

ABSTRACT

Indonesian people commonly consume chicken egg as an ingredient. Not only cheap, but egg also has a high-quality protein and a complete composition of essential amino acids. Therefore, many people use an egg as ingredients to make some foods, such as bread and pizza. However, eggs have a different quality and freshness in each farm. The quality of broiler chicken eggs can be seen from how long the chicken eggs are stored. Because the storage time will affect the weight of the egg.

Digital image processing is used to determine the weight and classification of eggs. processing imagery is done by detecting the edge of the egg and separating the background of the egg. After that, an identification process is carried out to get the size of the egg in the form length and width. In general, the system designed is divided into 4 processes, namely: acquisition the image of the egg, pre-processing egg image, feature extraction, and classification. Fractal methods are used for feature image extraction and methods Decision Tree is a method used for heavy egg category classification

The system designed produces a value of accuracy of the egg weight Day 1 with 86.6% accuracy and compute time of 1.64 seconds, as well as on the day The 10th generates accuracy of 86.6% and computation time of 1.88 seconds.

Keywords: Eggs, Fractal, Decision Tree,