

Arduino with Smart RFID Security and Audio Accounts System

Ms. Monika Verma, Dept. of Electronic & Communication Engineering
Rabindranath Tagore University, Bhopal

Abstract: - The requirement for safe systems for industry and enterprise has emerged which must be credible and quickly reacted. One of the quick and safe ways of recognizing any material item is RFID (Radio Frequency Identification). Their important benefit is that they are able to write wirelessly, provide more data than bar code and provide a more solid essence, depending online-of-sight technology. RFID tags can be accessed when other print technologies like barcode or optical panel readers are unserviceable in all economic circumstances. In this scheme, it reads the ticket information when it is placed close the RFID module and compares them to the data in the database of the program, showing the permitted or unauthorized entry. The door opens for the approved admission and indicates the attendance corresponding to the code I d and stores all data on the LCD like title and staff code numbers with an authorized admission and a welcome signal in an excellent paper design with video introduction by getting their title that is already in the SD Card and the gate remains open for unmatched entry.

Keyword: - RFID, Wireless, Bar code, RFID tag, LCD, SD Card

- **Introduction:-**

An effective and easy identifying technique is provided by the RFID scheme. There are other identification methods such as bar code, optical identification, biometric and intelligent cards[1]–[6], but for the RFID system[7]–[9] the potential area of use is much larger. Transport and shipping, safety and pet marking, mail monitoring, moment, participation and governance of highway maps. RFID tags function as tiny transponders, which react wirelessly to requests from a viewer and provide a serial number or comparable identifier. RFID usually designed an entry command scheme so that unlawful staff can leave the facility. A RFID chip[10]–[12] entry badge was used for access

control staff. If the RFID chip tag matches the file format, only the door will open otherwise. An electromagnetic data file was used to exchange data between the viewer and the instrument to allow for the correct authentication and follow-up method. Here we aim for a better scheme than just the identification of RFID in this initiative and for a more efficient participation in the approved registration. The fresh concept is that "voice greetings" should be introduced. We used a SD card module [13], [14]for saving various audio files with different names and quotes with each tag id. It creates an excellent security and attendance with the function we said above with its distinctive characteristic of calling the individual greeting.

- **SYSTEM ARCHITECTURE: -**

In the first RFID tag code, the suggested scheme reads and decrypts the viewer and sends its module data. When the code matches the stored information, only the door opens and the employee information on the LCD that the controller receives from the micro SD card is displayed. If the protocol does not match, the gate will stay locked by working with the distinct video folder, alerting the safety individual to unlawful access.

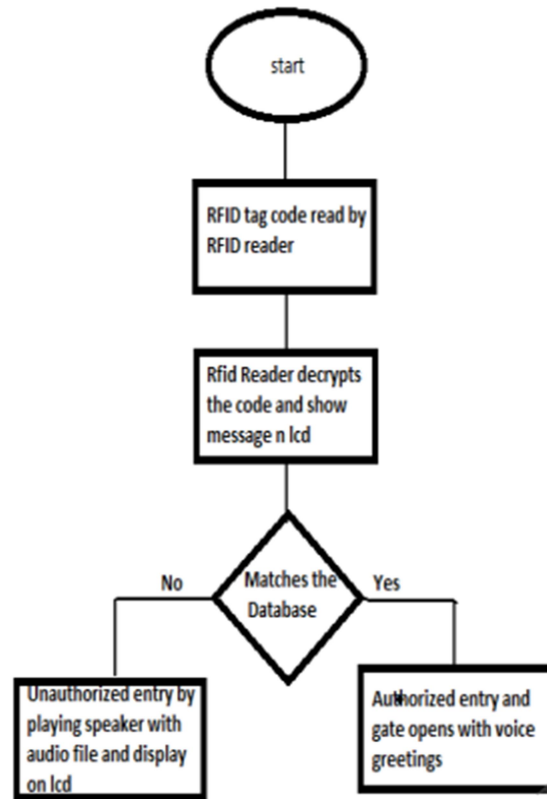


Figure 1 Flow chart of Design System.

- **Conclusion: -**

Compared with other systems such as biometrics, the RFID derived safety and participation scheme is more safe and quick. Contactless and non-line-of-sight operates as an important benefit of the RFID scheme. Tag operates in every environment. With Arduino, the answer becomes faster and the code will be just like plug and play device when the code is burned. The user can modify the request by arduino. It is also very simple to use and precise. This initiative can therefore be very helpful in applying the real-time application for the registration and monitoring scheme and offering safety advantages. This proposal can be enhanced by raising the user size of the label. This project can furthermore be accomplished by using the method by which the label encrypts its ID and sends it to the viewer, which can delete the tag IDs.

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