

ME 425_525

HW # 4

Detecting Corner Features

Due: 29/12/2025, 23:55

In this assignment, you will detect corners in an image using the following methods and compare their relative performances in Matlab environment.

- Minimum eigenvalue (Kanade-Tomasi) algorithm
- Harris algorithm

Explore Matlab's **corner** function implemented in Image Processing Toolbox together with **detectHarrisFeatures** and **detectMinEigenFeatures** functions implemented in Computer Vision Toolbox.

Do the followings for corner detectors:

- Create your own images or download them from the internet.
- Write a Matlab script/function where you can read the images into the Matlab's workspace.
- Call the **corner** function with various detectors such as 'Harris' and 'MinimumEigenvalue'.
- Plot the original image and the detection result in different figures and comment on them.
- Compare performances of these detectors on various images.
- Provide a discussion about your results.