MSAI 495 Introduction to Computer Vision, MP#6

The due date is 4/27/2023 (Th).

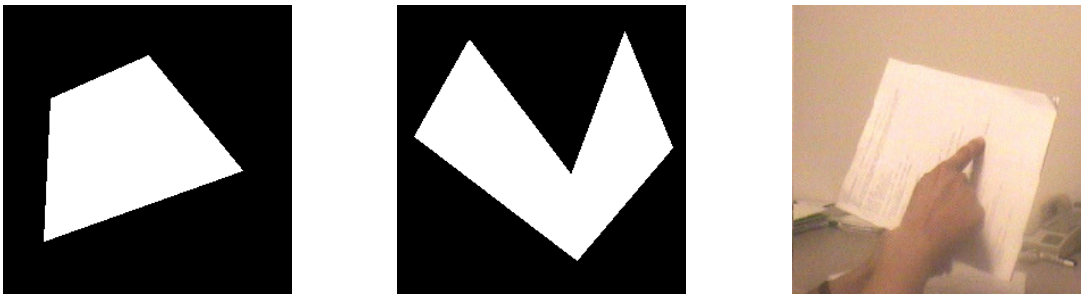
1 Hough Transform

The purpose of this MP is to give you a chance to get the basic ideas of Hough transform by implementing the algorithm for line detection.

In your implementation, you should play with different settings for the quantization of the parameter space, to see how different quantization levels affect the accuracy of detection.

You also need to come up with an idea of detecting those *significant* intersections in the parameter space, which is critical for line detection. You are on your own.

You can also create your own test images. Some images are shown here[1]. Be careful that all the images are 24-bit RGB image, although some of them look gray scale.



(a) (b) (c)

Figure 1: testing images.

2 What to turn in

Each individual student should turn in his/her own solution. What you need to turn in includes:

- your code;
- a short report ($\leq$ 1 page is fine);
- your results on these testing images.

[1] you can download these images from our course website