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Continuous CLA-EC

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This paper appears in: Genetic and Evolutionary Computing (ICGEC), 2010 Fourth International Conference

Issue Date: 13-15 Dec. 2010

On page(s): 186 - 189

Location: Shenzhen

Print ISBN: 978-1-4244-8891-9

References Cited: 18

INSPEC Accession Number: 11835501

Digital Object Identifier: 10.1109/ICGEC.2010.53

Date of Current Version: 17 February 2011

ABSTRACT

Standard CLA-EC which is introduced recently is an evolutionary computing model obtained by co-evolutionary computing (EC) model. Some drawbacks of this model are low convergence speed and slow accuracy. In this paper a new version of CLA-EC called Continuous Action Set CLA-EC or in short Continuous CLA-EC is introduced. In this model instead of using a discrete action set learning automaton in each cell, a continuous action set learning automaton is used. In this model it is tested on some function optimization problems. The results of experimentations have shown that this model has better performance comparing to standard CLA-EC has both higher accuracy and speed of convergence.

INDEX TERMS

- IEEE terms

Bioinformatics , Computational modeling , Computer architecture , Genomics , Learning automata , Machine learning , Optimization , Parallel processing , Pattern recognition , Probability , Problem solving , Software engineering

- INSPEC

- Controlled Indexing

cellular automata , evolutionary computation , learning (artificial intelligence)

- Non Controlled Indexing

cellular learning automata model , continuous action set CLA-EC , continuous action set learning automata , function optimization problems

- Author Keywords

CLA-EC , Cellular Learning Automata , Continuous Action Set Learning Automata , Continuous CLA-EC

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