ABSTRACT

The final project is about how to identify types of skin diseased using computers, in which there has been a programto identify them. Skin is the largest constituent of the human body organ that is located at the outside and cover the entire surface pf the body. Because of its location at the outside, the skin receive a stimulus for the first, such as stimulation of touch, pain, and bad influence from the outside. Disorders of the skin often occur due to various factors, such as climate, neighborhood, unhealthliving habits, and allergies.

At the final project is made a program to identify the type af skin disease through diseased skin image based on color segmentation by Block Overlapping and texture analysis by Binary Large Object (BLOB) detection using Learning Vector Quantization-Artificial Neural Network. Generally, the process of identifying types of skin diseases in this system consist of several steps. Strating from the reading of the image, preprocessing, feature extraction, feature identification, and identification types of skin diseases. The way to analyze system performance is to compare the truth of the output data in identifying the type of skin disease with the input data.

From the results of testing was obtained the accuracy for each type of skin disease is acne by 20%, chicken pox by 35,29%, measles by 28,57%, allergic contact dermatitis by 51,56%, and scabies by 53.7%. Accuracy was obtained from 325 test images with size of Block Overlapping 30x30, overlap 50%, 200 hidden layer, and 800 epoch. Average computing time in identifying the type of skin disease is during 6,789 seconds.

Keywords : the image of diseased skin, color segmentation with Block Overlapping, texture analysis with BLOB detection, Learning Vector Quantization-Artificial Neural Network.