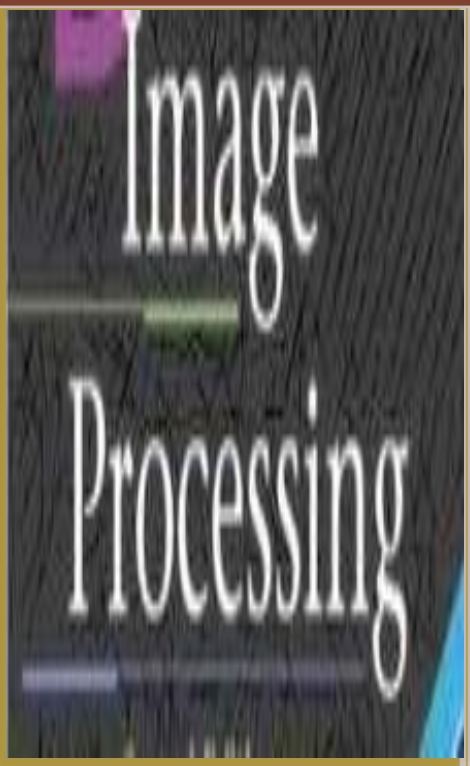
Faculty of
Electronic Engineering
كلية الهندسة الإلكترونية
Menoufia University

Programming Assignments



Date: ...9/6/2022.....

To Instructor: Dr. Mohamed Berbar

Submitted by:

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1. When you run the project, the following window will appear to you.

