IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 3, April 2022
Impact Factor: 6.252

Face Recognition Attendance System

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Abstract: *Nowadays for better monitoring in educational institution and for enhancing the upgradation, we are representing a project with the central objective based on face recognition attendance system which is much more effective and efficient as compare to the traditional method. The current old system has a lot of ambiguity that caused inaccurate and inefficient of attendance taking. Due to inaccessibility in upgraded system numerous challenges arise in which there is a possibility of lacking behind for that innovative ideas need to be provoked so that, we will be implementing the face recognition system. In this project, firstly user needs to register / login in order to enter the application, then User needs to fill the required information. After completion of login and filling the required information user needs to train their data to recognize their face during Attendance. Once the user completes all the required process, teacher will be able to take the attendance and the marked attendance will be saved in database along with date and time.*

Keywords: Attendance System, Face Recognition, Face Capturing

I. INTRODUCTION

In this modern age where everyone is busy, engaged, looking after for some alternative and feels like to live the life to the fullest but wherein dwindles into the scenario. Face recognition attendance system have made many improvements in the current era. The technology aims in imparting a tremendous knowledge these days. Nowadays Attendance is considered as an significant factor for both the student as well as the teacher in any organization. Face is the representation of one's identity. Hence, we are presenting the face recognition based attendance system for the advancement of the society or any institution.

Face recognition system plays a crucial part in life applications especially in security control systems. The main purpose of this project is to develop face recognition based 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 that consist of a single face only. Face Recognition Attendance System is a technique that shows whether the student is present or not in the classroom by using face recognition technology.

Same device is required to ensure the better quality thus, the user has to train data and store it on the same device. In addition, the students registration is mandatory for recognition. The student details can be filled through the user-friendly interface. So, to overcome the challenge which are raised while taking the attendance manually in the classroom, we go with Face Recognition Attendance System.

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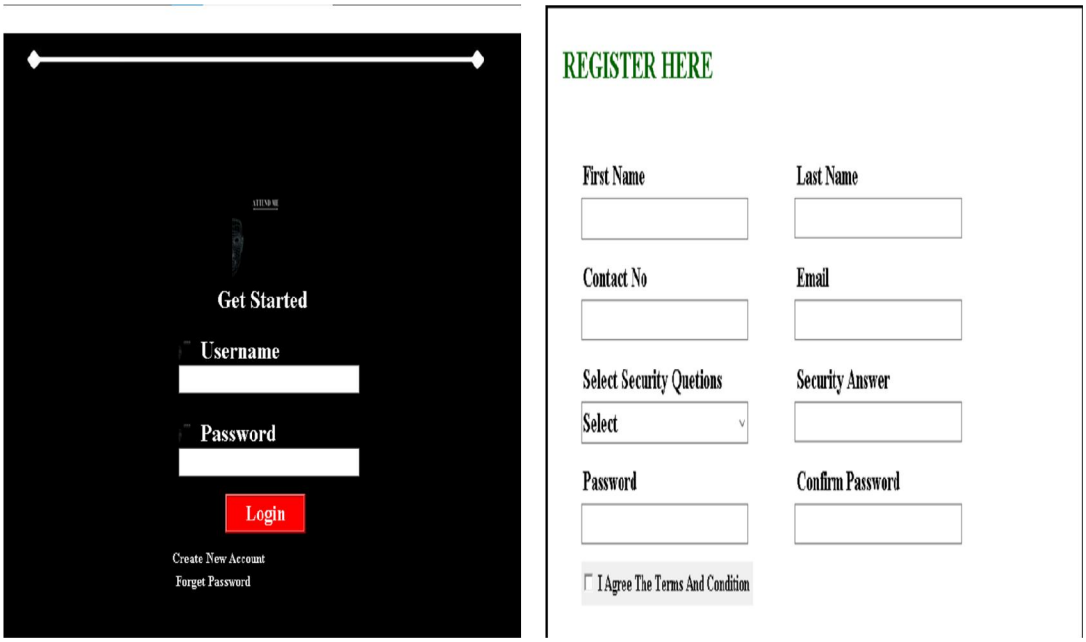
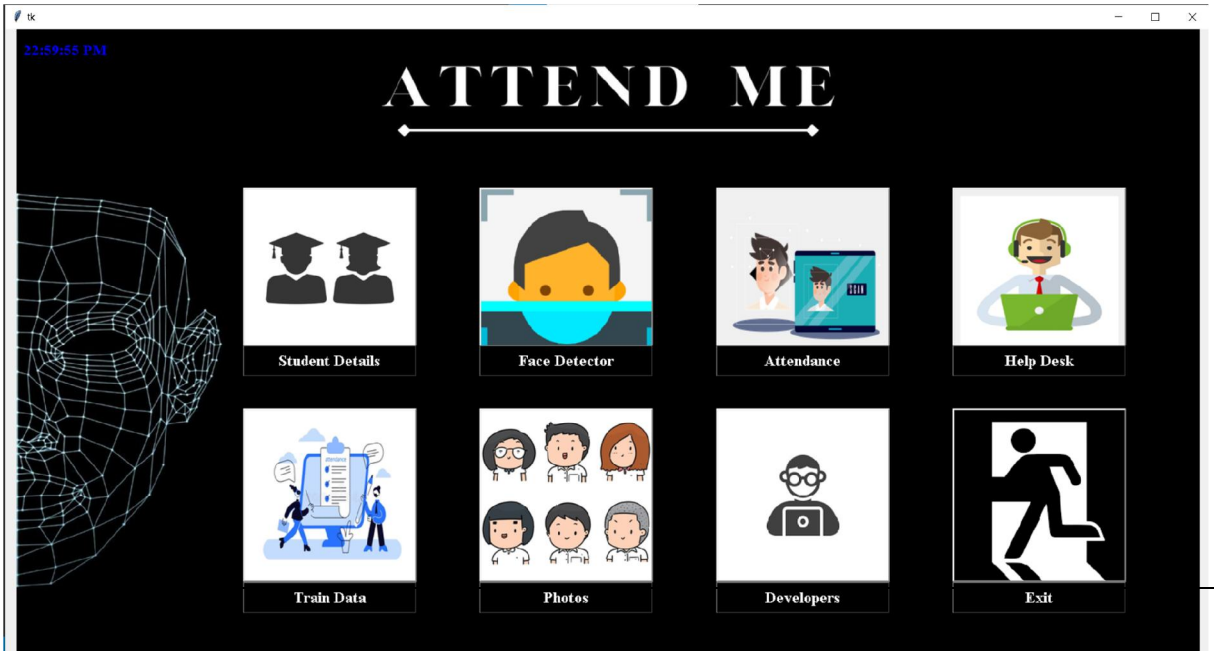
II. FEATURES

