Abstract

This paper proposes a scheme for recognition of English characters based on features derived from partitioning the character image into non-overlapping cells. A dynamic sliding window moves over each cell and pixel counts obtained from the image portion within the boundaries of the window, contribute towards generation of the feature vector. A total of four passes of the window over the image each with a different window size leads to the generation of a 30-element feature vector. A neural network (multi-layered perceptron) is used for classifying the 26 alphabets of the English language. Accuracies obtained are demonstrated to have been improved upon with respect to contemporary works.

References


Index Terms

Computer Science
Pattern Recognition
Keywords
Dynamic Sliding Window  Neural Network  Multi-layered Perceptron  Feature-vector