

Automatic student attendance tracking

Team members

- 1) K CHANDRASEKARAN RA1711004040028
- 2) S AATHITH RA1711004040030

Existing problem

- Student's attendance in the classroom is a very important task
- The existing method of taking attendance consumes a finite amount of time which can be used for other productive action.
- We are focused on addressing this problem on schools and universities only.

Motivation

- We found this problem in many universities
- We want a reliable system which identifies which student is present in the classroom and gives the attendance based on his presence
- This system must not be complex and very easy to interact with it

Existing Recognition systems

- The systems can be broadly classified :
 - Systems that uses human characteristics like fingerprint
 - Systems that uses unique objects that the person carries like ID card

Fingerprint based recognition system

- Distracts the attention of students during lecture time
- Queuing takes place

RFID based recognition

- Possibilities that Fraudulent may occur
- Cheat the system by giving proxy (for example a student misuse it by wearing another student's ID card)

IRIS based recognition system

- Cant use a regular camera
- Visible light must be minimized for maximum accuracy

Proposed work

- Attendance is monitored and marked present or absent depending upon the presence of the student inside the class at the particular time of lecture
- Our solution uses a camera that takes photo of a group of students, and then uses facial recognition for marking attendance for a student
- We found that facial recognition overcomes some of the problems that exist in the previously mentioned attendance systems
- Our solution makes sure that there is a minimal interaction between students and the attendance monitoring system

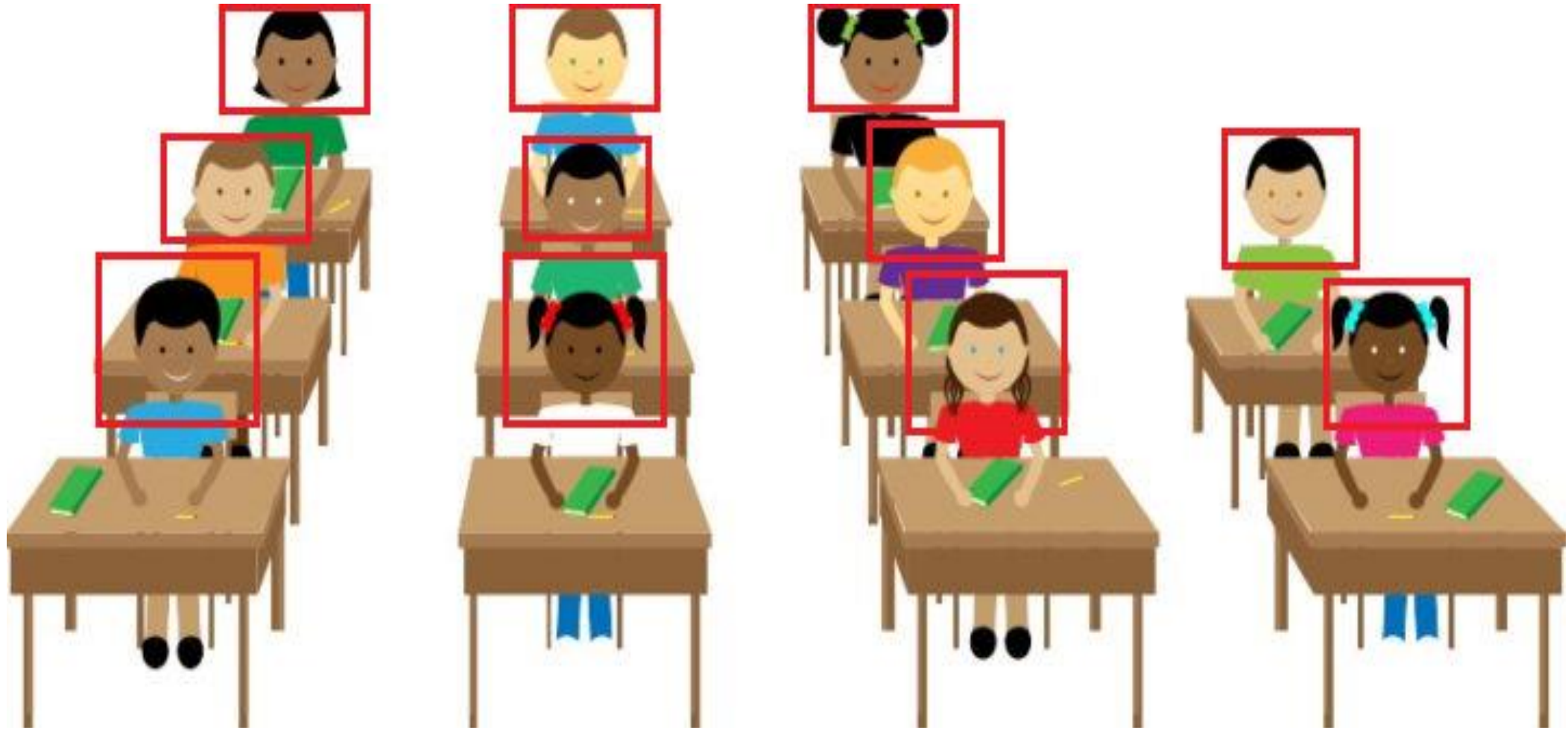
Facial recognition

- Any facial recognition has 2 steps
 - Facial detection – the process of finding a face in a given image
 - Facial recognition – the process of identifying the person from the image of a face (example : face id in apple)
- The process of facial recognition occurs in a separate computer as the burden on the camera system must be reduced

Hardware

- Camera is installed on the classroom
- The role of the camera is just to take pictures
- But the process of facial recognition takes place in another computer

Facial recognition in class – an idea



Thank You