

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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PROJECT REPORT

On

“FACE RECOGNITION ATTENDANCE SYSTEM ”

Submitted by

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In partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

In INFORMATION SCIENCE AND ENGINEERING

Under the Guidance of

Mr. PRADEEP NAYAK

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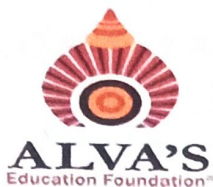
DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

**ALVAS INSTITUTE OF ENGINEERING AND
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Moodbidri-574225, Karnataka

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ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY
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CERTIFICATE

Certified that the project work entitled "Face Recognition Attendance System" is a bonafide work Carried out by,

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in partial fulfilment for the award of **BACHELOR OF ENGINEERING in INFORMATION SCIENCE AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM** during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.


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ABSTRACT

Automatic face recognition 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 students. So Smart Attendance using Real Time 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. To detect real time human face are used and a simple fast Principal Component Analysis has used to recognize the faces detected with a high accuracy rate. The matched face is used to mark attendance of the student. Our system maintains the attendance records of students 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 one time process and their face will be stored in the database. During enrolling of face we require a system since it is a one time process. You can have your own roll number as your usn which will be unique for each student. The presence of each student will be updated in a database. The results showed improved performance over manual attendance management system. Attendance is marked after student identification. This product gives much more solutions with accurate results in user interactive manner rather than existing attendance and leave management systems.

This project will show how we can implement algorithms for face detection and recognition in image processing to build a system that will detect and recognize frontal faces of students in a classroom. A face is the front part of a person's head from the forehead to the chin, or the corresponding part of an animal. In human interactions, the face is the most important factor as it contains important information about a person or individual. All humans have the ability to recognize individuals from their faces. The proposed solution is to develop a working prototype of a system that will facilitate class control for lecturers in a classroom by detecting the frontal faces of students from a picture taken in a classroom.