190026T

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GitHub: https://github.com/ishrath99/S4\_EN\_2550/tree/main/Assignments/Assignment\_2

**EN 2550**

**Assignment 2 – Report**

**Question 1**

Algorithm

In addition to RANSAC algorithm, a new condition was passed to eliminate the bigger circles caused by points in the straight line.

Choosing parameters

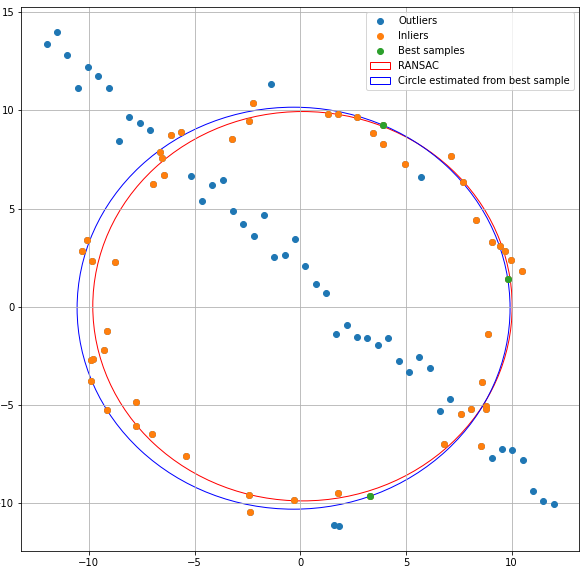
(Number of iterations)

Functions





Results

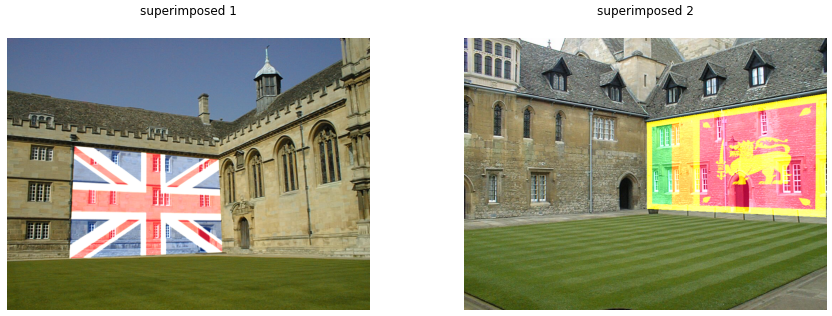
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**Question 2**

Functions



Results

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Non-technical rationale of choice of images

**Question 3**

**(a)**

Sift features are detected of the 2 images. Then features are matched using Flann based KNN matcher. Good matches are extracted as per Lowe’s ration test. Ratio is selected to be **0.7**.

**(b)**

Homography is calculated from the good matches. The function **cv.findhomography()** is used to obtain the homography with RANSAC implementation with the confidence of **0.95**.

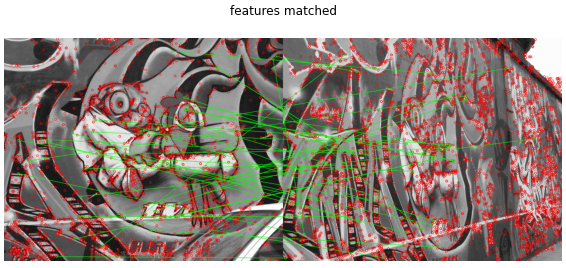
Comparison

Homography calculated:

Homography given:

Calculated homography is almost the same as the given homography in the dataset.

**(c)**

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