Course Syllabus

Term: Fall 2009

Course Title: Introduction to Digital Image Processing

Instructor: Prof. C.-C. Jay.Kuo
Dept. of Electrical Engineering
EEB 440
University of Southern California
E-mail: cckuo@sipi.usc.edu
Phone (213) 740-4658

Lecture: 9:00 - 11:50 a.m. Friday

Discussion: 5:00 - 5:50 p.m. Tuesday

Website: http://den.usc.edu
1. Please check the website for latest announcements and project assignments.
2. For general questions, please utilize the discussion board on the website. TAs will check the forum on a daily basis.

Instructor Office Hours:
Monday & Tuesday 8-10am. For any problem related to the homework, ask the TA or the grader for help first.

Teaching Assistant:
SeongHo Cho: Room EEB 439, Phone (213) 740-4656
E-mail: seonghoe@usc.edu
Office hours: Wednesday, 3:00pm ~ 5:00pm

Martin Gawecki: Room EEB 439, Phone (213) 740-4656
E-mail: gawecki@usc.edu
Office hours: Thursday, 3:00pm ~ 5:00pm

Ping-Hao Wu: Room EEB 439, Phone (213) 740-4656
E-mail: pinghaow@usc.edu
Office hours: Tuesday, 3:00pm ~ 5:00pm

Grader:
Sachin Chachada, E-mail: chachada@usc.edu
Sanjay Purushotham, E-mail: spurusho@usc.edu
Office hours: by appointment only

You are welcome to communicate with Professor, TAs, and graders by e-mails. Please include words “EE569” in the subject line for ease of search and management.
Textbook:  

Reference Books: 

Homework:  
There will be 3 projects. All require computer programming. No late homework will be accepted.

Midterm Exam:  
Nov. 13 (Friday) 9:00am ~ 11:50am

Term Paper:  
Due on Dec. 4 (Friday) 5pm PST

Grading Policy:  
1. Homework: 50%
2. Midterm Exam: 20%
3. Oral Exam (on your submitted codes): 10%
4. Term Paper: 20%

Tentative Schedule:  
Topic 1: DIP Fundamentals and Image Enhancement and Noise Removal (Chapter 10)

Homework No. 1

Topic 2: Edge Detection (Chapter 16)
Topic 3: Morphological Processing (Chapter 15)
Topic 4: Digital Halftoning

Homework No. 2

Topic 5: Geometrical Modification (Chapter 14)
Topic 6: Texture Analysis (Chapters 17 and 18)
Topic 7: Object Shape Recognition (Chapters 18 and 20)

Homework No. 3
Topic 8: Color Image Processing
Topic 9: Image Restoration
Topic 10: Image Sampling and Transforms (Chapters 1, 4 and 8)
Topic 11: Image Watermarking and Data Hiding
Topic 12: Image Indexing and Retrieval

Term Paper Due

Important Reminder:
Please refer to the following web sites for USC policy on academic integrity and the penalties for cheating and plagiarism. These rules will be strictly followed.