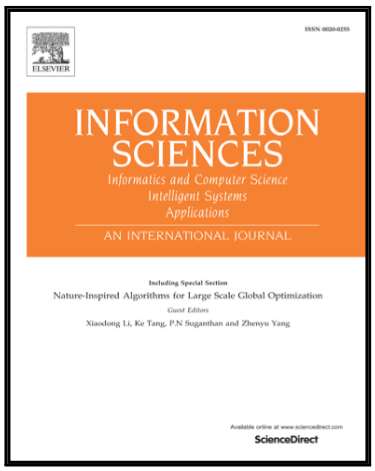
Accepted Manuscript



An Enhanced Artificial Neural Network with A Shuffled Complex Evolutionary Global Optimization with Principal Component Analysis

Tiantian Yang , Ata Akabri Asanjan , Mohammad Faridzad , Negin Hayatbini , Xiaogang Gao , Soroosh Sorooshian

PII: S0020-0255(16)31351-2
DOI: 10.1016/j.ins.2017.08.003
Reference: INS 13007

To appear in: *Information Sciences*

Received date: 18 October 2016
Revised date: 25 July 2017
Accepted date: 1 August 2017

Please cite this article as: Tiantian Yang , Ata Akabri Asanjan , Mohammad Faridzad , Negin Hayatbini , Xiaogang Gao , Soroosh Sorooshian , An Enhanced Artificial Neural Network with A Shuffled Complex Evolutionary Global Optimization with Principal Component Analysis, *Information Sciences* (2017), doi: 10.1016/j.ins.2017.08.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights

- Heuristic global optimization schemes are able to remedy some drawbacks of back-propagation used in ANN.
- An enhanced ANN training scheme is proposed using an efficient global optimization scheme.
- The proposed SP-UCI-enahnced ANN shows better performances than the GA-, PSO-, SA-, and DE-based ANN.
- The heuristic search optimization schemes are universally adaptable for other types of ANNs.

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/4944222

Download Persian Version:

https://daneshyari.com/article/4944222

Daneshyari.com