

198:676 Seminar in Computer Vision: Looking at People Spring 2003

Visual processing of humans and their motion is essential for many applications such as visual surveillance, HCI, multimedia databases and virtual reality. Detection of humans, tracking their body parts, recognizing their faces, and understanding their actions are some examples of many problems related to humans in images and videos. Recently, there has been a lot of emphasis in computer vision research to solve these problems. The course goal is to survey computer vision literature on approaches which are used to analyze humans and their motion in images and videos with the focus on critically evaluating these approaches, their assumptions, and their applicability to different domains.

Topics:

Detection: detecting humans and faces. Modeling and tracking: human body modeling and visual tracking. Recognition: gesture recognition, facial expression recognition and activity recognition. Identification: face and gait recognition. Applications: visual surveillance, human computer interaction, video archival and retrieval.

Recommended Background:

Some previous exposure to computer vision and statistics will be assumed during presentations and discussion.

Course Style:

Class will be conducted in a seminar style. For each class, some research or survey papers will be selected and handed-out one week in advance. All students are expected to read these papers prior to the class. Each paper will be summarized by the instructor and discussed during the class. Students are expected to work on a class project or a survey paper throughout the semester to explore one of the class topics.

Instructor: Ahmed Elgammal – email: elgammal@cs.rutgers.edu

Time : TBA

Place: TBA

Course Number: 198:676 index 54696

Web page: <http://www.cs.rutgers.edu/~elgammal/cs676.html>

Please contact the instructor if you are interested to register in this class or for further information.