

ABSTRACT

The topic of this research is about the classification of acne using the Convolutional Neural Networks (CNN) method. One of the main reasons why this title was raised as a research topic is that in this digital era of artificial intelligence, the capacity to classify acne using machine learning methods is needed, especially for those who have a need for acne types. This is important because not everyone has the ability to classify types of acne so that expertise is needed in classifying types of acne. Providing experts in the field of acne classification is extremely rare. In this case, the theoretical framework used in learning. One of the methods used is Convolutional Neural Network (CNN). What distinguishes CNN from other methods neural networks is the large number of hidden layers in the classification process. In this study, 1200 acne datasets were used with 1070 and 130 images of train data and test data, respectively. Data preprocessing, CNN classification, and modeling can be well done. The results obtained are the model can and classify image data with an accuracy of 91.6%.

Keywords: Acne, Convolutional Neural Network (CNN), Stochastic Gradient Descent