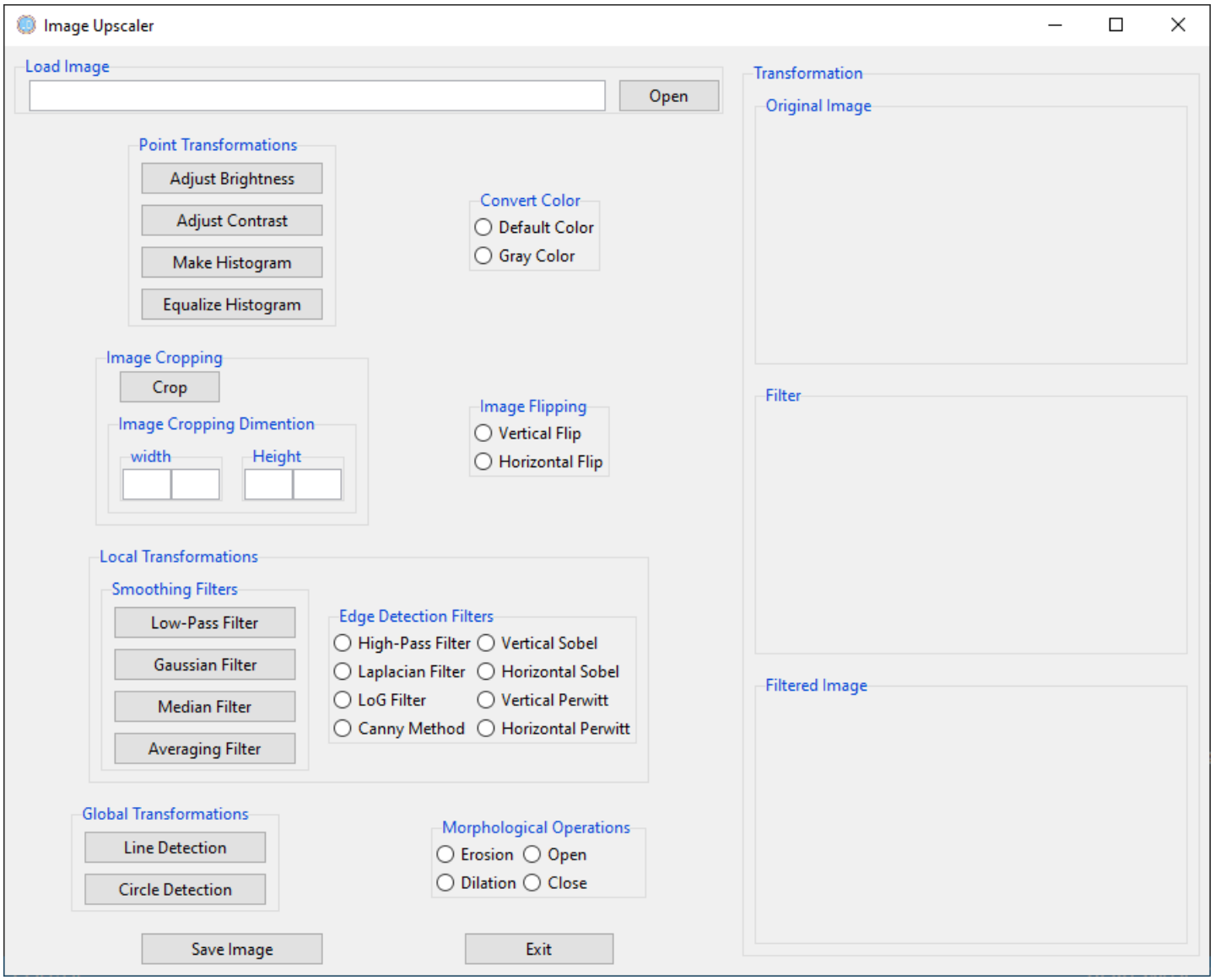

Fig. 1 Main Window

2. When you click open button, the dialog box will appear. Then choose your photo and click open.

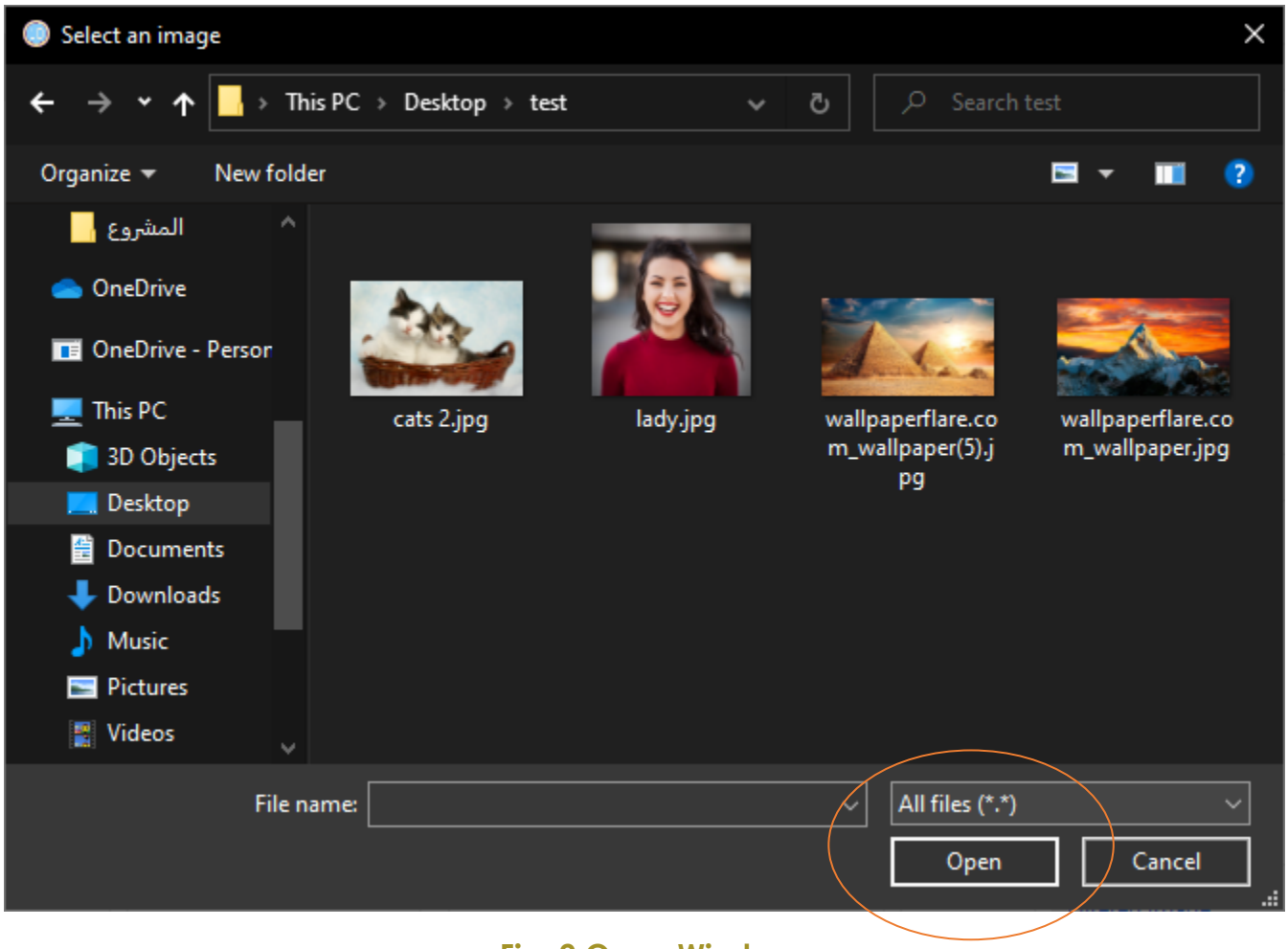

Fig. 2 Open Window

3. -The image will display in RGB as a default color, and you can convert it by click in Gray color radio options for do the operations.

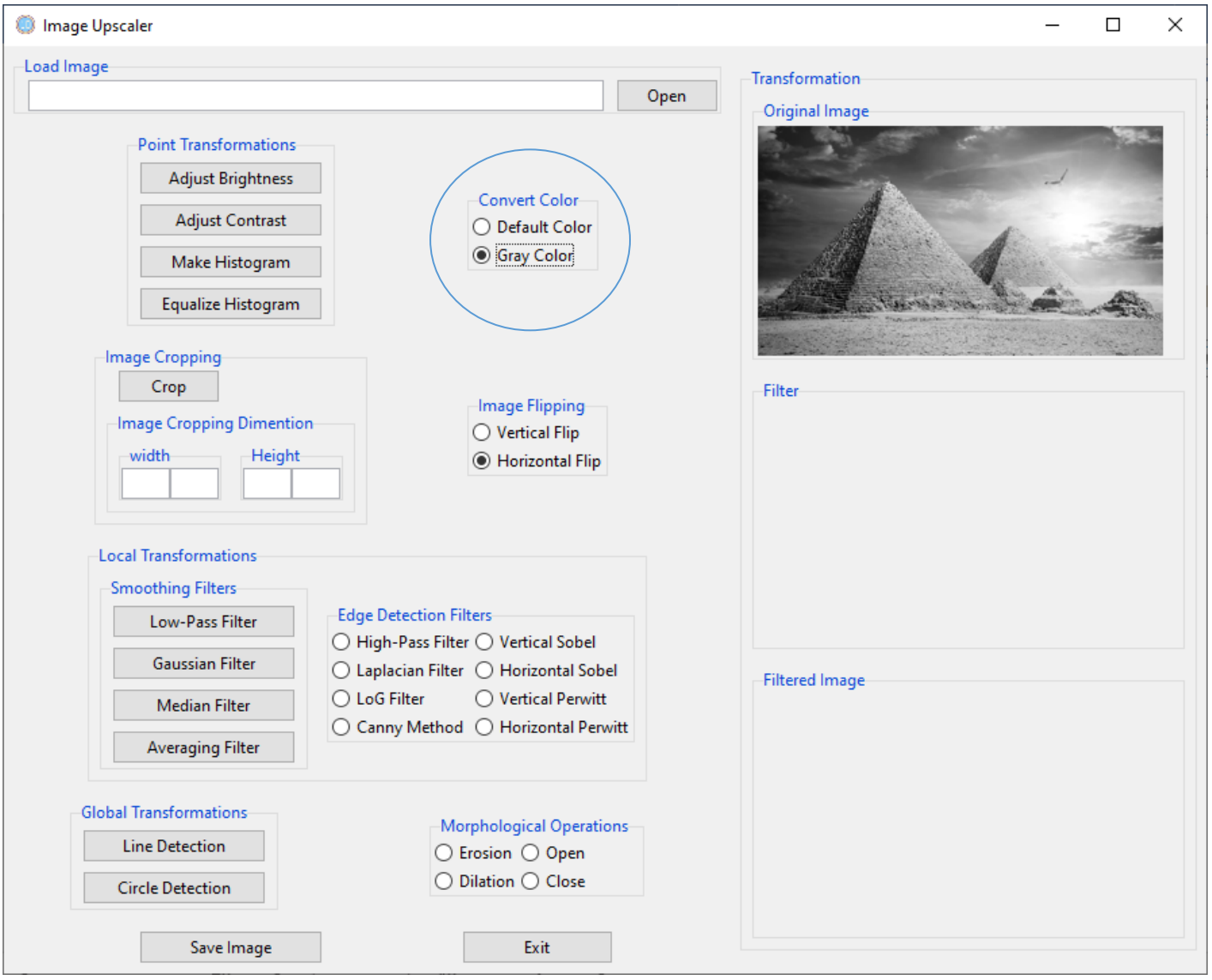

Fig 3:

4- You can flip the image vertical or horizontal by apply the option.

