Abstract

This paper presents an OCR (Optical Character Recognition) for handwritten Gurmukhi characters. Gurmukhi script is used for Punjabi language, which is the world’s 14th most widely spoken language. The scanned images of the handwritten characters are used as input to this OCR system and the output is the computer editable format. The proposed method uses different Daubechies Discrete Wavelet Transforms for extraction of features and back propagation for recognition task. In this paper, approximately four hundred samples of first five characters of Gurmukhi script are used to train the back propagation neural network and approximately one hundred samples are used for testing. The recognition rates achieved using different Daubechies Discrete Wavelet Transforms are compared. An average accuracy of 93.41% is achieved.

References

- Puneet Jhajj, D. Sharma, “Recognition of Isolated Handwritten Characters in


**Index Terms**

Computer Science  
Pattern Recognition

**Keywords**

Optical Character Recognition  
Handwritten Gurmukhi Script  
Feature Extraction  
Daubechies Discrete Wavelet Transform