ABSTRACT

Eggs are one of the largest food commodities in Indonesia. Eggs have various types based on the type of parent. In this final project, we will examine chicken eggs that can be purchased at the nearest shop which are always consumed daily. These chicken eggs have several characteristics, including the egg shells are not always brown, the size of the eggs are not all the same, and it is not uncommon to see broken or cracked eggs when in transit.

SVM is a machine learning algorithm that can classify image data. It can be proven by SVM which can classify cats with dogs very well. Therefore, in this final project, the ability of SVM to classify digital images of chicken eggs was tested to classify cracks and pale color in chicken eggs. And it was found that the crack model has the best parameters on the polynomial kernel with a C value of 500 and a gamma value of 0.00001 with an accuracy of 30%, while the pale model has the best parameters on the RBF kernel with a C value of 600 and a gamma value of 0.00001 with 100% accuracy. The results of egg quality have an accuracy rate of 100% based on the given conditions but with errors that occur due to the low level of accuracy of the cracked model.

Keyword : *SVM, Size, Chicken Egg, Quality, Crack*