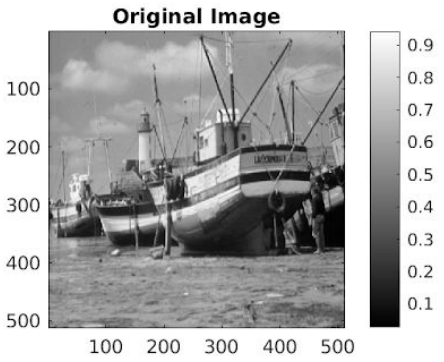
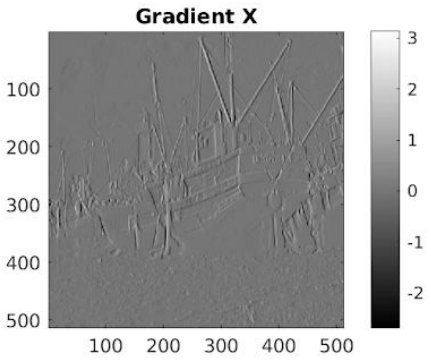
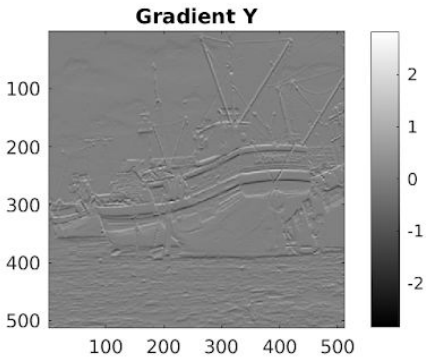
Report : Part 1 : Assignment 3

1) **Derivative Images** :

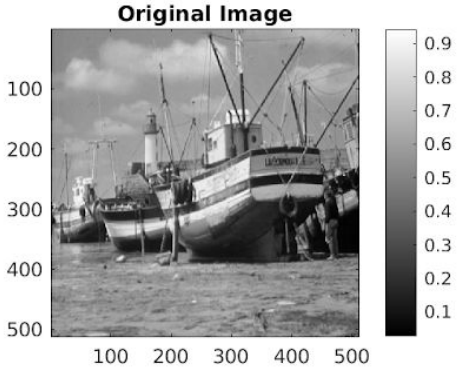


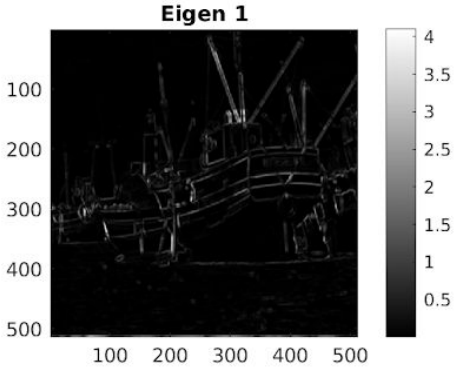


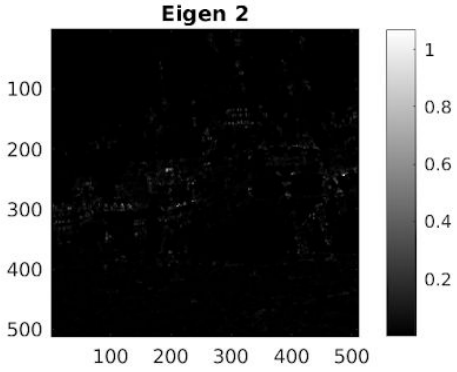


nfo: (X, Y) Pixel Value

2) **Eigenvalues Images for the Structured Tensor:**

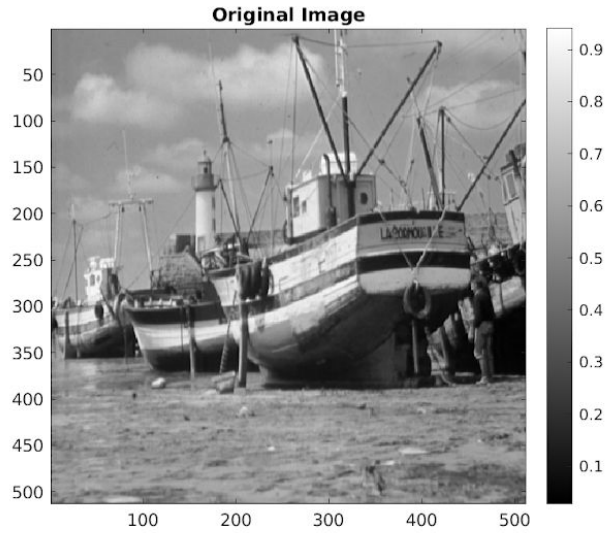


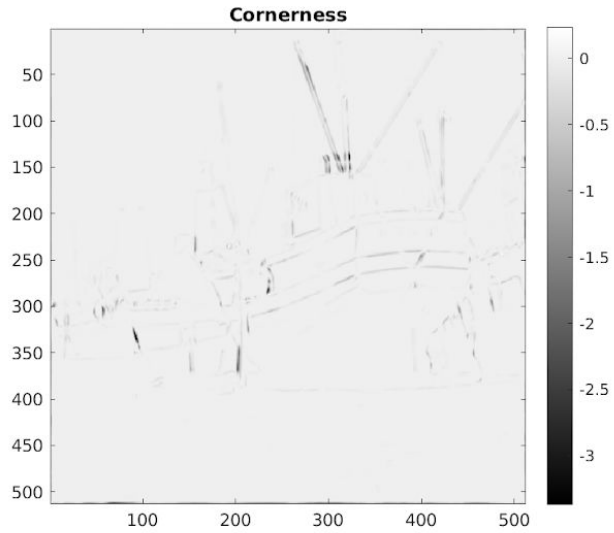




Y) Pixel Value

3) **Cornerness Measure Image** :





Pixel info: (X, Y) Pixel Value

The points having cornerness measure greater than 0(Corners) and those having close to 0 (Non special points) cannot be distinguished using the above plot due to the huge range in the negative values side. And the ones having high negative values show edges. i.e. the edges are dark in the pic. The points having cornerness as 0(most of the points) are attributed a whitish color which looks similar to the positive cornerness points, thus making it difficult to distinguish the corners from the rest. This is the reason to include the extra pic having highlighted Green values showing the points with positive cornerness (greater than a threshold) in the 5th section of the report to show the potential corners clearly.

4) **Parameters Used :**

Gaussian_Smoothening_Sigma : 0.64

Patch_gaussian_sigma (For making patch isotropic) : 1

k (Constant for Cornerness Measure) = 0.2;

Threshold for showing corners = 10^{-4}

5) Corners Displayed in Green :

We have marked the points identified as corners by making their Green component = 1.