Research article Available online www.ijsrr.org

International Journal of Scientific Research and Reviews

Automatic Detection of Diabetic Retinopathy in Retinal Image

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ABSTRACT

Objective- In these days, medical image analysis is a very popular research area where digital images are analyzed for the diagnosis and screening of various medical problems. Diabetic Retinopathy (DR) is an eye disease caused by increased blood insulin and may result in blindness. An automated early detection system for DR can save a patient's vision. Early diagnosis is beneficial in preventing visual impairment and blindness through regular screening and treatment.

Methods-This project presents a method to detect and classify exudates in colored images of the retinal. Several image processing techniques have been developed for early detection of DR based on features. Such as blood vessels, exudes, hemorrhages and micro aneurysms, including image enhancement, skin locus segmentation.

Results-This project presents a review of the latest work on DR feature detection using image processing techniques. Based on their results, Image processing techniques are evaluated.The exudates are classified as true or false exudates with the help of grading system were able to distinguish between four different types of grading level with an average accuracy of 94.17%.

Conclusion- In this paper the finding of optic disk is made by means of skin locustechniques, blood vessel segmentation and exudates detection by means of intensity computation and feature extraction.

KEYWORDS- Skin locus segmentation, Diabetic Retinopathy, graphical User Interface (GUI).

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