



**Fourth Year- Systems and
Biomedical Engineering
department.**



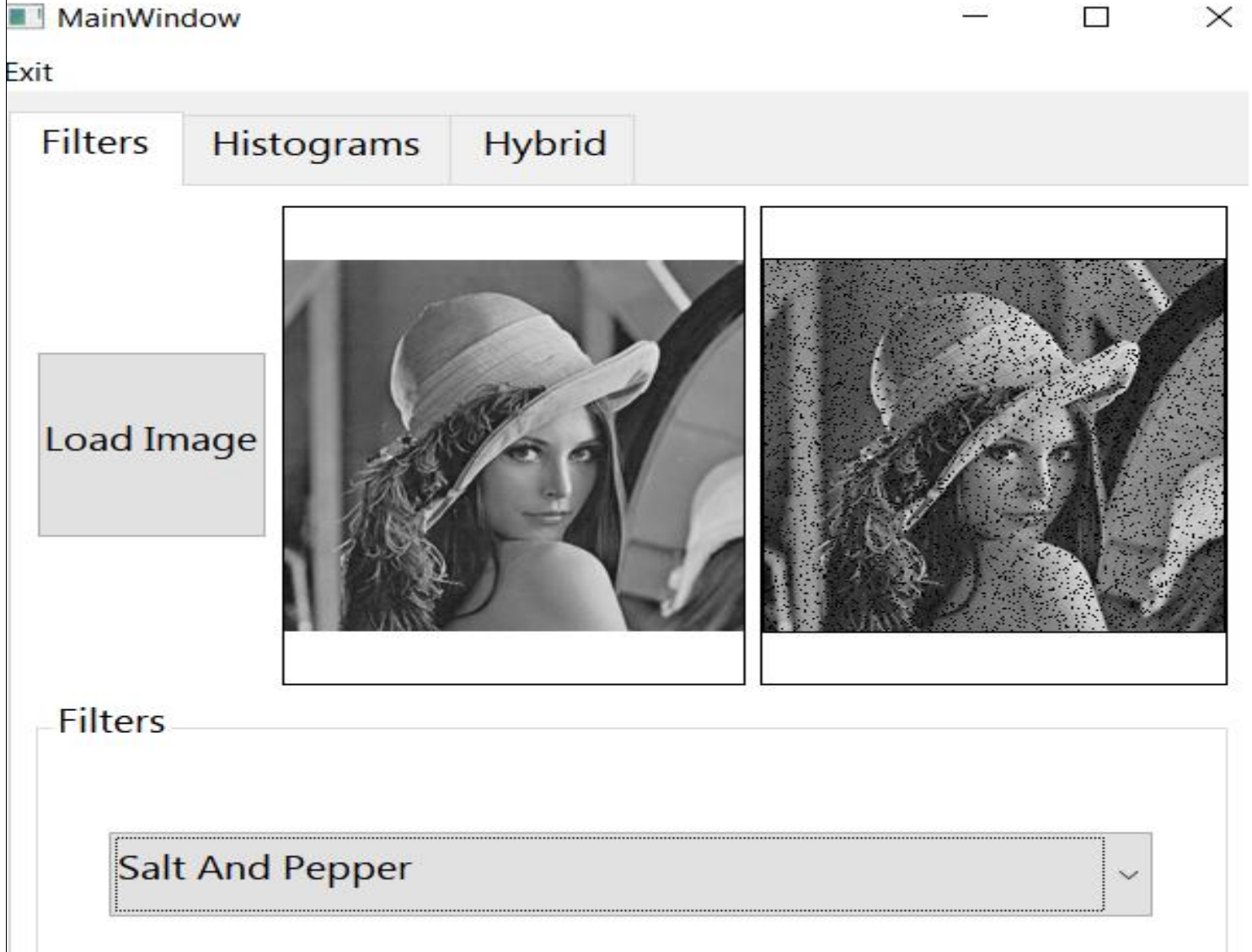
Faculty of Engineering- Cairo University.

Computer Vision

TASK #1

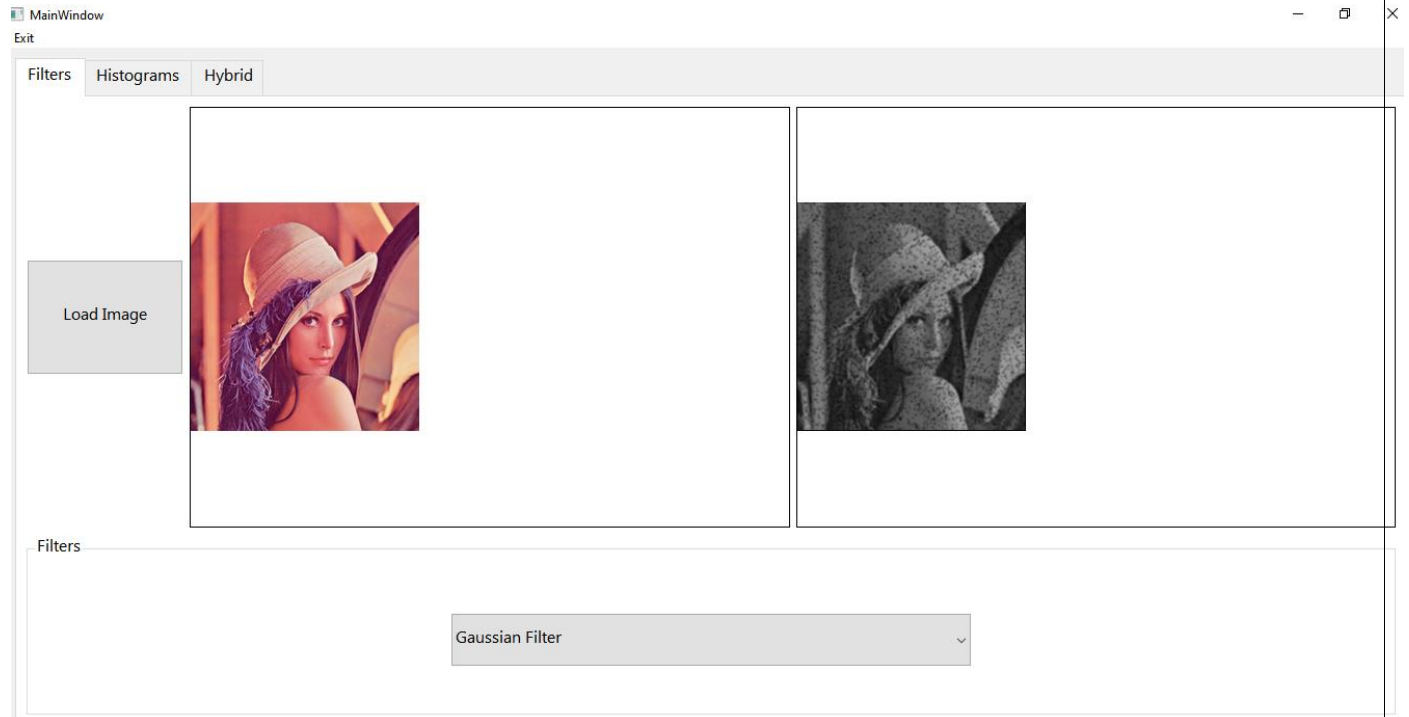
Salma Hamza - Marwa Adel - Menna Hamdy - Fady Tadrous

