Abstract

Fundus image analysis is playing an important role in the early detection of retinal eye diseases like diabetic retinopathy, glaucoma etc. Automated detection of hypertensive retinopathy (HR) is a recent development in this field. Segmentation of blood vessels, measurement of tortuosity, diameter measurement, finding the artery vein ratios (AVR) are few important measures for finding HR using digital fundus images. We propose a support system to assist the
Support System for the Automated Detection of Hypertensive Retinopathy using Fundus Images

ophthalmologist in detecting HR in early stages. Segmentation of blood vessels is done using Radon transform, optic disk is detected by Hough transform and then the AVR is calculated. The proposed support system will help the ophthalmologist in the early detection of HR.

References

- Abramoff, M. D., Garvin, M. K., Sonka, M. Retinal Imaging and Image Analysis, IEEE Reviews in Biomedical Engineering, Vol. 3, 2010

**Index Terms**

Computer Science  
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**Keywords**

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