BLG 453E Homework 2 Report

Ece Naz Sefercioğlu

150130140 |

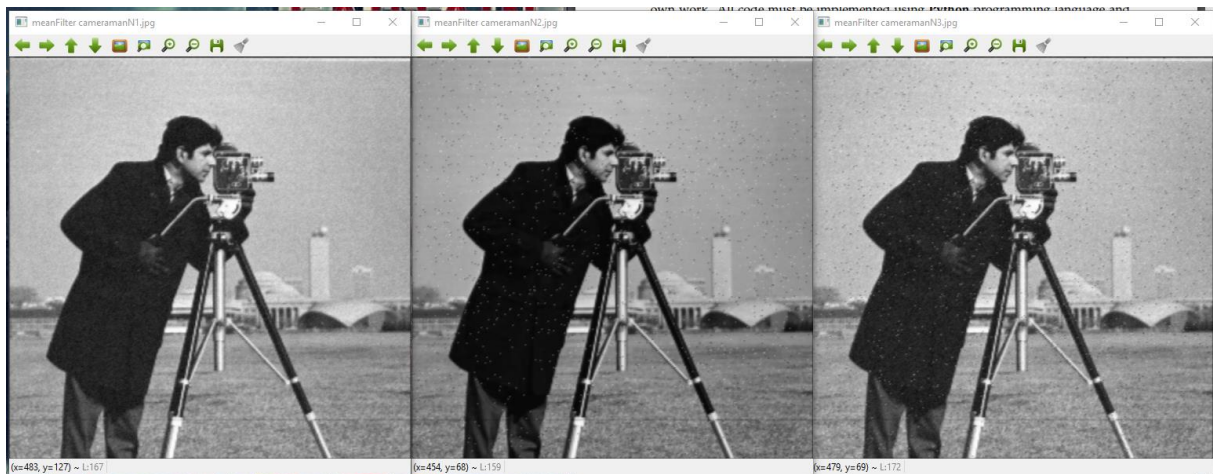# 1-

How to run:

Run _hw2_Q1.py

In every 3 photos filtered, press 0 to get next group

a)

b)

c)

d)

Mean filter is more appropiate for N1 as it has Gaussian noise, which does not varies in values in neigbours leading us a smoother result.

Median filter is more appropiate for N2 as it has impulsive noise, which sometimes has severely high or low values pixels in neighbourhood, to achieve best filtering, a more likely value as median is chosed from the neigbourhood.

