

Contents

Mathematical Modeling and Theory

Fractal Dimension - A Spatial and Visual Design Technique for the Creation of Lifelike Artificial Forms	3
<i>Dale Patterson and Daniel Della-Bosca</i>	
Using Closed Sets to Model Cognitive Behavior.	13
<i>John L. Pfaltz</i>	

Learning and Optimization

Solving Dynamic Optimisation Problems with Known Changeable Boundaries	29
<i>AbdelMonaem F.M. AbdAllah, Daryl L. Essam, and Ruhul A. Sarker</i>	
Compaction for Code Fragment Based Learning Classifier Systems.	41
<i>Isidro M. Alvarez, Will N. Browne, and Mengjie Zhang</i>	
The Boon of Gene-Culture Interaction for Effective Evolutionary Multitasking	54
<i>Bingshui Da, Abhishek Gupta, Yew Soon Ong, and Liang Feng</i>	
A Study on Performance Metrics to Identify Solutions of Interest from a Trade-Off Set	66
<i>Kalyan Shankar Bhattacharjee, Hemant Kumar Singh, and Tapabrata Ray</i>	
Dynamic Configuration of Differential Evolution Control Parameters and Operators	78
<i>Saber Mohammed Elsayed and Ruhul A. Sarker</i>	
Exploring the Feasible Space Using Constraint Consensus in Solving Constrained Optimization Problems	89
<i>Noha M. Hamza, Daryl L. Essam, and Ruhul A. Sarker</i>	
A Nested Differential Evolution Based Algorithm for Solving Multi-objective Bilevel Optimization Problems	101
<i>Md Monjurul Islam, Hemant Kumar Singh, and Tapabrata Ray</i>	
Parkinson's Disease Data Classification Using Evolvable Wavelet Neural Networks	113
<i>Maryam Mahsal Khan, Stephan K. Chalup, and Alexandre Mendes</i>	

GO-PEAS: A Scalable Yet Accurate Grid-Based Outlier Detection Method Using Novel Pruning Searching Techniques	125
<i>Hongzhou Li, Ji Zhang, Yonglong Luo, Fulong Chen, and Liang Chang</i>	
Multi-objective Genetic Programming for Figure-Ground Image Segmentation	134
<i>Yuyu Liang, Mengjie Zhang, and Will N. Browne</i>	
A New Modification of Fuzzy C-Means via Particle Swarm Optimization for Noisy Image Segmentation	147
<i>Saeed Mirghasemi, Ramesh Rayudu, and Mengjie Zhang</i>	
Competitive Island Cooperative Neuro-evolution of Feedforward Networks for Time Series Prediction	160
<i>Ravneil Nand and Rohitash Chandra</i>	
Reverse Neuron Level Decomposition for Cooperative Neuro-Evolution of Feedforward Networks for Time Series Prediction	171
<i>Ravneil Nand and Rohitash Chandra</i>	
A Delaunay Triangulation Based Density Measurement for Evolutionary Multi-objective Optimization	183
<i>Yutao Qi, Minglei Yin, and Xiaodong Li</i>	
Use of Infeasible Solutions During Constrained Evolutionary Search: A Short Survey.	193
<i>Hemant Kumar Singh, Khairul Alam, and Tapabrata Ray</i>	
Planning and Scheduling	
A Differential Evolution Algorithm for Solving Resource Constrained Project Scheduling Problems	209
<i>Ismail M. Ali, Saber Mohammed Elsayed, Tapabrata Ray, and Ruhul A. Sarker</i>	
A Hybrid Imperialist Competitive Algorithm for the Flexible Job Shop Problem.	221
<i>Behrooz Ghasemishabankareh, Nasser Shahsavari-Pour, Mohammad-Ali Basiri, and Xiaodong Li</i>	
Parallel Multi-objective Job Shop Scheduling Using Genetic Programming. . .	234
<i>Deepak Karunakaran, Gang Chen, and Mengjie Zhang</i>	
Optimization of Location Allocation of Web Services Using a Modified Non-dominated Sorting Genetic Algorithm.	246
<i>Boxiong Tan, Hui Ma, and Mengjie Zhang</i>	

A Double Action Genetic Algorithm for Scheduling the Wind-Thermal
Generators 258
*Md Forhad Zaman, Saber Mohammed Elsayed, Tapabrata Ray,
and Ruhul A. Sarker*

Feature Selection

Investigating Multi-Operator Differential Evolution for Feature Selection 273
*Essam Debie, Saber Mohammed Elsayed, Daryl L. Essam,
and Ruhul Sarker*

Coevolutionary Feature Selection and Reconstruction in Neuro-Evolution
for Time Series Prediction 285
Ravneil Nand and Rohitash Chandra

A Subset Similarity Guided Method for Multi-objective Feature Selection . . . 298
Hoai Bach Nguyen, Bing Xue, and Mengjie Zhang

Applications and Games

An Evolutionary Optimization Approach to Maximize Runway Throughput
Capacity for Hub and Spoke Airports 313
Md Shohel Ahmed and Sameer Alam

Finite Population Trust Game Replicators. 324
Garrison Greenwood, Hussein Abbass, and Eleni Petraki

Towards Evolved Time to Contact Neurocontrollers for Quadcopters. 336
David Howard and Farid Kendoul

The Effect of Risk Perceived Payoffs in Iterated Interdependent Security
Games. 348
Ayman Ghoneim and Kamran Shafi

Genetic Algorithm Based Trading System Design 360
Richard Tymerski, Ethan Ott, and Garrison Greenwood

Author Index 375



<http://www.springer.com/978-3-319-28269-5>

Artificial Life and Computational Intelligence
Second Australasian Conference, ACALCI 2016,
Canberra, ACT, Australia, February 2-5, 2016,
Proceedings

Ray, T.; Sarker, R.; Li, X. (Eds.)

2016, XIII, 375 p. 115 illus. in color., Softcover

ISBN: 978-3-319-28269-5