1.Add additive noise to the image: We added Salt & Pepper noise:

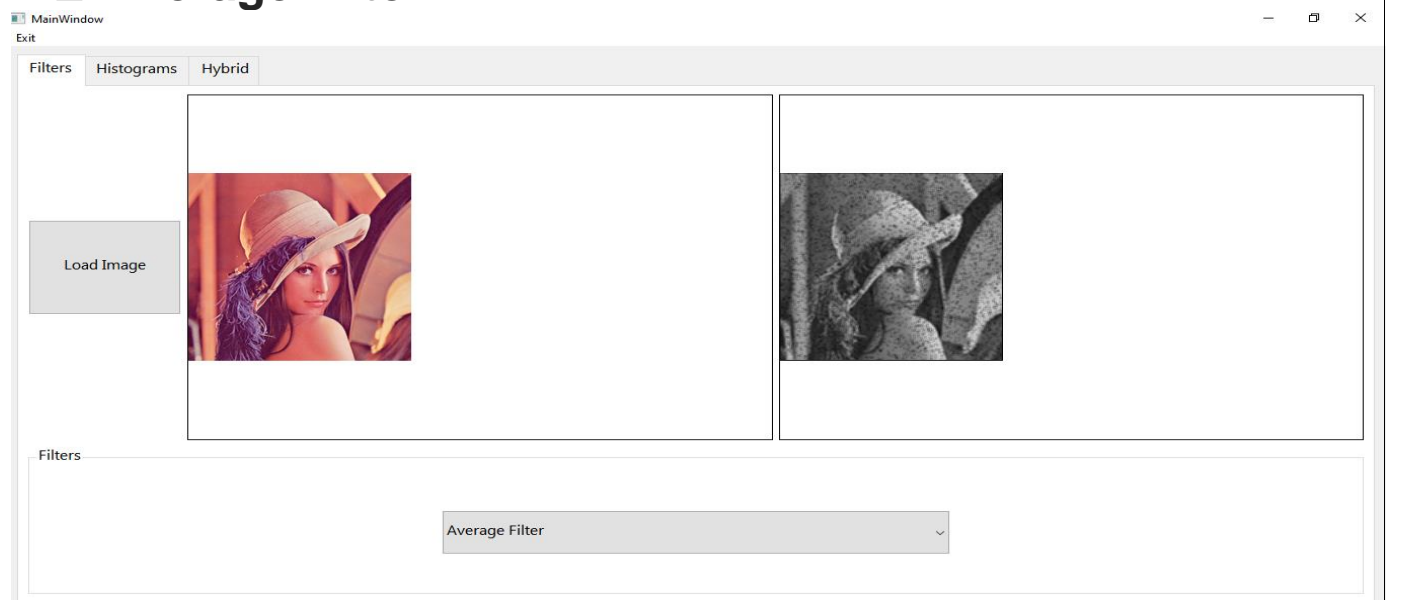


2. Filter the noisy image using the following low pass filters.

