Prof. A. Zakhor

EE225b – Digital Image Processing

Information Sheet

Lectures
Wednesdays and Fridays, 11:00am – 12:30pm
203 McLaughlin

Lecturer
Professor A. Zakhor
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Office hours: Fridays, 12:30pm – 1:00pm

Teaching assistant
Vito Dai
307 Cory Hall, cubicle 7, ext. 3-1587, vdai@eecs.berkeley.edu
Office hours: Thursdays, 1:00pm – 3:00pm

Course secretary
Rosita Alvarez
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Class homepage
http://www-inst.eecs.berkeley.edu

Lecture webcast
http://webcast.berkeley.edu/courses/index.html

Course handouts
Handouts not picked up during lectures can be found with the course secretary

Texts

Other useful references

Outline of Topics

1. Image reconstruction from partial information
2. Two-dimensional (2-D) Fourier transform and z-transform;
3. 2-D DFT and FFT, FIR and IIR filter design and implementation.
4. Basics of Image Processing techniques and perception;
5. Image and video enhancement
6. Image and video restoration
7. Reconstruction from multiple images
8. Image and video analysis: Image Representation and models; image and video classification and segmentation; edge and boundary detection in images
9. Image compression and coding
10. Video compression
11. Image and Video Communication, storage and retrieval
12. Image and video rendering and assessment
13. Image and video Acquisition

Homework

Problem sets will be issued approximately once every two weeks. Problem sets will be graded, and will contribute 35% to the final grade. Problem sets handed in late will not be accepted unless consent is obtained from the teaching staff prior to the due date. There will be a term project that will constitute 30% of your grade. More details on the project will be provided later. Four lab assignments will be given out throughout the semester and will constitute 35 percent of your grade.