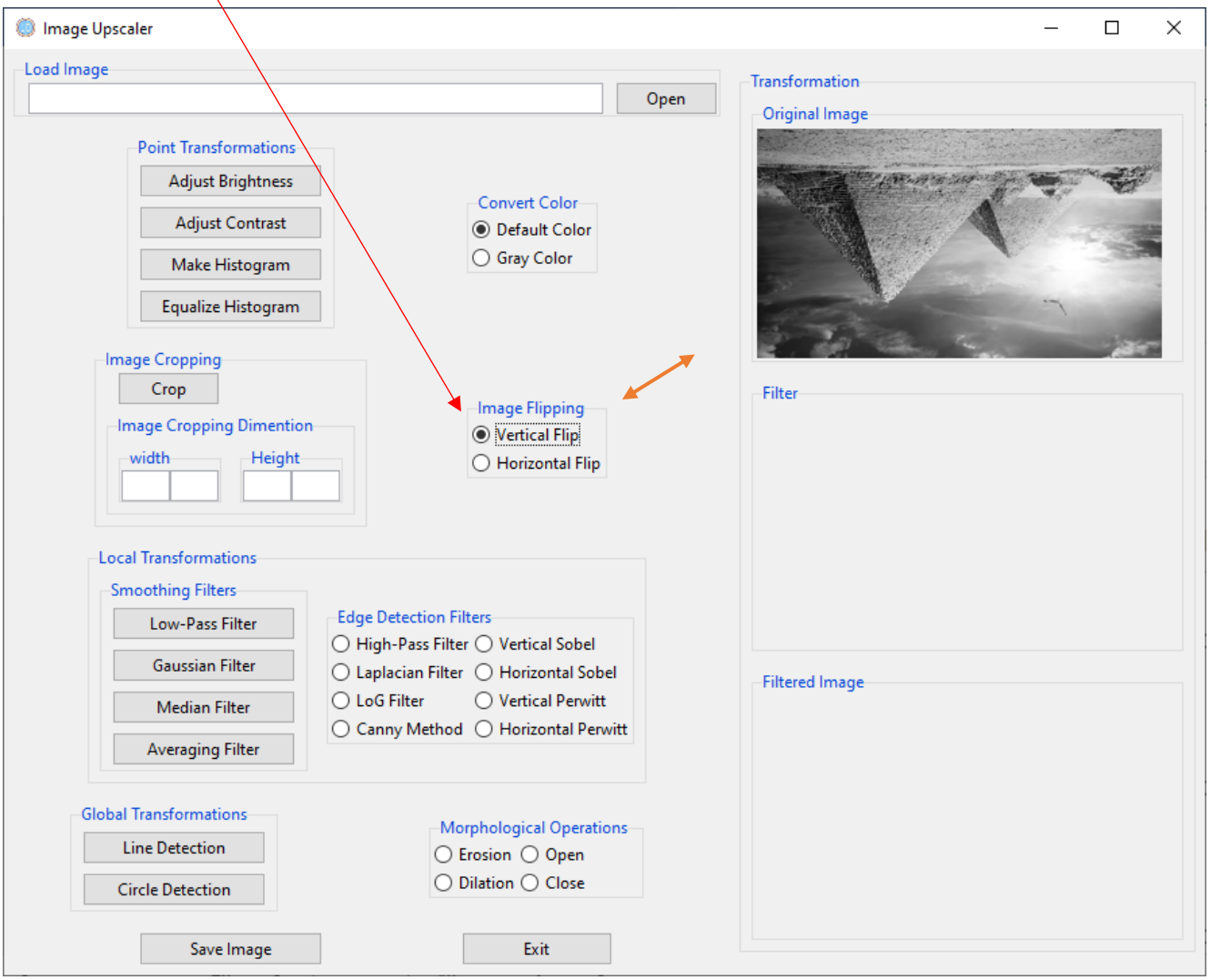

Fig 4

5- we can apply point transformation like Brightness, Contrast, Histogram and Equalize Histogram.

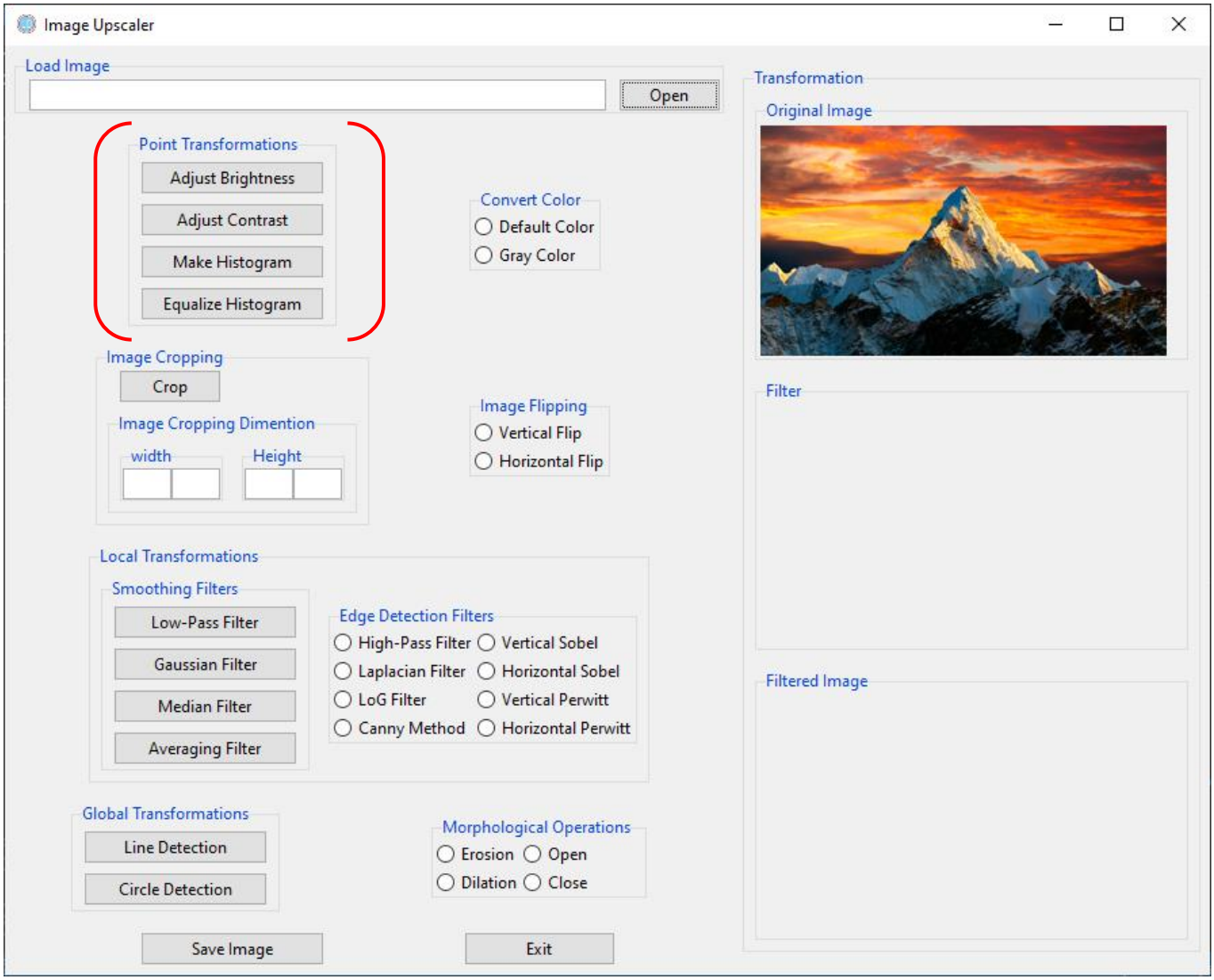

Fig: 5

6. -After apply brightness adjustment.

