

Parshvanath Charitable Trust's

A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE

(All Programs Accredited by NBA)

Department of Information Technology



ATTENDANCE MAINTENANCE Face Detection

1.Aagya Singh (20104076)

2.Muskan Rao (20104096)

3.Bhushan Patil(20104094)

4.Mayur Shinde(20104062)

Project Guide Prof .Roshni Singh

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1.Introduction:

- 1) Face detection and recognition system(FDRS) is a physical characteristic recognition technology, using the inherent physiological features of humans for ID recognition.
- 2) There are two general applications of FDRS, one is called identification and another one is called verification.
- 3) Face identification means given a face image, we want the system to tell who he/she is or the most probable identification.

2.Objectives:

- 1)To build an user-friendly application.
- 2) To build an application which can manage attendance using FDRS
- 3)To make attendance records hassle-free.

3. Scope

- 1. Manages attendance accurately.
- 2. Uses live face recognition to recognize each individual and mark their attendance automatically.
- 3. Provides facility for the automated attendance of students.
- 4. Utilizes video and image processing to provide inputs to the system.

4. Feature /Functionality

- 1. User can create their attendance record being self sufficient using major technologies like
 - a. Face detection
 - b. Face recognition
- 2. User can add, update, delete their details which can be stored and modified.
- 3. User can get a centralized space for attendance management.
- 4. The camera captures the image of the user while detecting and recognizing the user.

5. Outcome of Project

- 1. User can Login in his/her account.
- 2. User can use the face recognition feature.
- 3. User can use the face detection feature.
- 4. User can add, manage and update data.
- 5. User can manage their attendance efficiently.

6. Technology Stack

- Programming Language: Python
- OS: windows 11
- IDE: Visual Studio Code
- Database : mySQL workbench
- Libraries: OpenCV, Tkinter
- Algorithm: Haar Cascade, LBPH



Fig1:Main page

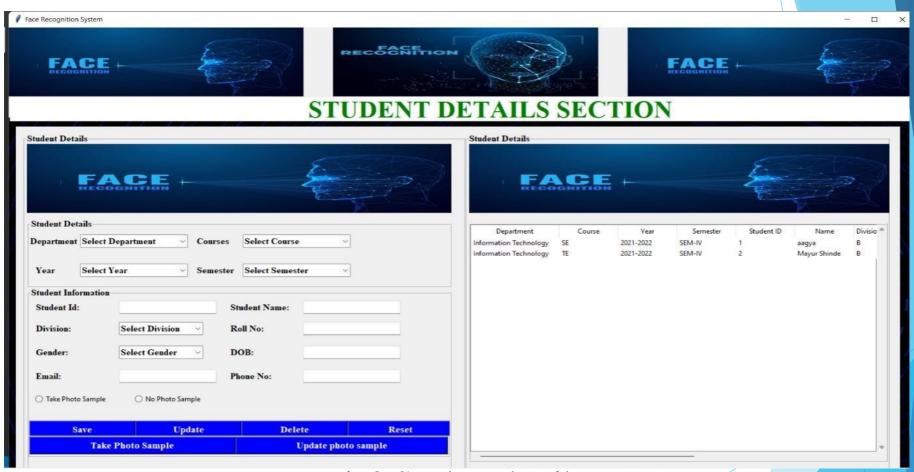


Fig2:Student details



Fig3:Train data

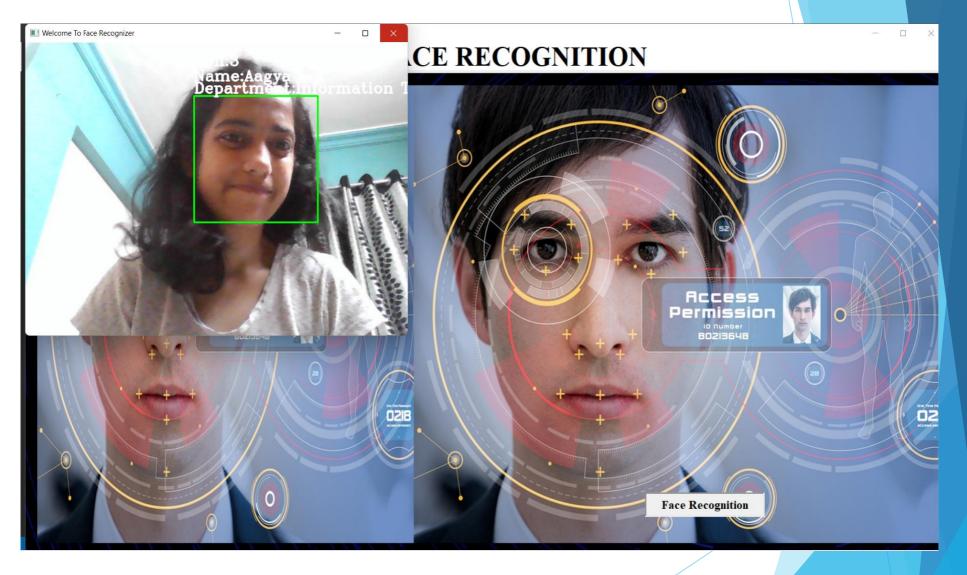


Fig4:Face Recognition

Thank You.