Czestochowa University of Technology

Faculty of Mechanical Engineering and Computer Science

Computer vision, pattern recognition and image retrieval

Laboratory 12

Topic: *Image retrieval*

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Exercise 1

Refer to the link: https://uk.mathworks.com/help/deeplearning/ug/image-to-image-regression-using-deep-learning.html for an example demonstrating how to prepare a datastore for training an image-to-image regression network using the transform and combine functions of ImageDatastore. Follow the instructions in this example to create the 'Lab12.m' script.

Modify the code to display eight examples showing eight pairs of images (noisy image and image recovered by the model) from the test set.

Subsequently, load the 'layers' from the Workspace into the 'Deep Network Designer' application and analyze its structure.

As As answers to the second exercise, please send three files:

- 'Lab12.m'

- screenshots from the result of the trained network

- screenshots from the analysis performed in 'Deep Network Designer'.