ABSTRACT

Arabic is one language that is familiar to many Muslims. Since most of the Muslims since it was introduced by a small Arabic language through learning to read Qur'an. However, in its application that not all Muslims who already have teaching as a child can read arabic if not aided by the vowel (punctuation). Because the actual Arabic text does not use vowel (punctuation). Similarly, there are still many who do not know the translation of the word.

In this final made a tool of reading as well penerjemahaan Arabic text of the application program that serves to identify the letter Hijaiyyah. Arabic text which will be identified in this thesis comes from the Arabic text derived from the print-screen with font Arabic typesetting. Results print-screen will become the input system, and performed preprocessing, segmentation, feature extraction, classification, reading and penerjemahaan. Samples were tested and then treated with acquired based image processing to compare the characteristics of the input feature vector data that already exists then the results will be identified with the help of K-Nearest Neighbor (K-NN).

Testing is done by taking samples that have been trained or not. The result of computing the average accuracy of the Latin system of 91.71% and on translation of 81.66%, the value of the average computation time of the Latin system of 22.98 seconds and on the translation of 22.98 seconds.

Keywords: Arabic text, the print-screen, feature extraction, and K-NN.