

A Review on Computer Vision based Classification of Sickle Cell Anemia in Human RBC

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Abstract: Anemia is a disease which is caused by the deficiency of red blood cells. The shape of red blood cell changes to sickle or crescent shape in sickle cell anemia disease. Sickle Cell Disease is a blood disorder which results from the abnormalities of red blood cells and shortens the life expectancy to 42 and 48 years for males and females respectively. It also causes pain, jaundice, shortness of breath, etc. Sickle Cell Disease is identified by the presence of sickle cells and other abnormal cells like ovalocyte, echinocytes are detected and classified in different classes it helps to find out reason of abnormalities. Given a two-dimensional image, a computer vision system must recognize the present objects and their characteristics such as shapes, textures, colors, sizes, spatial arrangement, among other things, to provide a description as complete as possible of the image. This paper presents computer vision based classification of sickle cell disease. In their an artificial neural network(ANN) is a computational model that uses a network of a function to understand and translate a data of one form into a desired output. In this paper we have summarized for we reviewed the various techniques to get the sickle cell identification or sickle cell classification. The artificial neural network technique is used to train and classify the microscopic images into sickle cell.

Keywords: Red blood cell, sickle cell anemia Computer Vision, Classification, artificial neural network.

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