

# Face Recognition using Face Images obtained from the Internet

Computer Vision (CS6350)  
TPA-2

## 1. Problem Statement

In the standard setup of Face Recognition (FR), a model (deep or shallow) [1, 2, 3, 4] is learned using training and validation data. The performance of the model is then assessed using the test data. In this assignment, the students will be expected to train a model using a few labeled data coupled with any standard dataset (either fine-tune model with few labeled data after training with any standard dataset OR augment any standard dataset with the labeled data and train the model). During the test time, given a set of images in the form of a web page, the designed software is expected to parse the web page to extract all the images from the page for recognition.

## 2. Input

A webpage having a structure similar to

- i. <http://www.cse.iitm.ac.in/~vplab/> (On the menu on LHS, go to People -> Current people)
- ii. <https://www.cse.iitm.ac.in/listpeople.php?arg=MSQw>.

## 3. Output

- A 3 column table containing the image extracted from the webpage and the corresponding name and confidence score respectively.
- Should work online, given any website link.

## 4. Datasets

VGG face [3], PIE, LFW datasets.

## 5. References

1. Zheng et al., "Ring Loss: Convex Feature Normalization for Face Recognition", CVPR 2018.
2. Ranjan et al., "HyperFace: A Deep Multi-Task Learning Framework for Face Detection, Landmark Localization, Pose Estimation, and Gender Recognition", TPAMI 2019.
3. Schro et al., "FaceNet: A Unified Embedding for Face Recognition and Clustering", CVPR 2015.
4. Parkhi et al. "Deep face recognition", BMVC 2015.
5. Simonyan et al., "Very Deep Convolutional Networks for Large-Scale Image Recognition", ICLR 2015.
6. Richardson, Leonard. "Beautiful soup documentation.", Technical Report, 2007.