CPEG 585 – Assignment #3

1. Implement the Laplacian of Gaussian (LoG) using a two step approach i.e., apply the Gaussian kernel and then compute the Laplacian of the image.
2. Implement the LoG using the combined kernel approach where the kernel is given by:

$$LoG(x,y) = \frac{-1}{\pi\sigma^4}\left(1 - \frac{x^2 + y^2}{2\sigma^2}\right)e^{\frac{-(x^2+y^2)}{2\sigma^2}}$$

   Test 1 and 2 approaches on different images.

3. Implement the Histogram Equilization Algorithm and test on a few different images.
4. Use OpenCV to test Canny Edge Detection in Python.
5. Use OpenCV to test Harris Corner Detection in Python.