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1) ***Z. Faizal khan,G. Nalinipriya,Mohammed Khaleel Anwar; Texture based back propagation neural networks for segmentation of arteriole and venule in fundus images***

In this paper, a combination of texture and Back Propagation Neural Networks is proposed for segmenting the arteries and veins present in the eye fundus images. To develop the proposed algorithm, the texture based back-propagation neural network (TBP-NN) is combined by a trained knowledge of textural properties for segmenting the arteriole and venule which can be used in early diabetic retinopathy (DR) detection.
The proposed algorithm is tested with a total of 200 fundus images, which has 100 early-stage DR and 100 normal images, which is used for further training. We compared our proposed algorithms efficiency with traditional BP-NN methods and support vector machine (SVM). The results show that the mean accuracy of a proposed algorithm which was higher than either that of the traditional BP-NN or that of the SVM classifier indicating that proposed algorithm could achieve a better segmentation results

2) ***Yang Yu, Yun Li, Yu- jing Li ; Tooth Decay Diagnosis using Back Propagation Neural Network***

In this paper, an ANN tooth decay diagnostic strategy was proposed and carefully experimented. A back propagation neural network was formed to analyze the X-ray image of patient's teeth. With inter-pixel autocorrelation coefficients as its input feature vector, the network achieved considerable good performance in making differential diagnoses between decayed and normal teeth. The tooth decay detection accuracy was significantly improved comparing to the diagnosis made by a "rule-based" computer assisted program and a group of dentists