ASSIGNMENT-3 REPORT

Step 1: Finding the corresponding points of the two images using the inbuilt functions of MAATLAB.

Step 2: Normalizing the points by shifting their mean at origin and scaling them such that the distance is sqrt(2).

Step 3: Finding suitable F matrix using RANSAC. Number of iterations = 1,000 and error threshold taken = 0.1.

```
F matrix:
   -0.0000   -0.0000    0.0012
    0.0000   -0.0000   -0.0030
   -0.0009    0.0027    0.0759
```

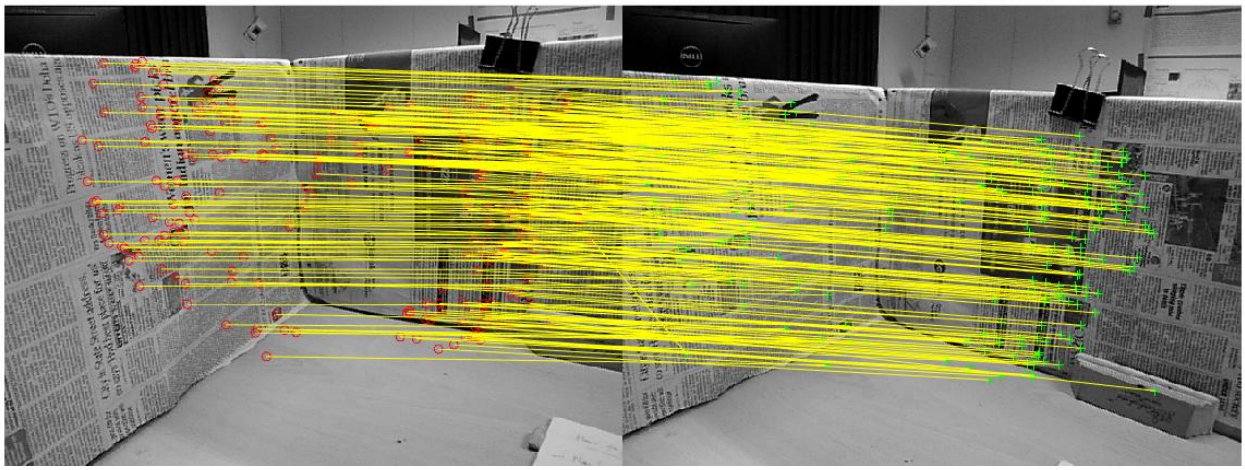
Step 4: Finding Essential matrix using Camera matrix and Fundamental matrix. Later decomposing it into Rotation matrix and translation matrix.

```
R:
    0.9950   -0.0993    0.0139
    0.0986    0.9940    0.0482
   -0.0186   -0.0466    0.9987


t:
   -0.8526
   -0.2686
   -0.4483
```

Step 5: Triangulating points using 2-D points and projection matrices for camera 1 and camera 2.

Inlier points:



Triangulated Points: