

ATTENDANCE SYSTEM USING MATLAB

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Abstract: Taking attendance through traditional manual methods consumes more time and inefficient, also not convenient when there is large number of people. Hence we are dedicating this project to those who aims to save time and effort.

In this project we use some key concepts of image processing to process the capture image, Later by comparing the data in database recognized users list is displayed as output of our project.

Introduction:

Everyday actions are increasingly being handled electronically, instead of pencil and paper or face to face. This growth in electronic transactions results in great demand for fast and accurate user identification and authentication.

In this paper, we propose a system that takes the attendance of group of people by using face recognition.

Why face recognition??

- i. It requires no physical interaction on behalf of the user.
- ii. It is accurate and allows for high enrollment and verification rates.
- iii. It can use your existing hardware infrastructure, existing cameras i.e., inbuilt cams in computers and so on.

System implementation:

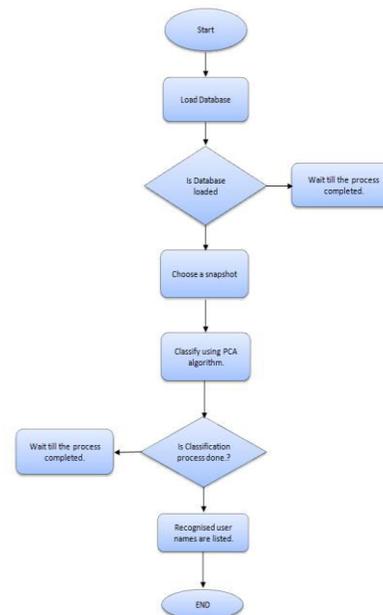


fig.(a)

Functional hierarchy of our system can illustrated neatly from fig.(a).

On running the MATLAB code (version 2013b), A GUI which consists multiple options to do the operation is displayed on the screen, By using those First load the Database with the group picture of users manually or through code. Note that creating database is nothing but storing the processed information of that image. Now choose a snap from the gallery or by taking real time picture of the class room and processed same as processing of database image i.e., calculating Eigen values of detected face images. If the eigen values does not match es with the existing one, save ot as a new face image in database. If the Eigen values matches , then the recognition process will start soon.PCA algorithm is used

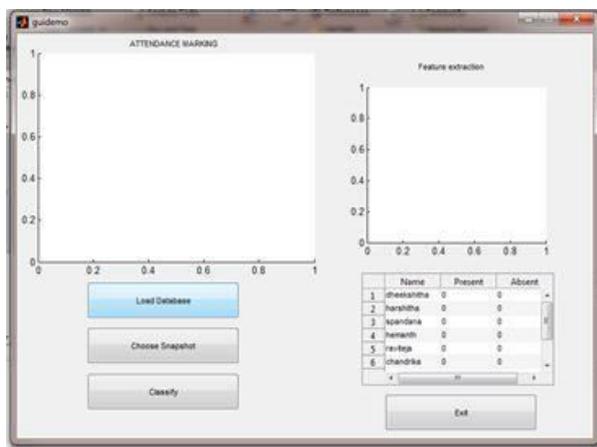
as classifier to compare Eigen values. By using the levels of Eigen values faces are recognised and listed the recognised users name as output.

At the end project the result is listed in form excell sheet for ease of verification.,

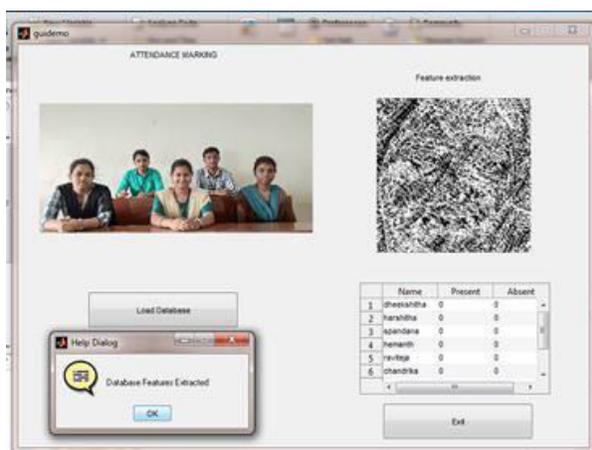
Software application:

This section gives a description of a software application that implements the proposed idea. In the training the image is captured and saved in the database. And from then the system is able to understand the face identity that is shown in second image.

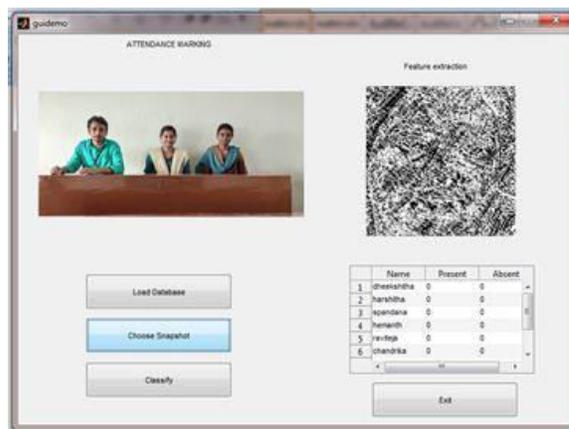
Step-1:



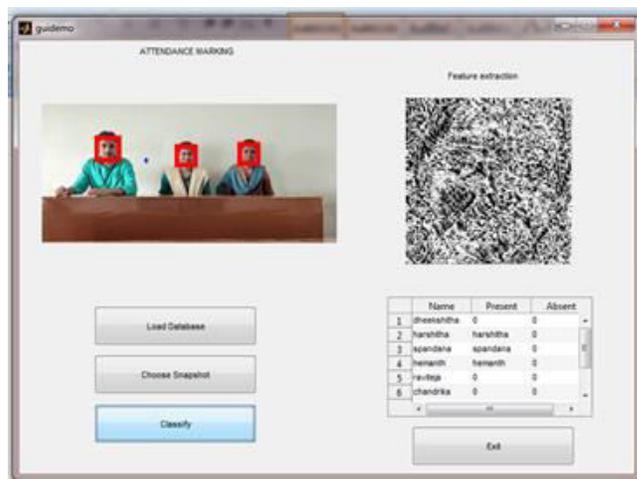
Step 2:



Step-3



Step-4



Conclusion;

An automatic attendance management system is a necessary tool for any organisation. Most of the existing systems are time consuming and require for a semi manual work from teacher or a student. This approach aims to solve the issues by integrating face recognition in the process. Even though this system still lacks the ability to identify each student present on class there is still much room for improvement.

The overall goal of the data mining process is to extract information from a data set and transform it into understandable structure for further use.

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