

(54) Title of the invention : DEVICE FOR DIABETIC RETINOPATHY AND HYPERTENSIVE RETINOPATHY AND METHOD THEREOF

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(57) Abstract :

The present disclosure discloses a device and method for diabetic retinopathy and hypertensive retinopathy. The method 400 includes capturing, at 402, by a fundus camera, images associated with interior surface of eye of a user and correspondingly generating a first set of signals, and receiving, at 404, by a processing unit configured with a convolutional neural network, the captured images. The method 400 includes pre-processing, at 406, the images to enhance the images; and extracting, at 408, features from the enhanced images. The method 400 includes matching, at 410, the extracted features with prestored features, and correspondingly detecting and classifying retinal abnormality in the eye of the user. Further, the method 400 includes grading, at 412, the severity of the identified retinal abnormalities based on a percentage of matching of the extracted features of the captured images with the prestored features to diagnose the severity of the identified retinal abnormalities.

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