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**IMPROVING DIABETIC RETINOPATHY CLASSIFICATION
USING DENSELY CONNECTED NETWORKS**

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ABSTRACT

The importance of reliable and prompt detection techniques for diabetic retinopathy (DR) cannot be overstated, since it is a leading cause of visual impairment and blindness in the diabetic population. Classification of diabetic retinopathy severity using a deep learning technology, namely the INCEPTION-v300 Densely Connected Convolutional Network, is the focus of this research. Using the Aptos Blindness Detection and Diabetic Retinopathy Detection datasets, two retinal image collections hosted on Kaggle, this study intends to assess how well INCEPTION-v300 differentiates between two severity levels: No DR and Yes DR. Two datasets from Kaggle, one for diabetic retinopathy detection and the other for apos blindness detection, are considered. We got an accuracy rate of 88.1% using our suggested model.

Keywords: Diabetic Retinopathy, Blindness, Image, Eyes, Deep Learning