

# Matriculation Digital Entrance

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**Abstract:** *The administration of gate passes is a crucial step in keeping track of who enters and leaves a company's property. Gate pass administration was moved from paper-based logbooks to web-based systems that rely on the internet thanks to technological advancement. A web-based system may often be accessed via a desktop or mobile browser. Numerous consumers are drawn to utilizing mobile phones to access the internet and web-based services by smartphones' technical advancements. A pleasant user experience, mobility, and flexibility are all benefits of using a smart phone. Smartphones' tiny screens and awkward input methods make it difficult to utilize a mobile device to access web-based gate pass management systems. Users of gate passes now have easier access and a better user experience thanks to the introduction of mobile applications. The application has the additional benefit of streamlining the entire Matriculation Entrance procedure. The portability and accessibility of mobile phones are used to guarantee that users may access gate pass management at any time and from any location. An additional component of mobile applications is a camera, which is used to photograph gate pass users and scan the bar codes on gate passes for additional security records. As a result, the improved gate pass management system offers a simple method for users to control the gate pass procedure using their smartphones*

**Keywords:** Smartphones

## I. INTRODUCTION

A Society Entrance System is a comprehensive software solution designed to streamline and enhance the security and access control functions within residential or gated communities. This system has become increasingly important in today's world, where security and convenience are paramount concerns for both residents and property managers.

The primary purpose of a Society Entrance System is to manage and monitor access to a residential society or gated community. It is a multifaceted solution that integrates technology, security, and convenience to create a safer and more efficient living environment. The system typically includes a combination of hardware and software components, often featuring the following key functionalities:

A Society Digital Entrance System not only enhances security but also adds convenience for residents and streamlines the work of security personnel and property managers. It can significantly improve the overall quality of life within a gated community, making it an essential tool for modern residential developments. With the rise in security concerns, these systems are increasingly becoming a standard feature in gated communities, offering a seamless blend of security and convenience.

Nowadays, most of the organisations are using the register method to keep track of incoming and outgoing visitors record of each department. This creates a problem when the number of visitors visiting the department increases and are unable to manage the records. One of the main issues in generating the visitor pass of the organisation is security. Gate Pass Management System (GPMS) also helps to access the user information faster. In the manual system, the user needs to search the information page by page. However, with the new system, users only need to enter details in an android application which provides access to the gate only after authentication and this system also displays the details that have been entered by the user. The user can book appointments prior to the visit through the website. The problem of waiting in a long queue is reduced. GPMS help to search the visitor details easily. A notification is sent to the system about the visitor entering the department. Searching is done at a faster rate and the result is generated. The Matriculation Digital Entrance provides an easy approach to keep track of the entry and exit of a visitor by taking inputs like phone number, email and personal details. The system aims

to secure the company from outside visitors by first taking prior details from the visitor and booking an appointment through a web application. The admin grants or rejects the appointment requested by the visitor. When the visitor visits the company he has to enter email id, phone number and other details in an android application. The email id is cross checked with the stored email id in the database. If the email id is verified then the visitor receives random generated code on his email which has to be entered in the android application. It acts as an access to the gateway. As soon as a visitor enters the entry time is saved in the database and the door gets automatically locked thus preventing multiple entries. The system is again set to accept a new visitor.

At the exit point the email is taken as input and again a new random key is assigned to the user. As soon as a visitor exits the exit time is saved in the database and the door gets automatically locked thus preventing multiple exits. The admin can access the details of the visitor from the database. The details of visitors would be saved into a database and the admin grants the permission. The visitor gets a confirmation that he is allowed to enter the organisation. This system proposes the "Paper Saving Idea". The detailed working of the work is organized as section 2 gives related work with the current work, section 3 concentrates on the Methodology applied, section 4 discusses results and analysis, section 5 concludes the work.

## II. LITERATURE REVIEWS

Norizan Anwar, Mohamad Noorman Masrek, Yanty Rahayu Rambli (2012)

In 2012, Norizan Anwar, Mohamad Noorman Masrek, and Yanty Rahayu Rambli proposed the Gate-pass management system. In addition, the suggested system used a technology model to determine user approval and visitor application. The most important aspect was dealing with the guest at your fingertips.

