Istanbul Technical University
Image Processing Course
Canny Edge Detector Homework Report

Eray Yıldız (Student No: 504162515)

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1 Introduction

This project is developed for the assignment in Istanbul Technical University Image Processing Course given by Dr. Hazım Kemal Ekenel. (2017-2018 Fall) (CRN:23538). In the assignment an edge detection program using Canny Edge Detection algorithm is expected. The operations such as convolution, non-maximum suppression and hysteresis thresholding are implemented as required in the assignment. An image processing library Pillow is used for just reading and writing images.

2 Using Program

The source code of the program can be found in canny_edge_detector.py file. To run the program from command line just run main.py file without any argument. The system will read images in test_images directory and write the outputs to output_images directory. Or you can give the input and output paths as command line arguments respectively.

3 Performance on Test Images

Table 1: The input images (first row) and system outputs (second row)