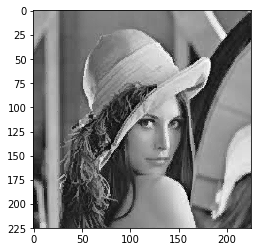
Sahil Gawande



B05

Reg no: 2016bec05

import numpy as np

import cv2

from matplotlib import pyplot as plt

img = cv2.imread(r'C:\Users\COMPLAB\_USER\lena\_gray.jpg', 0)

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

bs = 12

A = np.array(np.zeros([bs, bs]))

w = int(226/bs)

B = np.array(np.zeros([w\*bs, w\*bs]))

for i in range(0, w):

for j in range(0, w):

q = 0

patch\_img = img[i\*bs:i\*bs+bs, j\*bs:j\*bs+bs]

mean = np.mean(patch\_img)

sd = np.std(patch\_img)

for m in range(bs):

for n in range(bs):

if patch\_img[m][n] > mean:

A[m][n] = 1

q = q+1

else:

A[m][n] = 0

if q == 0:

a = mean

b = mean

else:

a = mean - (sd\*(np.sqrt(q/((bs\*\*2)-q))))

b = mean + (sd\*(np.sqrt(((bs\*\*2)-q)/q)))

for m in range(bs):

for n in range(bs):

if A[m][n] == 0:

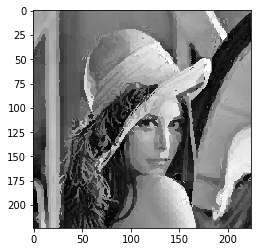
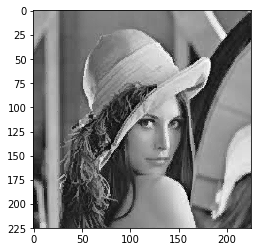
B[i\*bs+m, j\*bs+n] = a

else:

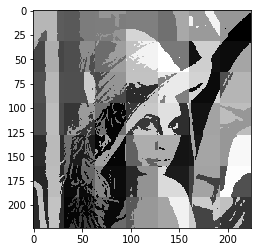
B[i\*bs+m, j\*bs+n] = b

plt.imshow(B, cmap='gray')

Input bs = 8 bs = 32



Btc\_\_ip btc\_op\_bs\_8



Btc\_op\_bs\_32