Prof. Abhay Gaidhani, Suraj Sahijwani, Parag Jain, Shantanu Jadhav, Ankush Jain(2015)

Prof. Abhay Gaidhani, Suraj Sahijwani, Parag Jain, Shantanu Jadhav, and Ankush Jain discussed an alternative approach for visitor passes in 2015. The major goal was to create the Gate pass system utilizing Raspberry Pi technology. The major feature was to conserve paper by using internet connectivity and email for verification.

Ph.D. Roozbeh Kangari, Ph.D. Toozbe.Kangari Coa garelady

Ph.D. Roozbeh Kangari and Ph.D. Toozbe.Kangari Coa garelady outlined the research approach for developing an automated performance index. To improve the overall performance of the building, designed automation was implemented. Building Automation System was appealing to facility managers due to their commitment to greater operational performance.

Malaysia

A Digital Visitor Information Management System (DVIMS) application was developed to facilitate the registration of visitors. The application can capture new visitor records through auto-clock in/out and assign visitor passes. All visitors' data is stored in a centralized database server, which can search and generate reports as required. To make the registration process more efficient, visitors can use the Malaysian government's multifunctional card.

Omkar Naik, Shreya Pomaje, Prof.S.S.Tamhane.

Omkar Naik, Shreya Pomaje, and Prof.S.S.Tamhane are the individuals responsible for implementing the building management system. The system is designed to minimize risk factors and improve efficiency, ultimately resulting in cost savings for building operations.

### 2.1 Objective

The main objective of the society was to ensure the security of the gate community. Registration was implemented to aid in verifying the identity of individuals entering the premises and reducing the risk of unauthorized or suspicious access.

In the event of a medical emergency, such registration information can be crucial in quickly identifying and locating individuals within the community, thereby improving response times and overall safety.

The society's registration at the gate acts as a deterrent for unauthorized individuals attempting to enter the community. The presence of security personnel and registration requirements work together to discourage potential intruders from attempting to gain access.

Registration creates a record of all entries and exits, which can be valuable for tracking activities, investigating incidents, and maintaining a history of who has accessed the community. This information can aid in identifying potential security threats and assist in investigations if any incidents occur.

Registration allow effective for the visitor management, including the issuing temporary passes and ensuring the guests are accompanied by residents or hosts while inside the community.

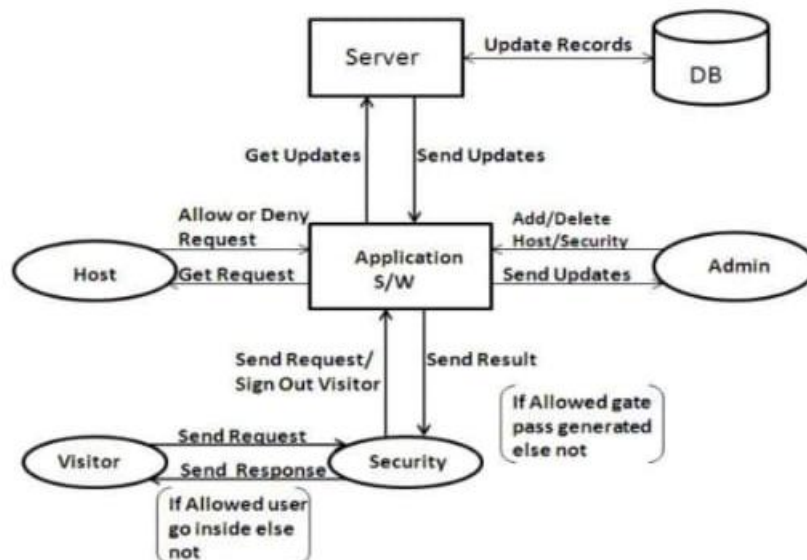
By maintaining a record of who enters and exits the community, residents and management can hold individuals accountable for any misconduct or violations of community rules. This can improve the overall safety and security of the community by discouraging individuals from engaging in inappropriate behavior and facilitating the identification of those who do.

Registration helps protect the privacy of residents by controlling access and ensuring that only those with a legitimate reason to enter the community are allowed in. This minimizes the risk of unwanted visitors or unauthorized access to private areas. Additionally, it can help to prevent solicitation and other unwanted activities within the community.

