Abstract

In recent years, Cancer as a disease has grown widely and it has been the major cause of mortality in humans. In this paper the main focus is on a specific type of blood cancer known as leukemia. The detection of leukemia is done via observation of the physical properties of the cells found in the bone marrow smear. This paper proposes novel leukemia detection using discrete cosine transform (DCT), and the results obtained are compared with the well-known image segmentation and feature extraction method given in the literature. From the results it is observed that the proposed method outperforms the image segmentation in terms of accuracy by 8.5% and precision by 5.4% as compared to the existing image segmentation method.

References

Computational Intelligence for Measurement Systems and Applications Giardini Naxos, Italy, 20-22 July 2005

2. J.S. Lim “Two dimensional signal and image processing” Prentice Hall 1990

**Index Terms**

Computer Science  
Biomedical

**Keywords**

Leukemia, Lymphocytes, DCT, Nucleus, Cell, Cytoplasm