

Face Localization

Joint project for courses of Machine Learning and Algorithm Optimization for Big Data, offered during Winter'15 semester

Aim

The task is to find the locations and sizes of a known number of faces (usually one) in a **video**. You should be able to detect the face and mark it in the video ignoring everything else, such as background and bodies.

Note: This is a group project and each group is given a unique test video to work with.

Timeline

Declaration of Problem Statement	February 12, 2015
Assessment of Literature Survey	March 9, 2015
Assessment of Preliminary Results	March 23, 2015
Assessment of Results and Deliverables	April 16, 2015

Deliverables

- Algorithm for Face Localization in a video.
- IEEE conference format paper (not more than 6 pages), strictly written in LaTeX.
- Separate reports for Literature Survey and Preliminary Results generated.

References to start with

- Viola, Paul, and Michael Jones. "Rapid object detection using a boosted cascade of simple features." *Computer Vision and Pattern Recognition, 2001. CVPR 2001. Proceedings of the 2001 IEEE Computer Society Conference on*. Vol. 1. IEEE, 2001.
- Viola, Paul, and Michael J. Jones. "Robust real-time face detection." *International journal of computer vision* 57.2 (2004): 137-154.
- Jain, Vidit, and Erik G. Learned-Miller. "Fddb: A benchmark for face detection in unconstrained settings." *UMass Amherst Technical Report* (2010).

Project Groups

Group Name	Group Members	Test Video
Silicon	Amoli Rajgor - 1421001 Grishma Shah - 1421002 Nikita Shah - 1421006 Prayagraj Shah - 1421009	Video1
Omega	Pooja Bavishi - 1421008 Puja Patel - 1421011 Saurabh Chauhan - 1421015 Seema Aswani -1421016	Video2
DOBA	Anokhi Gandhi - 121005 Sohum Shah - 121056 Shashwat Sanghavi - 121049 Kashyap Patel - 121021	Video3
Error!404 File Not Found	Geet Patel - 121014 Dhruvi Pandya - 121011 Shikhar Pandya - 121050 Kavan Patel - 121023 Nishant Patel - 121031	Video4
Coffee Beans	Anmol Anubhai - 121004 Shoghi Bagul - 121051 Somi Jha - 121057 Keyur Patel - 121025	Video5

Trouble Shooter	Sahil Desai - 1421014 Himani Bhatt - 1421003 Janvi Shah - 1421004 Priyanka Nimavat - 1421010	Video6
Yottabyte	Mehul Katara - 1421005 Nirali Patel - 1421007 Reema Chhatbar - 1421012 Riddhi Patel - 1421013	Video7
Manipulators	Kunjan Patel - 121027 Shailee Mehta - 121048 Hemil Modi - 121016 Shreya Gokani - 121057 Kathan Adhyaru - 121022	Video8
	Rajan Mehta - 121043 Nishanshi Shukla -121030 Rahul Patel - 121040 C D Parmar - PhD	Video8

Note: Test videos are available [here](#).