Computer Vision 1 Lab Course Instructions

Anil Baslamisli, Hoang-An Le, Hanan ElNaghy, Berkay Kicanaoglu,
Minh Ngo, William Thong, Mert Kilickaya, Jiaojiao Zhao
University of Amsterdam

1 Schedule

In this course, 50% of your grade will be determined by the lab work. There are five practical assignments, first of which is basically an introduction to MATLAB session with no obligation to attend (i.e. no contribution to final grade). However, we believe it is useful if you have had no experience with MATLAB so far.

The remaining four assignments contribute 50% to your lab grade. The rest 50% of your grade is based on a final project. The lab exercises should be done in groups of two. Each assignment consists of programming tasks, open ended questions and presenting your results in a report. The code and the report should be handed in together (e.g. in a zip file), at the given deadlines (given below). Deadlines are mentioned in each assignment as well. Also, you should submit a README file including your name and student identification number, i.e: John Smith 12345.

1. Assignment 0: **Introduction to MATLAB.**

2. Assignment 1: **Photometric Stereo & Color**
   deadline: Feb 23, 2018, at 11:59PM (12%).

3. Assignment 2: **Neighborhood Processing: Gabor & Gaussian Filters**
   deadline: Mar 01, 2018, at 11:59PM (15%).

4. Assignment 3: **Harris Corner Detector, Optical Flow and Feature Tracking**
   deadline: Mar 09, 2018, at 11:59PM (13%).

5. Assignment 4: **Image Alignment and Stitching**
   deadline: Mar 16, 2018, at 11:59PM (10%).

6. **Final Project**
   deadline: Mar 30, 2018, at 11:59PM (50%).

All the dates are tentative and subject to change. The official date will be indicated on each assignment instruction. Also keep an eye on Blackboard, Piazza and your email for further notice

2 Quality Demands

All your code and report must be handed in together in a zip file before indicated deadlines (in Amsterdam time) by sending to **computervision1.uva(at)gmail.com**. For full credit, make sure your report follows these guidelines:

- Answer all given questions: briefly describe what you have done and include your code's outputs as figures in the report.

- Analyze the results and include your comments in the report, e.g. why algorithm A worked better than algorithm B in a certain problem. Reports comprised of sole results will decimate your grade.

- Try to understand the problem as much as you can. Give evidences (experimental results, references to papers, etc.) to support your arguments.

- All illustrations (tables, plots, images, etc.) must be accompanied by analysis and explanation. All tables and plots must have variables' names and units, axes' names and legends. All results that are not understandable will be rejected.

- Please express your thoughts in a compact fashion. After all, it is not how many words you use that tells how well you understood the concepts.

Programming. Only programming language allowed is MATLAB. Try to give meaningful names to your variables. The code should be readable and well-commented. It should be clear from the comments which function provides which functionality

Late submissions are not allowed. Assignments that are submitted after the strict deadline will not be graded. In case of submission conflicts, TAs' system clock is taken as reference. We strongly recommend submitting well in advance, to avoid last minute system failure issues.

Plagiarism note. Keep in mind that plagiarism (submitted materials which are not your work) is a serious crime and any misconduct shall be punished with the university regulations.