

WINTER 2012

COMP 4900D [CRN 16736] Introduction to Computer Vision – Dr. Gerhard Roth

Brief Description

This course introduces the basic ideas and techniques of computer vision, which is a fast growing area of computer science. The central theme is reconstructing 3D models from 2D images.

Topics include: image formation, image feature extraction, camera models, camera calibration, structure from motion, stereo, recognition, augmented reality, image searching.

Prerequisite

Basic linear algebra and calculus, programming skills in C or C++.

Textbook: Introductory Techniques for 3-D Computer Vision, by Emanuele Trucco and Alessandro Verri

Software

The Open Source package called OpenCV (stands for Open Computer Vision) will be used in the course. It contains a wide variety of algorithms such as feature finding, matching, face detection.

Marking

There will be four (or five) assignments, and two midterms (one at the middle, and one at the end, both in class). The midterms are each 25%, and the assignments total 50%.

COMP 4900A [CRN 17728] Human-Computer Interaction for User Interface Design – Prof. Robert Biddle

Brief Description

A basis for graduate study in HCI with an emphasis on the application of theory to user interface design. Review of main theories of human behaviour relevant to HCI, including especially Cognitive Dimensions of Notations Framework, Mental Models, Distributed Cognition, and Activity Theory, and their application to design and development of interactive systems.