Abstract

Handwriting recognition can be done in two ways which are non-realtime recognition and realtime recognition. In real time handwriting recognition, information or data that are represented and recognized by the system are performed at the same time. Handwriting recognition has several commonly used methods such as statistical approaches (matching image), and syntactic approach.

In this final project, statistical approaches or matching image is used. The images are identified and measured the degree of similarity in two or more images, which used for classification. The steps that must be done are data acquisition, pre-processing data, followed by the process of feature extraction using Principal Component Analysis (PCA), and the final step is made the classification process handwriting. For the classification K Nearest Neighbour method is used.

Using Principal Component Analysis method and K Nearest Neighbour, it obtained accuracy of system is 88.07%. With a correct selection of the number of PC and the value of k, the accuracy of system is able to give the best result.

Keywords: *Handwriting recognition, realtime, Principal Component Analysis, K Nearest Neighbour, Feature Extraction, Classification*.