

ABSTRACT

Chicken eggs food consumption is easily processed by Indonesian society. Beside its cheap prices, eggs are also contain beneficial nutrient for human body, such as proteins, fats, carbohydrates, minerals, iron, and essential amino acids, thus eggs are often consumed by Indonesian people. However, eggs have different qualities, because eggs bought by the Indonesian people in supermarkets, markets, or farms have different qualities.

To know the quality of eggs, it can be seen from the its white egg or its albumen. From the white egg, we can see the freshness of an egg by measuring its height using the Haugh Unit tool. As for the yellow color classification, it can be seen from its yolk using a tool called Yolk Color Fan. However, the process of measuring the height of white egg takes time, thoroughness, and the results obtained are subjective due to the factors of accuracy and difference in a person's vision ability.

In this final project, the author discusses how to detect the quality of chicken eggs with digital image processing. The author uses the method of Discrete Cosine Transform (DCT) with the classification of K-Nearest Neighbor (K-NN) based on android. With this final assignment, the research can help to make it easier in knowing the quality of chicken eggs, which is more effective with the accuracy of 83,6363%.

Keywords: DCT, K-NN, Android, Local Indonesian Eggs