عنوان مقاله:

Computer-aided classification of images containing white blood cells

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نویسندگان:

Ali Yousif - *Department of Information System Engineering, Erbil Technical Engineering College, Erbil Polytechnic University, Kirkuk Road, Erbil, Iraq*

Shahab Kareem - *Department of Information Technology, College of Engineering and Computer Science, Lebanese French University, Erbil, Iraq*

Dina Mikhail - *Department of Information System Engineering, Erbil Technical Engineering College, Erbil Polytechnic University, Kirkuk Road, Erbil, Iraq*

خلاصه مقاله:

The counts of various types of white blood cells offer important information that can be used in the diagnostic process for a wide variety of disorders. The automation of this procedure allows for time savings and eliminates the possibility of counting mistakes. In this study, the authors make an attempt to categorize the white blood cells that are found in the peripheral blood based on the shapes of the nuclei and the characteristics that they exhibit. The authors put in place a system and make use of it to automatically identify and analyze White Blood Cells (WBCs). A blood cell can be segmented, scanned, have its features extracted, and then be classified using the system that was proposed. These are the four processes that make up the process. To begin, the authors used segmenting the cell images, which involves grouping white blood cells into their respective clusters. The second part of the process consists in scanning each image that has been segmented and producing the dataset. The third phase involves the form and texture of an image that has been scanned. In the final stage, the authors apply various machine-learning techniques to classify the outcome based on these criteria. These methods include Naïve Bayes, Random Tree, and K-star.

کلمات کلیدی:

Machine Learning (ML), Segmentation, Digital image, Image extraction, Histogram

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