**CANNY EDGE DETECTION**

import numpy as np

import cv2 as cv

from matplotlib import pyplot as plt

img = cv.imread('C:/Users/student/Desktop/istoc.jpg',0)

edges = cv.Canny(img,100,200)

plt.subplot(121),plt.imshow(img,cmap = 'gray')

plt.title('Original Image'), plt.xticks([]), plt.yticks([])

plt.subplot(122),plt.imshow(edges,cmap = 'gray')

plt.title('Edge Image'), plt.xticks([]), plt.yticks([])

plt.show()

**SOBAL EDGE DETECTION**

import cv2

import matplotlib.pyplot as plt

#imgpath = "test.tiff"

img = cv2.imread("C:/Users/student/Desktop/istoc.jpg", 1)

img = cv2.cvtColor(img, cv2.COLOR\_BGR2RGB)

edgesx = cv2.Sobel(img, -1, dx=1, dy=0, ksize=1)

edgesy = cv2.Sobel(img, -1, dx=0, dy=1, ksize=1)

edges = edgesx + edgesy

output = [img, edgesx, edgesy, edges]

titles = ['Original', 'x', 'y', 'Edges']

for i in range(4):

    plt.subplot(2, 2, i + 1)

    plt.imshow(output[i], cmap='gray')

    plt.title(titles[i])

    plt.xticks([])

    plt.yticks([])

plt.show()

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| CANNY EDGE DETECTED IMAGE |

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| SOBEL EDGE DETECTED IMAGE |