Abstract

The purpose of this paper is to provide the information regarding Diabetic retinopathy, its imaging methods and database in systematic manner. In this paper we introduce the terms related to Diabetic Retinopathy along with the characteristic and features of appearance in the images. In this paper we also discuss the various image acquisition techniques of retina from fundus photography to 3D OCT imaging. Lastly we also provide the list of the current database available with the ground truth. In Diabetic retinopathy the blood vessel becomes weak and due to this vessel leaks blood and fluid of lipoproteins, this creates abnormalities in retina. Abnormal retinal images form four different classes namely non-proliferative diabetic retinopathy (NPDR), Central retinal vein occlusion (CRVO), Choroidal neovascularisation membrane (CNVM) and central serous retinopathy (CSR). There may exist different kinds of abnormal lesions caused by diabetic retinopathy in a diabetic’s eye. The lesion types are Microaneurysm, Hard Exudate, Soft Exudate, Hemorrhage, and Neovascularization.

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**Index Terms**

Computer Science  Image Processing

**Keywords**

DiabeticRetinopathy  Ground truth  Fundus