

INTELLIGENT SECURITY SYSTEM FOR GIRLS IN HOSTEL

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ABSTRACT

Security in the organization is one of the most persistent problems that organization needs to address. Now-a-days security is a prime concern in every human beings life. So, this proposed system is "Intelligent security system for girls in hostel" provides security. This proposed work enlightens upon the invention as well as technology advancement in the field of security. In this proposed work the concept of finger print authentication will be used as password. So, whenever the girl wants to leave the hostel, she can enter her out time and destination place and she can carry security module with her. When the girl is in danger that time the girl will press the key on the security module and one message will sent to the wardens mobile, also the message will send to the parents mobile number along with location of that girl . The technology used in the system is based on the finger print, GPS modem and GSM modem. This proposed work will be helpful for peoples in different organization.

Keywords: Fingerprint Authentication, GSM, GPS, Security Module.

I. INTRODUCTION

The IEEE paper "Automation of Attendance System uses RFID, Biometrics, GSM Modem with .Net Framework", it is observed that it is used to develop the wireless system to detect and maintain the attendance of student and locate the student. The proposed scheme presents the real time security managing methods that can be implemented using RFID, Biometric and Smart Messaging. Registered Staff manages their entry through their RFID card, which is verified with Biometrics. In both above paper it is observed that the RFID card is used for identification and the RFID card is used by the any person if he knows the password of that RFID card. To overcome this drawback, we use fingerprint technology, hence no one can use the other name as the every human being has different design pattern on finger. So, this is "Intelligent security system for girls in hostel" by using Fingerprint scanner. In propose system girl can get automatic permission to leave the hostel without wastage of time and warden also get whole day report of all girls in hostel.

II. SYSTEM OVERVIEW

2.1 Block Diagram of Main Module

The study of the block diagram shown in fig 2.1 is very helpful to the designer

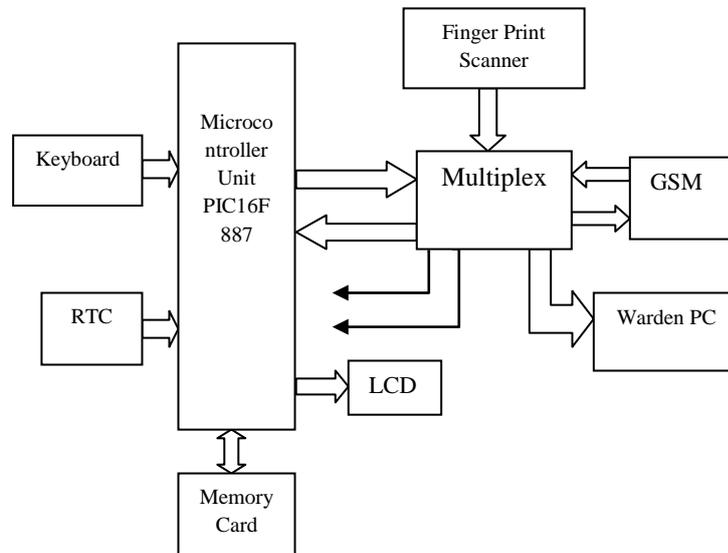


Fig 2.1 Block Diagram of Main Module

PIC Micro-Controller: Micro-controller used in the system shown in Fig 2.1 is PIC 16F887 micro-controller. It controls all the activities of the system. It stores the data of the finger prints and compares the current finger prints with the data base, checks the password, also sends the stored message to the mobile phone of the warden using GSM modem

LCD Display: The LCD display used is to show the time and date. The display used in the projects is 16*2 displays. The password enter by the girl is display on the LCD display along with the destination place which she had enter.

Finger Print Scanner: You have a unique design, which represents you alone, literally at your fingerprints. A fingerprint scanner's job is to take the place of a human analyst by collecting a print sample and comparing it to other samples on record. This design unit converted into binary code which is save as data.

2.2 Block Diagram of Security Module

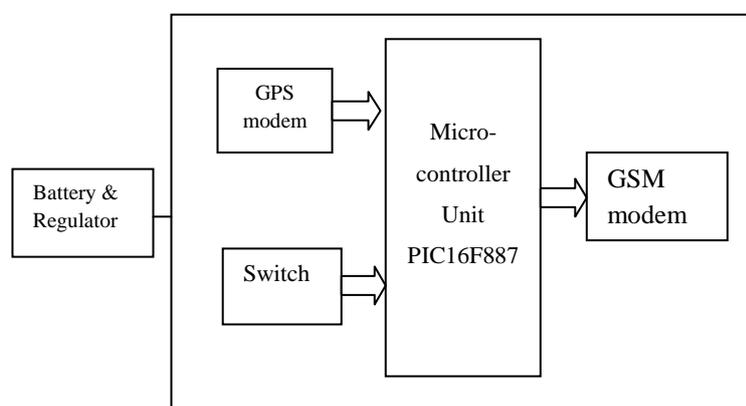


Fig 2.2 Block Diagram of Security Module

The security module in the propose system is as shown in Fig 2.2 which helps to provide security.