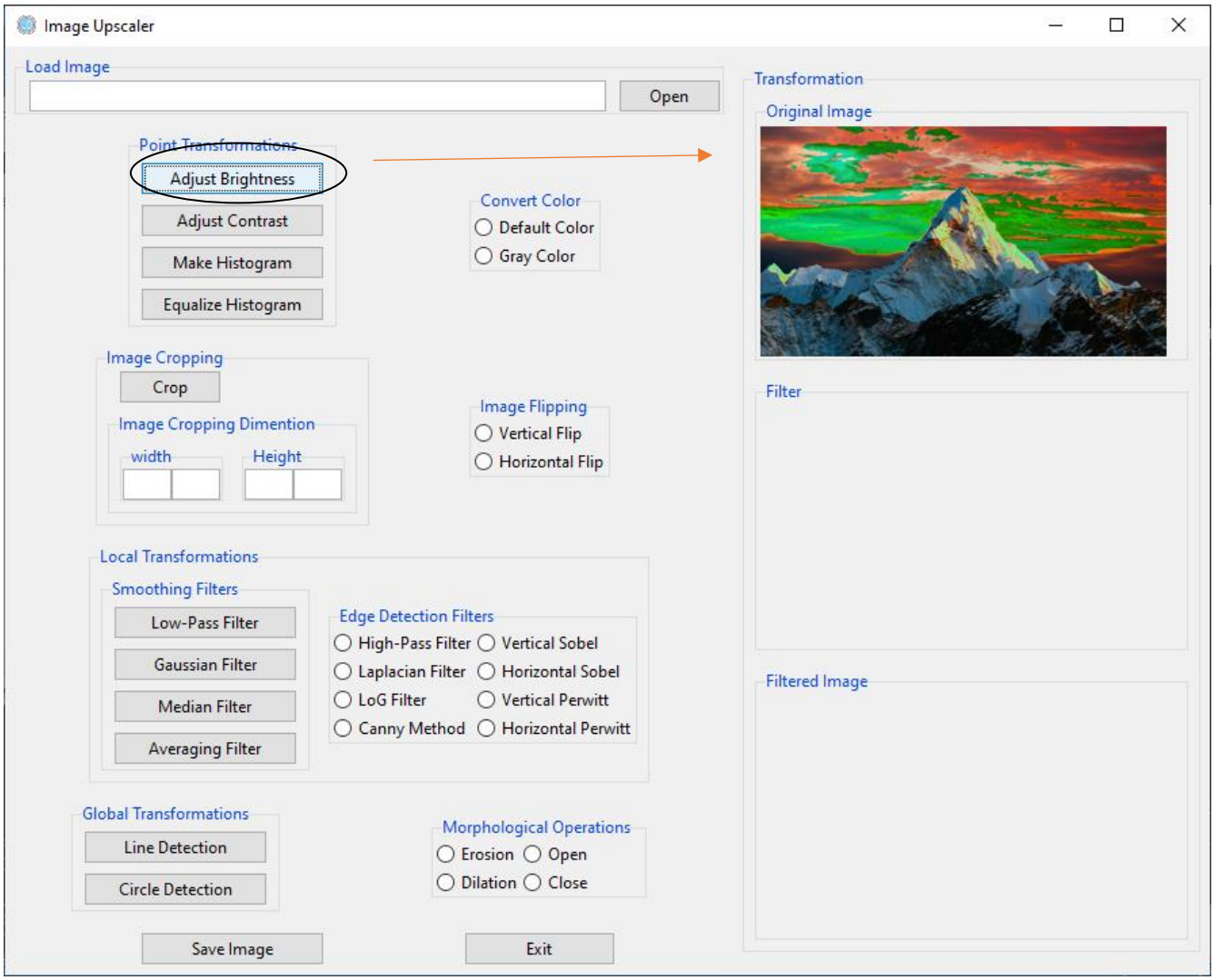

Fig: 6

7- After Adjust Contrast

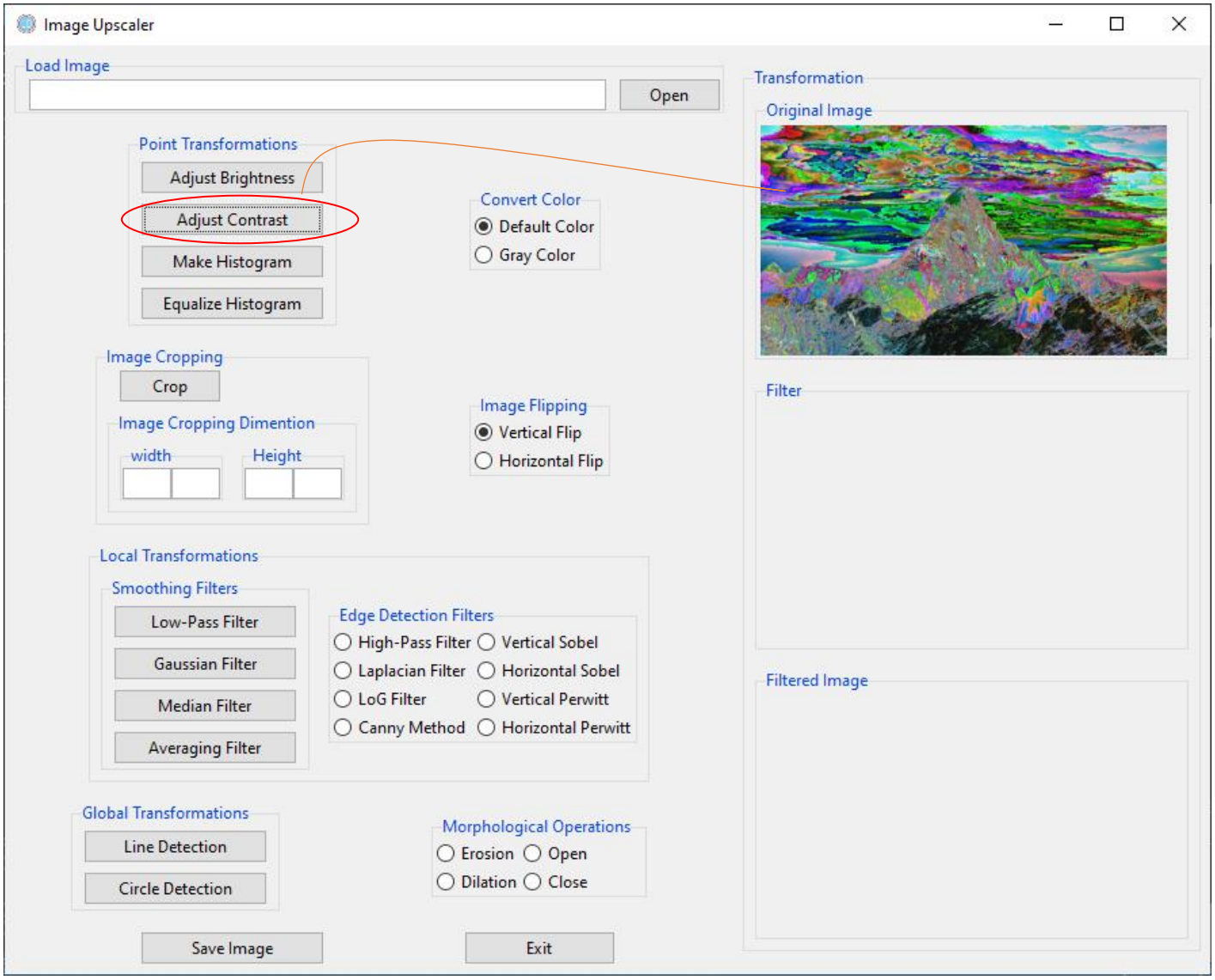

Fig: 7

8- Make Histogram

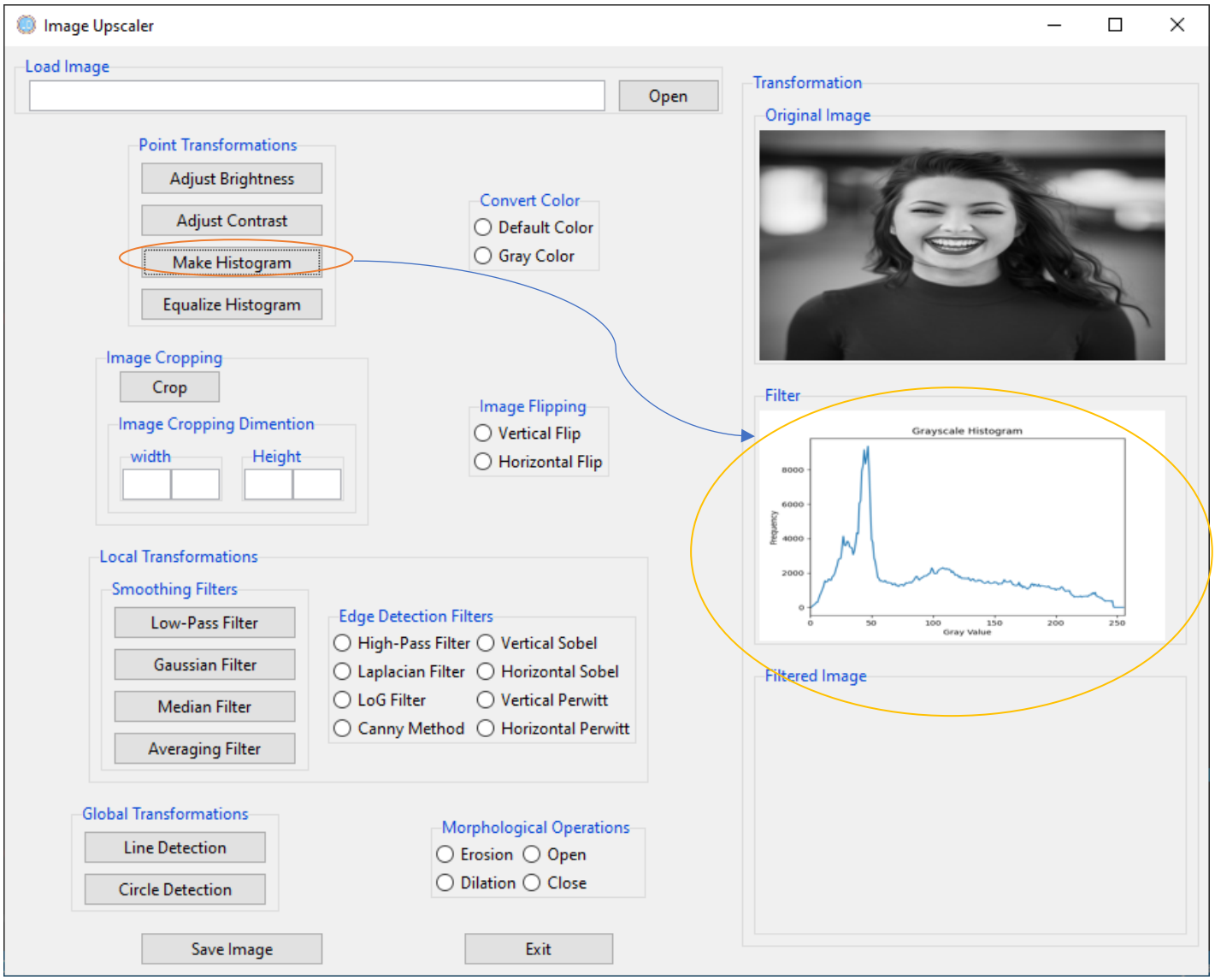

Fig: 8

9- Equalize Histogram