Mean-Median filter is more appropiate for N3 as it has a complex of Gaussian and impulse noises, alpha = 0,32 given bes result means our Picture has more impulse noise than gausian noies as our calculated filter is more close to median filter .
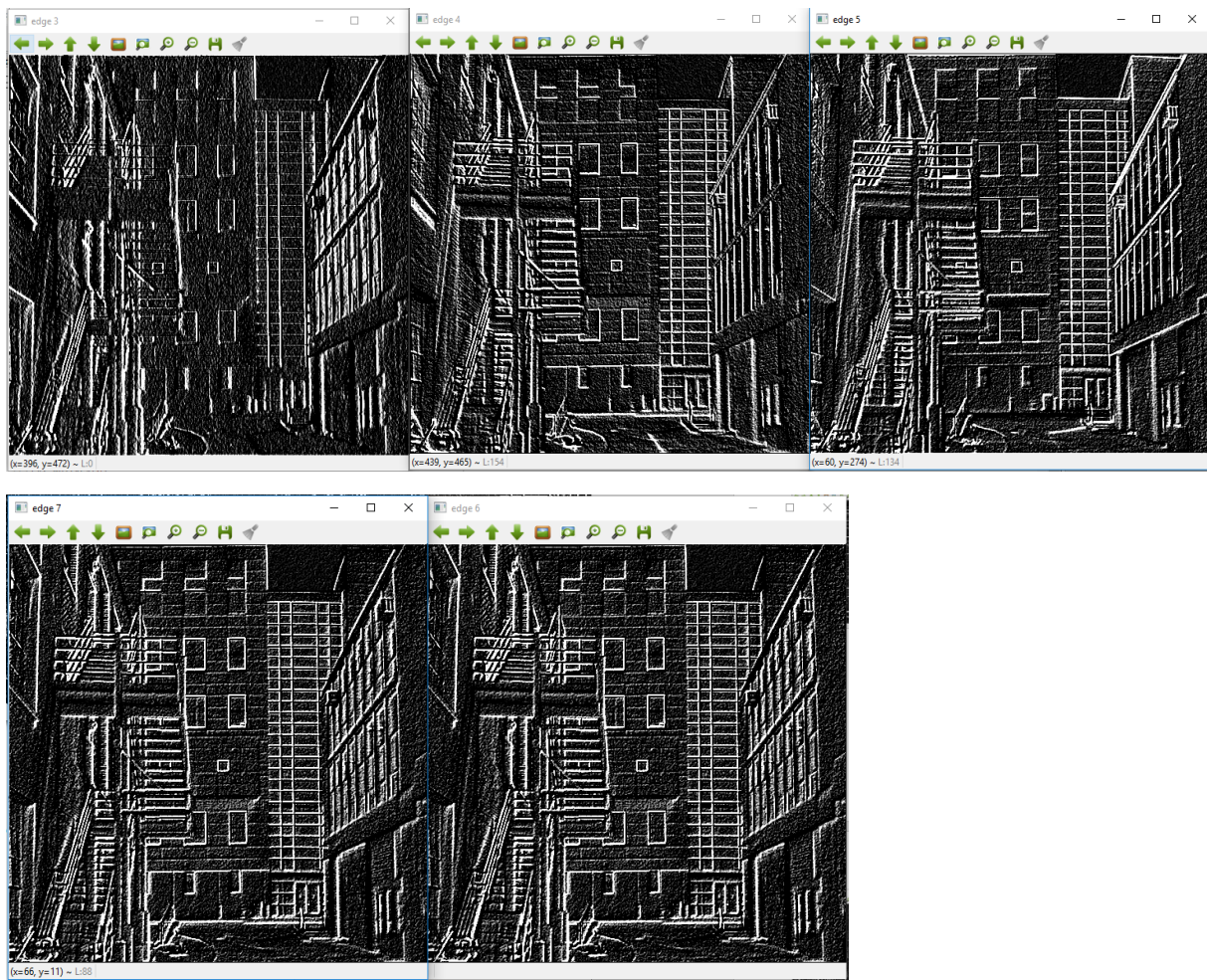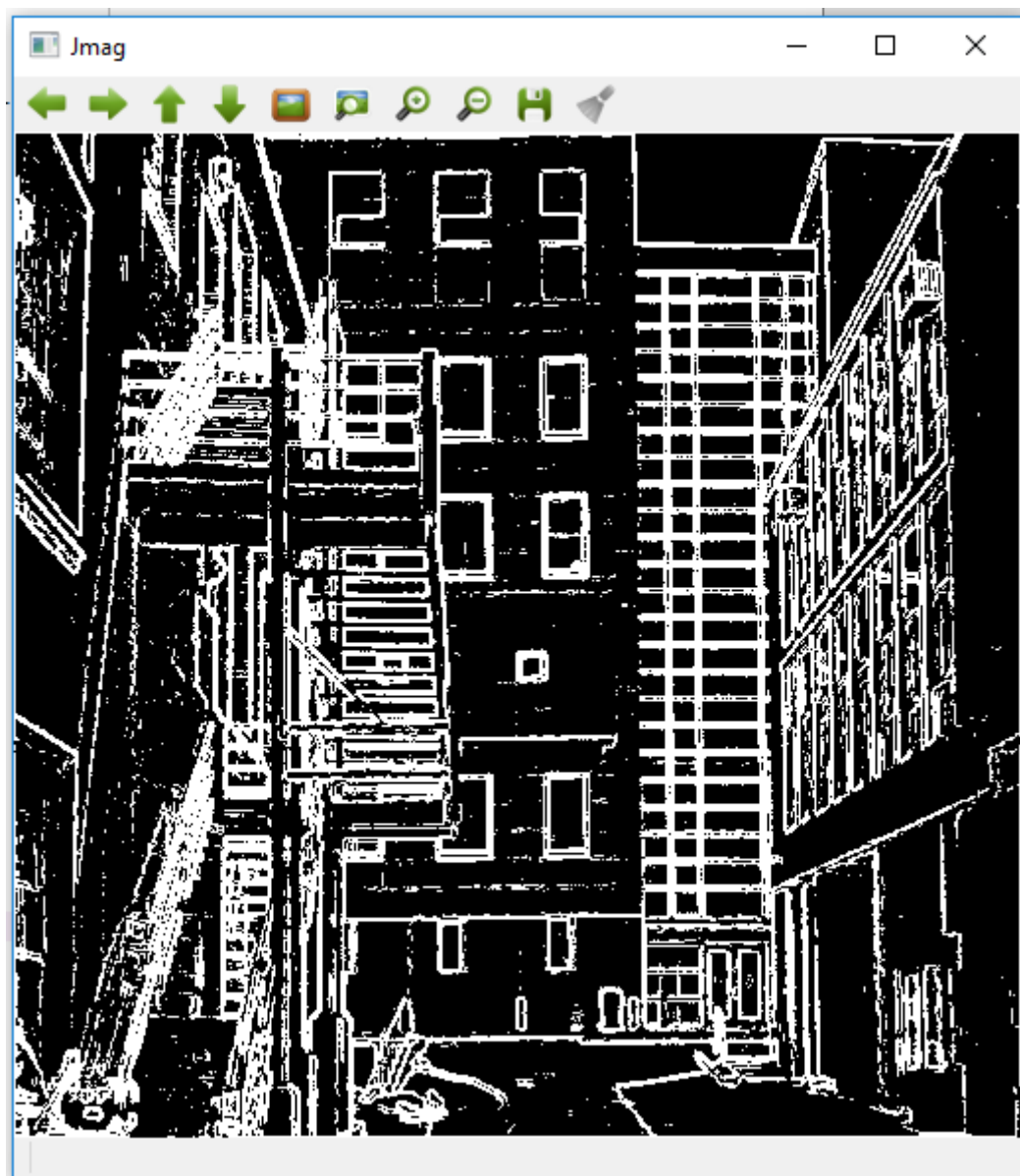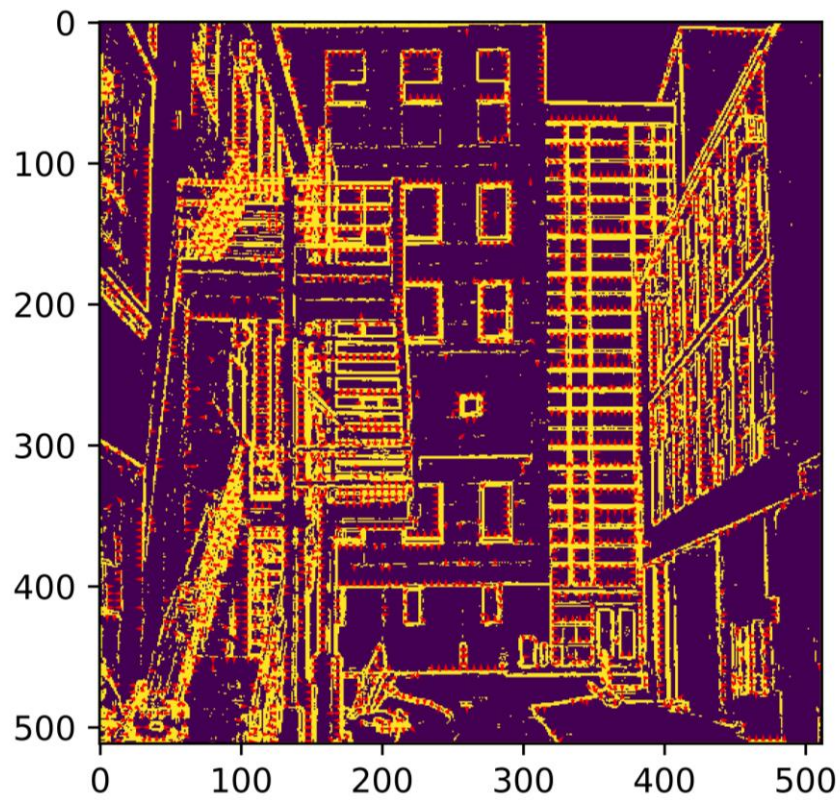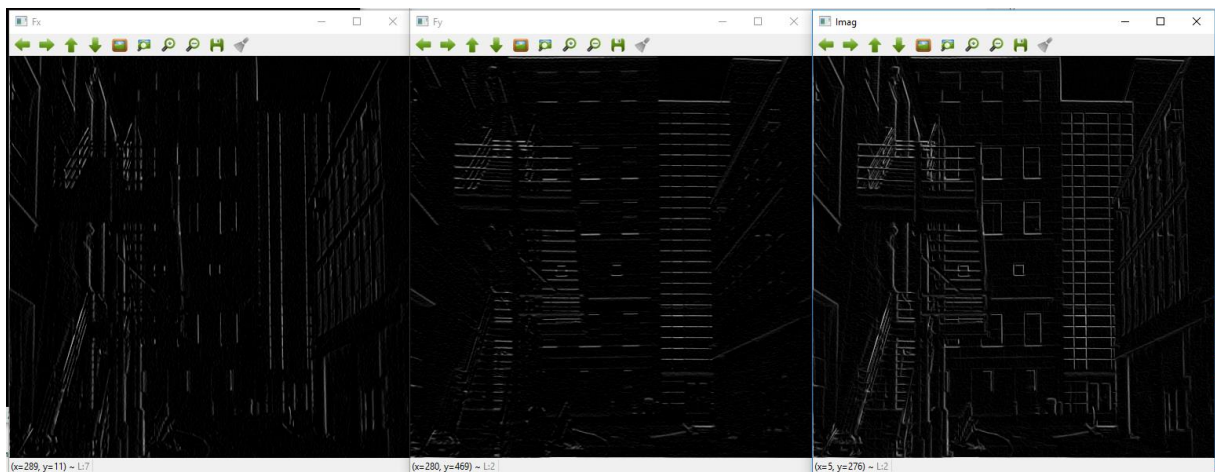
2)

