

Assignment II

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Question 1 : The code snippet in Listing 1 shows the code to generate a noisy point set X amounting to a circle and the code to estimate a circle—center and the radius—from a set of inliers in X .

- (a) Estimate the circle using the RNASAC algorithm (must be coded on your own).
- (b) Show in the same plot, the point set, the circle estimated from the sample leading to the best estimate, this sample of three points, inliers, and the best-fit circle. See Figure 1 for an example.

Answer :

Question 2 : Figure 2 shows an architectural image1 with a flag 2 superimposed. This is done by clicking four points on a planar surface in the architectural image, computing a homography that maps the flag image to this plane, and warping the flag, and blending on to the architectural image. Carry this out for a couple of image pairs of your own choice. You may explain the (non-technical) rationale of your choice

Answer :

Question 3 : In this questions, we will stitch the two Graffiti image3 img1.ppm onto img5.ppm.

- (a) Compute and match SIFT features between the two images.
- (b) Compute the homography using your own code within RANSAC and compare with the homography given in the dataset.
- (c) Stitch img1.ppm onto img5.ppm

Answer :