Assignment 3

Question 1

smooth

Ix

Iy

eigen A

eigen B

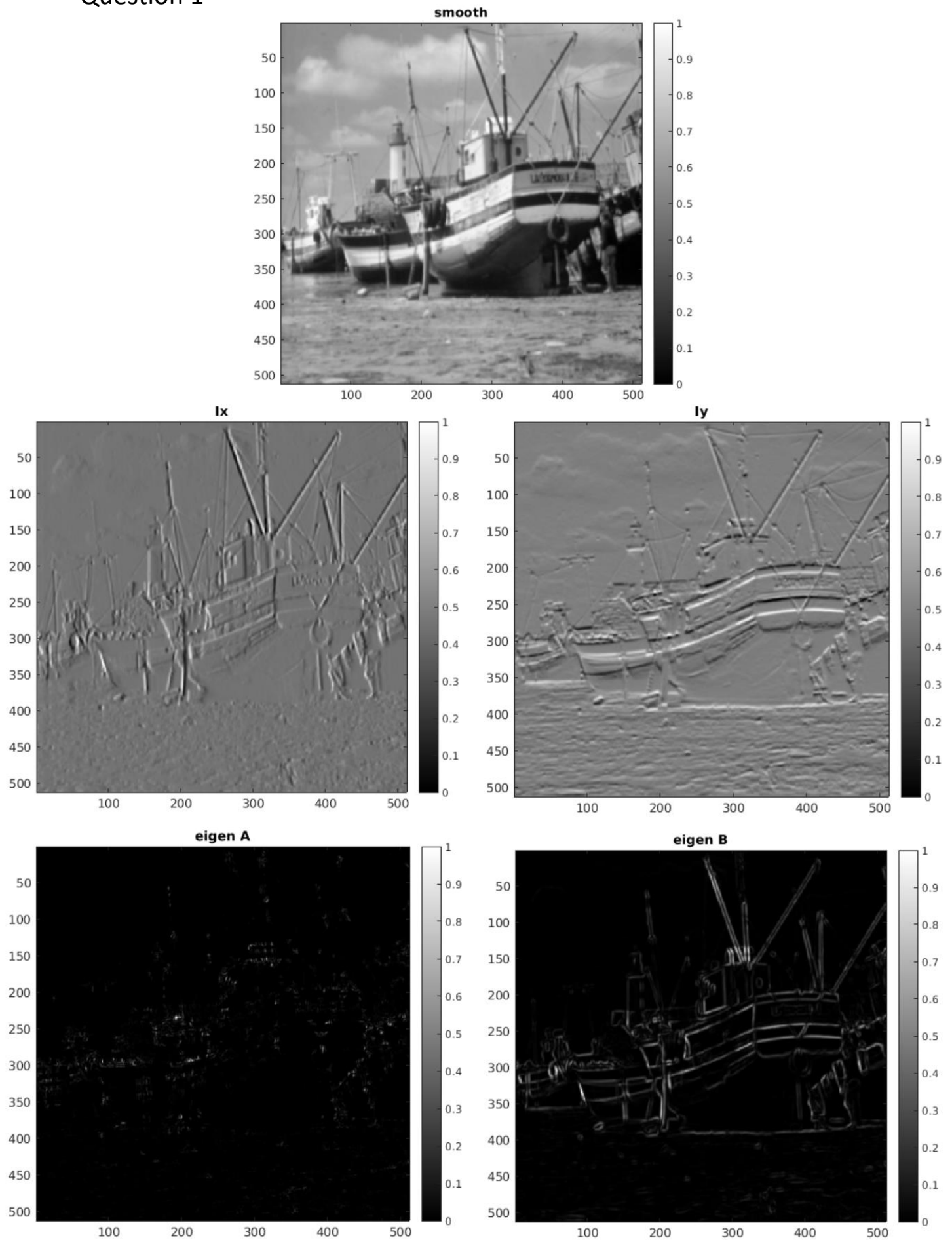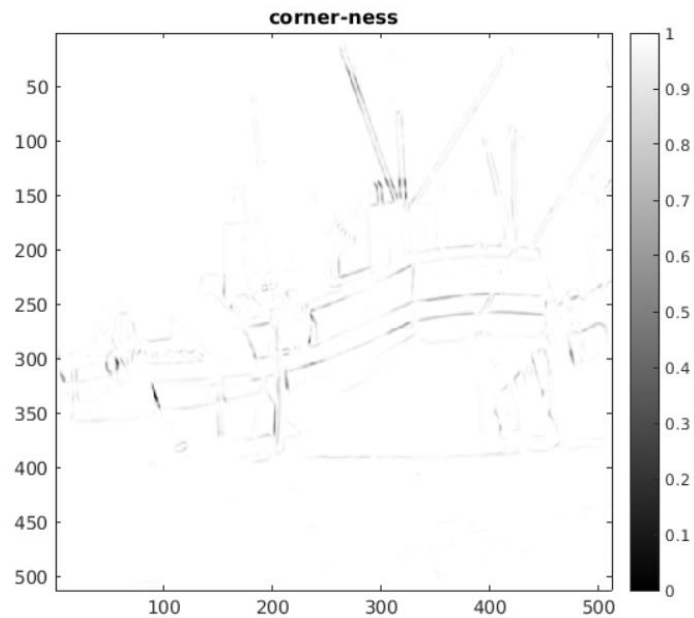corner-ness

