ATTENDANCE MONITORING SYSTEM USING FACE RECOGNITION AND UNIFORM DETECTION THROUGH MACHINE LEARNING

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ABSTRACT

This project is useful for the travel program team and for students. Refers to integrated hardware, software and processes that enable automated data processing functions and communication functions in an organization. It involves using computers and software to digitize, store, process and communicate on normal tasks and processes in a standard way. In addition, attendance is considered a major problem for teachers in the classroom. It takes time, effort and is difficult to manage. Ten years ago, downsizing the student visit process was done and changed. The energy generated in this development is the desire for automation, simplification, speeding and saving time and effort.

Keyword : - *Detection, Recognition.*

1. Introduction (Heading 1)

This project is a prototype for the attendance system using face recognition and uniform detection and it is restricted within the college premises. This has been implemented under the guidance of college professors. This project is useful for the attendance system team and as well as to the students. It refers to the collective hardware, software and processes that enable automation of the information processing and communication tasks in an organization. It involves using computers and software to digitize, store, process and communicate most routine tasks and processes in a standard way.

In addition, attendance is considered a major problem for teachers in the classroom. It takes time, effort and is difficult to manage. Therefore, our project will focus on online student distribution with face recognition and similarities. In other words, the purpose of this project is to create a system that helps teachers take student visits more effectively. Although those presence programs are all around us, Taibah University lecturers still use the traditional method of recording student movements either by shouting the names of students or by a handout among students to sign next to their names. Both methods are time consuming and compliant with high error scales.

2. Ease of Use

2.1 Objective

● Our primary goal is to help the lecturers, improve and organize the process of track and manage research work Introduction related your research work Introduction related your research work Introduction related your research work Introduction related your research work Introduction related your research work.

● student attendance and provides a valuable attendance service for both teachers and students.
● Minimize manual process errors by providing an automatic and reliable travel system using face recognition technology.
● Increase the privacy and security that no student can disclose to himself or her friend while they are away.
● Produce monthly reports for educators.
● Adaptability, the power of discourse to set records was available.
● Calculate the percentage of absenteeism and send reminder messages to students.

2.1 Benefits

● Students will catch up on time when they go to classes. This is because the visit of a particular student can only be taken from him or her where there are no people who will be recognized by the program This can not only train students to be punctual and avoid any misconduct such as signing up to visit their friends.
● The center can save a lot of resources as enforcement is now more technologically advanced than human control which will waste the resources of many people in a non-essential process.
● It saves a lot of costs in the sense that paperwork was completed completely.

3. Prepare Your Paper Before Styling

Before you begin to format your paper, first write and save the content as a separate text file. Complete all content and organizational editing before formatting. Please note sections A-D below for more information on proofreading, spelling and grammar.

Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper. Do not number text heads-the template will do that for you.

Basic Functionality

● Face Detection
● Uniform Detection
● Attendance Generation

Literature Review

There were a number of methods used to deal with image differences depending on the change in brightness and these methods were applied to object recognition systems and also to specific face- focused programs. The way to deal with such diversity was to use gray matter details to remove the face or object from the blurring path. The main reason why gray scale presentations are used to extract descriptions instead of working on color images directly is that gray scale simplifies the algorithm and reduces computer requirements. For us, color has limited value and introducing unnecessary details can increase the amount of training details needed to achieve optimal performance. As it is a badly created problem, these suggested solutions have taken the form of objects and display structures or lighting conditions. This assumption is very strong in the recognition of a normal object and therefore did not show enough facial recognition. The second method is a map on the edge of the image which is a feature of the representation of a useful object that does not care about the change of lighting in a particular event. Edge images can be used for recognition and achieve the same accuracy as gray-level images. Edge map information method has advantages of content-based methods, such as lighting variability and low memory requirement.

It combines the details of the shape and location information of the facial image by collecting pixels of the edge map of the face in the line sections. After shaping the map on the edge, a rectangular line measuring process is used to produce a side-by-side map. There is another way to handle image contrast due to lighting differences; by using a model of several photographs of the same face taken under different lighting conditions. Here, the captured images can be used as standalone models or as an integrated model-based visual system.

