IMPLEMENTATION OF INTERACTIVE IMAGE SEGMENTATION USING MAXIMAL SIMILARITY BASED ON REGION MERGING

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ABSTRACT

Currently, there are many segmentation methods developed for the purpose of image analysis and reconstruction. However, the development of interactive image segmentation method or semi-automatic segmentation for color images are rarely done. It called interactive segmentation process because it requires the interaction of the user to provide a marker.

This final project implements an interactive image segmentation method based on region merging segmentation, with different approach called maximal similarity. In pre-process, the similarity from each region should be determine. If the similarity is maximal, region merging process will be performed using marker that given by user.

From the experiments, it proved that this interactive image segmentation method can be an alternative segmentation method which is easier and give better result.

Keywords: semi-automatic segmentation, color image, similarity, maximal similarity, Bhattacharyya coefficient