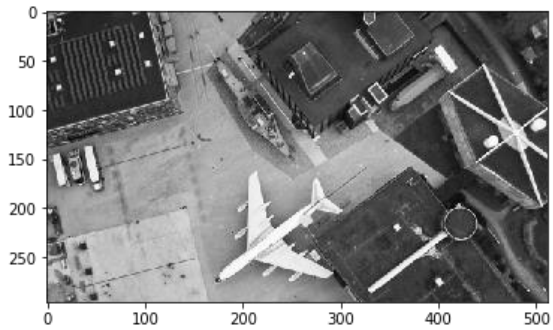
Name: Kumari Rashmi

Roll No: EE20S051

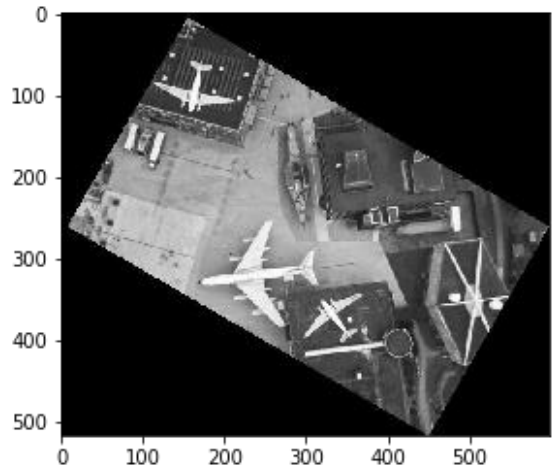
Report of Lab2: Occlusion Detection

Problem Statement: Given two images IMG1 and IMG2 as below:

IMG1 of size (296,512)



IMG2 of size (517,598)



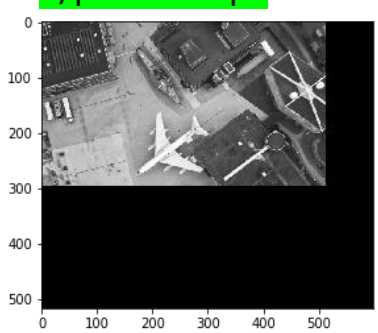
Need to find out changes in IMG2 with respect to IMG1

Algorithm:

1. Change the shape of IMG1 as 517 by 598 by padding zeros
2. With the given point correspondence find the Homography matrix H
3. Now Apply the homography matrix on IMG1 to find the target image
4. Find the difference of target image and given IMG2 to detect the occlusion

Stepwise output is as below:

o/p after step1



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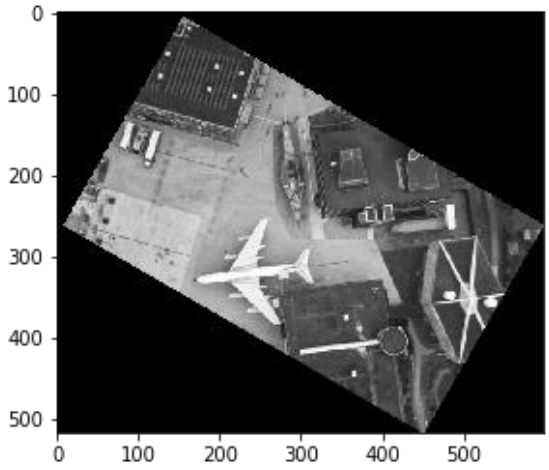
Report of Lab2: Occlusion Detection

o/p after step2

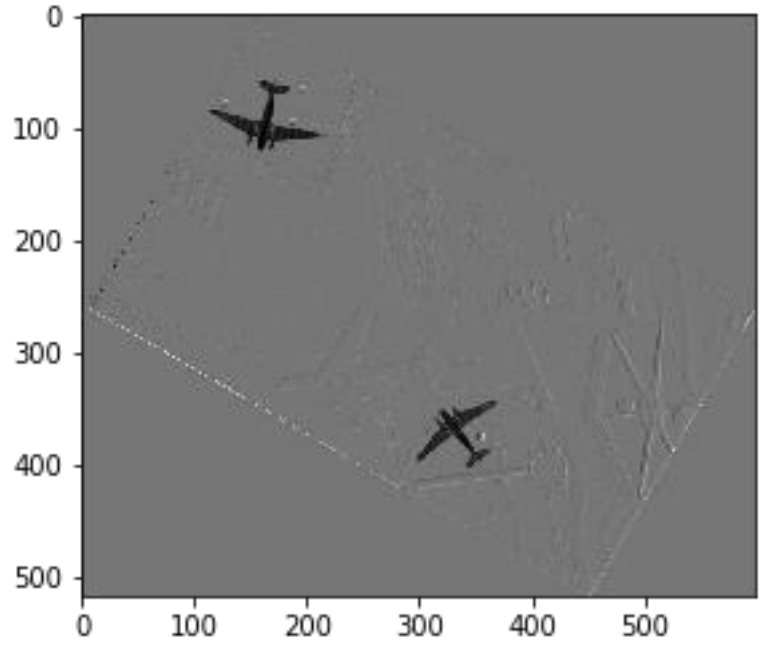
Homography matrix :

```
array([[  0.8669885 ,   0.50010271,   5.84459737],
       [ -0.50010271,   0.8669885 , 154.99640509],
       [ -0.        ,  -0.        ,   1.        ]])
```

o/p after step3



Final o/p:



Observation: As we can see in the final output that there are two extra planes in the IMG2

Challenges faced: 1. Image size was unequal

2. Rotation and translation order was not given in the question