Color Thresholding Method For Image Segmentation Algorithm Of Ziehl-Neelsen Sputum Slide Images

Abstract

Most of the thresholding procedures involved setting of boundaries based on grey values or intensities of image pixels. In this paper, the thresholding is to be done based on color values in images of Ziehl-Neelsen sputum slides. The color thresholding technique is being carried out based on the adaptation and slight modification of the grey level thresholding algorithm. Multilevel thresholding has been conducted to the RGB color information of the bacterium to extract it from the sputum and other objects. Five types of different images have been used in the study of color information. The results showed that by using the selected threshold values, the image segmentation technique has been able to separate the sputum from the mycobacterium.

Author Keywords

Color thresholding; Image segmentation; Sputum slide; Tuberculosis; Ziehl-neelsen