DISTRIBUTED LABORATORY MANAGEMENT

AND

AUTOMATED BLOOD REPORT GENERATING SYSTEM

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Haematology is the science of dealing with the formation, composition, functions and diseases of blood. There are a vast number of haematological diseases, which are responsible for considerable morbidity and mortality among thousands of human beings. Hence it is of vital importance to identify these diseases.

The System presented here is capable of analyzing a given microscopic image of blood using image processing techniques and can calculate the red blood cell count, white blood cell count, platelet count and differential count used to identify diseases. The system also automatically sends a SMS and alerts the user when the report is ready.

The system includes patient registration, laboratory user administration report and online facilities to accommodate and overcome current drawbacks of the manual system. There are three desktop applications, counter office where patients come and request for a blood report, laboratory application where MLTs test the blood samples and another application to certify blood reports after completing the tests.

Using the proposed system the patients can view their blood reports or they can download blood reports from the site.

This document contains the details on system analysis, proposed system and its features. The system was tested using around 80 image samples several times. And the results were consistent and the accuracy was around 95%.