Title:

Facial Attendance Recognition System

Abstract:

The Facial Attendance Recognition System operates through a multi-step process, beginning with the enrollment phase. During enrollment, individual's facial features are captured and stored securely in the database. The data stored in the database are trained using machine learning algorithms creating a unique templates for each person. This template serves as the basis for persons identification and verification processes.

When a person interacts with the device trained for capturing video for attendance, the facial recognition module captures their image and compares it with the stored templates in the database. The system utilizes machine learning techniques to adapt and improve its recognition accuracy over time, considering variations in lightening conditions, facial expressions, and other factors.

The data stored in the database is password protected to prevent unauthorized access. The system may prompt users to perform liveness checks, such as blinking of eyes and turning of heads to ensure the presence of persons rather than usage of photos.

Real time attendance data is stored into existing attendance management system providing administrators with instant access to attendance records. This process marks up with the timely management of the data.

Designing: