ABSTRACT

Rice is one of the mandatory foods for the people of Indonesia. Klaten Regency, which is mostly an agricultural sector, especially in the Delanggu area, is the largest rice producer in the Klaten Regency area. The many types of rice on the market have good quality and are not good in terms of color, texture, and aroma.

In this Final Project, the author discusses how to identify the quality of rice using imagery. In this Final Project, the author uses the Naïve Bayes method for classification. As well as using the Gray Level Co-Occurrence Matrix as a characteristic extraction process, this GLCM method will later be used to determine the texture of rice.

Based on the tests that have been carried out, so that in this Final Project the system design can identify the quality of rice. The test was carried out 40 images of rice where each class had 20 images of super quality and ordinary quality rice. So that obtained from several scenarios testing the best second-order parameters, namely correlation-homogeneity, degree direction= $135°$, pixel distance $(d) = 1$, and quantization level 128, the best accuracy is 100% with a computation time of 59.33 seconds.

__Keywords:__ Rice, Quality,Image,GLCM (Gray Level Co-Occurrence Matrix), Naïve Bayes.