



# INTEGRATION OF USER INTERFACE WITH FACIAL RECOGNITION SYSTEM

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Article DOI: <https://doi.org/10.36713/epra5588>

## ABSTRACT

*Attendance of students in a large classroom is hard to be handled by the traditional system, as it is time-consuming and has a high probability of error during the process of inputting data into the computer. This paper proposed automated attendance marking system using face recognition technique. The system will help to find the positive and negative of the face and Eigen face algorithm for face recognition by using python programming and OpenCV library. The proposed method using PCA to resolve the problems such as lightning of the images, and the direction of the student faces. The attendance of the student was updated to the Excel sheet after student's face has been recognized.*

**KEYWORDS:** *PCA, Facial Recognition, ERP, Classroom, Attendance*

## 1. INTRODUCTION

The enhancement of science and technology leads to make the life more comfortable than older days. The emerging technologies like neutrosophic shortest path [1,2,3,4,5], transportation problem [6,7,8], uncertainty problem [9,10,11,12,13,14], fuzzy shortest path [15,16,17,18,19], PowerShell [20], wireless sensor network [21,22,23,24,25,26,27,28], computer language

[29,30], neural network [31], routing [32] making the products more intelligent and self-healing based. The smart city applications like smart water, smart grid, smart parking, smart resource management, etc. are based on IoT and IoE [33,34, 35, 36] technologies. We have the development available to us to enable the organization of our consistently lives and the sharing of significant information with our associates, families and others. Why development is huge in our



consistently life. It is a basic contraption that we can't avoid, it has a huge impact in the vast majority of our lives. Technology fundamentally handles the instruments, advancements and strategies used to help us with dealing with issues and simply improve our everyday schedules and easier to encounter to a great extent [37,38]. Advancement is inevitable in our normal everyday presences [39]. This is in light of the fact that presence without advancement is senseless in the present incredible world. Development, which joins instruments to propel unforeseen development, use and information exchange, has as its basic objective of making tasks easier and the handling of various issues of mankind. Right when development advances and makes our continues with extensively more worthwhile, we should pressure that it is so useful to our lives.

Face recognition technology is very helpful to take attendance in an easy manner more over it doesn't require more effort from the user end while compared with other biometric options. Biometric face recognition is basically used in three main domains: time attendance systems and employee management; visitor management systems; and last but not the least authorization systems and access control systems. So in this project we are going to design a attendance management system by face recognition technique. In this we are going to take attendance of the students. By using different methods or languages we can implement this attendance system for example for designing login page we will use HTML,CSS and for storing the data we will use Java Script, Database. And for capturing the photo of the student we will use openCV Python. So finally by combining all the software's we can implement this project.



**Fig.1 User interface for login**



**Fig 2: Capturing the image.**

**2. LITERATURE SURVEY**

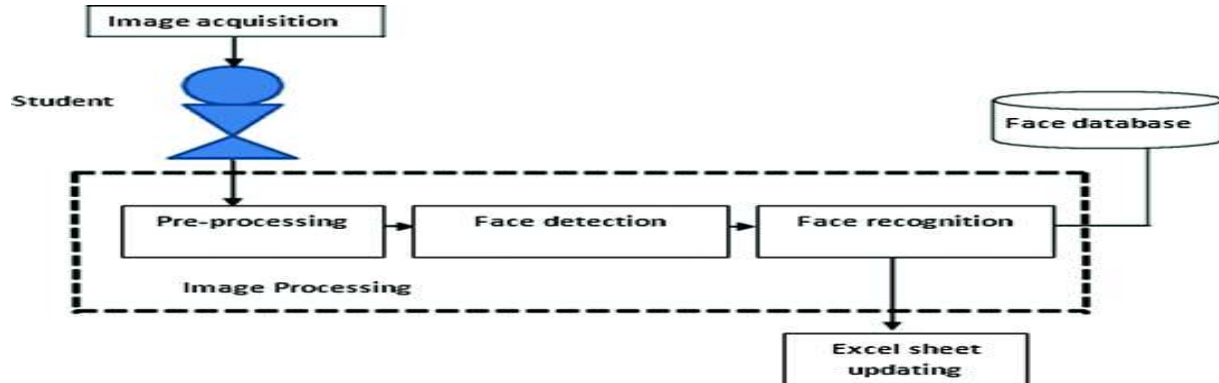
S.no	Author Used for Implementation	Methods used for implementation	Specifications of the method	Limitations/Research
1.	Mathana Gopala Krishnan, Balaji, Shyam Babu In 2006	Implementation of Automated Attendance System using Face Recognition.	In this the author designed the project in such a way that once the image is captured we cannot change once again	Final output is that it will capture the images and allot the attendance
2.	Nirmalya Kar, Dr. Mrinal Kanti Deb Barma, Ashim Saha In 2012	Study of Implementing Automated Attendance System Using Face Recognition Technique by OpenCV python	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.	It will store the data in the data base after capturing the images it will also display the name of the person

**Table 1. Literature Survey**

**3. PROPOSED WORK**

In this project m work is to design the html pages for the login page by using CSS, Html.In this particular module we must prepare the register page also, so the new user can register first and then the person can login to give the attendance. By using

different type of commands .And in this we also use JavaScript and database to store the information of the person. While designing the login page it must be user friendly and also it must be easily understood to a person. In this we must design the two different pages for the student and faculty.

**Fig. 3 working diagram of proposed model**

#### 4. RESULT

The total result of this project is that to mark the attendance of the student in such a way that there will be no chances for proxy attendance. And by this project there will be no stress for the faculty about the manual attendance.

Using PCA algorithm the following steps would be followed in for face recognition:

Step 1: The person must login through the portal.

Step 2: He must select the subject and hour for marking the attendance.

Step 3: Begin:

- Find the face information of matched face image in from the database.
- Update the log table with corresponding face image and system time that makes completion of attendance for an individual students.

Step 4: End

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