Abstract

Recognition rate of handwritten character is still limited around 90 percent due to the presence of large variation of shape, scale and format in hand written characters. A sophisticated handwritten character recognition system demands a better feature extraction technique that would take care of such variation of hand writing. In this paper, we propose a recognition model based on multiple Hidden Markov Models (HMMs) followed by few novel feature extraction techniques for a single character to tackle its different writing formats. We also propose a post-processing block at the final stage to enhance the recognition rate further. We have created a data-base of 13000 samples collected from 100 writers written five times for each character. 2600 samples have been used to train HMM and the rest are used to test recognition model. Using our proposed recognition system we have achieved a good average recognition rate of 98.26 percent.

References

- U. Bhattacharya, and B. B. Chaudhury, "Handwritten numeral databases of

Index Terms

Computer Science Pattern Recognition

Keywords

Hidden Markov Model Sobel Masks Gradient Features Curvature Features And Projected Histogram