

Attendance System Using Deep Learning

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Abstract: *In the traditional system, it is difficult to handle the attendance of a huge number of students in the classroom. Attendance of the students is very important for every university, college as well as school as it keeps the record of every individual. The conventional methodology of taking attendance by calling out the roll number or name of the student and then recording the attendance is a tedious task. Assume the duration of the lecture is 60 minutes or 1 hour and to record the attendance it would take 5 to 10 minutes. Also for every tutor, this is time-consuming. To overcome this problem, real-time face recognition is a real-world solution, which will help in marking the attendance of students in bulk. In this project, face detection and face recognition are used. Attendance marking through face recognition can be implemented in the classroom by capturing the image of students in the classroom via a surveillance camera. Later Haar Cascade algorithm is used for face detection, which helps in locating the position of the face region, and LBPH (Local binary pattern histogram) algorithm for face recognition. The images of all the students in the class are stored in the database and when the face of the individual student matches with one of the faces stored in the database then the attendance is recorded.*

Keywords: Haar cascade classifier, LBPH algorithm, face recognition, face detection

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