Working Module

A. Face Recognition And Uniform Detection

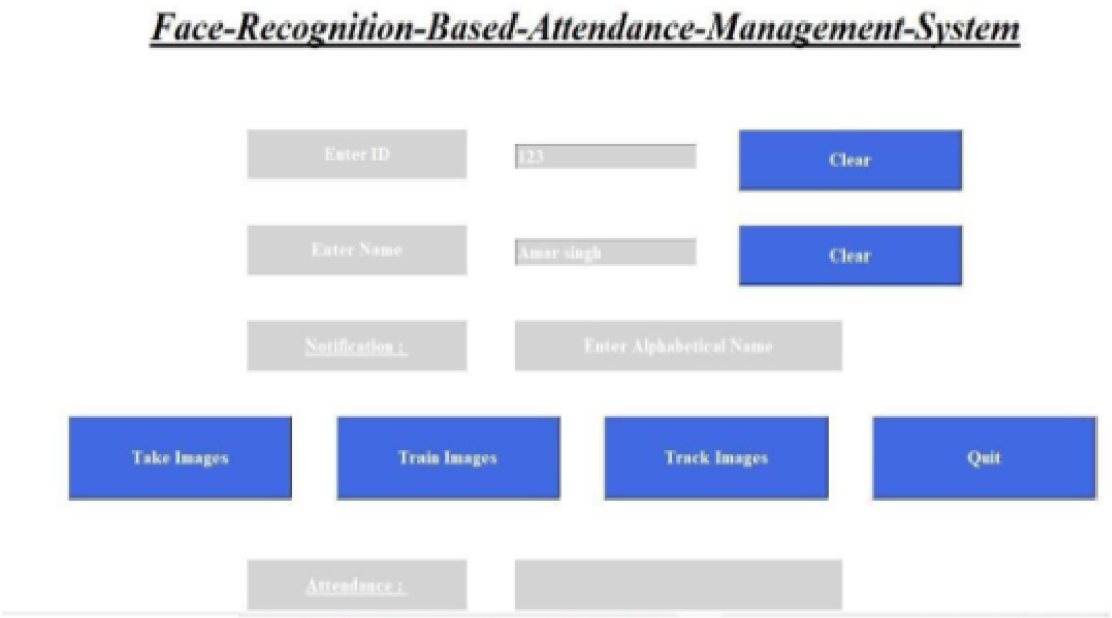

Fig 1. Train Image

B. Programming Languages The Programming Languages (PL) module covers the subject of programming languages by providing the following services:

Code Reading:

Code reading is a great way to learn how to write code in any programming language. This service introduces useful tools and resources for learning the code, and helps users create a program for how to be trained in any programming language.

Language Selection:

Provides existing program pads (processed, downgraded, functional, and antitrust) and allows users to understand the relationships and differences between multiple programming languages using visual examples.

Data Properties:

Introduces old data structure, supports users in sorting lists, records, cables, etc.

Procedures and Functions:

Provides a variety of examples in different programming languages and allows users to understand the concepts of breaking the system into parts of the process, their call and parameter passing

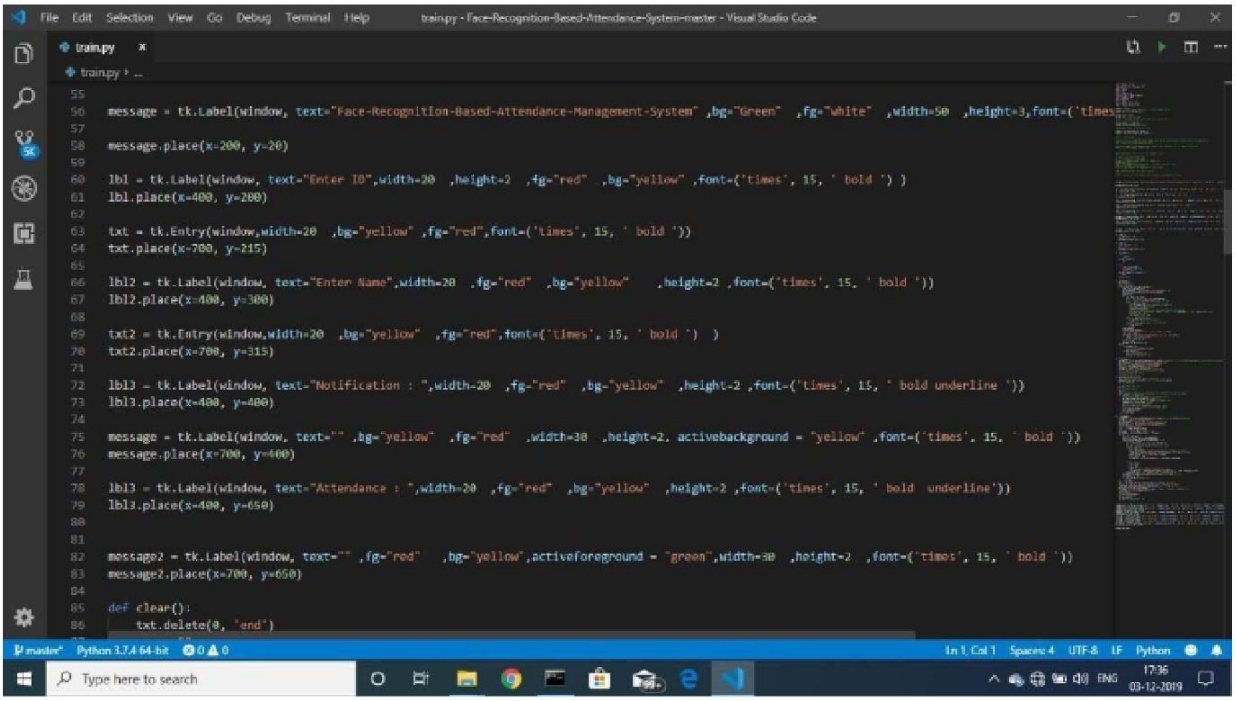

Fig. 2: Tkinter front-end design

C. Compilation Translation Process:

Introduce the steps of the translation process by indicating the various stages and intermediate steps in the production of a functional program; allows users to work with multiple collaborators and translators of various programming languages and perform comparative tests between them. In this integration module we get a file or code from the user and the name of the program language used in the code.
This file is then stored on server storage and a compilation script that transfers the file to the appropriate Compiler.

CONCLUSION

Prior to the development of this project, there were a number of gaps in the participatory processes using the traditional method that created many problems in many institutions. Therefore, the feature of face recognition attached to the attendance monitoring system can not only ensure that attendees will be accurately identified and eliminate errors in the previous system by using technology to overcome errors that not only save the app but also reduce human intervention throughout the process. The only cost of this solution is finding enough space to keep all the faces in the database.

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