

# Personal management based on face recognition

Computer Vision

# Description

Application with the purpose of having a reasonable personal control in different areas of a company (like field areas, labs, offices, etc) with the help of face recognition.

# Example

- A large company of water treatment with a lot of field areas, laboratories and offices.
  - If an emergency occurs at any time, it may take considerable time to gather all the personal and organize them in order to not have any accident.



# Example

For this particular example, a system with control over all the staff with its information and photos can be a very useful.

# Similar Projects

- Canon's facial recognition focuses on friends and ignores strangers
- Canon PowerShot G1X can distinguish between kids and grownups

# Objective

Provide to the company a simple way to control the staff in any area, through concise and clear reports that gave all the information needed.

# Application flow

The general idea of the application lifecycle is the follow:

1. Register all staff, if new employee arrives, register.
  - a. Fill all needed data of the employee, like name, area, photo, etc.
2. Everyday, first in the morning all employees need to check-in in the system (and also check-out when the day ends). A webcam will be in the reception and the only thing the employees have to do is stare in front of the camera to let the system check them.

# Tools

- OpenCV
- Python
- Django or Flask



# Optional Features

An optional feature could be sync all the surveillance cameras to have better tracking of the staff.

# References

<http://gizmodo.com/5875762/canons-facial-recognition-focuses-on-friends-and-ignores-strangers>

<http://gizmodo.com/5873335/canons-latest-powershot-leaked--can-distinguish-between-kids-and-grownups>

<https://realpython.com/blog/python/face-recognition-with-python/>

<https://realpython.com/blog/python/face-detection-in-python-using-a-webcam/>