

EE 576 - Project 1

The project aims to familiarize you with image formation and OpenCV.

Please be sure to read the Project Grading Policy in the course web site. Please also make sure that your hand-in complies fully with the instructions as specified therein.

1. Consider a web camera and checkered pattern. First save a set of images in a directory named images under your local directory through imaging the checkered pattern at various locations and orientations.
2. Then, write a function that will use OpenCV calibration API to compute the distortion, intrinsic and extrinsic parameters using the stored images. What are the computed parameters?
3. Verify the computed parameters by applying them on a new image taken by the webcam.

Notes regarding the programming part of the projects:

- Make sure that your code has the appropriate header files as necessary.
- Put all the methods in a separate C/C++ file.
- If you are familiar with OOP, you may use C++ and generate the appropriate classes as required.
- The main program should be in a separate file that is ready to run.
- Pls email all your source codes in a rar/zip file named as follows **HwX_LastNameFirstNameInitial**
For example a student named Ali Kayhan would hand in his first homework with the following name: **Hw1_KayhanA.rar**. You should email them both to me and the course TA - Serhat Iscan.