

A METAHEURISTIC ALGORITHM ACO OF HANDWRITTEN ARABIC CHARACTERS RECOGNITION

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ABSTRACT

The Metaheuristic algorithms based on the principle of artificial intelligence which are the most use in the field of knowledge and information, because are characterized by susceptibility to invent ways appropriate to the nature matter to be dealt with and find optimal solutions and improve their values to the limit of possibility. One of these algorithms is ant colony optimization algorithm (ACO). There are a large number of manuscripts, published research used this algorithm. This manuscript is concerned with the recognition of Arabic handwritten characters (beginning, middle and final) using ant colony optimization algorithm (ACO) to satisfy a successful recognition operation in experiments, have already discussed a model to recognize number of Arabic handwritten form characters using the concept of (ACO) as well. Experimental results demonstrate the higher degree performance of this algorithm. It should be noted that (ACO) in general generates optimal matching between samples input samples database which improves the rate of recognition final. The proposed model has been tested with a lot of Arabic handwritten characters, Experimental results have shown that ACO algorithm is convergence, more accurate and with high rate recognition.

KEYWORDS: Arabic Characters Techniques, Handwritten Characters Recognition, Ant Colony Optimization Algorithm