Attendance Management System Implementation Using Face Recognition

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Abstract : Student attendance in schools is a very important aspect in school management record. In recent years, security systems have become one of the most demanding systems in school. Every institute have its own method of taking attendance, many schools in Nigeria use the old fashion way of taking attendance. That is writing the students name and registration number in a paper and submitting it to the lecturer at the end of the lecture which is time-consuming and insecure, because some students can write for their friends without the lecturer's knowledge. In this paper, we propose a system that takes attendance using face recognition. There are many automatic methods available for this purpose i.e. biometric attendance, but they all waste time, because the students have to follow a queue to put their thumbs on a scanner which is time-consuming. This attendance is recorded by using a camera attached in front of the class room and capturing the student images, detect the faces in the image and compare the detected faces with database and mark the attendance. The principle component analysis was used to recognize the faces detected with a high accuracy rate. The paper reviews the related work in the field of attendance system, then describe the system architecture, software algorithm and result.

Keywords : attendance system, face detection, face recognition, PCA

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