

A Neural Approach for the Offline Recognition of the Arabic Handwritten Words of the Algerian Departments

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Abstract : In this work we present an off line system for the recognition of the Arabic handwritten words of the Algerian departments. The study is based mainly on the evaluation of neural network performances, trained with the gradient back propagation algorithm. The used parameters to form the input vector of the neural network are extracted on the binary images of the handwritten word by several methods: the parameters of distribution, the moments centered of the different projections and the Barr features. It should be noted that these methods are applied on segments gotten after the division of the binary image of the word in six segments. The classification is achieved by a multi layers perceptron. Detailed experiments are carried and satisfactory recognition results are reported.

Keywords : handwritten word recognition, neural networks, image processing, pattern recognition, features extraction

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