2.1 Login & Register: User needs to Login/Register in order to enter the application.



2.2 Main.py: Various functionalities are provided within this Application in which the user can choose the desired requirement as per their wish.



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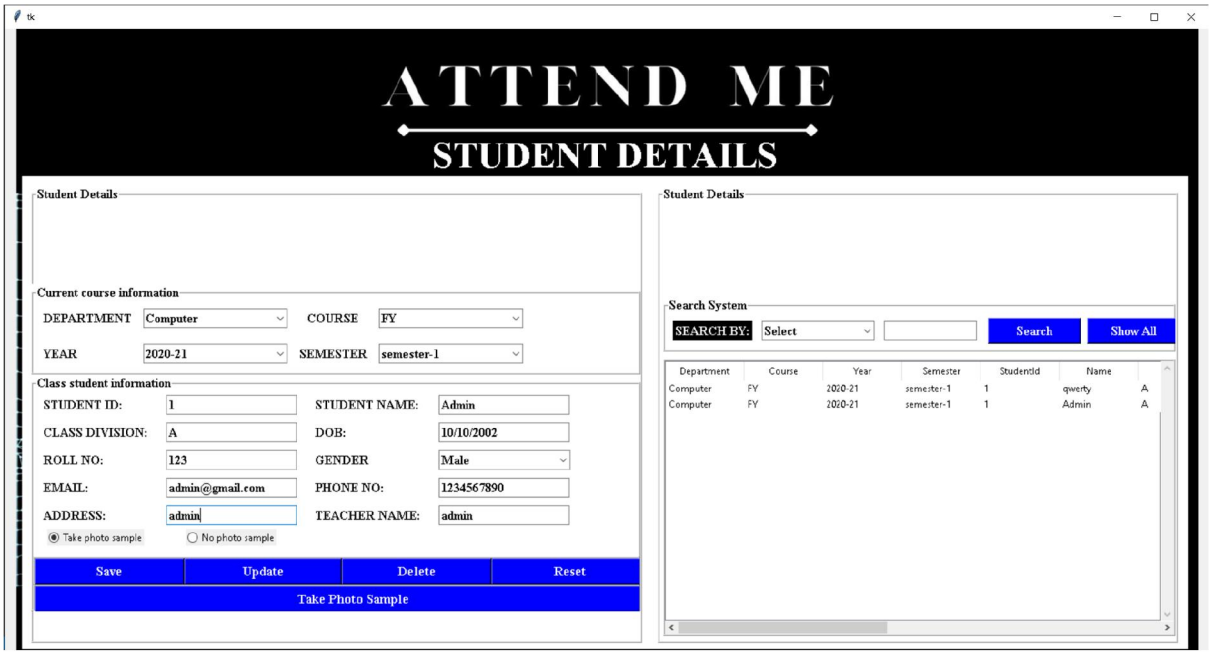
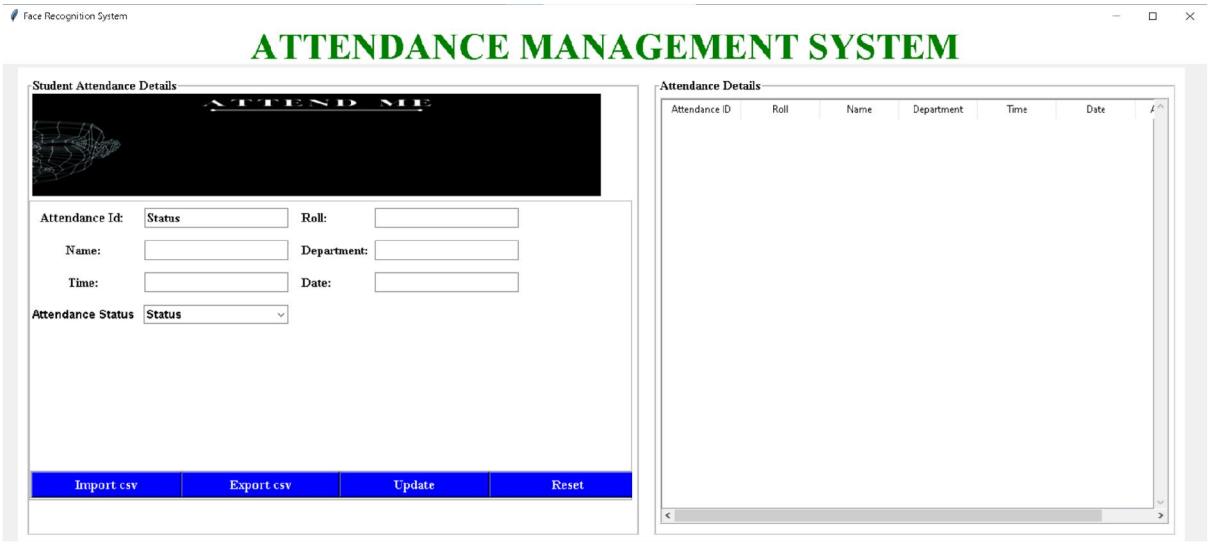
2.3 Student Details: User needs to fill the required information like class course information, class student information in order to take attendance.



2.4 Attendance Management System: Once the user completes all the required process, teacher will be able to take the attendance and the marked attendance will be saved in database along with date and time.



III. Problem Statement

Traditional student attendance marking technique is often facing a lot of trouble. The face recognition student attendance system emphasizes its simplicity by eliminating classical student attendance marking technique such as calling student names or checking respective identification cards. There are not only disturbing the teaching process but also causes distraction for students during exam sessions.

