

# Identification of White Blood Cells using Convolutional Neural Network: A Review

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**Abstract:** *A blood sample usually contains red blood cells, white blood cells, and platelets. White blood cells, also called white blood cells, are cells of the immune system. White blood cell measurements are very important for doctors diagnosing various diseases such as leukemia and tissue damage. Therefore, white blood cell count plays an important role. Manual counting of white blood cells in medical laboratories is done using a device called a hemacytometer. However, this process is very tedious, time consuming and gives inaccurate results.*

*This study uses image processing and deep learning mechanisms to locate leukocytes and classify them based on their categories. The typed white blood cells are counted and compared to a standard range of types available in human blood samples. By comparing the availability of leukocyte types, normal and abnormal blood samples are predicted accordingly. The dataset of normal blood samples was obtained from the laboratory of the Faculty of Biotechnology, and the dataset used for training the convolutional neural network was obtained from his website for Leukocyte Images for Segmentation and Classification (LISC). increase. This increases efficiency and reduces the burden on clinicians, as traditional manual counting can be tedious, monotonous and subjective.*

**Keywords:** RBC (Red Blood Cell), WBC (White Blood Cell), Leukocyte, leukemia etc

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