

Visitor Identification with Alert Message

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Abstract- This application is mainly focused on achieving an affordable Visitor Management System (VMS) in ESEC which aims to improve the existing visitor registration and information management activities. In fact, The VMS allows retrieving visitor information. Further research of this study included the implementation on biometric verification method such as fingerprint and face recognition, and arrival of visitor to the visiting person. And the outgoing and incoming student's permissions are also managed. VMS provides an authentic and integrate data of the visitors. The operators need time to verify the identification. This authentication system helps the security officer to determine whether the visitors are giving the right to enter the building. Manual method consumes longer time, when the number of visitors exceeded the limit. It can provide necessary information to the users and record the incoming and out coming visitors within the shortest time. The information of visitor is sent to the respective user.

Keywords—Visitors Management System, Photography, Security officer, Gate pass, Authenticate, Authorized.

I. INTRODUCTION

This Visitors Management System commonly called as VMS, typically refer a structure to keep tracking visitor's activities in organization or public building. It can provide necessary information to the users and record the incoming and out coming visitors within the shortest time. Nevertheless, VMS also capable to streamline the registration process and provide an authentic and integrated data of the visitors. Generally, there are many organization or school are still using the conventional paper log or guest record the access of the visitors.

This manual method consumes longer time when the number of visitors is exceeded the limit. Meanwhile, an increasing number of visitors indicates that the security issues should be concern in the organization or school. This is mainly because the operators needs more time to verify the identification of each visitor when hundreds of guest entering the building, paper log is inadequate to offer greater traceability and cannot be archived or efficiently retrieved after several years. Due to above circumstances, VMS contribute a good solution to solve the problems exist in the conventional method. As the credential to enter the building is an easy way to identify and record the visitor's personal information.

This authentication system also helps the security officer to determine whether the visitors are giving the right to enter the building. This visitor's management system is mainly proposed to be used in college and other campus based VMS. Security is a critical aspect that needs to be considered. While using all possible applications.

VMS finds application in Industries also. There are numerous people who way in and out in an industry or a company. It is not mandatory that all these people would be having their identity proof. Giving off temporary identity proofs is advisable but is not secured as it seems to be. In this case, there occurs a need to examining the security of the industry.

II. LITERATURE SURVEY

Mr. Rikshit Makwana, et al proposed a method for managing the office premises with the help of biometric security systems which involves a high-end face recognition system to identify people in office and to recognize strangers i.e. visitors and make appointments for them. In the case of unknown face, base authentication method is used via mail. Bharat S. Rawa et al proposed a secure file sharing mechanism for the cloud with the disintegration protocol (DIP). This paper also introduces new contributions of seamless file sharing technique among different clouds without sharing an encryption key.

Mrs. Madhuram M, et al developed a face detection and recognition with Open CV package. This system contains free modules which are detection, training and recognition. Basically, the detection module detects the face which gets into the field of vision of the camera and saves the face in the image in JPG format. Then the training module trains the system using Haar cascade algorithm.

Ms. Manjeet Kaur, et al discussed their study about human behavior and features. How to recognize a fact with the help of computers is given in this paper. Also, different ways available for face recognition and problems with each technology was discussed. Automated Visitor Tracking Management System. useful at those places where a large number of visitors come and visit like colleges, hospitals, etc. The Visitor management solutions provide an ID to

visitors in soft copy format. All of the records of those visitors were stored in the database at the time of check-in. The modern visitor management system was used for restricting the visitors from prohibited areas by sounding an alarm or through some notification or through SMS at the time of their visit.

III. PROPOSED SYSTEM DATABASE MANAGEMENT SYSTEM

In the VMS, it is required to have an own database management system to record all the visitor's log and information when they have registered with the front counter. In fact, database management system (DBMS) is a system software that able to collect and manage the visitor's database. As compared to manual system, the benefits of using computerized DBMS are rapid, accuracy and accessibility.

VMS must be acquired DBMS so that it can store and track the visitor's database for administrative purpose. It also can provide high security and posted efficient data integrity capabilities. System integration is an important step for every system especially VMS.

