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Measuring Platelet Count by Usingcontour Aware Segmentation

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Platelet count is a very important diagnosis test to identify diseases like Dengue, Malaria, Yellow fever, and others. For dengue patient monitoring, platelet count is often needed. Suspected dengue patient needs a very quick diagnosis to give an accurate result of how critical is the condition of the patient. In most laboratories, Leishman's stained blood slides are used to count platelets. However, these manual platelet counting requires expert lab technician and the overhead increases manifold when huge blood samples are to be checked by lab technicians that make the entire process time-consuming. So, we can extract platelets from the microscopic image of blood cells, and that makes platelet counting task easy.

Microscopic images of stained blood slides are captured using a light microscope. Then using color-based segmentation and morphological operation, platelets can be extracted. A comparative study between the platelet counts obtained before and after segmentation along with calculation of the efficiency of the system has shown this method to be robust and effective for automation of platelet count system.

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