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# Overview/Introduction

The "Face recognition attendance system" is a hardware prototype of a face recognition attendance system. This project is developed using Raspberry pi, RPI camera, Convolutional Neural Network and Python coding. Face recognition is an important application of Image processing owing to its use in many fields. Identification of individuals in an organization for the purpose of attendance is one such application of face recognition. Maintenance and monitoring of attendance records plays a vital role in the analysis of performance of any organization. The purpose of developing attendance management system is to computerize the traditional way of taking attendance. Automated Attendance Management System performs the daily activities of attendance marking and analysis with reduced human intervention. The prevalent techniques and methodologies for detecting and recognizing face fail to overcome issues such as scaling, pose, illumination, variations, rotation, and occlusions. The proposed system aims to overcome the pitfalls of the existing systems and provides features such as detection of faces, extraction of the features, detection of extracted features, and analysis of students' attendance. The technique behind the face recognition the training images are feed into the model and model learn the parameters. After learning parameters, the sliding window technique is used to classify the images and detect the faces in the real time. The system is tested for various use cases. We consider a specific area such as classroom attendance for the purpose of testing the accuracy of the system

# Statement of Problem

# Objective

The objectives of the project are given below:

1. Detection of unique face image amidst the other natural components such as walls, backgrounds etc.

2. Extraction of unique characteristic features of a face useful for face recognition.

3. Effective recognition of unique faces in a crowd (individual recognition in crowd).

4. Automated update in the database without human intervention.

# Literature Review (can consists related works)

# Methodology

# Working schedule

# Expected Result (Interface design- If possible)

# References