

Deep Learning Fundus Image Analysis For Early Detection Of Diabetic Retinopathy

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Literature Survey:

S.NO.	AUTHORS	TITLE	ABSTRACT
1	H.Kaushik, D.Singh, M.Kaur, H.Alshazly, A. Zaguia and H.Hamam.	Diabetic Retinopathy Diagnosis From Fundus Images Using Stacked Generalization of Deep Models	In this research, a methodology to eliminate these unnecessary reflectance properties of the images using a novel image processing schema and a stacked deep learning technique for the diagnosis. For the luminosity normalization of the image, the gray world color constancy algorithm is implemented which does image Desaturation.
2	H.Yeh, C.J. Lin, C. - C. Hsu and C.Y.Lee.	Deep-learning based automated segmentation of Diabetic Retinopathy Symptoms.	Deep learning is used in many types of preprocessing for segmentation. We preprocessed fundus images and inputted them into the model for training. Finally, LDF image was used to obtain the best preprocessing method for optic disc segmentation in fundus images.
3	A.Bali and V. Mansotra	Deep Learning-based Techniques for the Automatic Classification of Fundus Images: A Comparative Study	In this paper, different deep learning (DL) techniques for automatic classification of fundus images have been discussed and results are compared on the basis of accuracy, f1-score and AUC.
4	B. Goutam, M. F. Hashmi, Z. W. Geem and N. D. Bokde.	A Comprehensive Review of Deep Learning Strategies in Retinal Disease Diagnosis Using Fundus Images	This article presents a comprehensive study of different deep learning strategies employed in recent times for the diagnosis of five major eye diseases, i.e., Diabetic retinopathy, Glaucoma, age related macular degeneration, Cataract, Retinopathy of prematurity.

5	T. A. Soomro et al.	Deep Learning Models for Retinal Blood Vessels Segmentation: A Review	This paper represents a comprehensive review of the Principle and application of deep learning in retinal image analysis. This paper characterizes each deep learning based segmentation method as described. Analysing along with the limitations and advantages of each method.
6	S. Gupta, A. Panwar, A. Kapruwan, N. Chaube and M. Chauhan.	Real Time Analysis of Diabetic Retinopathy Lesions by Employing Deep Learning and Machine Learning Algorithms using Color Fundus Data	The color fundus dataset scans after processing are passed to multiple Deep Learning (DL) models employed to learn characteristics. These models trained on millions of different images from thousands of classes. Finally, several machine learning classifiers were used to classify lesions using the collected characteristics. The extracted result shows very eye-catching performance. This enables experts to create architecture that fully addresses the problem of classifying unidentified scans into the right class or category.

References:

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