

EE637 Digital Image Processing

Spring 2006 - Lecture and Laboratory Schedule

Session # (Day)	Laboratory Due Dates	Topic
1. (Jan. 9)		Introduction
2. (Jan. 11)		CTFT and CSFT
3. (Jan. 13)		Rep/Comb Relations
*****Martin Luther King*****		
4. (Jan. 18)		Optical Imaging Systems
5. (Jan. 20)		Tomography
6. (Jan. 23)		Tomography
7. (Jan. 25)		Magnetic Resonance Imaging (MRI)
8. (Jan. 27)	Image Filtering Lab	MRI and C Programming
9. (Jan. 30)		Discrete Transforms
10. (Feb. 1)		Sampling and Scanning
11. (Feb. 3)	2-D Random Processes	2-D FIR and IIR Filtering
12. (Feb. 6)		2-D Random Processes and Spectral Estimation
13. (Feb. 8)		Filtered Random Processes and AR Models
14. (Feb. 10)	Neighborhoods and Connect Comp.	Image Topology and Edge Detection
15. (Feb. 13)		Connected Components Analysis
16. (Feb. 15)		Clustering and Segmentation
17. (Feb. 17)		EXAM
18. (Feb. 20)		Achromatic Vision
19. (Feb. 22)		Gamma Correction and Visual MTF
20. (Feb. 24)	Pointwise Operations and Gamma	Image Quality Metrics
21. (Feb. 27)		Introduction to Color Matching
22. (Mar. 1)		The Color Cube
23. (Mar. 3)		Subtractive Color
24. (Mar. 6)		Chromaticity Coordinates
25. (Mar. 8)		Chromaticity Diagrams
26. (Mar. 10)	Introduction to Colorimetry	White Point
27. (Mar. 20)		Color Transforms
28. (Mar. 22)		Opponent Color Spaces
29. (Mar. 24)		Perceptually Uniform Color Spaces
30. (Mar. 27)		1-D Decimation and Interpolation
31. (Mar. 29)		2-D Decimation and Interpolation
32. (Mar. 31)	Image Restoration	Optimum Linear Filtering
33. (April 3)		Optimum Linear Filtering
34. (April 5)		Nonlinear and Median Filtering
35. (April 7)		EXAM
36. (April 10)		Digital Halftoning and Screening
37. (April 12)		Digital Halftoning and Error Diffusion
38. (April 14)	Image Halftoning	Introduction to Image Coding
39. (April 17)		Lossless and Huffman Coding
40. (April 19)		Lossless Predictive Encoding
41. (April 21)		Transform Coding
42. (April 24)		Quantization
43. (April 26)		JPEG Encoding Scheme
44. (April 28)	JPEG Image Coding	Review