Université Paris-Est Créteil
International Master of Biometrics and Intelligent Vision

**PROJECT DEFENCE**

# Face Recognition of Attendance Management

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# Outline

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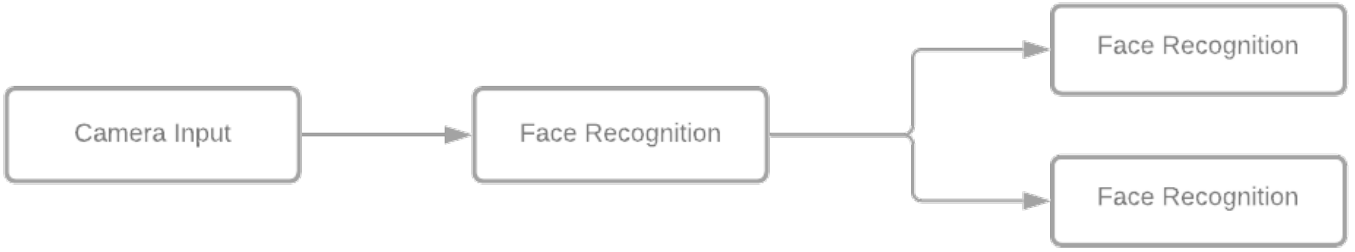
# Introduction

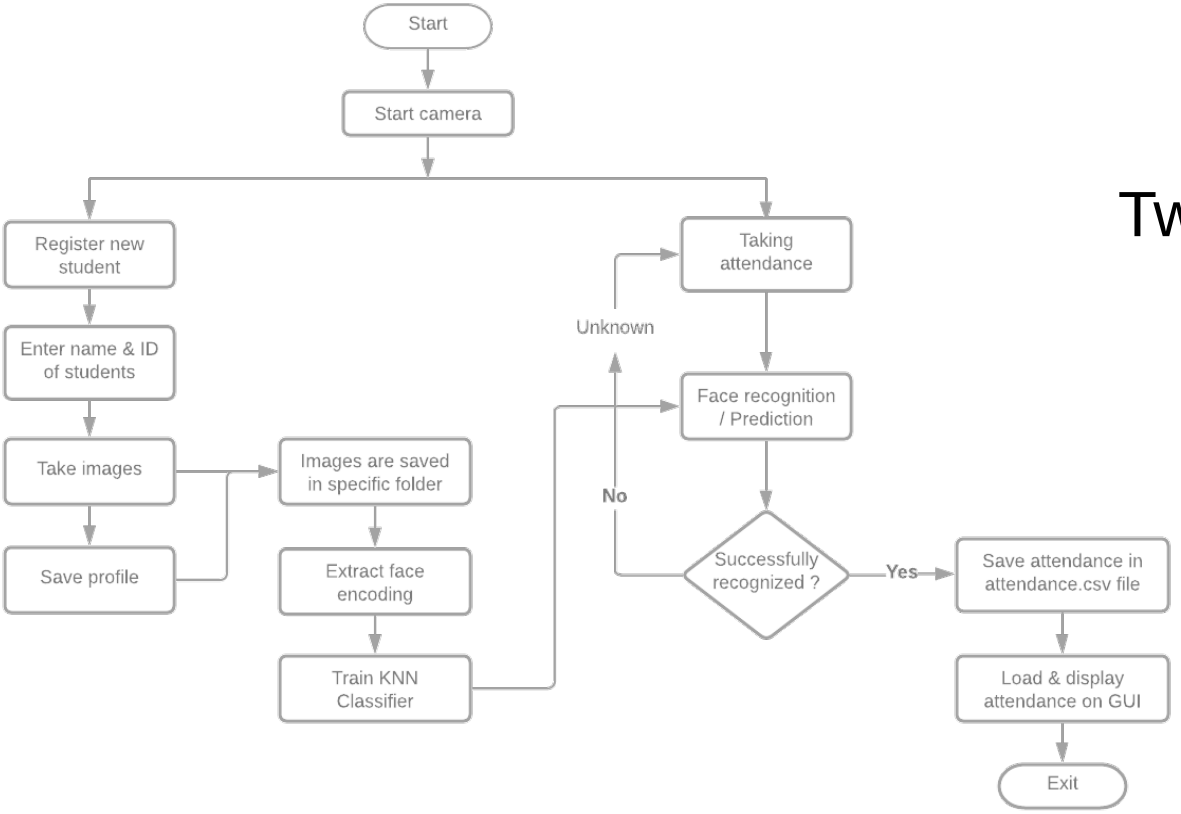
- Recording manually attendance is time consuming;
- World is turning toward automation using smart systems;
- Student attendance and performance are correlated;

