

# SMART ATTENDANCE USING FACE DETECTION

*A project report submitted in partial fulfillment of the requirements for  
the award of the Degree of*

BACHELOR OF TECHNOLOGY  
In  
COMPUTER SCIENCE AND ENGINEERING

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**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**  
(Approved by AICTE, New Delhi & Permanently affiliated to JNTU Kakinada)  
(Accredited by NAAC, UGC & NBA, AICTE)  
MAKAVARAPALEM, NARSIPATNAM,  
VISAKHAPATNAM DIST  
(2018-2022)

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**CERTIFICATE**

This is to certify that the project entitled "SMART ATTENDANCE USING FACE DETECTION" in partial fulfillment for the of degree of Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING, at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISAKHAPATNAM is an bonafide work carried out by G.SRI SATYA (18811A0519), G. CHANDRIKA (18811A0521), M.J.M.S. DURGA PRASAD(18811A0540),V.GANA SUDHEER RAJU(18811A0571) under the guidance and supervision during 2021-2022.

  
Project Guide

  
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## ABSTRACT

### STATEMENT OF PROBLEM:

Attendance of students in a large classroom is hard to be handled by the traditional system, as it is time-consuming and has a high probability of error during the process of inputting data into the computer. Our project proposed automated attendance marking system using face recognition technique.

### RESULT:

The system deployed Haar cascade classifier to find the positive and negative of the face and LBPH (Local binary pattern histogram) algorithm for face recognition by using python programming and OpenCV library. Here we use the tkinter GUI interface for user interface purpose. Firstly, our app asks to fill the details of the student and take image of the particular student. It takes 60 images as sample and store them in folder Training Image. After completion it notify those images saved. After taking image sample we have to click Train Image button. Now it takes few seconds to train machine for the images that are taken by clicking Take Image button and creates a Trainer. yml file and store in TrainingImageLabel folder. Now all initial setups are done. By clicking Track Image button camera of running machine is opened again. If face is recognized by system then Id and Name of person is shown on Image. Press Q (or q) for quit this window. The attendance of the student was updated to the Excel sheet after student's face has been recognized.