

Introduction to OpenCV

Write programs using library functions of OpenCV for the following tasks —

1. Read and display an image.
2. Read a color image and convert it into grayscale.
3. Read an image and find out its following details –
 - (a) Height
 - (b) Width
 - (c) Channels
 - (d) Depth
4. Read an image and find a clone of it.
5. Read an image and display its RGB plane value at a particular pixel location.
6. Draw the following geometrical shapes —
 - (a) Line
 - (b) Circle
 - (c) Rectangle
7. Read an image and extract your region of interest (ROI) using `cvSetImageROI`.
8. Read an image and apply the Sobel operator to it.
9. Find out the Laplacian of an image.
10. Play a video file and stop it by pressing **P (Upper Case)** button of your keyboard.

[illegible]