

ABSTRACT

Cheese is a food made from processed milk by separating the solid substance or substances in milk through a process of thickening or coagulation. Cheese is one food that is loved by the people in addition to taste delicious, cheese also has a high protein content and can be served with almost every meal, the most common use is to make a pizza. However, the cheese produced from each manufacturer has a different quality. Quality is one of them can be seen from the color. Cheese is good quality with no shades of yellow or black stains, if there is a pattern or black stains on the cheese, it is a fungus may be indicated. The quality of the cheese was good too we can see from the texture, we can see with the naked eye or by touching the surface of the cheese.

In this final project, the author discusses how to detect the quality of the color and texture of cheese. There are several methods that can be used to detect the quality of the cheese. In this final project the author uses Gabor Wavelet methods with classification K-Nearest Neighbor (K-NN).

The testing is done with testing 48 image of cheese, with the composition of each class has 16 image of very edible cheese, 16 image of edible cheese, and 16 image of not edible cheese. From the testing, the author can obtain the best accuracy of 91,67% with computational time 69,6s using the Gabor Wavelet method which used feature extraction based on texture and color with one order of parameter (standard deviation and kurtosis), $d_1=32$, $d_2=32$, $k = 5$, distance euclidean.

Keyword: Gabor Wavelet, K-Nearest Neighbor (K-NN)