

**Fundamentals of Computer Vision**  
**Fall – 2016**  
**Assignment # 2**

Submission date: **3<sup>rd</sup> October**

**Problem # 1:**

Create two files of 50 shapes each. One file should contain different size circles & other should contain different size squares. Create label matrix (100x1). Extract following attributes from both files.

'Area','Eccentricity', 'ConvexArea', 'Extent', 'FilledArea', 'Orientation', 'Perimeter',  
'Solidity', vertical & horizontal projection of row & column containing center point (centroid)

Create feature matrix of size 100x10.

Train the classifier(Nearest Neighbor)

Create testing data(10 samples containing 5 circles & 5 squares) & classify it on trained data

**Good Luck**