

Contents

Differential Evolution with Two Subpopulations	1
<i>Nandar Lynn, Rammohan Mallipeddi, and Ponnuthurai Nagaratnam Suganthan</i>	
Intelligent Water Drops Algorithm for Multimodal Spaces	14
<i>Harish Y., Venkateshwarlu B., Chakravarthi Jada, Kranthi Kumar Rachavarapu, and Irfan Feroz Gramoni Mohammed</i>	
Glowworm Swarm Based Informative Attribute Selection Using Support Vector Machines for Simultaneous Feature Selection and Classification	27
<i>Aniket Gurav, Vinay Nair, Utkarsh Gupta, and Jayaraman Valadi</i>	
TLBO Based Hybrid Forecasting Model for Prediction of Exchange Rates . . .	38
<i>Anindita Dutta, Minakhi Rout, and Babita Majhi</i>	
A Comparative Study of Two Types of Fuzzy Logic Controllers for Shunt Active Power Filters	49
<i>D.A. Gadanayak and Irani Majumder</i>	
A Quantum Behaved Particle Swarm Approach for Multi-response Optimization of WEDM Process	62
<i>Bijaya Bijeta Nayak and Siba Sankar Mahapatra</i>	
A Particle Swarm Approach Embedded with Numerical Analysis for Multi-response Optimization in Electrical Discharge Machining	74
<i>Chinmaya P. Mohanty, Manas Ranjan Singh, Siba Sankar Mahapatra, and Suman Chatterjee</i>	
Biological Data Analysis Using Hybrid Functional Link Artificial Neural Network.	88
<i>Manaswini Jena, Rasmita Dash, and Bijan Bihari Misra</i>	
R-HV: A Metric for Computing Hyper-volume for Reference Point Based EMOs	98
<i>Kalyanmoy Deb, Florian Siegmund, and Amos H.C. Ng</i>	
Performance Comparison of Supervised Machine Learning Algorithms for Multiclass Transient Classification in a Nuclear Power Plant	111
<i>Manas Ranjan Prusty, Jaideep Chakraborty, T. Jayanthi, and K. Velusamy</i>	

Evaluating Internet Information Search Channels Using Hybrid MCDM Technique	123
<i>Gaurav Khatwani, Oshin Anand, and Arpan Kumar Kar</i>	
A Hybrid Artificial Bee Colony Algorithm for the Terminal Assignment Problem	134
<i>B. Jayalakshmi and Alok Singh</i>	
Image Restoration with Fuzzy Coefficient Driven Anisotropic Diffusion	145
<i>V.B. Surya Prasath and R. Delhibabu</i>	
Optimum Design of Rolling Element Bearing	156
<i>S. Panda, T. Mohanty, D. Mishra, and B.B. Biswal</i>	
Principal Component Analysis and General Regression Auto Associative Neural Network Hybrid as One-Class Classifier	164
<i>Vadlamani Ravi and Ranabir De</i>	
Text Classification Using Ensemble Features Selection and Data Mining Techniques	176
<i>B. Shrivankumar and Vadlamani Ravi</i>	
Solving University Examination Timetabling Problem Using Intelligent Water Drops Algorithm	187
<i>Bashar A. Aldeeb, Norita Md Norwawi, Mohammed A. Al-Betar, and Mohd Zalisham Bin Jali</i>	
A Novel Hybrid Algorithm for Discovering Motifs from Financial Time Series	201
<i>Dadabada Pradeepkumar, Maneesh Bhunwal, and Vadlamani Ravi</i>	
A Novel ELM K-Means Algorithm for Clustering	212
<i>Abobakr Khalil Alshamiri, Bapi Raju Surampudi, and Alok Singh</i>	
Software Effort Estimation Using Functional Link Neural Networks Tuned with Active Learning and Optimized with Particle Swarm Optimization	223
<i>Tirimula Rao Benala, Rajib Mall, Satchidananda Dehuri, and Pala Swetha</i>	
Fraud Detection in Financial Statements Using Evolutionary Computation Based Rule Miners	239
<i>Ganghishetti Pradeep, Vadlamani Ravi, Kaushik Nandan, B.L. Deekshatulu, Indranil Bose, and A. Aditya</i>	
An Imperative Assessment of Fuzzy Based 11-Level DSTATCOM Operating Under IPD Modulation Scheme	251
<i>D. Mohan Reddy and T. Gowri Manohar</i>	

