|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Image result for ZCOER | **ZEAL EDUCATION SOCIETY’S**  **ZEAL COLLEGE OF ENGINEERING AND RESEARCH**  **NARHE │PUNE -41 │ INDIA** | | | C:\Users\Admin\Downloads\Zeal 25 Years Logo.jpg |
|
|
| Record No.: **ZCOER-ACAD/R/44A** | | Revision: **00** | Date:**17/06/2021** | |
| **SYNOPSIS** |

**Department: IT Academic Year:** 2020- 2021  **Semester: II**

**Class: BE Div:A Date:17/06/2021**

**1)Name of the college**: Zeal Collage Of Engineering & Research Narhe,Pune.

**2)Name of the course**: Information Technology

**3)Name of the Students**: 1. Akshay Balasaheb Jadhav

**2**. Shubham Prabhakar Bankar

3. Atharva Prashant Tillu

4. Mayur Atul Dawande

**4) Date of registration**:

**5) Name of the guide**: Prof. Supriya Patil

**6) Proposed Title**: “ Student Attendance System Via Face Recognition using Python”

**7) Relevance:**

**8) Introduction:**

We are living in a world where everything is automated and linked online. The internet of things, image processing, and machine learning are evolving day by day. Many systems have been completely changed due to this evolve to achieve more accurate results. The attendance system is a typical example of this transition, starting from the traditional signature on a paper sheet to face recognition. The main purpose of this project is to build a face recognition-based attendance monitoring system for educational institution to enhance and upgrade the current attendance system into more efficient and effective as compared to before. The current old system has a lot of ambiguity that caused inaccurate and inefficient of attendance taking. Many problems arise when the authority is unable to enforce the regulation that exist in the old system. Thus, by means of technology, this project will resolve the flaws existed in the current system while bringing attendance taking to a whole new level by automating most of the tasks. The technology working behind will be the face recognition system.

**9) Literature Review:**

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No.​ | Face detection method ​ | Advantages​ | Limitations​ |
| 1.​ | Local Binary pattern ​ | High tolerance against the monotonic illumination changes. ​ | Overall performance is accurate.​ |
| 2.​ | AdaBoost algorithm ​  (part of Viola jones algorithm) ​ | Need not to have any prior knowledge about face structure. ​ | The result highly depends on the training data and affected by weak classifiers. ​  ​ |
| 3.​ | Neural-Network ​  ​ | High accuracy only if large size of image were trained. ​  ​ | Overall performance is weaker than LBPH algorithm. ​  ​ |

**10) Objectives:**

* The main objective of this project is to develop face recognition based automated student attendance system.
* In order to achieve better performance, the test images and training images of this proposed approach are limited to frontal and upright facial images.
* The test images and training images have to be captured by using the same device to ensure no quality difference.
* In addition, the student have to register in the database to be recognized. The enrollment can be done on the spot through the user-friendly interface.

**11) Proposed work:**

Our proposed system is a desktop application and we gave it a name Student Attendance System via Face Recognition. This system is meant for used by two persons in college like students and lecturers. Student need to make login and then he will be on student home page where he can View his attendance, his profile, college notice. Lecturer also need to make login and then he will be on admin home page where he can Add New Students details with Face Recording, Update student record, Delete student record, Start Attendance Application for today.

**12) Undertaking by the Guide:**

The information given by the student is correct and said facilities are available with the institute.

**(Name & Sign of Guide) Head of the Department**

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Group No.** | **Names of the students** | **Project/Dissertation Title** | **Guide/Co guide** |
| **G-31** | **Akshay B Jadhav** | **“ Student Attendance System using Face Recognition using python”** | **Prof. Supriya Patil** |
| **Shubham P Bankar** |
| **Atharva P Tillu**  **Mayur A Dawande** |
|  |
|  |  |  |  |
|  |
| .. |
|  |
|  |
|  |  |  |  |
|  |
|  |
|  |

**Project Coordinator/ Academic Coordinator Head of the Department/**

**P.G. Coordinator**