An in Depth Review on Face Recognition Attendance System

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Abstract: *The book lists problems businesses and schools can solve, from introducing facial recognition technology to tracking attendance. The aim is to break the deadlock to increase OpenCV and Logitech C270 web Using equipment such as webcams, the system provides a reliable and convenient environment for researching and capturing participants. The machine can meet today's attendance needs and time management purpose is also one of its advantages. The technology enables accurate and rapid visits by capturing student images and comparing them to existing data. This increases the overall efficiency of the learning environment while also reducing the workload of administrators and teachers. In addition, the use of complex algorithms such as the LBPH algorithm and the Haar Cascade classifier demonstrates the complexity of the potential identification process. Using a multi-step process that includes comprehensive facial analysis, the system will reduce the risk of errors and increase the accuracy of attendance data. Most importantly, the integration of systems into the learning environment makes it easier for students and technology to connect effectively. When students use the device before class, they can easily participate in the onboarding process and maximize learning time. All things considered, the use of facial recognition technology for attendance monitoring is a significant advancement in school management. The solution simplifies administrative tasks by reducing inefficiencies associated with data processing, as well as creating a more effective and engaging learning experience. As efficiency and innovation become more important in workplaces and schools, the enrollment process provides a powerful response to the ongoing problems of absenteeism.*

Keywords: Attendance, Teachers, Students, Educational Institutions, Records, Automatic Enrolment System, Face Detection, Face Recognition, Logitech C270 Network Camera, OpenCV, Haar Cascade Classifier, LBPH Algorithm.

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