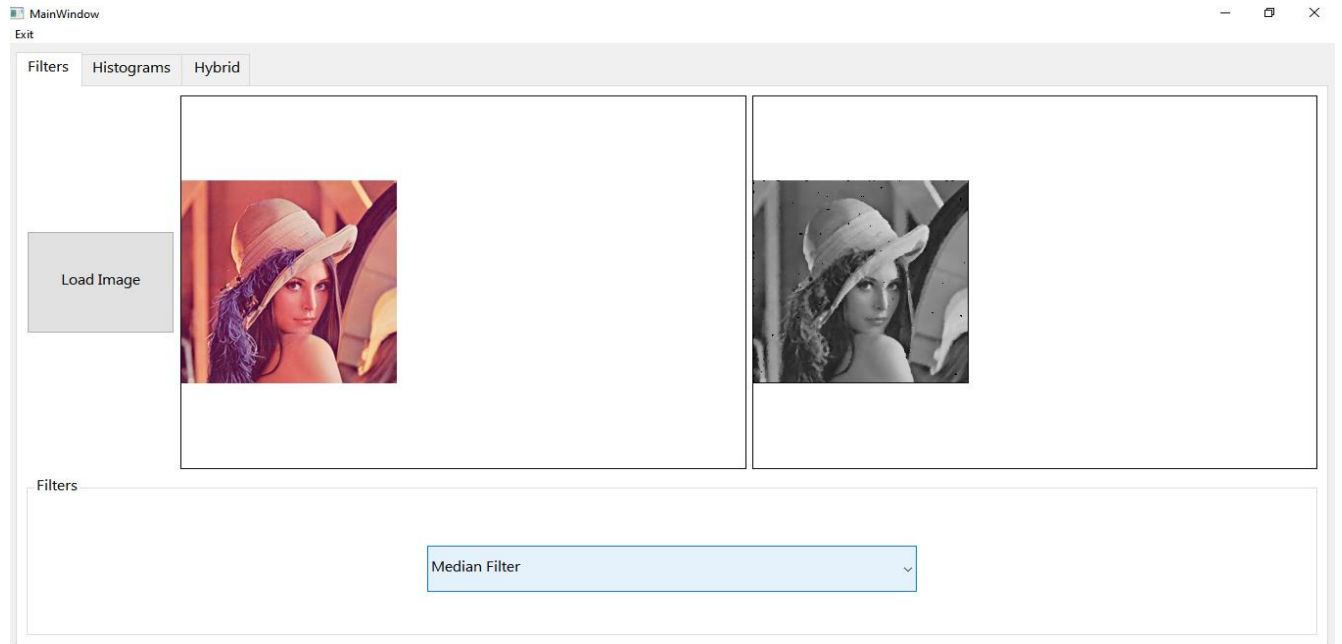
1. Gaussian filter



2. Average Filter

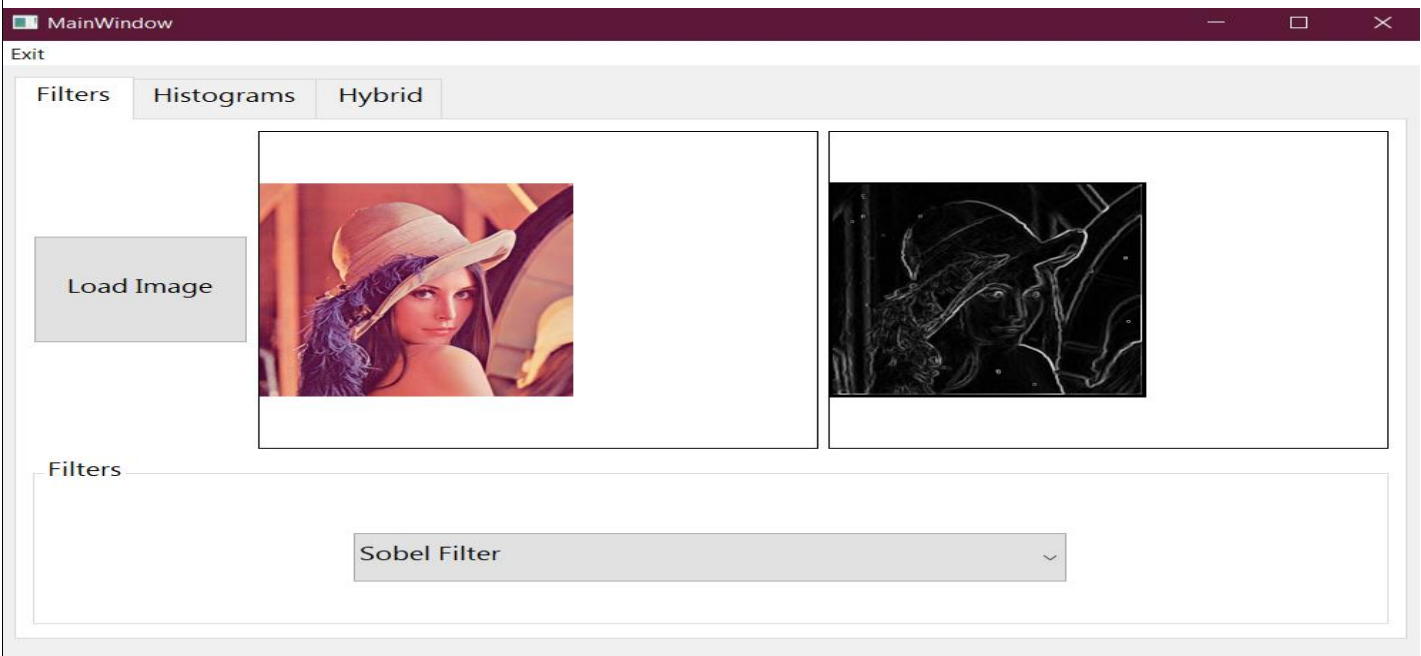


3. Median Filter