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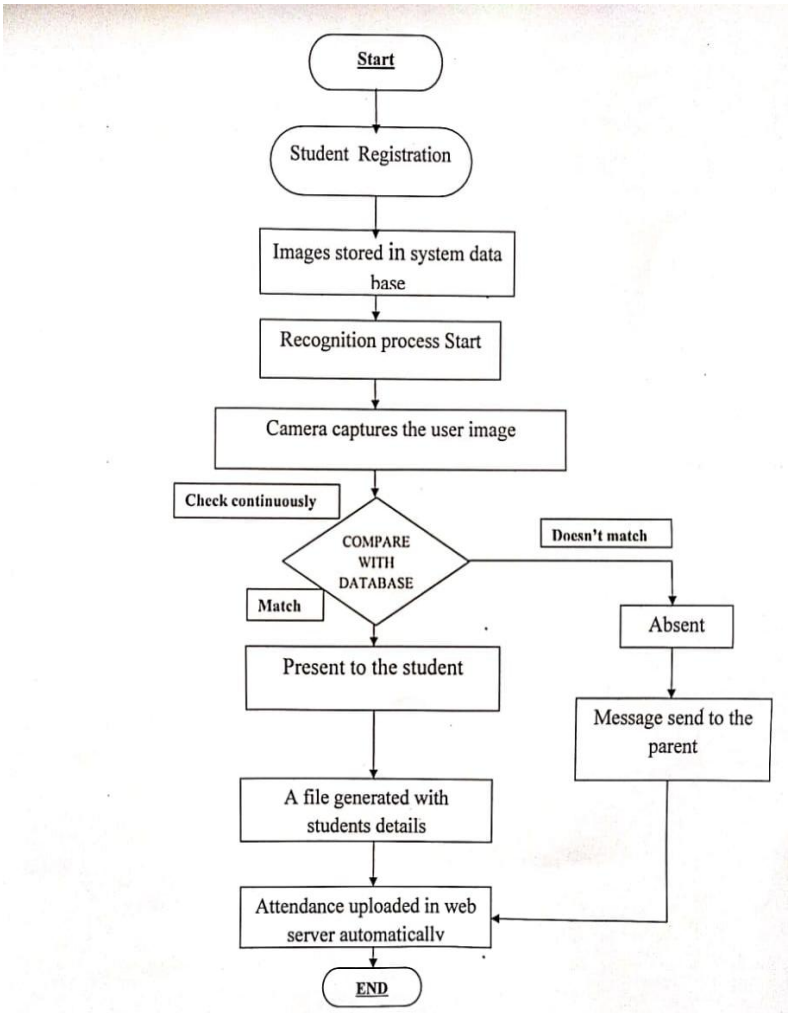
Apart from calling names, attendance sheet is passed around the classroom during the lecture sessions. The lecture class especially the class with a large number of students might find it difficult to have the attendance sheet being passed around the class.

Thus, face recognition student attendance system is proposed in order to replace the manual signing of the presence of students which are burdensome and causes students get distracted in order to sign for their attendance. Further more, the face recognition based automated student attendance system able to overcome the problem of fraudulent approach and lecturers does not have to count the number of students several times to ensure the presence of the students

IV. FLOWCHART



V. CONCLUSION

This paper introduces the efficient method of attendance management system in the classroom environment that can replace the old manual methods. There is no need for specialized hardware for installing the system in the classroom. Therefore, the facial recognition feature embedded in the attendance monitoring system can not only ensure attendance to be taken accurately and also eliminated the flaws in the previous system. By using technology to conquer the defects cannot merely save resources but also reduces human intervention in the whole process by handling all the complicated task to the machine. The only cost to this solution is to have sufficient space in to store all the faces into the database storage. Fortunately, there is such existence of micro SD that can compensate with the volume of the data. In this project, the face database is successfully built. Apart from that, the face recognizing system is also working well. At the end, the system not only resolve

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troubles that exist in the old model but also provide convenience to the user to access the information collected by mailing the attendance sheet to the respected faculty.

REFERENCES

[1]. K. Puthea, R. Hartanto and R. Hidayat, "A review paper on attendance marking system based on face recognition," 2017 2nd International conferences on Information Technology, Information Systems and Electrical Engineering (ICITISEE), 2017, pp. 304-309, doi: 10.1109/ICITISEE.2017.8285517.

[2]. M. Abuzar, A. b. Ahmad and A. A. b. Ahmad, "A Survey on Student Attendance System Using Face Recognition," 2020 8th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2020, pp. 1252-1257, doi: 10.1109/ICRITO48877.2020.9197815.

[3]. E. O. Akay, K. O. Canbek and Y. Oniz, "Automated Student Attendance System Using Face Recognition," 2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), 2020, pp. 1-5, doi: 10.1109/ISMSIT50672.2020.9255052.

[4]. S. Dev and T. Patnaik, "Student Attendance System using Face Recognition," 2020 International Conference on Smart Electronics and Communication (ICOSEC), 2020, pp. 90-96, doi: 10.1109/ICOSEC49089.2020.9215441.

[5]. S. K. Sarangi, A. Paul, H. Kishor and K. Pandey, "Automatic Attendance System using Face Recognition," 2021 International Conference in Advances in Power, Signal, and Information Technology (APSIT), 2021, pp. 1-5, doi: 10.1109/APSIT52773.2021.9641486.

[6]. K. Preethi and S. Vodithala, "Automated Smart Attendance System Using Face Recognition," 2021 5th International Conference on Intelligent Computing and Control Systems (ICICCS), 2021, pp. 1552-1555, doi: 10.1109/ICICCS51141.2021.9432140.