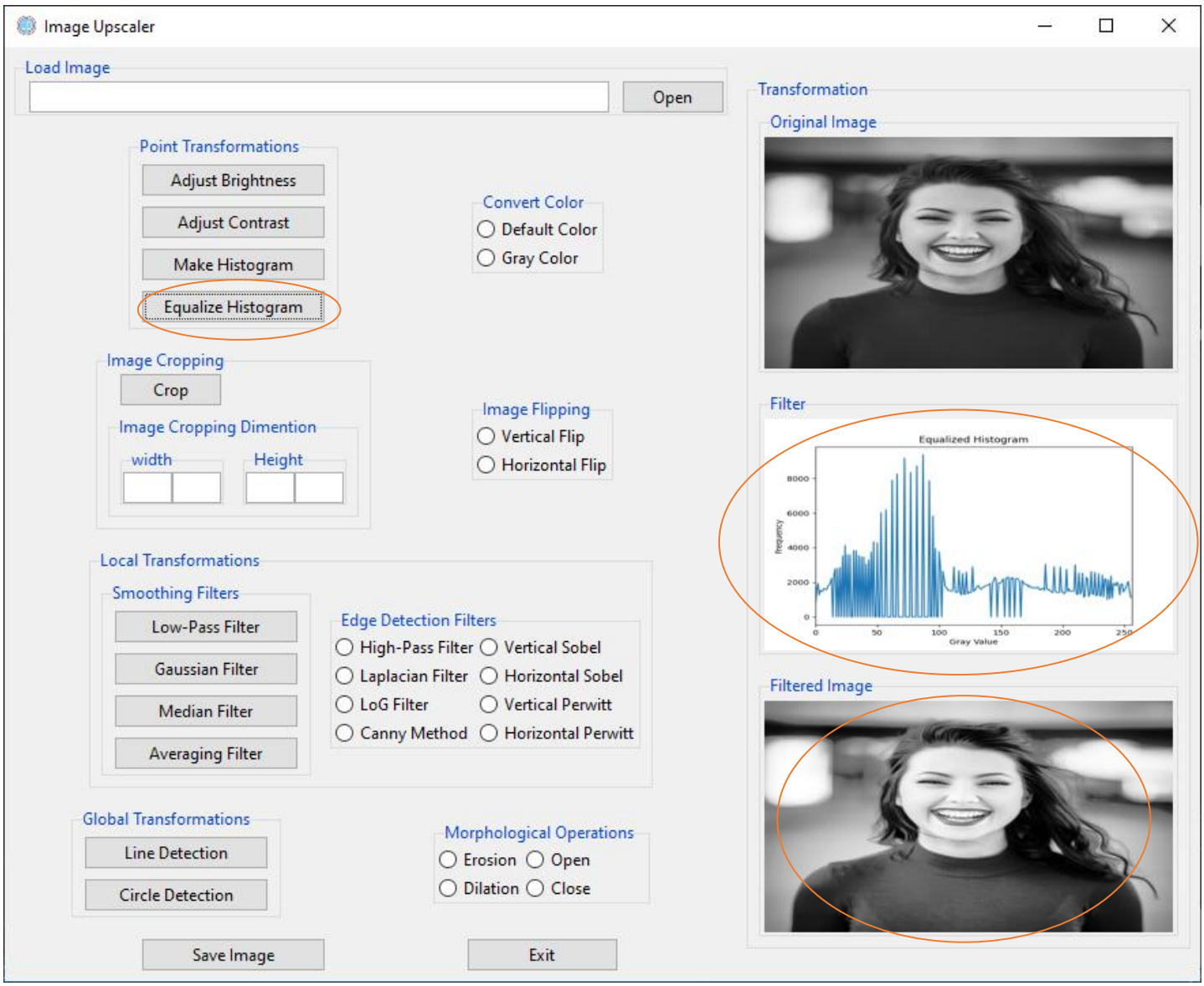

Fig :9

10. You do the local transformation operations (low pass, high pass, median and averaging filter) by press on these commands:

Ex: Applying Average filter

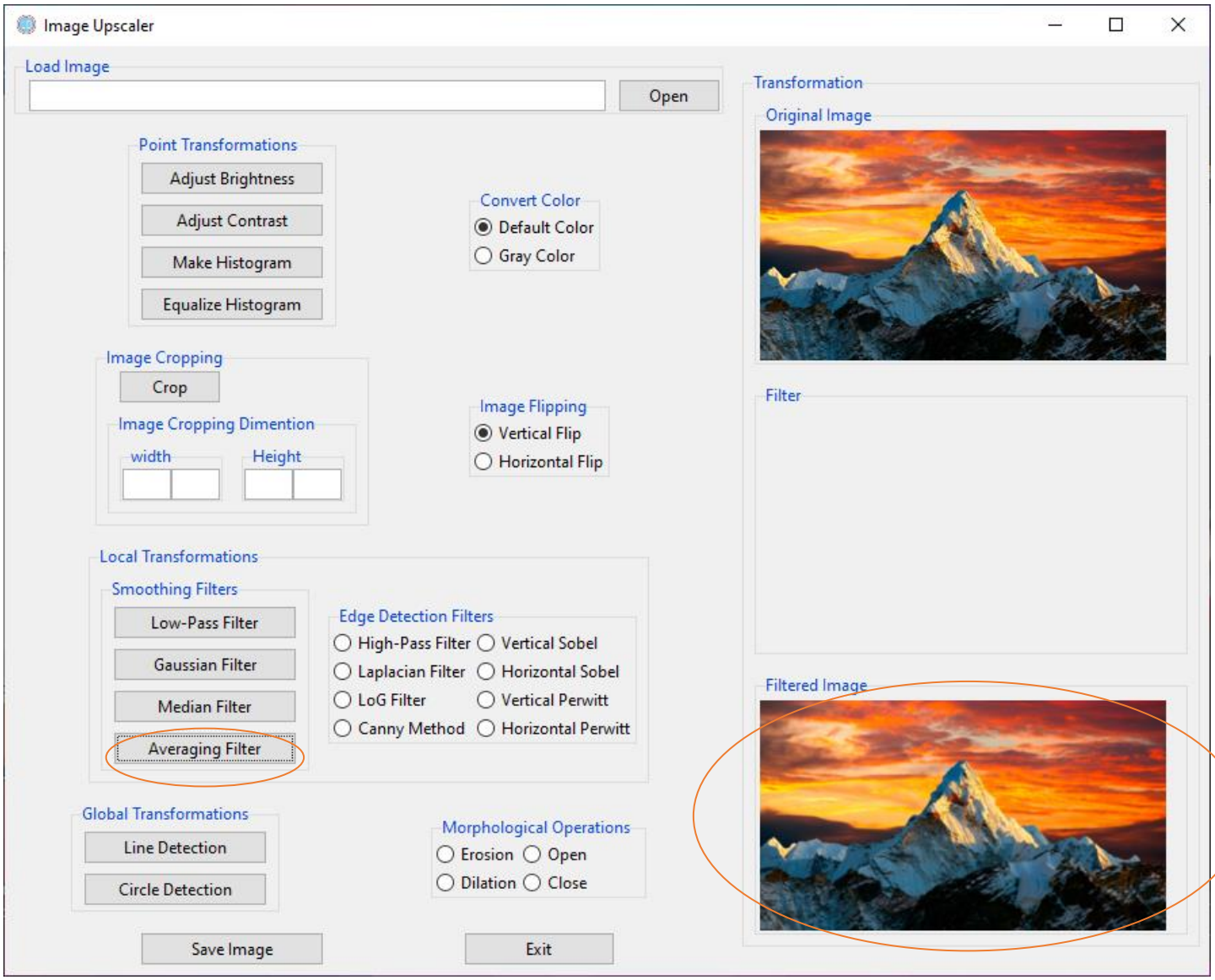

Fig: 10

11. -You can do edge detection filters (laplacain, Gaussian, vertical sobel, horizontal sobel, vertical prewitt, horizantle prewitt, log, canny method, zero cross, thicken, skeleton and thinning)

