



A Novel Automatic Red Blood Cell Counting System using Fuzzy C-Means Clustering

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Abstract: The red blood cells in normal human body are 5 million per cubic millimeter. In medical world most of the diseases are diagnosed based on the reference of red blood cells count only. This paper is the study of Morphological operations for counting of Red blood cells from a digital image. Filtering of image is processed by Fuzzy clustering in two stages i.e. one for background and second for white blood cells. The efficiency of algorithm is compared with Hough Transform and results demonstrate that Morphological operations are superior in terms of accuracy.

Keywords: Red blood cells, morphological operations, Filtering, Image segmentation, HSV, Fuzzy clustering.