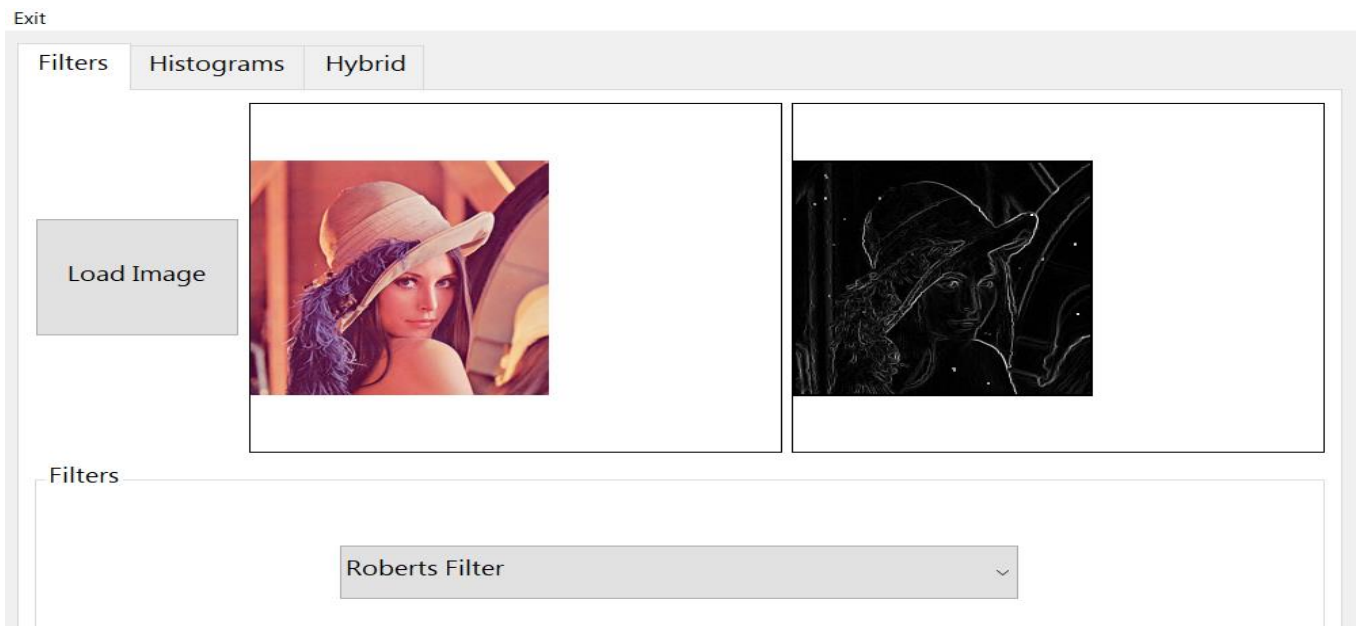


3. Edge Detection using High pass filter:

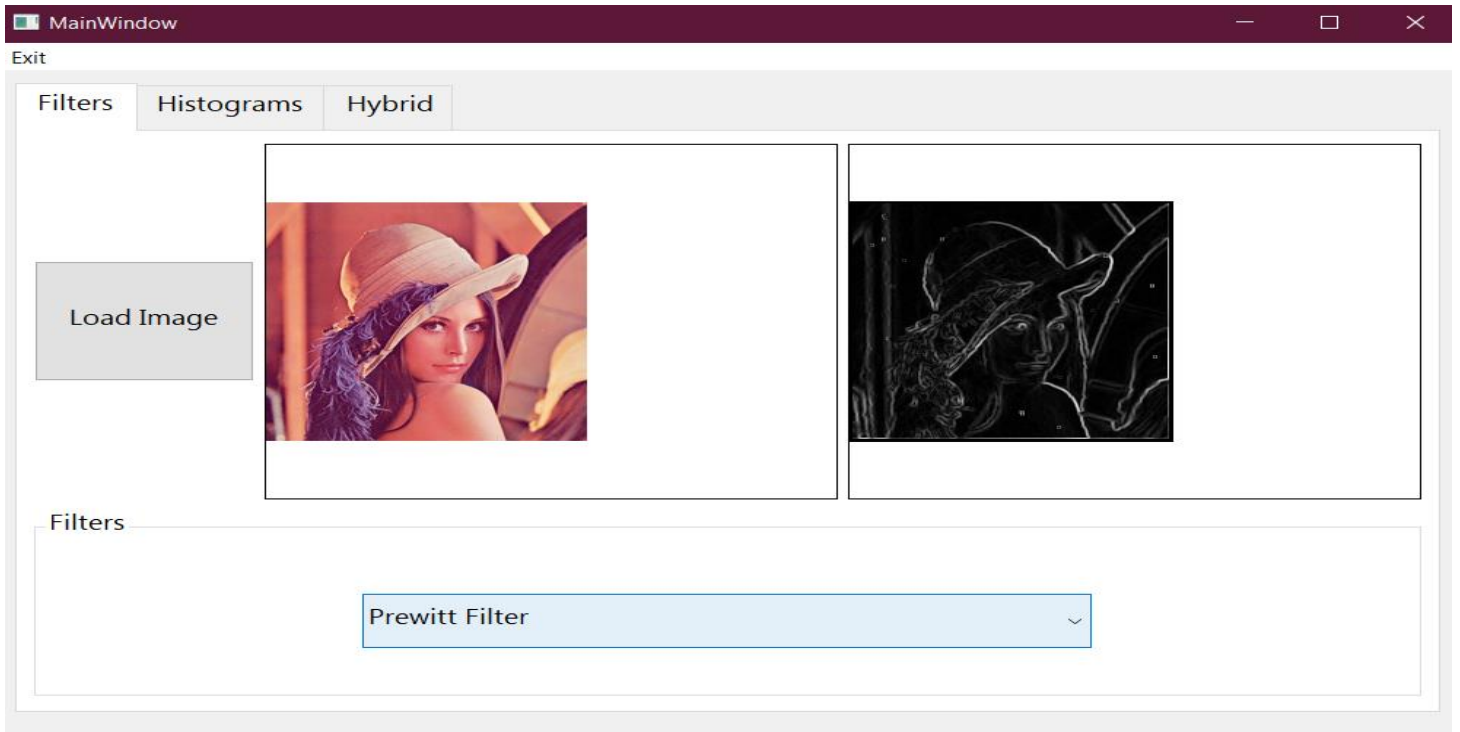
1. Sobel Filter



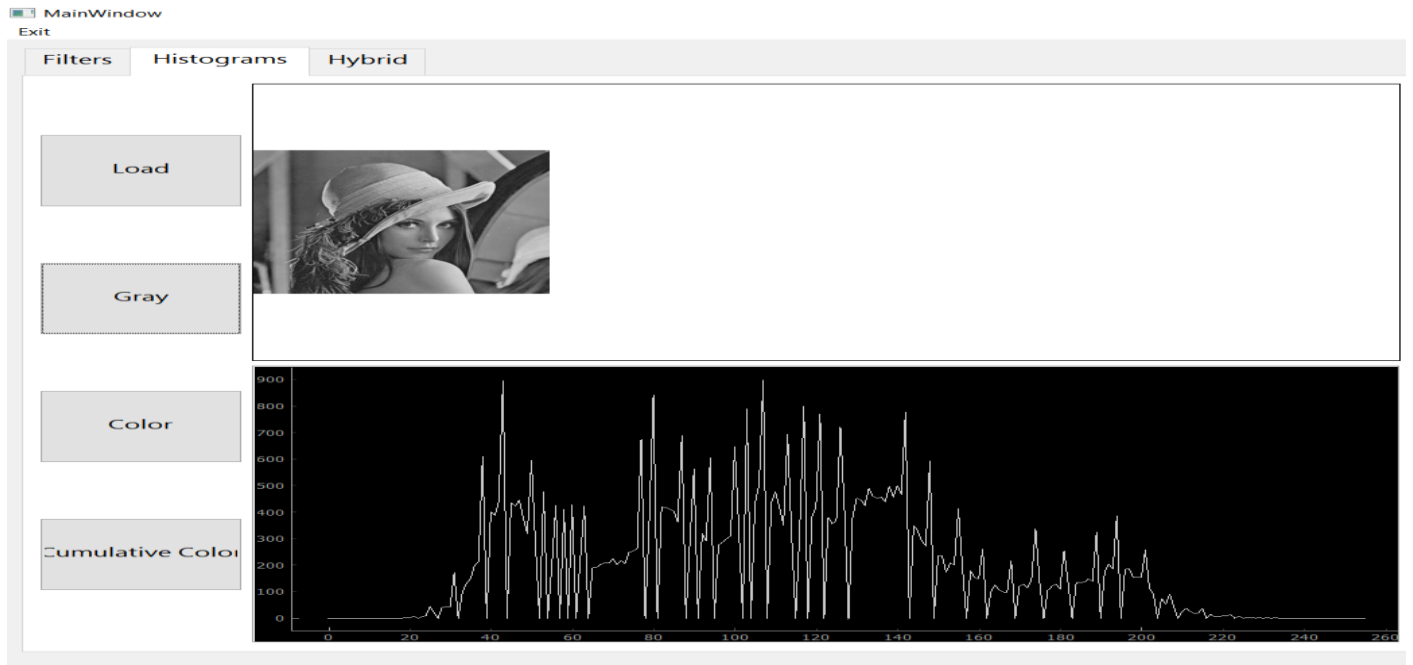
