Gate Entry Management System

The Hostels nation wide has an entry system where inhabitants have to make an entry when they leave and enter the premises, mentioning their name, id number and the timings. This project was made, keeping in mind the girls hostel of NIT Hamirpur who have to do an entry whenever they come and go and also mark their attendance after 9:30PM.

The project recognizes faces when they enter and leave the system and make an entry in the database. After 9:30PM (That is the in-timing) it announces the names of the students whose entry have not been closed (using text to speech conversion). After 10:00PM if the student has still not reached the camera, a notification goes on the attendant's phone informing her of students' absence.

**PREREQUISITES**

Python

Verified Twilio account

Media Player

Eclipse

**DATABASE USED**

MySQL

**LIBRARIES USED**

Dlib

Opencv

Tensorflow

Keras

Sklearn

Pillow

gtts

**ARCHITECTURE USED**

Convolutional Neural Network

**Pipeline**

Image -> FaceDetection -> CroppedFace -> FaceRecognition -> Descriptor(128D) -> FaceClassifier -> Name -> Database entry made -> Text to speech coversion of tupples marked Absent -> Notification sent

**CSV File Generation**

Multiple pictures of students will be taken during registration. The excel sheet will then contain their picture name, student name and the id number. The csv file will then be extracted from the Excel file.