ABSTRACT

Generally chicken eggs are one of the foods that are often consumed by the people because chicken eggs have high protein content and relatively cheap prices. An understanding of the quality of eggs is important because eggs are a food that is widely consumed by the community, but eggs are easily degraded.

The quality of an egg can be determined from the quality inside the egg and the quality outside the egg. In contrast to previous studies that identified egg quality based on egg white height, in this study the identification process was carried out from outside egg quality such as egg shape, egg shell texture, egg age and so on. Currently, the development of technology in the field of digital image processing can be used to texture and color of an image with very specific so that it can be used to classify egg quality. The stages carried out in this study are: image acquisition, preprocessing, and quality classification of chicken eggs.

In this final project research the method used is the Deep Convolution Neural Network (CNN) method with the Alexnet architecture. CNN is part of the Deep Neural Network (DNN) that is used to classify images and sounds with high accuracy. The parameter measured is the accuracy of the egg detecting system.In this research the use of the Deep CNN method to identify the quality of domestic chicken eggs produces an accuracy of 96%.

Keywords: Quality of Negeri Chicken Eggs, Deep Convolutional Neural Network (CNN), and Alexnet.