

Comparison of Projection and Wavelet Based Techniques In Recognition of Sinhala Handwritten Scripts

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ABSTRACT

This paper presents a comparison between two methods which has high potential for offline Sinhala handwriting recognition. For simplicity, frequently used postal city names were used for performance comparison. The two methods used are the projection based method and the wavelet analysis based method. Utilizing neural network techniques, word and individual character recognition were carried out for the chosen names.

The data sample for training was obtained from 12 individuals and testing was done for a sample from 50 different individuals, who were not introduced to the system at the training stage. The handwritten scripts were subjected only to the basic pre-processing; segmentation and normalizing. The network based on the projection profiles had a maximum recognition rate of 96% in identifying some words and 84% for some characters. The final results showed that on average, accuracy of wavelet based networks were higher than that of projection based method. In both methods word recognition rate was higher than character recognition rate.