S.NO	Authors	Title	Abstract
1	Mohamad Hazim Johari, Hasliza Abu Hassan, Ahmad Ihsan Mohd Yassin, Nooritawati Md Tahir, Azlee Zabidi	Early Detection of Diabetic Retinopathyby Using Deep Learning Neural Network	This project presents a methodto detect diabetic retinopathy on the fundus images by usingdeep learning neural network. The data set used were retrieved from MESSIDOR database and it contains 1200 pieces of fundus images. There were 580 pieces of images types .It has been used after filtered and those pictures were divided into 2, which is Exudates images and Normal images. On the training and testing session, the 580 mixedof exudates and normal fundus images were divided into 2 sets which is training set and testing set. The result of the training and testing set were merged into a confusion matrix..
2	Anas Bilal, Liucun Zhu, Anan Deng, Huihui Lu,Ning Wu	AI-Based Automatic Detection and Classification of Diabetic Retinopathy Using U-Net and Deep Learning	Diabetes related retinal vascular disease is one of theworld's most common leadingcauses of blindness and visionimpairment. Therefore, automated DR detection systems would greatly benefitthe early screening and treatment of DR and prevent vision loss caused by it. Researchers have proposed several systems to detect abnormalities in retinal imagesin the past few years. However, Diabetic Retinopathyautomatic detection methods have traditionally been based on hand-crafted feature extraction from the retinal

			images and using a classifier toobtain the final classification. DNN (Deep neural networks) have made several changes inthe previous few years to assist overcome the problem mentioned above.
3	Tahira Nazir, Marriam Nawaz, Junaid Rashid, Rabbia Mahum	Detection of Diabetic Eye Disease from Retinal Images Using aDeep Learning Based Center Net Model	Diabetic retinopathy (DR) is aneye disease that alters the blood vessels of a person suffering from diabetes. Diabetic macular edema (DME)occurs when DR affects the macula, which causes fluid accumulation in the macula. Efficient screening systems require experts to manually analyze images to recognize diseases. Automated systems are trying to cope with these challenges; however, these methods do not generalize well to multiple diseases and real-world scenarios. To solve the aforementioned issues, wepropose a new method comprising two main steps. The first involves dataset preparation and feature extraction and the other relates to improving a custom deep learning based Center Net model trained for eye disease classification
4	S. Gupta, A. Panwar, A. Kapruwan, N. Chaube and M. Chauhan.	Real Time Analysis of Diabetic Retinopathy Lesions by Employing Deep Learning and Machine Learning Algorithms using ColorFundus Data	The color fundus dataset scansafter processing are passed tomultiple Deep Learning (DL) models employed to learn characteristics. These models trained on millions of differentimages from thousands of classes. Finally, several machine learning classifiers were used to classify lesions

			Using the collected characteristics. The extracted result shows very eye-catchingperformance. This enables experts to create architecturethat fully addresses the problem of classifying unidentified scans into the right class or category.
5	B. Bulut, V. Kalın, B. B.Gunes and R. Khazhin.	Deep Learning Approach For Detection Of Retinal Abnormalities BasedOn Color Fundus Images	This research uses the Xception model with transfer learning method to classify images obtained from AkdenizUniversity Hospital Eye Diseases Department. During the analysis, the Xception model containing 50 different parameter combinations was trained by scanning the appropriate hyper-parameter space for the model. Comparisons were made for the top 9 models with the highest performance of the model with an independent dataset, open access fundus images were used for test analysis and binary classification AUC (Area Under Curve) values were calculated for 21 different diseases.
6	N. Memari, S. Abdollahi, M. M. Ganzagh and M. Mogh	Computer-assisted diagnosis (CAD) systemfor Diabetic Retinopathy screening using color fundus images using Deep lea	The proposed computer-assisted diagnosis system starts with the segmentation ofthe blood vessels.Then, microaneurysms and exudates are segmentation from the image. Statistical and regional features are then extracted utilizing first, second, and higher-order image features. A Deep Learning framework will be utilized for extracting additional statistical image descriptors as Deep Learning has superior contextual analysis capabilities compared to other machine learning techniques

7	A. Bali and V. Mansotra	Deep Learning-based Techniques for the Automatic Classification of FundusImages: A ComparativeStu	In this paper different deep learning (DL) techniques for automatic classification of fundus images have been discussed and results are compared on the basis of accuracy, f1-score and AUC.
8	T. A. Soomro et al.	Deep Learning Models for Retinal Blood Vessels Segmentation: A Review	This paper presents a comprehensive review of the principle and application of deep learning in retinal image analysis.This paper characterizes each deep learning based segmentation method as described. Analyzing along with the limitations and advantages of each method end we offer some recommendations for future improvement for retinal image analysis.
9	B. Goutam, M. F. Hashmi, Z. W. Geemand N. D. Bok	A Comprehensive Review of Deep Learning Strategies in Retinal Disease Diagnosis Using FundusImages	A Comprehensive Review of Deep Learning Strategies in Retinal Disease Diagnosis UsingFundus Images i.e. Diabetic retinopathy Glaucoma, age- related mascular degeneration,Catarct, and Retinopathy of prematurity.
10	W. Zhang, X. Zhao, Y. Chen, J.Zhong and Z.Yi.	DeepUWF: An Automated Ultra-Wide-Field Fundus Screening System viaDeep Learning	The emerging ultra-wide field of view (UWF) fundus color imaging is a powerful tool for fundus screening. However, manual screening is labor-intensive and subjective. Based on 2644 UWF images, a set of early fundus abnormal screening systems named DeepUWF is developed.The experimental results show that these preprocessing methods are helpful to improve the learning ability of the networks and achieve good sensitivity and specificity. Without ophthalmologists, DeepUWF has potential application value, which is helpful for fundus health screening and workflow improvement.

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