ABSTRACT

Skin cancer is the abnormal growth of skin cells that can not be controlled. Skin cancer appears when the DNA is damaged skin cells (mostly due to ultraviolet radiation from the sun) triggers mutations that skin cells grow rapidly, can not be controlled and start forming a tumor. Skin cancer can be overcome if it is detected earlier before spreading or doing metastasis. However, the tendency of people who are indifferent and reluctant to check or consult with doctors make his condition worse without realizing it. Therefore, designed an application for Skin Cancer Detection with Image Processing and Expert System using Forward Chaining and Certainty Factor method. The end result of image processing and expert system in this application is the assessment of High Risk, Low Risk, or Medium Risk of nevus conditions in patients. With the design of this system is expected to help raise awareness to detect early skin cancer. From the results of tests that have been done, this application has an accuracy rate of 100%. It shows that this system produces the same results as an expert.

Keyword: Artificial Intelligence, Expert System, Forward Chaining, Certainty Factor