

Computer vision course

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Lab 5 - Segmentation

Task 1

Write a program that segments cracks in the asphalt. You can choose one of the segmentation techniques discussed in the course, or find a new one available in OpenCV. To assess the generality of your approach, test your algorithm on the three images provided - the two segments are: crack vs non-crack. Every pixel of the image shall belong to one of the two categories.

Task 2 - optional

Write a program that segments i) the asphalt and ii) the sky in the image provided for Lab 4 (street_scene.png). The three categories are: asphalt, sky, everything else.

Task 3 - optional

Write a program that segments the T-shirt worn by the robots in the image provided for Lab 3. The categories are: T-shirt, everything else.

Discussion

While completing the tasks, discuss with your peers about:

- the segmentation technique you have used, verifying if a single technique was effective in solving the three tasks or you needed to develop different approaches;
- the image features you considered for segmenting the image (or the vector representation, if you used it).

Notes

Tasks 2 and 3 are optional - meaning that a lab report containing only the solution to Task 1 **is considered complete**.

Tasks 2 and 3 are reported to further test segmentation techniques on different use cases and extend the discussion among peers.