Abstract

This paper presents a novel method of skin diseases classification. The complete work is divided into four parts. First is preprocess the image then segment the image by using modified sobel edge detection technique, and extract the features of the segmented image, extracted features are sub divided in to sub space features and classified the features by artificial Neural Network(ANN). The performance of the different training algorithm has been investigated. Mean Square Error (MSE) is evaluated. Bayesian regularization backpropagation algorithm gives minimum MSE is 4.8561e-13 and gradient is 1.6337e-08 at 190 epochs. Levenberg-Marquardt backpropagation algorithm provides MSE 1.0559e-10 and gradient is 9.9001e-08 at 105 epochs. Resilient backpropagation algorithm 3.5354e-07 and gradient is 8.5468e-06 at 347 epochs. Scaled conjugate gradient backpropagation algorithm give MSE 0.02269 and gradient is 8.6124e-07 at 115 epochs.


Index Terms

Computer Science  Biomedical

Keywords

Image segmentation, Feature extraction, Feature selection, ANN, Classification