Abstract

The process of recognizing scanned documents or machine printed documents using automated or semi-automated tools are resulted into wide range of applications in different real life domains. There are different techniques already introduced by various authors for efficient and accurate recognition of handwritten characters. As designing a method with 100% accuracy of character recognition is challenging and unachievable task for researchers due to presence of noise, distinct styles of font under real time environment, therefore it is required to design recognition method by considering these characteristics of character recognition. This paper presenting online handwritten recognition framework by using efficient hybrid features codebook and Feed forward neural network (FFNN) to improve the recognition accuracy over Devanagari scripts. Along with the accuracy, another term which plays vital role of deciding the efficiency of recognition method is time required for recognition. Previous techniques giving the more accuracy for recognition, however feature extraction process takes longer time. Therefore such methods failed in real time applications. This paper majorly focusing on different recognition methods previously used and there recognition results, and then presenting our
Devanagari Handwritten Character Recognition using Hybrid Features Extraction and Feed Forward Neural

recognition method with its practical results for analysis. The results are varying by considering
different image size in MATLAB.

References

1. Prof. S.P.Kosbatwar, Prof.S.K.Pathan,; “Pattern Association for character recognition by
Back-Propagation algorithm using Neural Network approach” International Journal of Computer
2. Kauleshwar Prasad, Devvrat C. Nigam, Ashmika Lakhotiya: Character Recognition Using
Matlab’s Neural Network Toolbox, International Journal of u- and e- Service, Science and
Technology Vol. 6, No. 1, February, 2013.
3. Sunit Bandaru “Handwritten character recognition using neural network”
Character Recognition Using Multiclass SVM Classification with Hybrid Feature Extraction, Pak.
Network”International Journal of Computer Science & Communication Vol. 1, No. 2,
July-December 2010, pp. 141-144.
Handwritten Devnagari Numerals”, In Proc. of the Workshop on Learning Algorithms for Pattern
Recognition (in conjunction with the 18th Australian Joint Conference on Artificial Intelligence),
10. Y. Yang, Expert Network: Effective and Efficient Learning from Human Decisions in Text
11. Y. Yang, and C.G. Chute, An Example-based Mapping Method for Text Classification

Index Terms

Computer Science

Networks
Keywords

Handwritten Recognition, Feature extraction, Devanagari Script, FFNN, SVN, KNN