

ABSTRACT

Rice is Graminae plant that belongs to genus *Oriza* Linn. There are several types of rice in Indonesia, such as: pandan wangi, rojolele, Memberamo, IR 64, IR 42, C4, and others. Most type of rice in the market is IR 64. In quality grouping, rice is divided into three types: the quality of rice based on the rice market, Standar Nasional Indonesia (SNI), and consumer preference. To obtain guarantee of quality, it needs inspection by an experienced inspector. This final project is supposed to produce a tool for processing the image quality of rice, classifying and analyzing the performance of classification system.

The image of processed rice is already in digital (photo). The method in this final project is using digital image processing. The stages performed included: pre-processing, feature extraction, and classification. For feature extraction, used Statistic feature extraction to observe texture while the quality classification used K-Nearest Neighbor (K-NN).

Based on the simulation, it can be concluded that the classification of rice quality by Statistic feature extraction and classification method K-Nearest Neighbor produce 84,167% of accurateness. It means the accuracy as expected.

Key words: rice quality, digital image processing, Statistic feature extraction, K-Nearest Neighbor