if the LCD is 16x2 at a time it displays 32 characters and larger LCDs take more data

5. Experimental results

When grains are placed on the load cell, the load cell measure the weight of the seeds and value is displayed on the LCD. Once the weight is measured the relay will ON the dryer. After the dryer gets off, the grains are collected in the container.
6. Conclusion
This is achieved by flip chart board using Wi-Fi is an association 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 paper makes the user experience great as it is very simple and easy to use. The paper was finished using very simple and easily available components making it lightweight and portable.

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