

CS 314 - IMAGE PROCESSING PRACTICAL (2020/2021)

Assignment 07 – Morphological Transformations

Due date: August 23rd 2022, 11.59 pm

This assignment requires you to practice using Morphological Transformations and contours learned on digital image processing using OpenCV-Python library.

You are required to submit the python script, answers.pdf (for the 2nd question) file and the screenshots/results. DO NOT submit the answers using a zip file. Directly upload the files into your submission thread.

1. Use the image: **overlap_coins.jpg**
 - a. Count the number of coins available in the image.
 - b. Calculate the total area covered by coins
 - c. Calculate the perimeter of the 2nd to largest coin (coin having the 2nd largest contour area).
 - d. Take a screenshot and submit the python IDLE console results for above 3 questions.

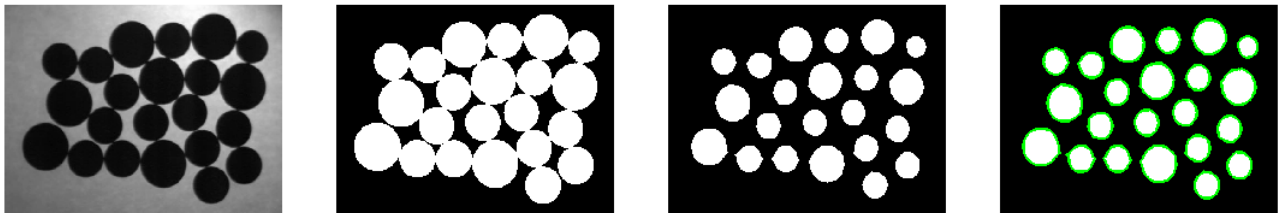


Figure 01: Detected Coins

2. Compare and contrast cv2.Sobel, cv2.Laplacian and cv2.Canny with some examples. (Submit the answers.pdf file)