

505060 – Digital Image Processing Assignment

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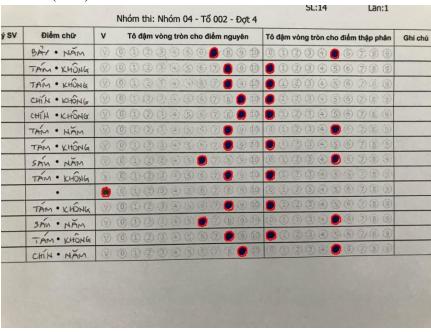
November 2021

ASSIGNMENT - MULTIPLE CHOICES DETECTION

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Given an image of TDTU mark sheet which contains grades marked in bubbles, your goal is to write a program using Python and OpenCV to:

1. Task 1 (8/10): Detect the marked bubbles and circle them. For example:



Grading:

 $Points = \frac{Number of correct circles}{Number of marked bubbles + Number of wrong circles}$

2. Task 2 (2/10): Write the grades in the last column in the image. For example:

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Grading:

 $Points = \frac{Number of correct grades}{Number of grades}$

Submission:

Your Python source code and the instruction of how to run your python script in a readme.txt file.

Put all of your files in a folder named as MSSV where MSSV is your student ID and zip it.

Notes:

- Students must NOT copy source code from other students. Source code will be checked for plagiarism. Any students found plagiarized will get zero mark and penalized according the University's regulations.
- The sample image provided is for development and testing only. When grading, lecturer will use other input images. Therefore, your solution must be general enough.