

An Image Segmentation using Normalised Cuts in Multistage Approach

Abstract

Normalised cuts algorithm is complex for image segmentation but it produces good segmentation result. At present, digital camera can produce high detail image. To avoid underutilising the high detail image, resizing image into smaller resolution is discouraged. This creates a constraint in resizing image to smaller resolution while preserving the important detail in the image. An image segmentation method using normalised cuts done in two-stage manner is proposed here to solve the issue of the image resolution is excessively reduced prior to image segmentation. In this work, an image is first separated into several regions(named as image cells). The locally produced segments from each of the image cells are then undergone for second stage segmentation to look for possibility of merging them up. This paper includes the experimental results using the mentioned approach and the experiment shows that it is capable to produce meaningful segments.