

## A Simple and Easy-To-Use Tool for Detecting Outer Contour of Leukocytes Based on Image Processing Techniques

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**Abstract :** Blood cell morphology is an important parameter in a hematology test. Currently, in developing countries, a lot of hematology is done manually, either by physicians or laboratory staff. According to the limitation of the human eye, examination based on manual method will result in a lower precision and accuracy. In addition, the hematology test by manual will further complicate the diagnosis in some areas that do not have competent medical personnel. This research aims to develop a simple tool in the detection of blood cell morphology-based computer. In this paper, we focus on the detection of the outer contour of leukocytes. The results show that the system that we developed is promising for detecting blood cell morphology automatically. It is expected, by implementing this method, the problem of accuracy, precision and limitations of the medical staff can be solved.

**Keywords :** morphology operation, developing countries, hematology test, limitation of medical personnel

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