Abstract

Diabetic Maculopathy (DM) is a foremost cause of blindness. Exudates are one of the crucial signs of diabetic maculopathy which is a main cause of blindness that could be prevented with an early screening process. In this approach, the process and consciousness of digital image processing to diagnose exudates from images of retina is applied. Presence of exudates and Maculopathy is focused from low-contrast digital images of Diabetic patients' with non-dilated pupils is proposed. Image is segmented by using colour K-means Clustering algorithm. Then segmented image along with Optic Disc (OD) is chosen. Next segmented region, features and texture are extracted. The nominated feature vector are then classified into exudates and non-exudates using a Support Vector Machine (SVM) Classifier. Diabetic Maculopathy, which is the severe stage of Diabetic Retinopathy is accomplished using Morphological Operation. This method performs auspicious as it can detect the very small areas of exudates. Enforced mass airing will help to identify the maculopathy at early stage and reduce the risk of unembellished vision loss. Diabetic Maculopathy is sensed with 100% success rate.

References

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**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

Diabetic Maculopathy  
Fuzzy k-Means  
Exudates  
Dilated Retinal Images.