ABSTRACT

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IMPLEMENTATION OF CHAINCODE CONTOUR ON HANDWRITING IMAGE SEGMENTATION.

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(xiii + 65 + attachments)

Handwritten image character segmentation is a major part of the handwritten image recognition process. Handwritten image recognition is intended so that computers can recognize information in handwriting. Handwritten information is composed of recognizable characters. To recognize characters in handwritten images, a segmentation process is required. The process of segmenting characters in handwritten images can be done through the existing features in handwritten images, namely contours. One method that can be used for character segmentation in handwritten images is by using the chaincode contour method. In this study, the chaincode contour method will be implemented in the segmentation of characters in handwritten images. The chaincode contour that is formed in the handwritten image will be used to create a rectangle box that is used to segment the character of the handwritten image. Researchers make use of the opencv, numpy, and matplotlib libraries in the preprocessing process until the handwritten image character segmentation process. Handwritten image using a private dataset which was acquired using a cell phone camera. Testing is done by using jupyter as an application to run the program. The program that is run will produce the resulting image from the input image preprocessing and the segmented character image. The rectangle box technique formed through the chaincode contour can be used to segment the characters in handwritten images. The segmented character image is then saved in jpeg format with a size of 28x28 pixels. The test results show that the bounding box technique in handwritten images cannot segment the characters that touch one input image. Over segmentation also occurs in the letter "i" which is marked as 2 characters (straight line and dot). The results are expected to produce character image segmentation from handwritten images.

Bibliography (2011-2020)