# Project objectives

- Develop a computer-vision system to manage student attendance in classroom;
- Generate statistics of student attendance;
- Integrate the system with a GUI;



# System flow chart




Two parts :

- Registration flow part
- Recording attendance

# Tools and libraries used

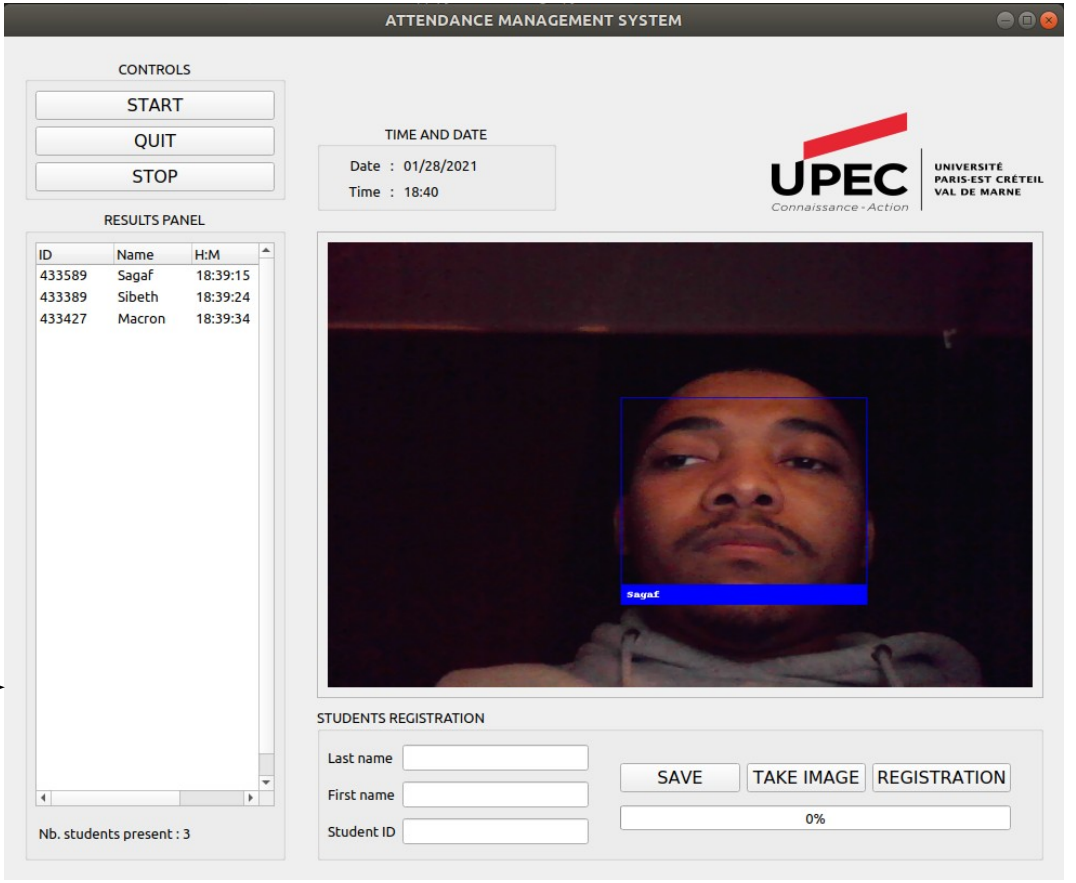
- Programming language : Python
- Use of ***face_recognition*** library to extract face encoding;
- Face recognition with a trained KNN classifier;
- PyQt5 to build graphical interface;
- And more libraries : scipy, OpenCV, Numpy, os, datetime, ...

# Results

| | A | B | C |
|---|---|---|---|
| 1 | STUDENT_ID | STUDENT_NAME | DETECTION_TIME |
| 2 | 433625 | Sagaf | 23:32:23 |
| 3 | 433325 | Sibeth | 21:42:06 |
| 4 | 433035 | Merkel | 21:42:15 |

Attendance on the CSV file

Results of final application



# Conclusion

- Improve the structure of the application for better performance;
- Master python programming and improve my coding skills in python using advanced concepts : multiprocessing and oop;

# Thanks for your attention !

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