EX Applying Laplacian filter

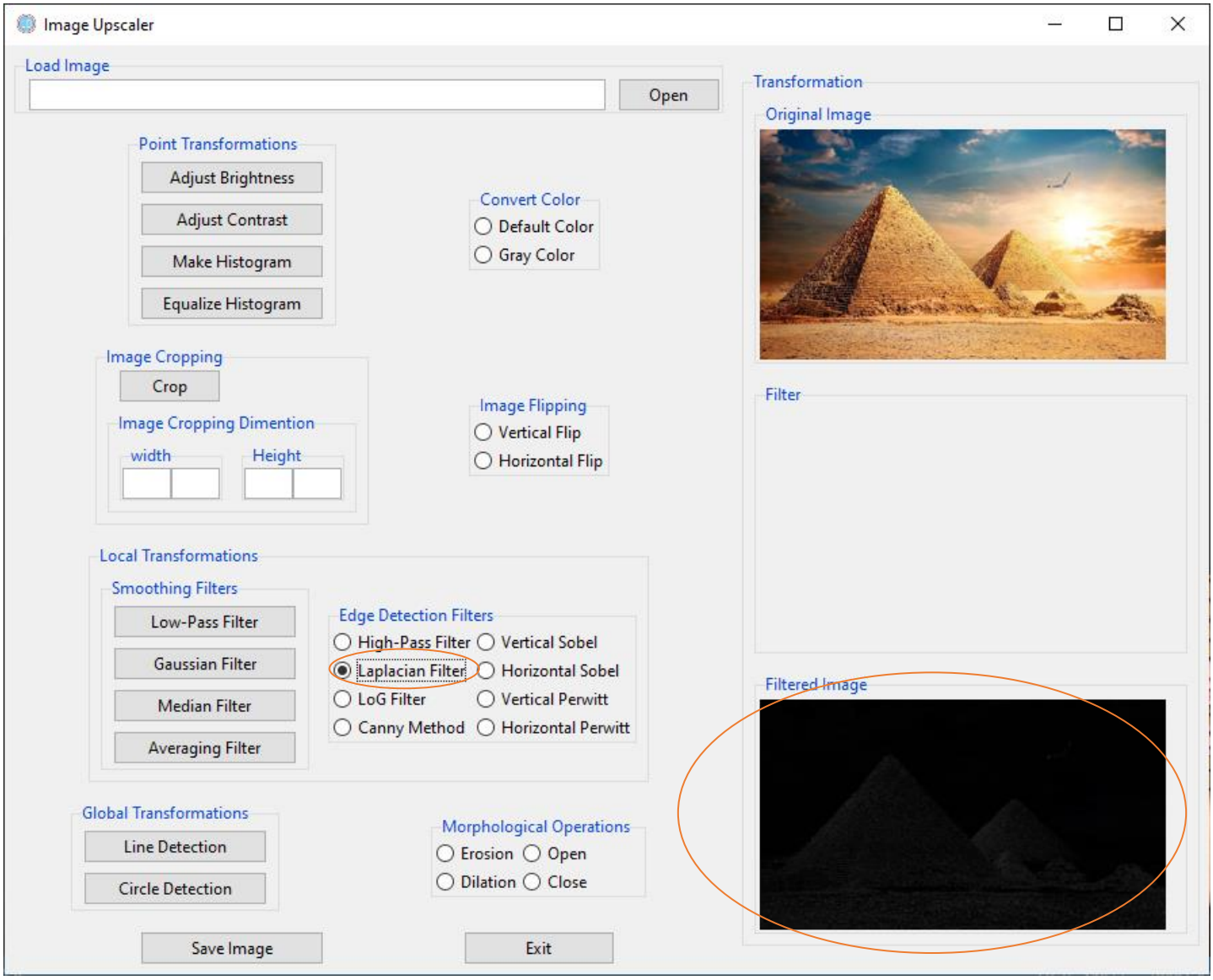

Fig: 11

12. You can do global transformation (line and circle) detection using hough transform.

EX: After apply line detection using hough transform.

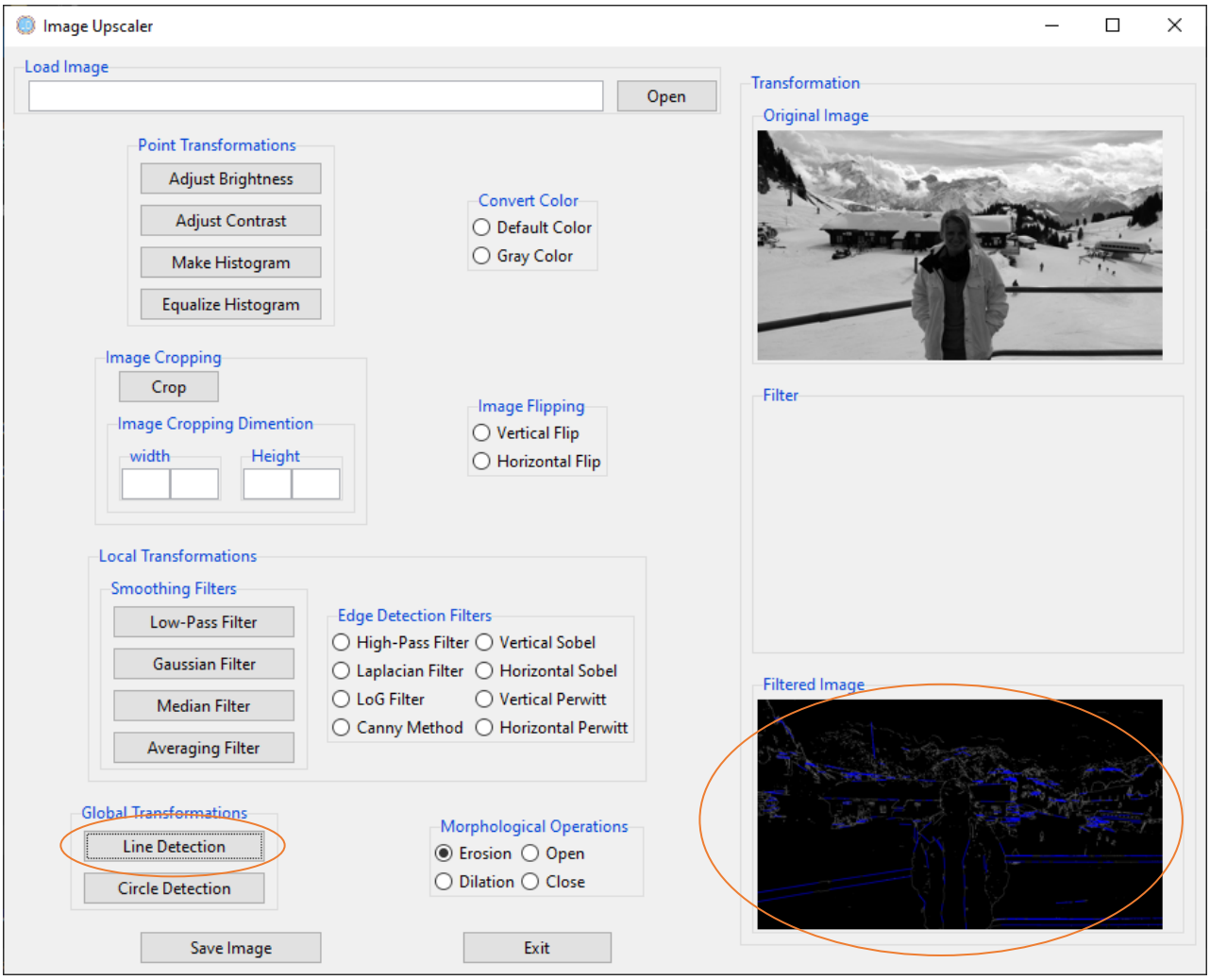

Fig: 12

13. -After apply circle detection using hough transform.

