



# INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 4.295

(Volume 5, Issue 2)

Available online at: [www.ijariit.com](http://www.ijariit.com)

## Face attendance

Pankaj Phanse

[phansepankaj@gmail.com](mailto:phansepankaj@gmail.com)

AISSMS Polytechnic, Pune, Maharashtra

Aditya Nitin Tilekar

[adityatilekar1589@gmail.com](mailto:adityatilekar1589@gmail.com)

AISSMS Polytechnic, Pune, Maharashtra

Pranav Aminbhavi

[aminbhavi.pranav@gmail.com](mailto:aminbhavi.pranav@gmail.com)

AISSMS Polytechnic, Pune, Maharashtra

Pooja Dherange

[dherangepooja988@gmail.com](mailto:dherangepooja988@gmail.com)

AISSMS Polytechnic, Pune, Maharashtra

Snehal Rokade

[snehalsrokade@gmail.com](mailto:snehalsrokade@gmail.com)

AISSMS Polytechnic, Pune, Maharashtra

### ABSTRACT

*Educational institutions' administrators in our country and the whole world are concerned about the regularity of student attendance. Student overall academic performance is affected by it. The conventional method of taking attendance by calling names or signing on paper is very time consuming, and hence inefficient. The system is made up of a camera which takes the photos of individuals and a computer unit which performs face detection (locating faces from the image removing the background information) and face recognition (identifying the persons) First, face images are acquired using a webcam to create the database. Face recognition system will detect the location of the face in the image and will extract the features from the detected faces.*

**Keywords**— Algorithms, Security, Authentication, Ridges, Valleys, Authorization, Database

### 1. INTRODUCTION

The system architecture shown in the picture is a face detection system based on the ethics of image recognition. The system consists of a P.I.R sensor, camera, computer system along with internet connectivity. The whole working of the system starts with the PIR sensor and camera which connected to the computer system. As the human body low-level infrared radiation comes in contact with PIR sensor then sensor sends signals to the computer system to activate the camera, this feature of the sensor allows us to implement a power efficient system. After activation of the camera, it clicks the facial image of the person present in the range of the camera. Detected image is then matched with the dataset saved in the computer system. If the image matches, then all the information of that person and view attendance and then the further action taken from the admin. As in the given description of the proposed system, an idea of M2M (machine to machine) interaction based system which makes this system works in an efficient way.

### 2. D MARKET SURVEY

The face detection technique is done with the help of open cv. As the face is detected, the image is captured and that image is

sent to an Android application along with notification Rekha. E, Dr Ramaprasad. P. proposed an automated attendance system for college or an institution. System consists of a camera that captures the real-time image of person and checks whether that face matches with the saved eigenfaces or not, if match the person is present and then record is maintained and if not matched then data is not updated Shrutika V. Deshmukh, Prof. DR. U. A. Kshirsagar proposed a system of face recognition used for door automation. In this system, the camera is used for capturing the images and those images are compared with the help of DCT face recognition algorithm which is generally used for 2D images along with GSM module that provides messaging service so that admin can get all the notifications regarding the security [3]. Ishaan Sathe, Chiman Patel, Prasad Mahajan, Tanmay Telang, Sejal Shah proposed Door locking system that consists of a camera, and for detecting the face of human they used ViolaJones face detection method and capture the images and those images are recognized with the help of PCA face recognition algorithm using the eigenfaces stored in the dataset.

### 3. EXISTING SYSTEM

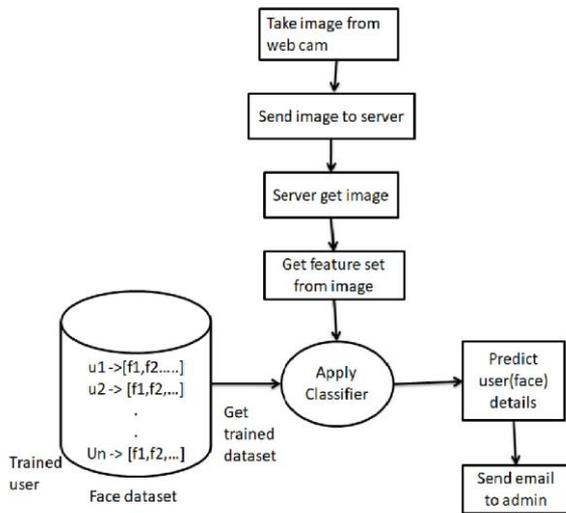
This paper presents the design and evaluation of a face detection System based on PIR sensor that runs on tablets, operating and on Android systems with GPS feature. The main step of system design and implement are described in detail. The results of follow up user study show that the face detection System based on PIR sensor is very helpful.

### 4. PROPOSED SYSTEM

The proposed system architecture shown in picture is a face detection system based on the ethics of image recognition. The system consists of a P.I.R sensor, camera, computer system along with internet connectivity. The whole working of the system starts with the PIR sensor and camera which connected to the computer system. As the human body low level infrared radiation comes in contact with PIR sensor then sensor sends signals to the computer system to activate the camera, this feature of the sensor allows us to implement a power efficient system. After activation of the camera, it clicks the facial image

of the person present in the range of the camera. Detected image is then matched with the dataset saved in the computer system. If the image matches, then all the information of that person and view attendance and then the further action taken from the admin. As in the given description of the proposed system, an idea of M2M (machine to machine) interaction based system which makes this system works in an efficient way.

authentication and at the same time, it is able to have a high level of security and privacy because another student can never take attendance for the other. It will significantly improve the current manual process of students' attendance recording and tracking system and other attendances systems, especially in a university environment. The system was able to promote a fully-automated approach in capturing the students' attendance using their tag Electronic Product Code (EPC) and their images



**Fig. 1: System architecture**

**5. CONCLUSION**

At the end of this research work, we were able to achieve a classroom attendance system that uses the students' images for

**6. REFERENCES**

[1] IlhanAydin, Nashwan Adnan Othman, A New IoT Combined Face Detection of People by Using Computer Vision for Security Application, IDAP, IEEE 2017.  
 [2] Rekha E., Dr Ramaprasad.P, An Efficient Automated Attendance Management System Based on Eigenface Recognition, IEEE 2017.