

# CMPT882: Recognition Problems in Computer Vision

Instructor: Greg Mori

Fall 2005

## Course website:

<http://www.cs.sfu.ca/~mori/courses/cmpt882>

## Grading scheme:

- 10% Class participation
- 10% Reading assignments: Students will be expected to submit summaries of the one or two papers assigned each week.
- 10% Paper presentation: Each student will be expected to present one paper (of his or her choosing) in class.
- 10% Assignment: There will be one programming assignment.
- 60% Project (10 proposal, 25 presentation, 25 report): The main component of this course is a substantial project, which may be done individually or in small groups. Students will give a presentation in the last week of classes, and submit a written report (3-8 pages).

## List of topics:

Week 1 (Sept. 6, 8): Administrivia, Intro, edge detection

Week 2 (Sept. 13, 15): Texture recognition / synthesis

Week 3 (Sept. 20, 22): Shape matching

Week 4 (Sept. 27, 29): Handwritten digit recognition

Week 5 (Oct. 4, 6): Face detection, Face recognition

Week 6 (Oct. 11, 13): Recognition using Local Features

Week 7 (Oct. 18, 20): No classes, Greg at ICCV

Week 8 (Oct. 25, 27): 3d Object recognition

Week 9 (Nov. 1, 3): Tracking

Week 10 (Nov. 8, 10): Detection of human figures

Week 11 (Nov. 15, 17): Activity recognition

Week 12 (Nov. 22, 24): Scene/location recognition, segmentation and recognition

Week 13 (Nov. 29, Dec. 1): Project presentations

## Assignment dates (tentative):

A1: Out week 2, In week 4

Project proposal: Out week 4, In week 6

Project report: In Dec. 8

**Textbooks:**

No required texts. The following two books have been placed on hold in the library for reference:

D. Forsyth and J. Ponce, "Computer Vision: A Modern Approach"

E. Trucco and A. Verri, "Introductory Techniques for 3-D Computer Vision"