Abstract

Handwriting is the most effective way by which civilized people speaks. Devanagari is the basic Script widely used all over India. Many Indian languages like Hindi, Marathi, Rajasthani are based on Devanagari Script. Devanagari Scripts Hindi language is the third common language used all over the world. In the proposed work an artificial neural network based classifier and statistical and structural method based feature extraction approach is used for the recognition of the script. Optical isolated Marathi Characters are taken as an input image from the scanner. An input image is preprocessed and segmented. Features are extracted in terms of various structural and statistical features like End points, middle bar, loop, end bar, aspect ratio etc. Feature vector is applied to Self organizing map (SOM) which is one of the classifier of an artificial neural Network. SOM is trained for such 5000 different characters collected from 500 persons. The characters are classified into three different classes. The proposed classifier attains 93% accuracy.

References

Patten Analysis and Intelligence, Vol. 26, No. 1, pp. 124-130, January 2004

Index Terms

Computer Science

Pattern Recognition
Keywords

Image Preprocessing  Feature Extraction  Network Neighborhood  Self Organizing Map  Accuracy