

ABSTRACT

Melanoma is the most dangerous and deadly type of skin cancer. Melanoma can be cured if detected early, but the form of melanoma that resembles a mole makes it difficult to distinguish. Early treatment by a dermatologist against melanoma through a biopsy process. However, a lack of biopsy is a long preparation and laboratory results are a little longer. This is feared to make cancer cells spread more widely. With this problem, in this final project will be designed an android-based mobile application that can detect early melanoma. The application is designed using an expert system of forward chaining and image processing methods of K-Nearest Neighbor (KNN) method. From the results of image processing testing that has been carried out this application has an accuracy of 72% by using a data training totaling 70 image. While the expert system with forward chaining method is suitable to be used in this application because decisions are taken in accordance with the representation of knowledge that has been entered into the system.

Keywords : Melanoma, Expert System, Image Processing, Forward Chaining, K-Nearest Neighbor