

Attendance Monitoring using Face Recognition

Problem Definition:

The primary objective of this project is to monitor and maintain the attendance of students present for the lecture, using face recognition technology. By inputting the image of students, a list of students present in the class will be displayed.

Abstract:

Authentication is a significant issue in system control in computer based communication. Human face recognition is an important branch of biometric verification and has been widely used in many applications, such as video monitor system, door control system and network security. This project describes a method for Student's Attendance System which will integrate face recognition technology using deep learning algorithms. The system will recognize the students present in the classroom and provide the list of present and absent students for the lecture.

The primary technique used for the face detection is by using the algorithms of computer vision and deep learning with python inbuilt packages of OpenCV. Once the model is trained on different kinds of datasets, the project will help in identifying students present for the class.

Main problems with the existing methods such as Haar Cascade Classifier is its inability to classify efficiently, it also depends on the quality of picture taken and the camera used to capture the picture. With Open CV these hurdles can be overcome with inbuilt features.