SURVEY ON AUTOMATIC ATTENDANCE MANAGEMENT SYSTEM USING QR CODE AND GPS

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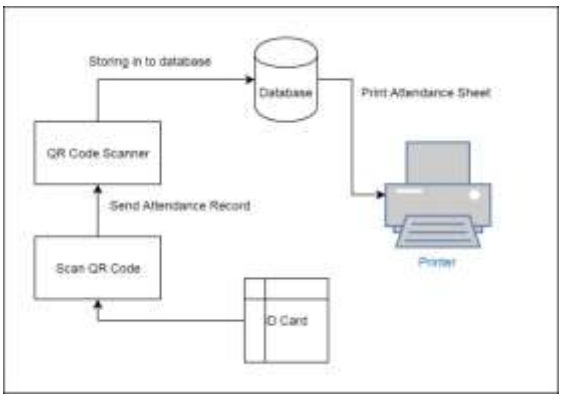
Abstract: This paper is concerning the biometric attending management using the QR code and GPS. The automated attending management can replace the manual methodology, that takes loads of your time overwhelming and tough to keep up. There square measure several biometric processes, therein GPS system and QR code is that the best methodology. During this paper we tend to are progressing to describe the attending while not human interference. The QR code machine and GPS machine mounted within the school room and it'll capture the image of QR code, the GPS square measure detected then it's recognized with the info and at last the attending is marked. If the attendance is marked as absent the message concerning the student's absent is send to their folks. There square measure numerous strategies for comparing the GPS.

Keywords: GPS, QR code, Cropping, Data base

Introduction: Maintenance of student attending is that the foremost troublesome task in varied institutions. Every institution has its own technique of taking attending like exploitation attending sheet or by exploitation some biometric ways that. However these strategies consumes different your time. Mostly student attending is crazy the help of attending sheet given to the college members. This consumes different labor and time. We do not apprehend whether or not or not the documented student is responding or not. Calculation of consolidated attending is another major task which may cause manual errors. In another cases the attending sheet may become lost or stolen by variety of the students. To beat such troubles we've a bent to face live in need of machine-controlled attending management system. There area unit many biometric ways that available at intervals which the fundamental construct is same. One in each of them is that the finger print identification. Throughout this system initial the finger prints of the people area unit collected and keep at intervals the data of finger print detector. For this primary we have to collect the finger print of every individual. Usually this can be often done just one time or once a replacement entry has to be else at intervals the data. Then the obtained finger prints area unit compared with the photographs in info. If the two finger prints area unit same the attending is marked as gift. but this system includes a range of the disadvantages. They are for this system the students ought to wait in queue that ultimately consumes different labor. If once the finger is not unbroken properly or if the finger print isn't recognized properly then the attending are going to be marked as absent. Therefore this methodology isn't most effective. The opposite biometric methodology out there is eye ball detection. During this methodology eyeball device is employed. It senses the blinking rate of eye ball and it additionally senses the situation of iris. During this methodology initial the attention ball or iris of every individual is hold on within the info. Sometimes the attention ball isn't same for all persons. It's some distinction. The obtained image of eye ball is then compared with the attention ball within the info. If it's same then the attending is marked. However much it's unattainable. As there area unit sizable amount of scholars within the category eye ball detection of every individual isn't doable.

Proposed System:
In this project we are going to describe the attendance without human interference. In this method the QR code scanner and GPS is fixed in the classroom and it will capture the image of code, the QR are detected and then it is recognized with the database and finally the attendance is marked. If the attendance is marked as absent the message about the student's absent is send to their parents. There are various methods for comparing the GPS. And when the student is absent then we call and SMS to their Guardian.

Architecture Diagram:



Literature Survey
Paper 1. Algorithm for Efficient Attendance Management: Face Recognition based approach
Author Name: Naveed Khan Balcoh, M.HaroonYousaf, Waqar Ahma nd M.IramBaig

Description: Students attendance in the classroom is very important task and if taken manually wastes a lot of time. There are many automatic methods available for this purpose i.e. biometric attendance. All these methods also waste time because students have to make a queue to touch their thumb on the scanning device. This work describes the efficient algorithm that automatically marks the attendance without human intervention. This attendance is recorded by using a camera attached in front of classroom that is continuously capturing images of students, detect the faces in images and compare the detected faces with the database and mark the attendance. The paper review the related work in the field of attendance system then describes the system architecture, software algorithm and results.

Paper 2. Study of implementing Automated Attendance
System using Implementing Automated Attendance System Using face recognition Technique

Author Name: Nirmalaya Kar, Mrinal Kanti Debbarma, AshimSaha, and Dwijen Rudra Pal,

Description: Authentication is a significant issue in system control in computer based communication. Human face recognition is an important branch of biometric verification and has been widely used in many applications, such as video monitor system, human-computer interaction, and door control system and network security. This paper describes a method for Student's Attendance System which will integrate with the face recognition technology using Personal Component Analysis (PCA) algorithm. The system will record the attendance of the students in class room environment automatically and it will provide the facilities to the faculty to access the information of the students easily by maintaining a log for clock-in and clock-out time.

Paper 3. Development of Attendance Management System using Biometrics

Author Name: O. Shoewn

Description: In this paper, the development of an attendance management system using biometrics is proposed. Managing student attendance during lecture periods has become a difficult challenge. The ability to compute the attendance percentage becomes a major task as manual computation produces errors, and also wastes a lot of time. For the stated reason, an efficient attendance management system using biometrics is designed. This system takes attendance electronically with the help of a finger print device and the records of the attendance are stored in a database. Attendance is marked after student identification.

Paper 4. Face recognition using eigen faces

Author Name: M. Turk and A. Pentland

Description: We present an approach to the detection and identification of human faces and describe a working, near-real-time face recognition system which tracks a subject's head and then recognizes the person by comparing characteristics of the face to those of known individuals. Our approach treats face recognition as a two-dimensional recognition problem, taking advantage of the fact that faces are are normally upright and thus may be described by a small set of 2-D characteristic views. Face images are projected onto a feature space ("face space") that best encodes the variation among known face images. The face space is defined by the "eigenfaces", which are the eigenvectors of the set of faces; they do not necessarily correspond to isolated features such as eyes, ears, and noses. The framework provides the ability to learn to recognize new faces in an unsupervised manner.

Paper 5. Face Recognition: A Literature Survey

Author Name: W.Zhao, R. Chellapa, P.J.Phillips and A.Rosenfld

Description: This paper provides an up-to-date critical survey of still- and video-based face recognition research. There are two underlying motivations for us to write this survey paper: the first is to provide an up-to-date review of the existing literature, and the second is to offer some insights into the studies of machine recognition of faces. To provide a comprehensive survey, we not only categorize existing recognition techniques but also present detailed descriptions of representative methods within each category. In addition, relevant topics such as psychophysical studies, system evaluation, and issues of illumination and pose variation are covered.

Conclusion
Using this technique we have a tendency to square measure able to replace all the recent ways. Economical and automatic attending management is introduced in paper. This technique wants alone simple hardware for installation. The management of attending during this methodology is extra simple and thus the attending is taken extra accurately. One powerful task throughout this method is QR code and GPS. We've got a bent to square measure operative towards it.

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