Abstract

Dermatology is one of the major field of prescription which is worried about the analysis and treatment of skin disorders. Skin diseases are among the most widely recognized medical issues around the world. Regardless of being common, their determination is quite troublesome and requires broad knowledge and expertise in the area. Skin disease might cause severe health and monetary consequences for patients if not detected and controlled early. Early recognition can forestall the condition from worsening. This research paper presents the development of an automated skin disease diagnosis system which takes images of a skin disease as an input by the user and predicts the type of skin disease. The system uses a dual stage approach for detection and prediction process which effectively amalgamates image processing and machine learning. In the 1st stage, the image of the skin condition is subject to numerous types of pre-processing techniques followed by feature extraction. The extracted features for each image are then converted to a feature vector. In the second stage, the feature vectors are fed to a machine learning algorithm (artificial neural networks) to identify disease and predict accordingly. On training and testing for 5 diseases (eczema, psoriasis, impetigo,
Automated System for Prediction of Skin Disease using Image Processing and Machine Learning

melanoma, and scleroderma) system produces an overall prediction accuracy of 90%.

References


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Index Terms

Computer Science Image Processing
Keywords

Skin diseases, pre-processing techniques, artificial neural networks