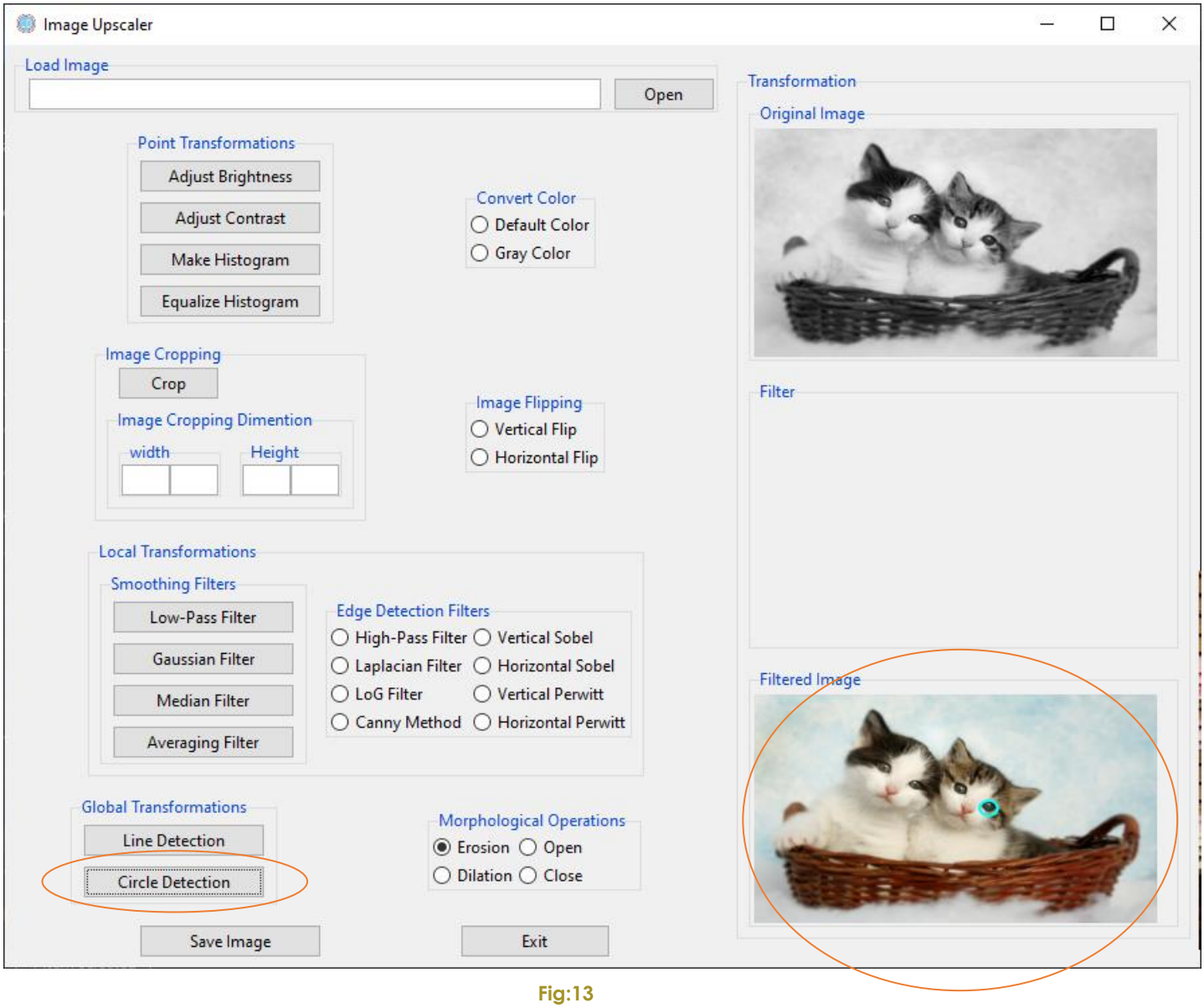

Fig:13

14. -After click save image result, then dialog box will appear.

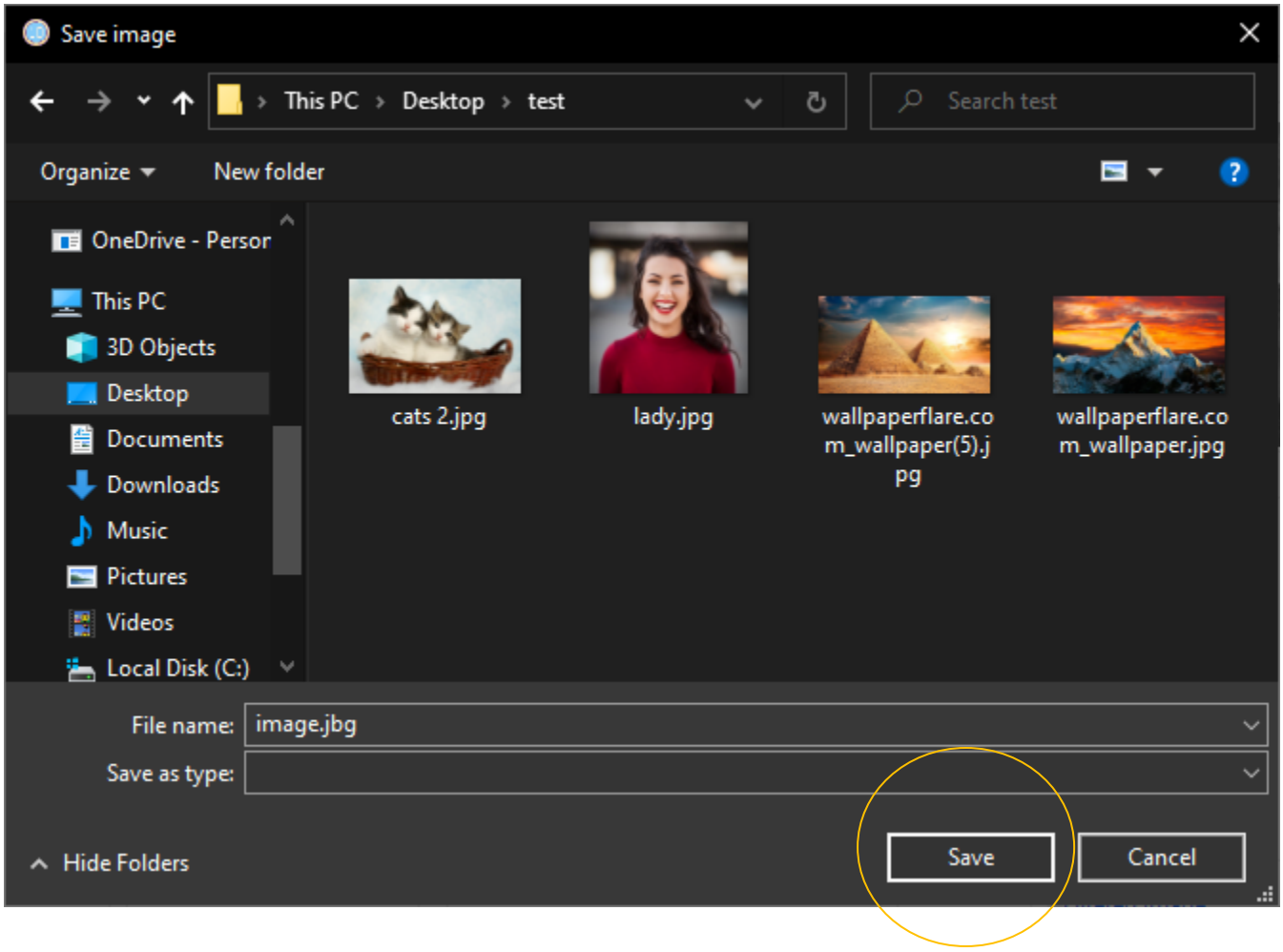

Fig: 14

At last we can Exit by Exit button

Reference code
GitHub repo
https://github.com/Sameh-Atef/Image-Upscaler