First image is Gaussian smoothed with window size 10 pixels and with parameter h1 as 0.2
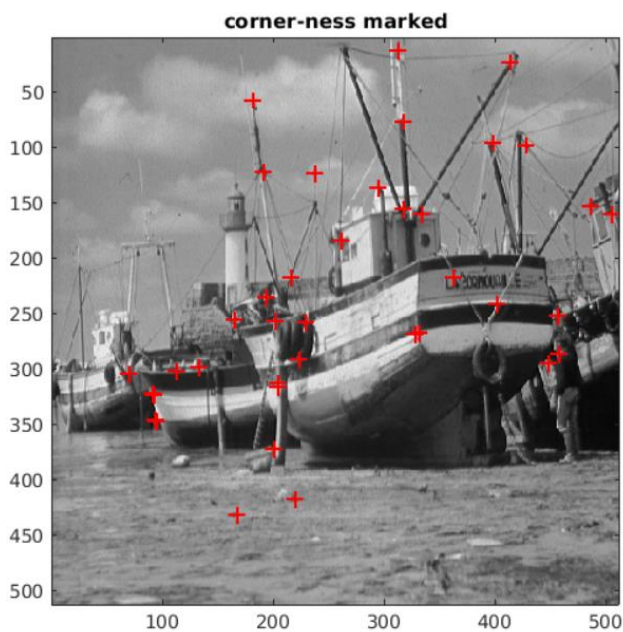Next two images are image derivatives along x and y directions.
Then next two are heat maps of eigen values of structure tensor. This tensor uses gaussian mask of window size 3 and parameter h2 as 0.7 for isotropicity.
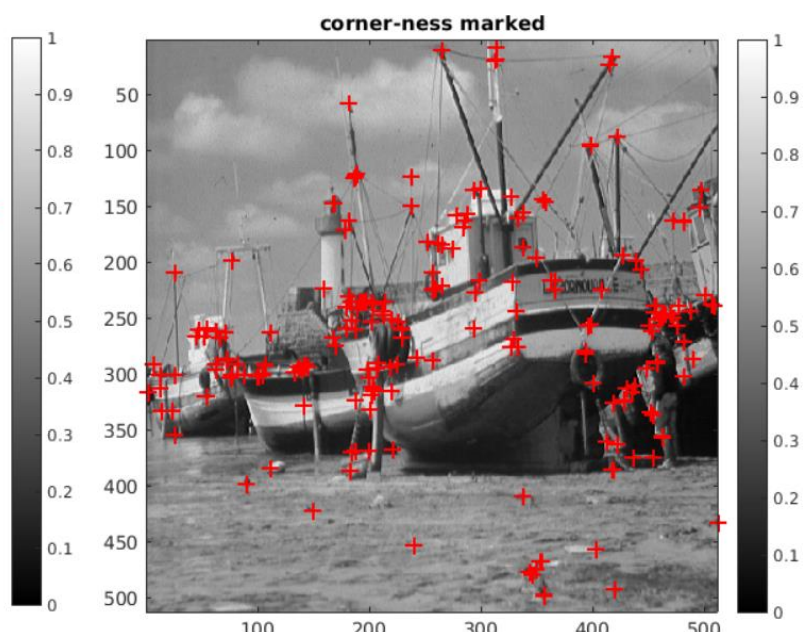Next is heatmap of corner-ness values. Parameter k is 0.244
Finally I have marked all identified corners (corner-ness > 0) with red crosses on image. It can be seen some mast pole's corner far away are missed.
If however, I try to include them by changing parameters, other edges and weird corners come up in image as can be seen below.

Final Image

Badly tuned (window= 5, h1=0.25, h2=0.9, k=0.245)