

EGG QUALITY DETECTION BASED ON DIGITAL IMAGE INPUT USING DEEP LEARNING

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ABSTRACT

Eggs are one of the sources of animal protein that are in great demand by the Indonesian people because chicken eggs have several nutritional contents such as protein, fat, minerals and vitamins which are quite high and have a relatively low price. However, eggs have properties that are easy to decrease in quality. In an egg, the quality will be the reference so that the egg is kept fresh and fit for consumption. In general, if domestic chicken eggs are stored at normal room temperature, the eggs will last less than 21 days, but if the eggs are stored in the refrigerator, the eggs will be able to last longer, which is more than 30 days. Therefore, treatment and prevention are needed, one of which is the detection of egg quality using digital image processing. This study can determine the performance of Deep Learning based on the value of accuracy, precision, f1-score. Accuracy value is 50%, precision value is 71%, recal or sensitivity value is 100%, specificity value is 60%, F1-score value is 83% .

Keywords: *Egg, Deep Learning, Accuracy, Precision, Sensitivity, Specificity, F1-Score.*