Assignment 3

Stereo Correspondence

Deadline : 11:55 PM on 3rd March 2019

Basic Guidelines

- The assignment will familiarize you with the concept of stereo calibration

- **Make sure that the work you submit in this assignment is your own. DO NOT COPY ANY PART FROM ANY SOURCE including your friends, seniors or the internet. Any breach of this rule could result in serious actions including an F grade in the course.**

- You are required to submit your code and report any time before 11:55 PM on 3rd March 2019 .

Procedure

1. Perform Dense SIFT-based matching on the given pairs of images.

2. Perform Intensity Window-based correlation on the same set of images.

3. Give a comparison of the two methods.

4. Rectify the pairs of images and with these new images, repeat steps 1 to 3.

5. Compare with Greedy Matching and DTW on the rectified images.

Submission

- The code can be implemented in MATLAB, Python or C++.

- Your code should be modular, with comments clearly outlining the function of each module.

- The code must be robust and scalable i.e, it should work for any number of images of any size and generate a reasonable output.

- There are some sample images included in the assignment, these images are NOT the exhaustive test set. Your code may be tested on a different set.

- You are required to submit a pdf report that
    - Explains the procedure, with images of intermediate steps.
    - Explains the code (include the code in the report while doing so).
    - Demonstrates the results (on provided images as well as additional images from your camera).

- **Make sure you provide code separately and not just in the report.**

- Please ensure that the report contains your roll number. Zip the code and report for submission. The zip file should be named **<roll_number>_assignment2.zip**