Abstract

This paper presents an Arabic handwritten text recognition system for historical Manuscripts using the Matlab software, the paper is composed from number of stages, the first stage giving a short description of related work in handwritten Arabic recognition systems, the second stage discuss the preprocessing methods which contain of filtering, a certain methods will be applied on samples of database images to detect the best filter, normalization and cropping text for feature extraction, the third stage is the text segmentation into lines, words, detecting the dots and remove it from the word with saving its position before segmentation to its primitives, the fourth stage gives a practical approach to the character recognition using a proposed multimodal technique by applying three techniques of character recognition, artificial neural network, hidden markov model and a linear classifier, saving the result into an array choosing the mode of the data stored in the array, finally giving some experimental results.

References

HandwrittenText Recognition System for Automatic Reading of Historical Arabic Manuscripts


Index Terms

Computer Science

Pattern Recognition
Keywords

historical document  OCR  neural recognizer  Islamic Manuscripts  off-line characters recognition