import cv2

import numpy as np

import matplotlib.pyplot as plt

image = cv2.imread('coins.jpg', cv2.IMREAD\_GRAYSCALE)

f = np.float32(image)

dct = cv2.dct(f)

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

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

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

plt.title('DCT Coefficients'), plt.xticks([]), plt.yticks([])

plt.show()