Abstract

In image analysis, segmentation is the partitioning of a digital image into multiple regions (sets of pixels), according to some homogeneity criterion. The problem of segmentation is a well-studied one in literature and there are a wide variety of approaches that are used. Different approaches are suited to different types of images and the quality of output of a particular algorithm is difficult to measure quantitatively due to the fact that there may be much “correct” segmentation for a single image. Here, a fuzzy clustering method, edge detection method, region growing method and thresholding method are considered in image segmentation. Comparisons with other criteria show that the results for these methods are quite better than other methods based on segmentation accuracy and peak signal noise ratio as parameters for images.