2. Roberts Filter



3. Prewitt Filter



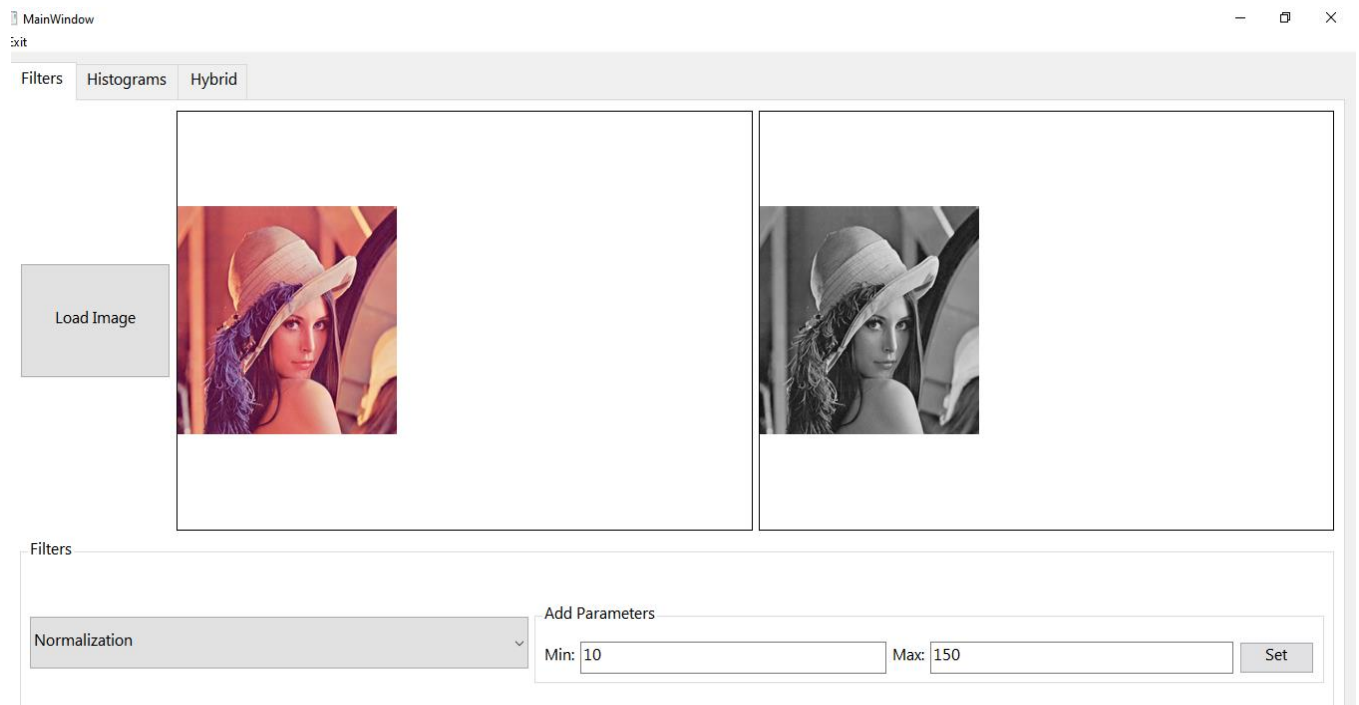
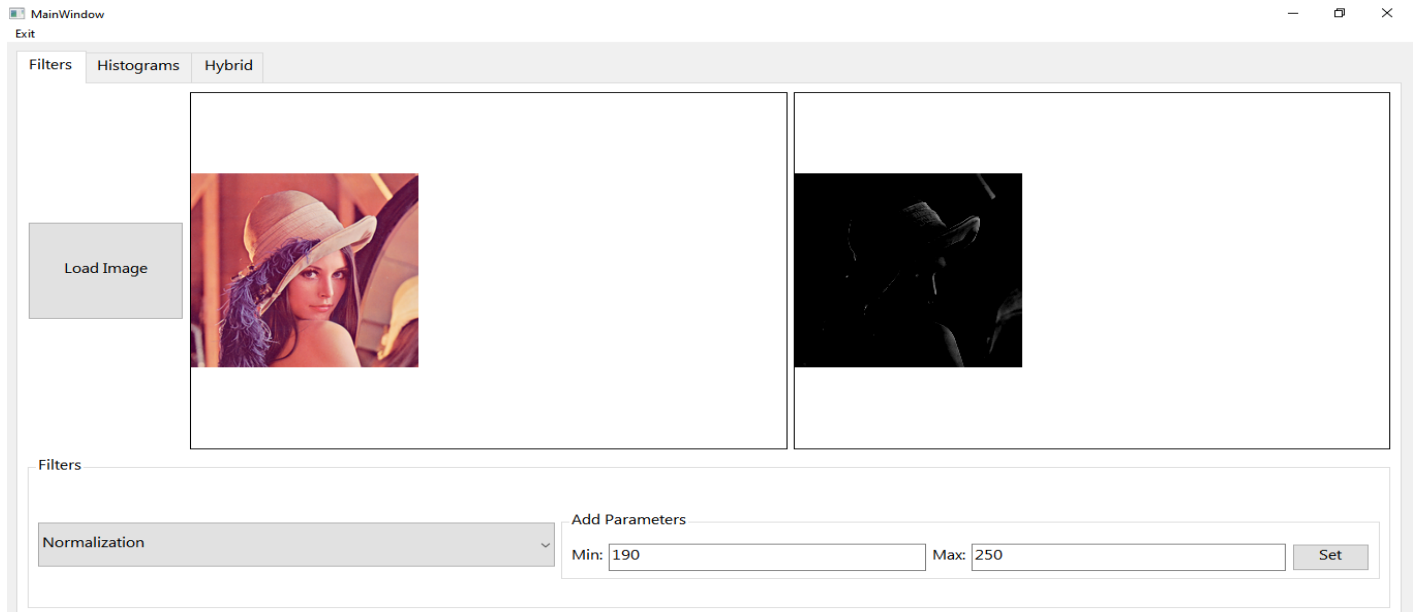
4. Draw histogram and distribution curve



