**Project Report**

**on**

**FACE RECOGNITION BASED ATTENDANCE SYSTEM**

Submitted in partial fulfillment of the requirements

For the award of the degree of

**Bachelor of Engineering**

**In**

**Electronics and Telecommunication Engineering**

BY

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**Mr. Parth Shinde - (B829)**

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**Under the Supervision of**

**Dr. J.R. Mahajan**



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**Department of Electronics and Telecommunication Engineering**

**University of Mumbai**

**Academic Year-2019-20.**



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**CERTIFICATE**

This is to certify that the project entitled **"Face Recognition Based Attendance System"** is a bonafide work of **Mr. Kiran Pote**, **Miss. Neha Savakhande, Mr. Parth Shinde and Mr. Vinay Sripathi** under the supervision of **Dr. J.R. Mahajan** submitted to the University of Mumbai in partial fulfillment of the requirement for the award of the Degree of Bachelor of Engineering in Electronics and Telecommunication Engineering.

Dr. J.R. Mahajan Dr. S. D. Deshmukh

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**PROJECT STAGE-II REPORT APPROVAL FOR B.E.**

This project report entitled **" Face Recognition Based Attendance System "** by **Mr. Kiran Pote, Miss. Neha Savakhande, Mr. Parth Shinde and Mr. Vinay Sripathi** is approved for the degree of Bachelor of Engineering in Electronics and Telecommunication Engineering from University of Mumbai, in academic year 2019-20.

**Examiners:**

**1. Internal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2. External: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date:** /04/2020

**Place**: Mumbai

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**DECLARATION**

We declare that this written submission for B.E project entitled **" Face Recognition Based Attendance System "** presents our ideas in our own words and where others ideas or words have been included; we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Signature

**Mr. Kiran Pote - (B818) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Date:** /04/2020

**Place:** Mumbai

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**Abstract**

The planet just where we live in, have taken many measures to improve the technology. Wherein the image processing is a cornucopia of innovations which bolsters the digital and smart systems. When talking about the models such as identification (ID) of the faces or generation of attendance, these are few of many practical applications which are concerned to image processing. In the field of image analysis and computer vision, one of the most arduous tasks presently considered is Face recognition. The biometric system which basically works on the principle of face recognition is used for the identification or verification of a person from a digitalized image preferably used in surveillance, security and attendance purpose. Diving into matter of concern, to preserve the record generated by attendance of the student and co-operating ordinary activities becomes a tedious task all together. The run-of-the-mill method of calling the name of each student is time ingesting and there is always a risk of proxy attendance. The defined system is based on real-time multiple face recognition to maintain the attendance record of students. The variation in illumination and posing as well as focus issues and blurring are important factor to be considered during face identification process in the classroom using real-time videography. This above-mentioned problem can be nullified to some extent by the proposed system. The execution is performed with the help of Histogram of Oriented Gradients algorithm for detecting the faces, which is done by its excellent performance in differentiating feature descriptor of individuals. The training data sets comprises of different qualities of images. These data sets are fed to Convolutional Neural Network, through which the result of recognition is thoroughly obtained. Thus, making the attendance process work uninterruptedly.

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