import cv2

import numpy as np

import matplotlib.pyplot as plt

img=cv2.imread('cervix8.png')

cv2.imshow('orignal cervix image with reflection',img)

hsv\_img = cv2.cvtColor(img, cv2.COLOR\_BGR2HSV)

cv2.imshow('hsv',hsv\_img)

cv2.imshow('saturation',hsv\_img[:, :, 1])

h = hsv\_img[:, :, 0]

s = hsv\_img[:, :, 1]

v = hsv\_img[:, :, 2]

retval,threshold=cv2.threshold(s,70,255,cv2.THRESH\_BINARY)

mask = cv2.bitwise\_not(threshold)

cv2.imshow('masked image',mask)

output1=cv2.inpaint(img,mask,5,cv2.INPAINT\_TELEA)

output2=cv2.inpaint(img,mask,5,cv2.INPAINT\_NS)

output=[img,mask,output1,output2]

title=['orignal image','mask','TELEA','NS']

cv2.imshow('op1',output1)

cv2.imshow('op2',output2)

kernel1 = np.array([[-1,-1,-1], [-1,9,-1], [-1,-1,-1]])

blur = cv2.bilateralFilter(output1,12,75,75)

kernel = np.ones((150,150),np.float32)/25

dst = cv2.filter2D(output1,-1,kernel)

dst1 = cv2.filter2D(dst,-1,kernel)

dst2= cv2.filter2D(dst1,-1,kernel)

im = cv2.filter2D(dst2, -1, kernel1)

cv2.imshow('image with reflection removed',im)

plt.subplot(3,2,1)

plt.imshow(img)

plt.title('orignal image')

plt.subplot(3,2,2)

plt.imshow(hsv\_img)

plt.title('HSV image')

plt.subplot(3,2,3)

plt.imshow(s)

plt.title('saturation plane image')

plt.subplot(3,2,4)

plt.imshow(mask)

plt.title('mask for image')

plt.subplot(3,2,5)

plt.imshow(output1)

plt.title('telea image')

plt.subplot(3,2,6)

plt.imshow(im)

plt.title('processed final image')

cv2.waitKey(30000)

cv2.destroyAllWindows()

Results