IT 202

LOW COST BLOOD CELL ANALYSIS MODEL

Abstract

A system for analysis of blood cell images is useful for medical professionals, medical students to analyze blood cells in cases of anaemias. This study was considering red intensity of blood cells and size of blood cells. Identification and detection of diagnosis and their observations and judgments are depends on the personal experience of the medical professionals. In this study 100 digital Blood cell images were taken and analyzed using Image Processing techniques. In addition, Image enhancement, Image Smoothing and Edge Detection techniques were used to improve the quality before analyze the images.. Edge detection was used as an intermediate step to take measurements of some images. This system will be useful for Doctors, Lecturers, research personals, Lab Technicians, students etc. This study contains the objectives of the Project, descriptions of Blood Cells, theoretical aspects of the measurements, image processing techniques, methodology and implementation details, test data and results, discussion, conclusion and further developments. This low cost blood cell analysis model was developed using Computer language Visual Basic 6.0. It is freely available and very common. Therefore further developments can be done easily.

Keywords:

Image processing, Image enhancement, Image smoothing and Edge detection, Software system

VK Nimal Gamini - Faculty of Management Studies, Rajarata University of Sri Lanka, Mihinthale, Sri Lanka. E-mail: vkngamini@yahoo.com

PD Wimalasir: - Computer Center, Rajarata University of Sri Lanka, Mihintale, Sri Lanka, E-mail: wimalsri@yahoo.com