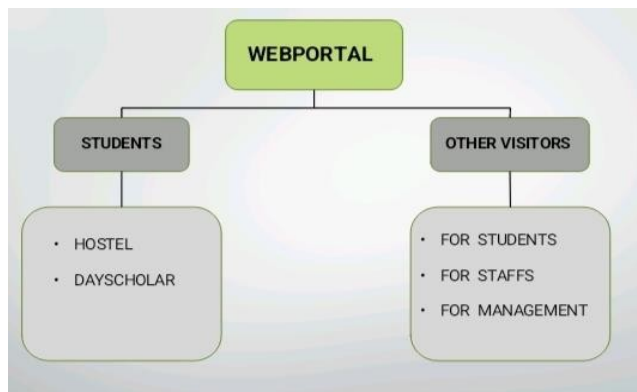


Fig: 1 Graphical User Interface (GUI)

GUI is as shown in the figure 1. It is consisting of process that iteratively combines component sub-systems into one system. Furthermore, it is also mainly implemented for successive and compatible levels of the system hierarchy. Registration of the users is mandatory and below mentioned details will be collected.

From this definition, it can be stated that VMS should be integrated with both graphical user interface (GUI) and database management system (DBMS) as well as the access control panel. Hence, the whole system should be combined when every single unit or parts of the VMS is completed.

Fig : 2 Registration Form-GUI

Registration

Username	<input type="text"/>
Email	<input type="text"/>
Password	<input type="text"/>
Repeat Password	<input type="text"/>
First Name	<input type="text"/>
Last Name	<input type="text"/>
Membership Level	Free

One of the important elements on this VMS is the graphical user interface (GUI) design which includes graphical

component, buttons, icons, and tables.

In fact, the function of the enter authentication credentials so that the users can form of the system. When the login form is submitted, the elemental code will used to check and compare with the existing credentials in My SQL database. If the result is matched, the users will be granted for further features in the system.

In general, GUI is designed to provide a user. The complete and integrated systems. Also, the purpose of the system testing is testing the fully integrated application and evaluate the system's compliance with the designed

requirements.

Fig: 3 Gate Form-GUI

A level of the real-time testing process where each single unit, block module and components of the system are examined. Gate forms are used to gat acknowledgement form staffs and is submitted in the gate to go in and out of the gate at an unusual time. It means that individual part of the VMS should be isolating and perform test to validate each component is met with the desired functionality and requirement. A level of the real-time testing process where individual parts are combined and integrated as a group in order to evaluate if they work correctly together.

By using this way, the fault or error can be. Before entering to the main setup form in the visitor system, a login form is pop up to allow the user to username and password.

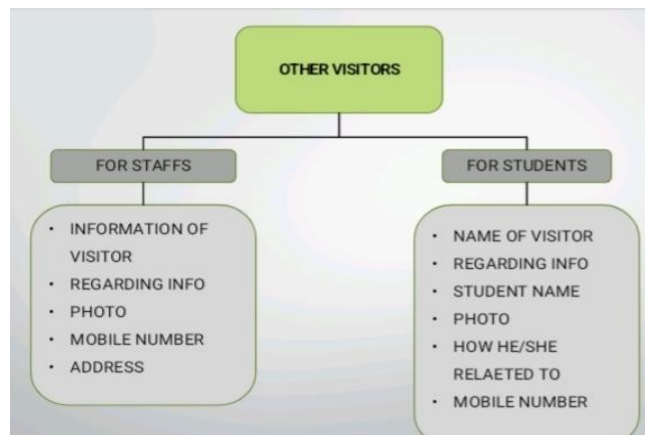


Fig:4 Graphical User Interface (GUI)-Data

In fact, the function of the enter authentication credentials so that the users can form of the system. When the login form is submitted, the elemental code will used to check and compare with the existing credentials in My SQL database. If the result is matched, the users will be granted for further features in the system.

