Efficient Approach to Detect Hypochromic and Normochromic Anemia through Image Processing

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Abstract

Hypochromic and Normochromic anemia have taken prodigious possession in the research field. In this paper, we have proposed a process that will feasibly detect the Hypochromic and Normochromic anemia. The task that goes elementarily in image processing is the reduction of the noise from image. Therefor, Harr Wavelet (level-2) has been applied as a tool to contrive the process of noise reduction from image. Extraction of significant information from the image is the vital job. For this purpose, segmentation is used. Here, Watershed transform has been applied. Significance has been provided in the calculation of the number of true pixels of blood cells and filled (whereas the blood cells filled with truth value (1) using imfill()) blood cells. Hereafter, their ratio will have been employed for the detection of the Hypochromic and Normochromic anemia. The outcome of the proposed process exhibits the accuracy of 96.7% whither manually processed result is lower.

References


Index Terms

Computer Science | Image Processing

Keywords

Hypochromic, Normochromic, Harr Wavelet, Watershed Transform, Hemoglobin