A Survey on Attendance Management System Using Face Recognition

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ABSTRACT: One of the major challenges in a smart classroom system environment is to develop a computer vision based unobtrusive classroom attendance management system. Traditional attendance system follows a manual attendance marking system either by forwarding attendance sheet or by calling names of students; both interrupts the teaching-learning process and also consume a lot of time. Further, it can be inaccurate due to factors such as studentsproxy etc.In this paper, we propose an face recognition based smart classroom attendance management system using the high definition camera for capturing the faces of studentsThe system will capture faces of students sitting in a classroom and will recognize face of each student using pre-trained dataset and will mark the attendance of students in an excel sheet.

KEYWORDS: Face detection, Recognition, Attendance

I. INTRODUCTION

To solve the issues of traditional movers and packers systems, an application solution has been proposed which will use face detection and recognition for attendance management. According to the proposed system, there will be a high definition camera placed in a classroom. The camera will be connected to a computer system in which a GUI will be present to control the whole process. Faculty will have to trigger the system to start working. System will capture a small video of students sitting a classroom using high definition camera. This video will be converted to several image frames.

II. LITERATURE SURVEY

1. Computer Vision Based Unobtrusive classroom attendance management system
In this paper, the system is used to detect the students in real classroom with various pose variations and alsogives better results in terms of accuracy.

2. **Smart Attendance Monitoring System: A Face Recognition Based Attendance System for classroom environment**

We have used the concept of face recognition to implement a system that marks the attendance of particular person by detecting and recognizing the face with the help of deep learning so that the system can be trained.

III.EXISTING SYSTEM APPROACH

In traditional system like manual attendance there are lot of problems to face ,some of them are-

- It takes away a lot of lecture hours
- Prone to proxies or impersonations

There is also a fingerprint biometric system for attendance of the students. But in this system students have to come in row wise manner and one by one have to give attendance. It reduces the proxies but this process is time consuming .so this problems can overcome in proposed system.

IV.PROPOSED SYSTEM APPROACH
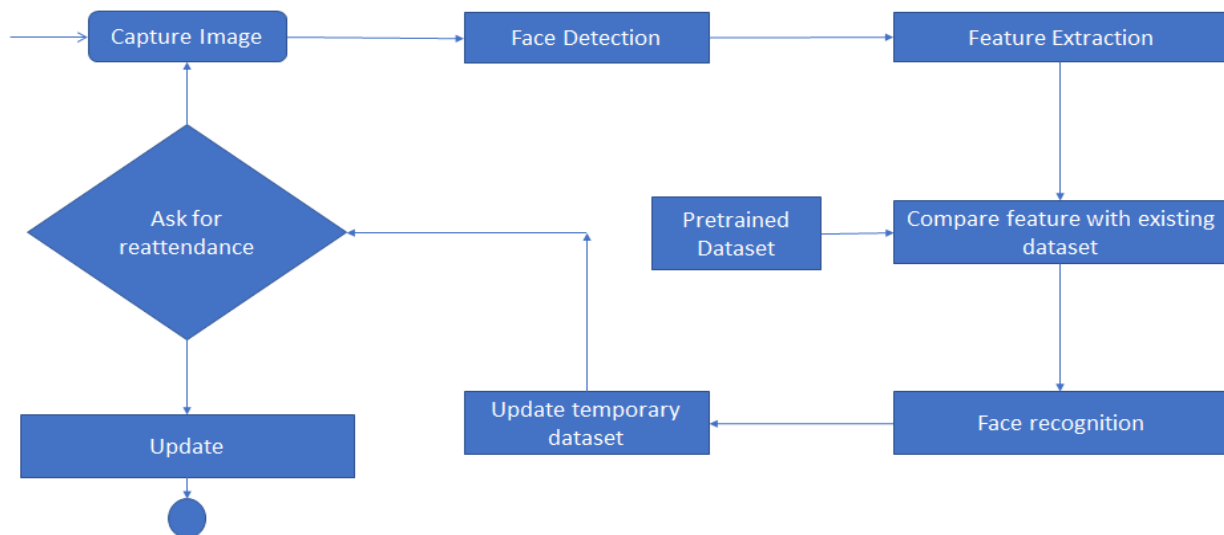
In traditional classroom environment, students' attendance management is one of the key factors to analyze the students' learning process and also to keep track of other factors like discipline, engagement and leads to effective learning and increase the success rate.

The propose system will use face detection and recognition for attendance management. According to the proposed system, there will be a high definition camera placed in a classroom. The camera will be connected to a computer system in which a GUI will be present to control the whole process. Faculty will have to trigger the system to start working. Once the system is triggered, it will do all the rest of work automatically. System will capture a small video of students sitting a classroom using high definition camera. This video will be converted to several image frames. The main principle for this system is to solve the attendance problem, proxy problem, and to keep the record of the attendance of particular person.

V. CONCLUSION

In the proposed system, we will use the concept of face recognition to implement a system that mark the attendance of a particular person by detecting and recognizing the face.This system will be more accurate than the other systems present in market.The system will be fully automatic once it is triggered by a faculty.This system will be very easy to use and manage as there will be a simple GUI to control it .

ACKNOWLEDGEMENT

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