IV. FLOW CHART

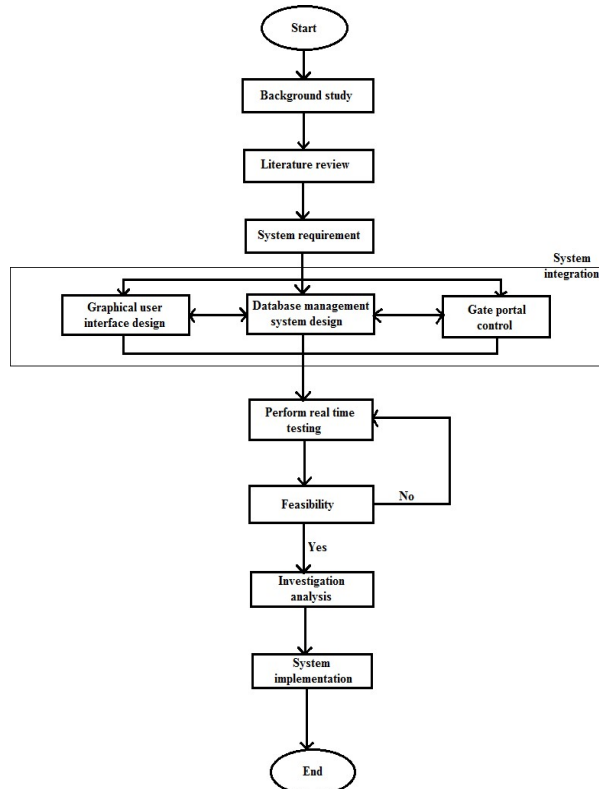


Fig: 5 Methodology Flow Chart

The overall methodology is shown in the figure 5. The whole design and development of the VMS, including strategy, methodology and the research process will be outlined. In general, each detail of the system design and development procedure is explained in figure 6. Before starting to develop and design the VMS in ESEC, it is necessary to identify the system requirement for the data that will be collected and processed .

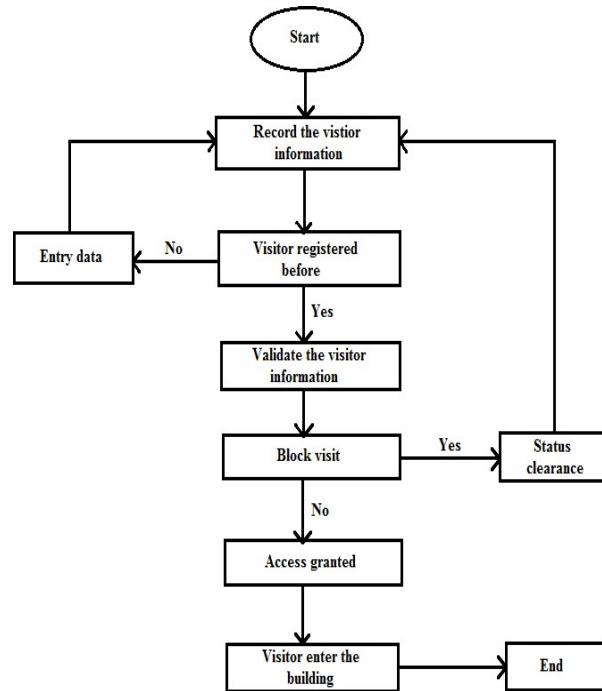


Fig:6 Flow Chart for Framework

V. SYSTEM PERFORMANCE

This system functions in real time, when the visitor's arrive, it will detect and recognizes his face and on the result of face recognition process it will open the door for authorized visitors or notifies and allows the owner's to take further action in case of unauthorized visitor. This system provides the information of the visitor, mobile Number, address collected from the visitor, photo which is taken in live camera will be sent to the respective authority with the abovementioned information.

The information is updated in the application. With higher reading rate, the time taken for retrieving information could be scale down from 12 seconds to lesser. In addition, as this was a pilot test carried out in the home of one of the researchers, we could not observe all the real limitations and problems that the device may present in a real environment (the one- person home of an elderly person). However, this is a first step for this project, as updates are constantly being made and further testing of the Secure Home device and system will be necessary.

VI. CONCLUSION

This project is conducted under the objective of design and to develop a VMS that is affordable for the visitors. In this project, the overall cost of the proposed VMS is cheaper than other existing VMS in the market. Based on the results, the proposed VMS is able to shorten the time taken for enrolment process for visitors. Furthermore, the usage of the VMS also greatly reduces the burden of the security officer as it could generate an overall report instantly. In fact, more features can be included to enhance the project. VMS developed in this project lack the verification tools to authenticate the visitor's identity. This may be later included to avoid any security issues.

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