Abstract

Handwriting is one of the most important means of daily communication. Although the problem of handwriting recognition has been considered for more than 60 years there are still many open issues, especially in the task of unconstrained handwritten sentence recognition. This paper focuses on the automatic system that recognizes continuous English sentence through a mouse-based gestures in real-time based on Artificial Neural Network. The proposed Artificial Neural Network is trained using the traditional backpropagation algorithm for self supervised neural network which provides the system with great learning ability and thus has proven highly successful in training for feed-forward Artificial Neural Network. The designed algorithm is not only capable of translating discrete gesture moves, but also continuous gestures through the mouse. In this paper we are using the efficient neural network approach for recognizing English sentence drawn by mouse. This approach shows an efficient way of extracting the boundary of the English Sentence and specifies the area of the recognition English sentence where it has been drawn in an image and then used Artificial Neural Network to recognize the English sentence. The proposed approach English sentence recognition (ESR) system is designed and tested successfully. Experimental results show that the higher speed and accuracy were examined.

**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

Recognition  
Artificial Neural Network  
Feature Extraction  
Normalization  
Preprocessing

English Word