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ATTENDU (ANDROID APP FOR DAILY ATTENDANCE)

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Abstract:

Attendance system facilitates access to the attendance of a particular student in a particular class. This system eliminates the need for stationary materials and personnel for the keeping of records and efforts of class in charge.

Digital attendance system aims to automate the attendance procedure of an educational institution using Android app technology. This will save time wasted on calling out names and it gives a full proof method of attendance marking. An Android Mobile with app is used to mark the attendance without the intervention of teacher. The mobile can be passed and students can mark attendance during the lecture time. Students would be made to place their finger over the sensor so as to mark their presence in the class. It can communicate with a host computer using its USB interface.

The system will send the SMS to their parents, when the students will be absent. So the parents should know the record of their ward.

Keywords: Android, Attendance system, Biometric, Finger-print Scanning.

Introduction:

Android app based attendance management system is one of the most advanced application in biometric technology, use of biometric technology getting simpler. Our proposed Android app also can be used to send the attendance information of the students automatically to their parents as well as stored the attendance of respective student for calculates the stored attendance percentage weekly.

Fingerprints are matched with the stored fingerprints by using the scanner. Fingerprint authentication has many advantages such as very high accuracy. If fingerprint is matched then attendance is accepted otherwise it is rejected. For that purpose we are introducing here different fingerprint techniques for maintaining the student attendance system. The existing conventional attendance system requires students to manually sign the attendance sheet every time they attend a class. As common as it seems, such system lacks of automation, where a number of problems may arise like problem of proxy attendance. To avoid such problems it is implementing this Android app attendance system using biometric technology which can help to make attendance system automated with proxy prevention.

Proposed Block Diagram:

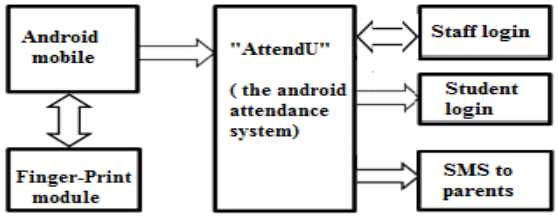


Fig:- Proposed Block diagram of AttendU

Description of project:

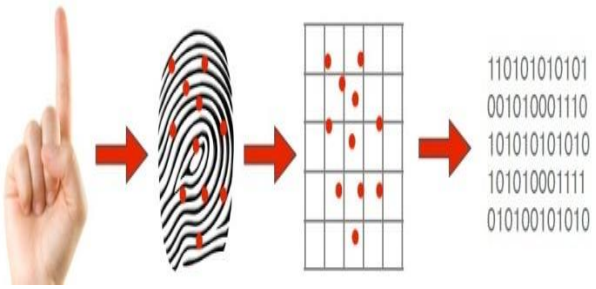
The development of an attendance management system using biometrics is proposed. Managing student attendance during lecture periods has become a difficult challenge. The ability to compute the attendance percentage becomes a major task as manual computation produces errors, and also wastes a lot of time. 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.

Rather than signing an attendance sheet, individuals will pass their thumb over the fingerprint scanner, the finger print is compared against a list of pre-registered users, and once a match is made, the individual will be registered as having attended that lecture.

The hardware to be used is the fingerprint scanner which is connected to the android mobile phone via its USB interface. Basically this work does not involve the development of hardware.

How Does a Fingerprint Optical Scanner Work?

Fingerprint scanner system has two basic jobs -- it needs to get an image of your finger, and it needs to determine whether the pattern of ridges and valleys in this image matches the pattern of ridges and valleys in pre-scanned images.



Advantages:

1. Elimination of "Buddy Punching":
Biometrics characteristics are unable to be duplicated, which prevents students from punching in another student when they aren't in the college.

2. An Accurate Option:
Since biometric credentials are unique for everyone and are unable to be duplicated or forged, biometric identification is the most accurate option to identify an employee. This type of technology will help college's accurately track students attendance and time.

3. Easy and Safe to Use:
One of the best things about using AttendU for identification purposes is that modern systems have integrated technology that is safe and easy to use. This provides accurate results with minimal invasiveness for users

4. Convenient Option:
Biometric time clocks are considered to be a convenient solution because no passwords have to be remembered, no badges have to be used, nor ID cards, documents, etc.

5. Less Time Spent During Payroll:
It makes timekeeping more memorable to employees and reduces the amount of "missed" attendances.

Application:

The proposed Attendance system can be used in

1. Schools, colleges
2. Institutes
3. Corporate Industries
4. Hospitals
5. Tuitions
6. Any place where attendance is mandatory, etc.

Conclusion:

The proposed Project can provide a secured and efficient way to take an Attendance. This attendance system is very easy to understand and use. This Android app uses Biometric recognition so eliminates proxy punching. The SMS will be send to parents in case if their ward is absent.

As it is a biometric attendance system so this system can be used by scanning the students finger-print, eye, face, etc.

In future the Android app can be used to manage the all personal details and academic data records of students.

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