a)

```
edges=[N,E,S,W,NE,SE,NW,NW]
```
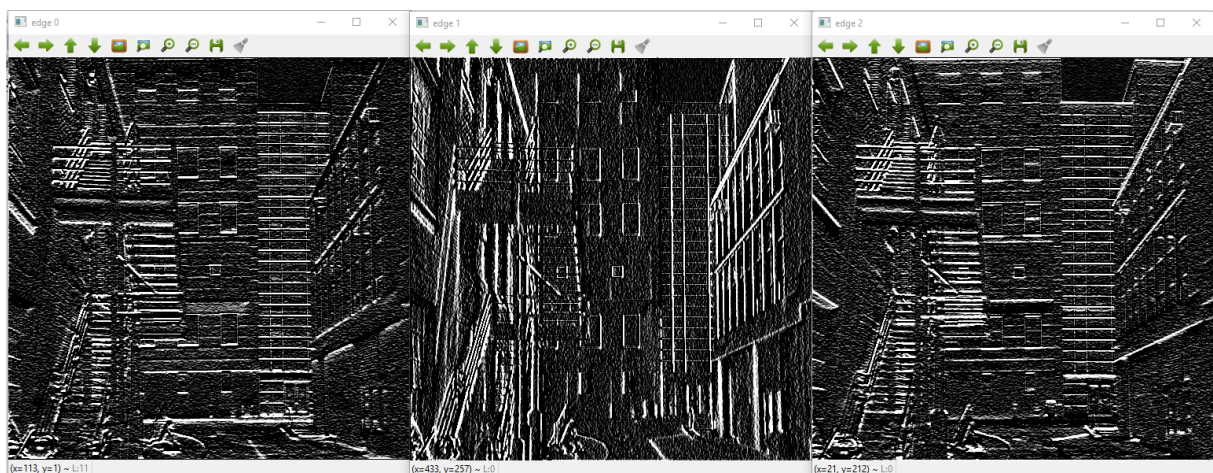
b)

c)

Vector field

d)

e)

f) As it is mentioned here[link] gaussian filter provided by applying mean filter 4 times