- 1. GPS Module:** The **Global Positioning System (GPS)**, it is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.
- 2. GSM MODEM:** The GSM modem is nothing but a small mobile phone with IMEI no. and is used to sends the message to the warden's mobile phone. The stored text data is input from the microcontroller. When a GSM modem is connected to a computer, this allows the computer to use the GSM modem to communicate over the mobile network.

III. METHODOLOGY

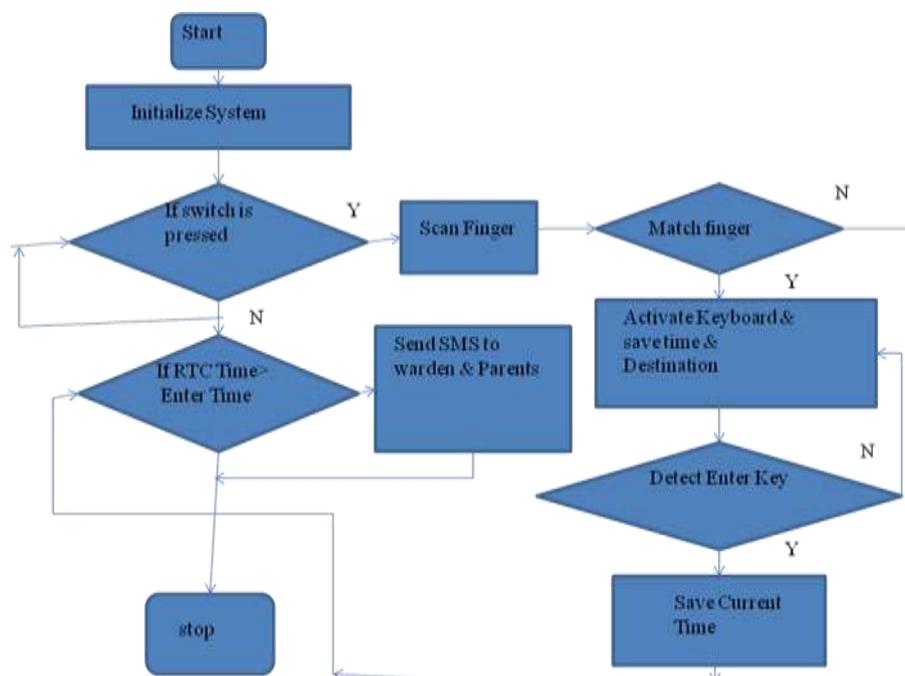


Fig 3.1 System flowchart

IV. WORKING

In proposed system when the girl wants to leave the hostel she has to give her finger print to the scanner. So no girl can utilize other name while leaving the hostel. When she has to go outside the town, then the message will conveyed to the warden via the GSM system. The warden can also get the report of girls in whole day if she wants and she can also change her mobile number. Along with this, system providing a security module which the girl can carry with her. Whenever the girl is in danger that time the girl will press the key on the security module and one message will sent to the wardens mobile, also the message will send to the parent's mobile number along with exact location of that girl. When girl leave the hostel, that out time will sent to warden and parents that the girl is leaving hostel and the place of destination and returning time also sent to them.

V. CONCLUSION

This system provides the security for the girls in the hostel and save the time. This proposed system uses the Real Time Security Management System which enables efficient and easy way of security monitoring in big organization, real time status monitoring and smart massaging definitely make the security management more efficient and reliable. RFID card can be used for identification but it is not safe. So to overcome this drawback, we use fingerprint technology, hence no one can use the other name as the every human being has different design pattern on finger.

VI. FUTURE SCOPE

Future enhancement in the system can be the different problem which face by the students in the hostel which can be solved. Software can be made for the mobile phones and then using the mobile phones GPS (Global Positioning system) the location of the student can be find out.

VII. REFERENCES

- [1] Aamir Nizam Ansari, Arundhati Navada, Sanchit Agarwal: 'Automation of Attendance System using RFID, Biometrics, GSM Modem with Net Fremework':2011
- [2] L.Besacier, P.Mayorga, C. Fredouille: 'Overview of compression and packet Loss effects in speech biometrics-Biometric on internet'.; 2003
- [3] Geetha Govindan, Suresh Kumar Balakrishnan, Rejith Lalitha Ratheendran, SajiKoyippurathuSivadasan: 'Real time Security Management using RFID, Biometric and Smart Messages'.
- [4] www.inktechnologies.com/blog/how-thermal-printers-wrk/
- [5] www.tomsguide.com/us/fingerprint-scanners,news-17678.html
- [6] <http://www.nowsms.com/faq/what-is-a-gsm-modem>
- [7] <http://www.indiastudychannel.com/resources/148609-What-GSM-modem-How-its-works.aspx>
- [8] <https://www.scribd.com/doc/65243896/Data-Sheet-Pic-18F45K22>