Project Id: 20PJ-IT-18

A
PROJECT REPORT

On

Face Recognition Based Attendance System

Submitted In Partial Fulfillment of the Requirements
For the Degree of
Bachelor of Technology
In
Information Technology
By

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Under the Supervision of
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INDERPRASTHA ENGINEERING COLLEGE
GHAZIABAD, UTTAR PRADESH
AFFILIATED TO DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW, UTTAR PRADESH (SESSION: 2019- 2020)

DECLARATION

We Sudhanshu Singh, Prashant Sharma, Sumit Kumar and Shubham Mittal hereby declare that this submission is our own work and that, to the best of our knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree of the university or other institute of higher learning, except where due acknowledgment has been made in the text**.**

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CERTIFICATE

This is to certify that Project Report entitled “Face Recognition Based Attendance System” which is submitted by Sudhanshu Singh, Prashant Sharma, Sumit Kumar and Shubham Mittal in partial fulfillment of the requirement for the award of degree B. Tech. in Department of Information Technology of Dr. A.P.J. Abdul Kalam Technical University, Lucknow, is a record of the candidate own work carried out by him under my supervision. The matter embodied in this final year project is original and has not been submitted for the award of any other degree**.**

Date: **Supervisor**

ACKNOWLEDGEMENT

It gives us a great sense of pleasure to present the report of the B. Tech Project undertaken during B.Tech. (VIII- Semester) Final Year. We owe special debt of gratitude to Mr. Binu Kuriakose Vargis for his constant support and guidance throughout the course of our work. His sincerity, thoroughness and perseverance have been a constant source of inspiration for us. It is only his cognizant efforts that our endeavors have seen light of the day.

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We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind assistance and cooperation during the development of our project. Last but not the least, we acknowledge our friends for their contribution in the completion of the project.

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ABSTRACT

Automatic face recognition (AFR) technologies have seen dramatic improvements in performance over the past years, and such systems are now widely used for security and commercial applications. An automated system for human face recognition in a real time background for a college to mark the attendance of their student. So Smart Attendance using Face Recognition is a real world solution which comes with day to day activities of handling students. The task is very difficult as the real time background subtraction in an image is still a challenge .The matched face is used to mark attendance of the student.

Our system maintains the attendance records of student automatically. Manual entering of attendance in logbooks becomes a difficult task and it also wastes the time. So we designed an efficient module that comprises of face recognition to manage the attendance records of students. Our module enrolls the student's face. This enrolling is a onetime process and their face will be stored in the database. During enrolling of face we require a system since it is a onetime process. Roll number of each student will provide unique ID to each student. The presence of each student will be updated in a database. Attendance is marked after identification of each student. This product gives much more solutions with accurate results in user interactive manner rather than existing attendance.

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LIST OF ABBREVIATIONS

SDC: Software Development Centre

FRBAS: Face Recognition Based Attendance System

GPU: Graphical Processing unit

CPU: Central processing Unit

PCA: Principal Component Analysis

SVM: Support Vector Machine

LDA: Linear Discriminate Analysis

API: Application Programming Interface

CNN: Convolution Neural Network

LIST OF FIGURES