MORPHOLOGY

import cv2 as cv

import numpy as np

im = cv.imread('C:/Users/student/Downloads/water.jfif')

img = cv.resize(im,(480,360))

cv.imshow('Real Image',img)

cv.waitKey()

def erosion(img):

    ker = np.ones((5,5),np.uint8)

    er = cv.erode(img,ker,iterations = 1)

    cv.imshow('Erosion',er)

    cv.waitKey()

def dilation(img):

    ker = np.ones((5,5),np.uint8)

    dil = cv.dilate(img,ker,iterations = 1)

    cv.imshow('Dilution',dil)

    cv.waitKey()

def opening(img):

    ker = np.ones((5,5),np.uint8)

    op = cv.morphologyEx(img, cv.MORPH\_OPEN, ker)

    cv.imshow('Opening',op)

    cv.waitKey()

def closing(img):

    ker = np.ones((5,5),np.uint8)

    cl = cv.morphologyEx(img, cv.MORPH\_CLOSE, ker)

    cv.imshow('Closing',cl)

    cv.waitKey()

erosion(img)

dilation(img)

opening(img)

closing(img)

cv.destroyAllWindows()

OUTPUT

|  |  |
| --- | --- |
| INPUT IMAGE | |
| EROSION | DILATION |
| OPENING | CLOSING |