CS 6790 : Geometry & Photometry-based Computer Vision

Programming Assignment 1

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Compute the rectified images for the provided images using the following methods:

1. Compute the transformation matrix directly and rectify the given image using four points and some transformed corrected co-ordinates for these points.
2. Rectify the image upto similarity in two stages by first computing the line at infinity by connecting two points at infinity and then computing dual conic to the circular points using two perpendicular directions/lines.
3. Rectify the images upto similarity in a single step by using 4 or 5 perpendicular directions/lines.
4. Rectify the images upto similarity by finding a transformed circle and directly finding the circular points by intersecting it with the line at infinity.

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

- **Dead line : 20/02/2020**
- **Images for Assignment :** `https://goo.gl/nXURoU`. You may resize and crop images for faster processing.
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