

DIP ASSIGNMENT

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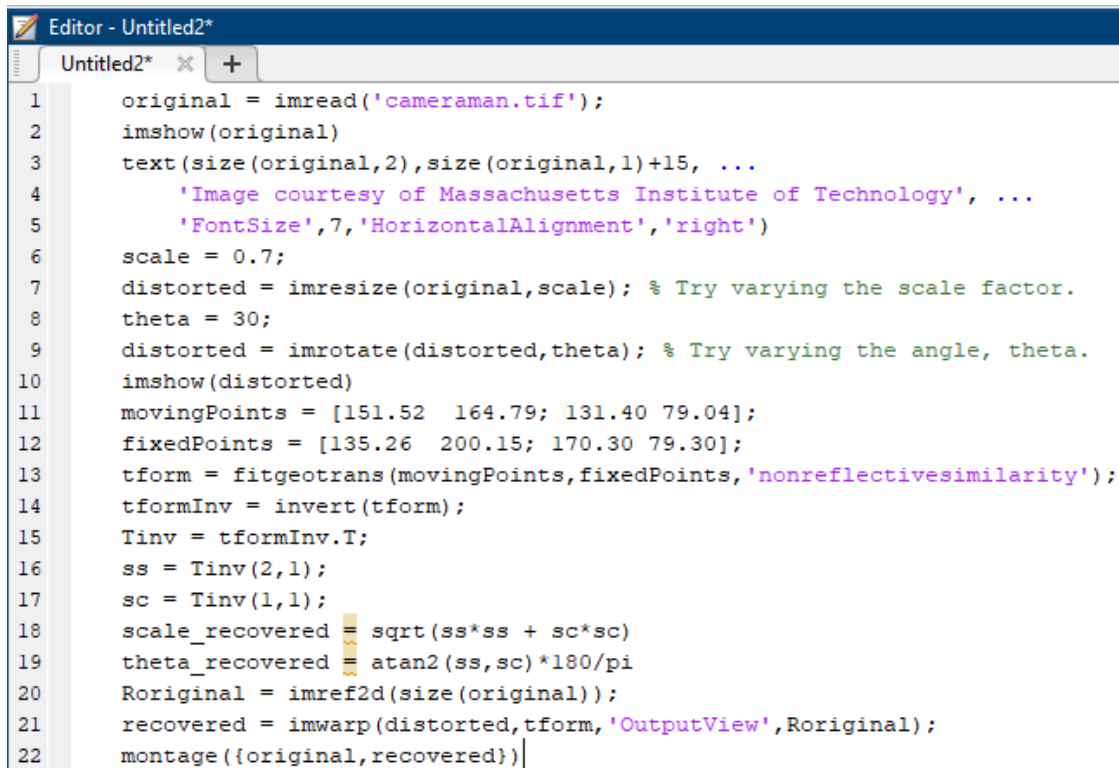
AG#: 2019-AG-6068

CLASS: BSCS 6th

SUBJECT: Digital Image Processing

DATE: 19 May, 2022

CODE:



```
Editor - Untitled2*
Untitled2* x +
1  original = imread('cameraman.tif');
2  imshow(original)
3  text(size(original,2),size(original,1)+15, ...
4      'Image courtesy of Massachusetts Institute of Technology', ...
5      'FontSize',7,'HorizontalAlignment','right')
6  scale = 0.7;
7  distorted = imresize(original,scale); % Try varying the scale factor.
8  theta = 30;
9  distorted = imrotate(distorted,theta); % Try varying the angle, theta.
10 imshow(distorted)
11 movingPoints = [151.52 164.79; 131.40 79.04];
12 fixedPoints = [135.26 200.15; 170.30 79.30];
13 tform = fitgeotrans(movingPoints,fixedPoints,'nonreflectivesimilarity');
14 tformInv = invert(tform);
15 Tinv = tformInv.T;
16 ss = Tinv(2,1);
17 sc = Tinv(1,1);
18 scale_recovered = sqrt(ss*ss + sc*sc)
19 theta_recovered = atan2(ss,sc)*180/pi
20 Roriginal = imref2d(size(original));
21 recovered = imwarp(distorted,tform,'OutputView',Roriginal);
22 montage({original,recovered})
```

OUTPUT:

