

EECS 207
Spring 2021

Lecture 16

Homework

- I will assign HW1 via CatCourses before this Thursday.
- It will be due:
 - Thursday, April 1 by 11:59pm via CatCourses

Project

- One course project: Content Based Image Retrieval
- Individual effort—no teams.
- Will turn in project report at end of semester (exact dates TBD).
- No presentation.
- Details to follow.

Reading Assignments

- Read sections of Chap. 3 about spatial filtering:
 - 3rd Edition:
 - Section 3.4 Fundamentals of Spatial Filtering
 - Section 3.5 Smoothing Spatial Filters
 - Section 3.6 Sharpening Spatial Filters
 - 4th Edition:
 - Section 3.4 Fundamentals of Spatial Filtering
 - Section 3.5 Smoothing (Lowpass) Spatial Filters
 - Section 3.6 Sharpening (Highpass) Spatial Filters
 - Section 3.7 Highpass, Bandreject, and Bandpass Filters From Low-Pass Filters

Reading Assignments

- Finish Chap. 4 (4th edition):
 - Section 4.7 The Basics of Filtering in the Frequency Domain
 - Section 4.8 Image Smoothing Using Lowpass Frequency Domain Filters
 - Section 4.9 Image Sharpening Using Highpass Filters
 - Section 4.10 Selective Filtering
 - Section 4.11 The Fast Fourier Transform

Questions?

Today

- Chap. 4: Filtering in the Frequency Domain.
 - Basics of filtering in the frequency domain.
 - Image smoothing using lowpass frequency domain filters.
 - Image sharpening using highpass filters.
 - Selective filtering.
 - The fast Fourier transform.