Abstract

The identification of MAs is an important phase in the research and grading of suffering from diabetes retinopathy. We present clustering strategy to identify the microaneurysms from the optic disk and cup in the retinal fundus pictures. Fuzzy C-Means (FCM) Clustering is used for clustering the information in which the information factors are grouped with different account level. The first and major phase is preprocessing function, in which the optic cup and disk of the feedback picture is being turned. Originally the optic hard disk is turned in some position and the range between the information factors is calculated and a group is established in accordance with the centroid. For retrieving micro aneurysms in all retinal images in our previous work we used SVM Classification filter in Fuzzy C-Means Clustering. In this paper we propose an effective filtering technique for micro aneurysms detection in retinal image preprocessing. Instead of SVM Filtering technique we used NLM in terms of Anisotropic Filter to process retinal images. Tested on the various simulated retina data repositories combining rotation and scaling, the developed method presents good results and shows robustness to rotations and scale changes.
References

Reduction of False Microaneurysms in Retinal Fundus Images using Fuzzy C-Means Clustering in terms NLM Anisotropic Filter

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**Index Terms**

Computer Science Fuzzy System

**Keywords**

Fuzzy C Means Clustering Spatial Information Fundus Image Biomedical image processing classification pattern recognition medical decision-making Non-Local Methodologies Anisotropic Diffusion Filter.
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