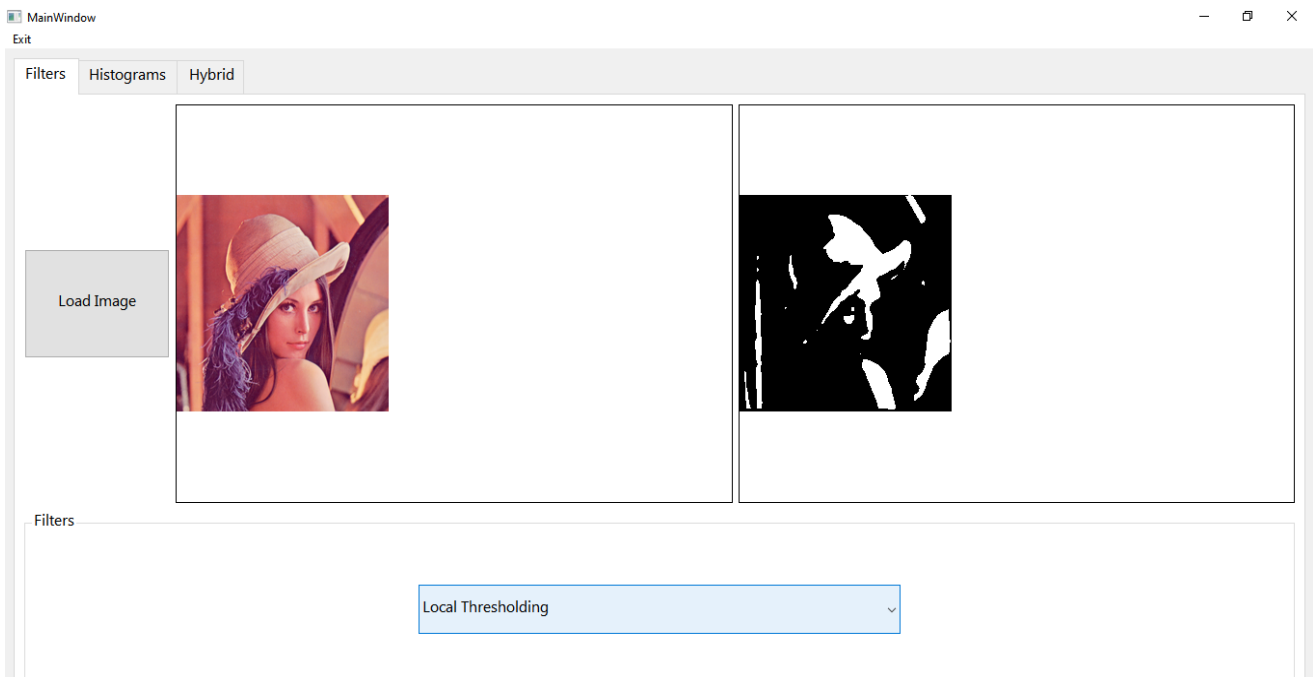
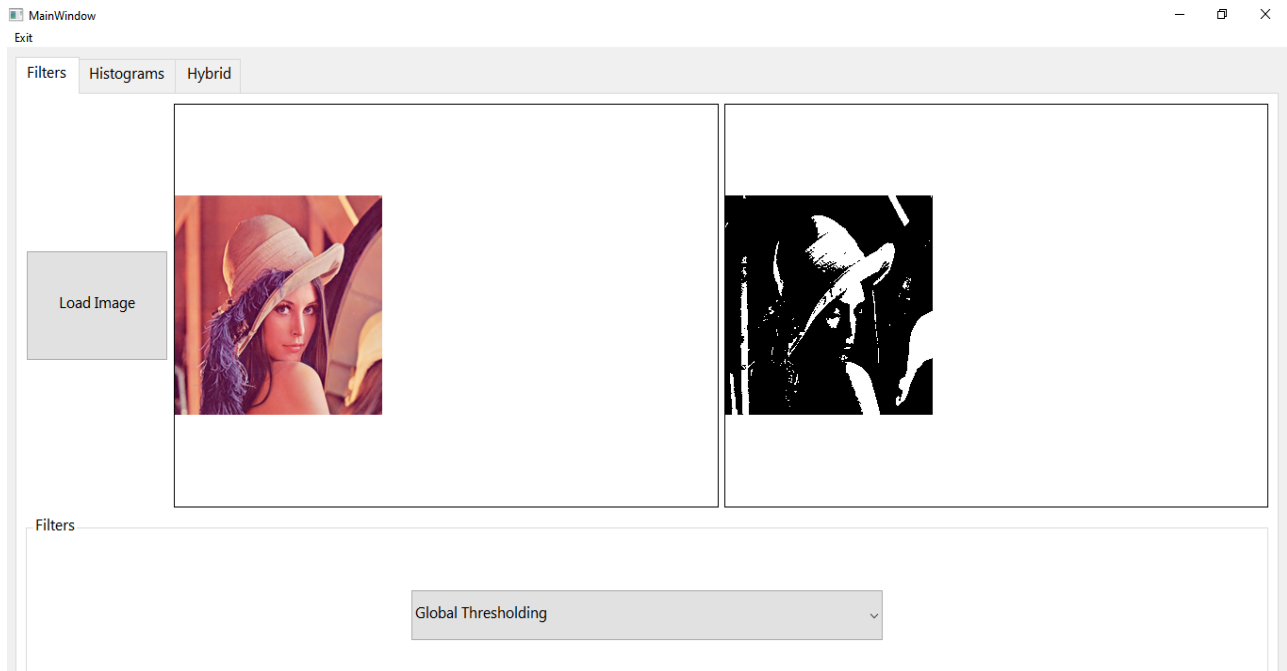
5. Equalize the image



