SMART ATTENDANCE VIA IMAGE PROCESSING

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ABSTRACT:

Attendance is always an issue in every class. It is time consuming and often leads to conflicts between students and teachers when it is taken manually. Teachers can also do mistakes while uploading the attendance in the ERP. So, it is concluded that manual attendance is not a good option in colleges and universities. The process of attendance can be automated and can be enhanced .

The project Smart attendance project is automated process based on image processing .It basically scan the students in the class two times, once in the starting of the class hour and second time in the last 15min. It will scan the face of each and every student in the class and identify the faces and compare it with the stored data in its database . If the faces that the camera has scanned matches with the data, the student will be marked present in the class and if any face is missing then the particular student will be marked absent. This data is then sent to the respective teachers through a message.

The process of attendance can be modified and can be brought into practice . The smart attendance project is able to solve all the problems related to attendance.

**KEYWORDS:** ERP, Smart Attendance, Database

1. INTRODUCTION

Maintaining attendance in all institutes is very important to check students ' results. In this regard, each institute has its own method. Some use the old paper or file-based approach to attendance manually, and some have adopted automatic attendance methods using some biometric techniques. But students should wait a long time in these methods, or the methods in these processes takes very long time. There are many biometric systems available, but all the methods are the same as the key authentications. Each biometric system consists of the enrollment process in which a person's unique characteristics are stored in the database and then identification and verification processes are in place. Such procedures equate a person's biometric function with a previously stored template captured at the time of registration. Biometric models can be of several types such as Fingerprints, Head, Hand Geometry, Signature, Gait and Voice. The Smart Attendance Project uses the approach to face recognition for automatic student attendance in the classroom environment without the intervention of students. Face recognition consists of two steps, in first step faces are detected in the image and then these detected faces are compared with the database for verification.