In some cases, registration fosters a sense of community cohesion by allowing residents and security personnel to become familiar with one another, creating a more friendly and secure environment. This can help to build trust and promote a sense of community within the gated community. Additionally, it can help to facilitate communication between residents and security personnel, leading to a more effective and efficient security system.

### III. METHODOLOGY

Matriculation Digital Entrance is based on security purposed which we have made for the unauthorized person which will visit the owner or the host. This includes the involvement of the visitor, host, and the watchman. This system avoids the fraud and entry of unauthorized person before entering the society or particular house. As nowadays many thief and other malware frauds are being happening in the society because of less security purpose. Therefore this system is best to avoid the frauds.



This is the producer for the system which is going to work in each and every housing society. First of all as the visitor enters the gate of the society He/She will be given a google form provided by the watchman. The visitor can fill the form regarding what is the reason of entry and to whom he has to visit. After filling the form the owner and the host will get the message. If he finds the person Authorized and if the owner which visitor want to visit gives the approval then only he will get the permission to enter the premises.

The system includes the two parts which is frontend and backend. The frontend includes the filling of google form. The backend of the system include the data connectivity and sms sending and approving the message. The data connectivity includes the storing of the past data which we can restore any time this helps to calculate the amount of people enter in the house.



**Matriculation management System**

Visitor Name

Business Purpose

Gender

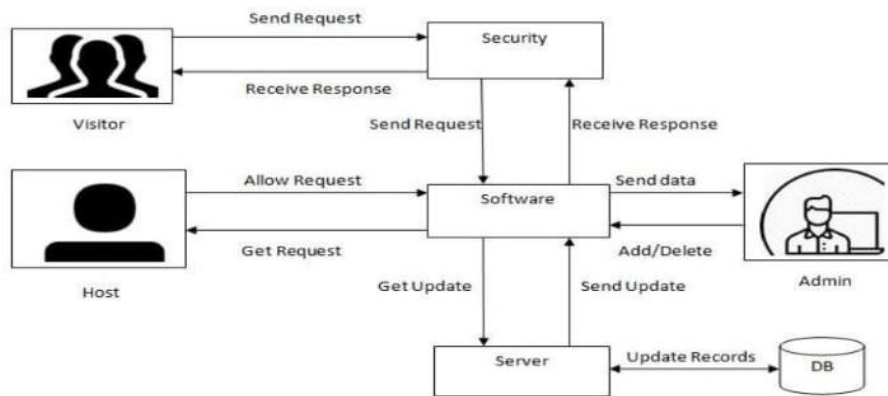
Contact Number

Address of the society Member

Contact Number of society member

This is the form which will be provided to the visitor, it has to be filled and the sms will be send to the owner, which he will approved if he finds the visitor an authorized.

The server which will be responsible for getting and sending updates to the database and storing the data. The application is the middle heart of the software which is connected to the server, security, host, admin. Through this it gets transferred.



#### IV. CONCLUSION

The Matriculation Digital Entrance is the highest degree of security software to deal with issues and frauds relating to society and individual owners. It offers a secure method of visitor registration. The computer's records enable improved data management and manipulation. Its installation is simple and does not need a professional. Utilizing and maintaining the Matriculation Digital Entrance system is simple. The technology offers security and is dependable. This prevents unauthorized people from accessing the organization. This uses less paper and is a quicker, easier, and more secure procedure. It also saves time. By giving the host and owner the visitor's information, this technology allows for guest entrance. It stops users from entering the society who lack the necessary credentials. People who are approved within the company can immediately access the data thanks to the Matriculation System's architecture. This technology improves the security of an organization's facilities. The computer stores and processes an organization's data for all purposes. Faster access to and processing of the data is possible. Because only the administrator and host have access to it, it is extremely safe and secure to handle and cannot be hacked or tracked to find out anything. Its setup and use are relatively simple because all a visitor needs to do is fill out a Google form. He must specify the purpose of his visit and the people he needs to see in order for the owner to get a message; once the owner learns who the visitor is, admission will not be granted without his consent. Instead of keeping a record of each visitor's "n" times used gate passes, the admin creates the report straight from the database.

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