

**Identifikasi Kualitas Telur Ayam Berdasarkan Citra Kerabang**  
**Menggunakan Metode *Learning Vector Quantization***  
*(Identification of Chicken Egg Quality Based on Shell Image Using the*  
*Learning Vector Quantization Method).*  
Aji Seto Arifianto S.ST, M.T, as chief counselor

**Abdilana Mohtalia Saputra**  
**Study Program of Informatics Engineering**  
**Majoring of Information Technology**  
Program Studi Teknik Informatika  
Jurusan Teknologi Informasi

***ABSTRACT***

*Eggs are a source of animal protein derived from poultry. In general, the sorting system used in laying hens, especially in the Bondowoso area, precisely in Pejaten Village, is still classified as manual or traditional and does not use a grading machine because the price is relatively expensive. The technique used in the egg sorting process is based on the abilities or assumptions of egg breeders, one of which is by direct observation. The new solution that will be applied in this research is to create a computer vision system for the image of chicken eggs which aims to identify the physical appearance of the egg which includes the cleanliness of the shell, the condition of the shell and the color of the shell. The developed system needs to be tested for accuracy. The testing mechanism carried out is by using the Cross Validation approach. The test was carried out 10 times. Based on the test results using Cross Fold, it can be concluded that the best accuracy is reaching 98% using 4 Cross Folds, Epoch 100, Learning Rate 0.1 and computation time of 3181.0874469280243 seconds, 53 minutes.*

***Key words:*** *eggs, computer vision, cross validation*