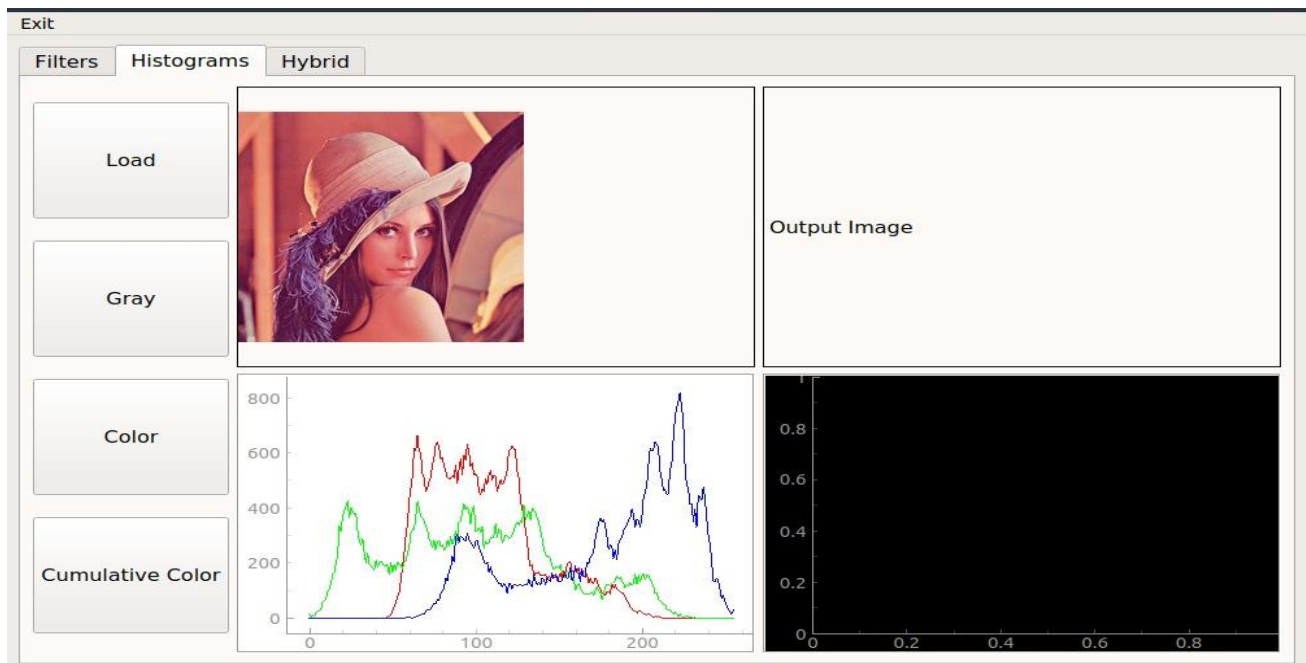
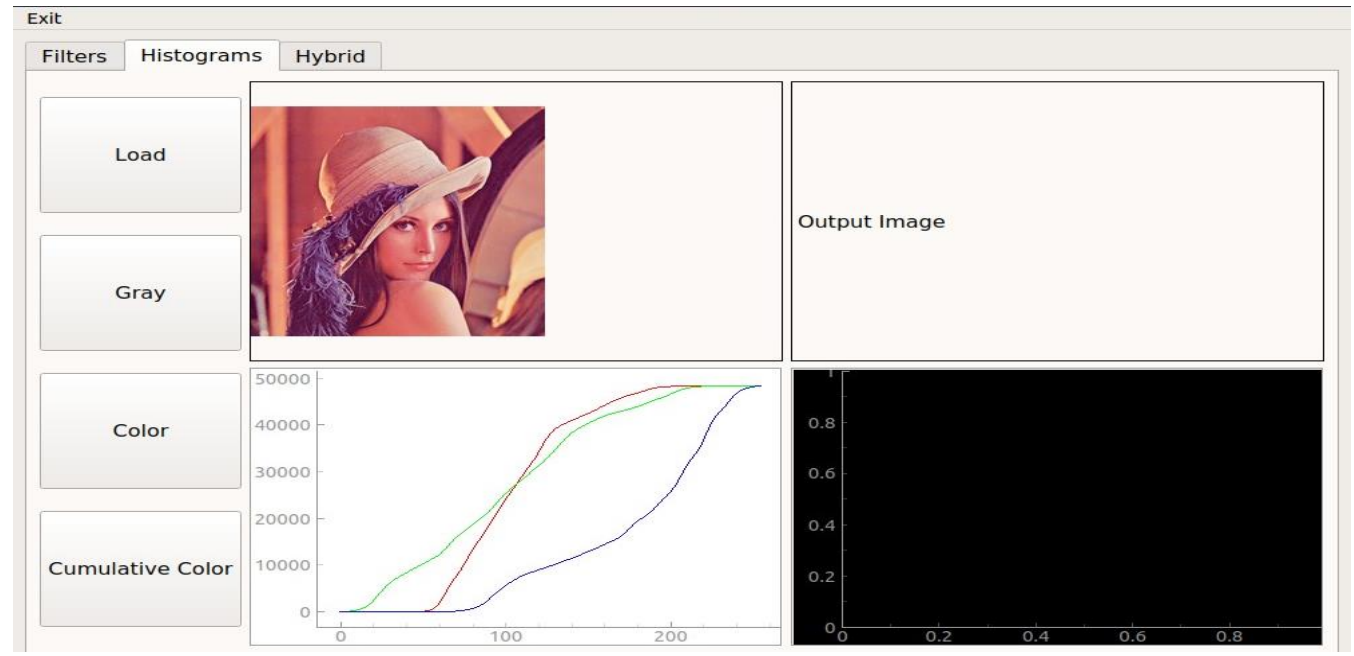
6. Normalize the image



