

ECE 661 Homework 7

Due: 11/06/2008 Thursday (before the class)

This homework is a straightforward extension of the work you did for homework 6.

This homework is an exercise in image mosaicing without full-blown camera calibration. Please mount your camera on a tripod and take N images by rotating the camera through different angles. N will preferably be odd, typically 9, so that one image can serve as a central image and the others as images on two sides of the central image. Make sure you have a sufficient view-angle overlap between the successive images so that you can compute the homography between them using the RANSAC-based approach you developed for Homework 6. Now chain the homographies and project all of the images into the sensor plane of the central image.

For extra credit, estimate rotation angle between the successive images from the eigenvalues of the homographies.

Notes.

- Clearly identify the steps you have taken to solve the problem with your own words.
- Your grade depends on the completeness and clarity of your work as well as the result.