

CS 6790 : Geometry & Photometry-based Computer Vision

Programming Assignment 3

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1. Please compute the fundamental matrix F using given pair of images:
 - (a) By using the normalized 8-point algorithm.
 - (b) By using the 7-point algorithm. You may use any numerical routines available in Matlab/libraries for solving these.
2. Then, please use these algorithms as a base to automatically estimate the fundamental matrix between two images using a point matcher (e.g. SIFT) and RANSAC. You may use standard detector/descriptor code available in Matlab/online etc.
3. Please compare the time/number of trials taken by RANSAC when using the two algorithms as the base.

- **Suggested Programming languages :** Python/Matlab

- **Dead line :** 10/04/2018

- **Images for Assignment :** <https://goo.gl/2UfVxT>. You may resize and crop images for faster processing.

- **PDF Upload:** <https://www.turnitin.com> Class ID: 17456076 Enrollment Key: CS6790
Naming format: RollNo.FName.2.pdf Ex CS15D001_Amitabh.2.pdf

- **Code Upload:** Using Moodle. Naming format: Same as pdf with .zip or .tar.gz extension.

- **PDF Instruction:** PDF should contain: i) Results ii) Brief of concepts applied. PDF should NOT contain codes.

- Email submissions will not be accepted. Reduce file size (if required).

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