VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belgaum – 590 010

A PROJECT REPORT

ON

"AUTOMATIC DETECTION OF BLINDNESS USING IMAGE PROCESSING TECHNIQUES"

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ABSTRACT

Diabetic Retinopathy is one of the leading causes of Blindness. In any Diabetic Retinopathy diagnosis program, the total time taken is 10 minutes for dilation and approximately 10 minutes for diagnosis by a human expert [1]. Thus this is a time consuming and laborious process. With the advent of computers, many of the diagnosis tasks are facilitated using some kind of image processing algorithms or the other. This has resulted in faster, accurate, and reliable diagnosis.

In this work, we are focusing on optimizing the diagnosis period which may be of utmost useful during camp programs on Diabetic Retinopathy screening and also during day to day routine work.

To do so, we are trying to develop a system for the automated diagnosis of Diabetic Retinopathy using fundus images. Automatic screening will help the doctors to quickly identify the condition of the patient in a more accurate way. The macular abnormalities caused due to Diabetic Retinopathy can be detected by applying morphological operations, filters, thresholds and other image processing techniques on the fundus images of the patients.