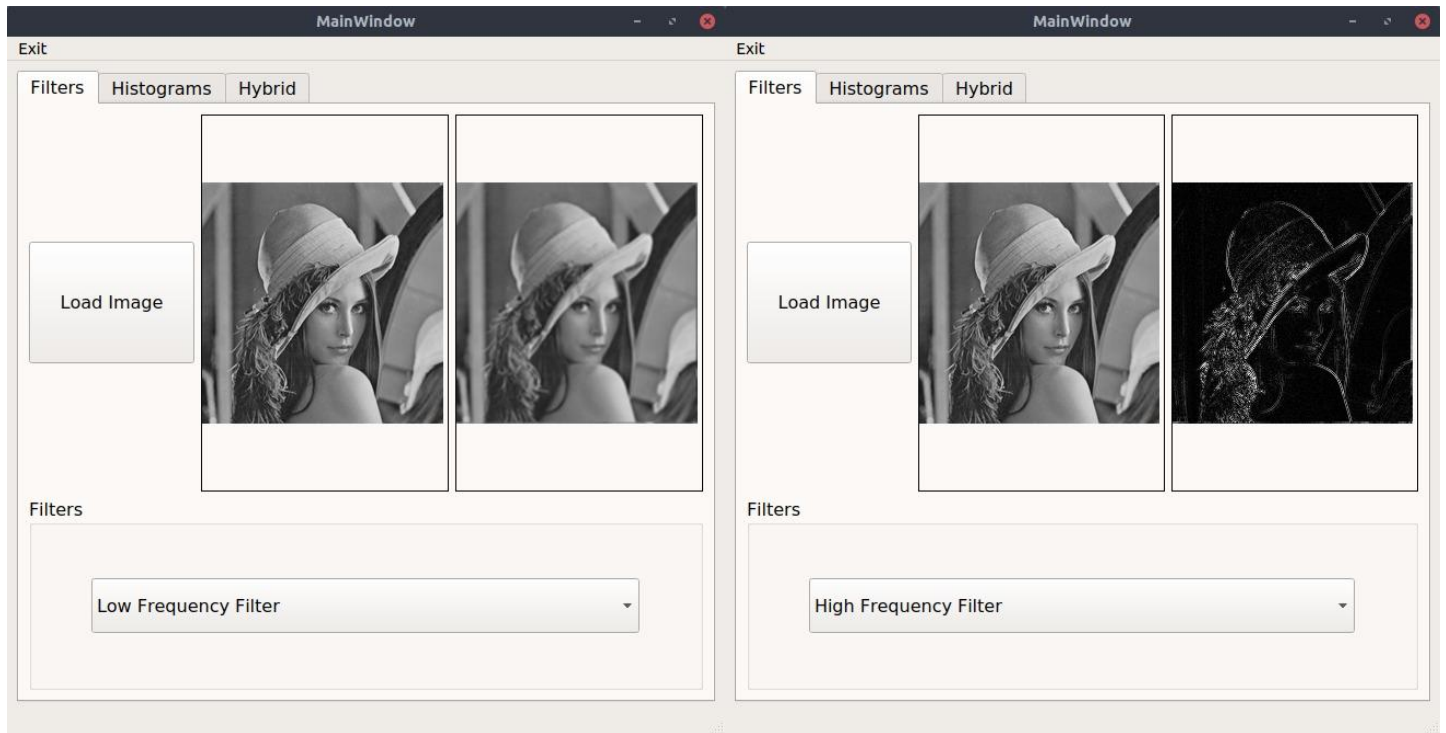
7. Global and Local Threshold with $T_{th} = 150$



8. RGB Histogram (Normal/Cumulative)



9. FFT filters (high/ low pass)



10. Hybrid Image:

