Abstract

The identification of the disease is very crucial step for curing disease. In many cases microscopic analysis of peripheral blood samples by medical practitioner is an important test in the procedures for the diagnosis of any blood related disease. Accurate diagnosis of disease is crucial for curing and controlling that disease. Earlier this process was carried out only by medical experts but now a day's automated system based on computer vision methods or image processing algorithms can speed up this operation. The expert systems are developed which are doing computerized diagnosis of various diseases using digital images of blood samples. Digital images are acquired using a digital camera connected to microscope.
The presented paper shows the automatic diagnosis for three diseases i.e. Leukemia, Malaria and Sickle cell Anaemia. The system firstly segments the infected cells of leukemia and sickle cell anaemia or parasites of malaria from the blood samples and extracts the features of these cells or parasites. These features are then compared with database and accordingly classification is done and is represented in CBIR (Content Based Image Retrieval) framework.

References

- www.netofcare.org/content/pdf/6-spec_illness-sicklecell.pdf
- http://dti.unimi.it/fsotti/all
- http://dpd.cdc.gov/DPDx/HTML/ImageLibrary/Malaria_il.htm

Index Terms

Computer Science
Image Processing
Keywords
Malaria  Leukemia  Sickle Cell Anaemia  Expert System  Cbir (content Based Image Retrieval) Framework  Automated System

Computerized Diagnosis.