

Detection of Glaucoma Using Image Processing Approaches

Latha B^{1, a)}, M. Anitha¹, Ch Padmaja¹, V Chandra Shekar Rao², M Sujatha³

Sumathi Reddy Institute of Technology for Women, Ananthasagar, Warangal, Telangana, 506371, India.

²Kakatiya Institute of Technology and Science, Warangal, Telangana, India.

³Associate professor, Environmental Sciences, Department of Chemistry, Koneru Lakshmaiah Education Foundation, Vaddeswaram, Guntur, 522502, Andhra Pradesh, India.

^{a)} Corresponding author: latha.b.1@gmail.com

Abstract. Glaucoma is the 2d main purpose of everlasting blindness worldwide. Early detection of glaucoma can restrict the disorder development. This paper directs the exceptional picture processing strategies for glaucoma detection based totally on CDR. After calculating the effects are in contrast the usage of sensitivity and specificity. Glaucoma is a criticism prompted due to loss of feature of neurons of the eye which leads to loss of eye sight. The photo processing strategies are Multi level thresholding approach, model of Active Contour Method, Region Based Segmentation. It can be calculated by using gazing Intra optical pressure (IOP), view, optical slice appearance, Glaucoma influences the supplemental imaginative and prescient loss by using including Mug to disc ratio.

KEYWORDS: Glaucoma, relation with cup to disc ratio, Activecontourmethods, Region Growing

INTRODUCTION

This disease is a persistent and irreversible neurodegenerative disease. Patients with early glaucoma do now not typically have any visible signs and symptoms or symptoms. [1]This disease is revolutionary pathology which leads to the visible discipline changes, as result retinal Ganglion cells and axons injury. According to World Health Organization, glaucoma is the 2nd main purpose of blindness. With the boom of the ailment there is reduction in the interconnection between the image receptors and the visible cortex. Survey has been taken and can identified that nearly 1 million Indians, age forty and over, had this disease.

PROBLEM STATEMENT

The analysis of glaucoma can be accomplished via dimension of CDR (cup-to-disc ratio) However, CDR comparison via an ophthalmologist is subjective and the availability of HRT is very confined. [3]An early detection of glaucoma is in particular full-size considering it permits well timed therapy to stop important visible area loss and prolongs the high-quality years of usable vision. Currently, CDR assessment is manually carried out through educated ophthalmologists or highly-priced gear such as Heidelberg Retinal Tomography.