Real Coded Genetic Algorithm for Development of Optimal G-K Clustering Algorithm	264
<i>C. Devi Arockia Vanitha, D. Devaraj, and M. Venkatesulu</i>	
On-line Economic Dispatch of Distributed Generation Using Artificial Neural Networks	275
<i>M. Arumuga Babu, R. Mahalakshmi, S. Kannan, M. Karuppasamypanthyan, and A. Bhuvanesh</i>	
Separation of Real Time Heart Sound Signal from Lung Sound Signal Using Neural Network	284
<i>K. Sathesh and N.J.R. Muniraj</i>	
Optimal Placement and Sizing of Multi-type Facts Devices Using PSO and HSA	292
<i>N. Karupiah, V. Malathi, and G. Selvalakshmi</i>	
Optimal Loss Reduction and Reconfiguration of Distribution System with Distributed Generation Using Harmony Search Algorithm	304
<i>S. Muthubalaji and V. Malathi</i>	
<i>In silico</i> Design of High Strength Aluminium Alloy Using Multi-objective GA	316
<i>Swati Dey, Subhas Ganguly, and Shubhabrata Datta</i>	
Augmented Current Controller with SHC Technique for Grid Current Compensation in the Distribution System	328
<i>S. Rajalingam and V. Malathi</i>	
Recent Developments of Neural Networks in Biodiesel Applications	339
<i>R.A. Mat Noor</i>	
Bilevel Optimization Using Bacteria Foraging Optimization Algorithm	351
<i>Gautam Mahapatra, Soumya Banerjee, and Ponnuthurai Nagarathnam Suganthan</i>	
Damage Detection of Fixed-Fixed Beam: A Fuzzy Neuro Hybrid System Based Approach	363
<i>Deepak K. Agarwalla, Amiya K. Dash, Sambit K. Bhuyan, and P.S.K. Nayak</i>	
Neuro Fuzzy Load Frequency Control in a Competitive Electricity Market Using BFOA Tuned SMES and TCPS	373
<i>M. Bhavani, K. Selvi, and L. Sindhumathi</i>	
A Fuzzy Entropy Based Multi-Level Image Thresholding Using Differential Evolution	386
<i>S. Sarkar, S. Paul, R. Burman, S. Das, and S.S. Chaudhuri</i>	

A Novel Method of Relieving Transmission Congestion by Optimal Rescheduling with Multiple DGs Using PSO	396
<i>K. Muthulakshmi and C.K. Babulal</i>	
Sentiment Detection in Online Content: A WordNet Based Approach	409
<i>Soumi Dutta, Moumita Roy, Asit Kumar Das, and Saptarshi Ghosh</i>	
A Neighbourhood Based Hybrid Genetic Search Model for Feature Selection	421
<i>Sunanda Das, Arka Ghosh, and Asit Kumar Das</i>	
An Automated Semantically Enabled Fuzzy Based SLA in Cloud Computing Environment Using Multi-agent System.	432
<i>Manoranjan Parhi, Binod Kumar Pattanayak, and Manas Ranjan Patra</i>	
A New Hybrid Clustering Approach Based on Heuristic Kalman Algorithm	445
<i>Arjun Pakrashi</i>	
Multi-objective Generation Scheduling Using Modified Non-dominated Sorting Genetic Algorithm- II.	456
<i>S. Dhanalakshmi, S. Kannan, S. Baskar, and K. Mahadevan</i>	
Design of Linear Phase FIR High Pass Filter Using PSO with Gaussian Mutation	471
<i>Archana Sarangi, Rasmita Lenka, and Shubhendu Kumar Sarangi</i>	
A Binary Bat Approach for Identification of Fatigue Condition from sEMG Signals	480
<i>Navaneethakrishna Makaram and Ramakrishnan Swaminathan</i>	
Machine Learning Approach for Emotional Speech Classification	490
<i>Mihir Narayan Mohanty and Aurobinda Routray</i>	
Application of Cascaded Correlation Neural Network for Financial Performance Prediction and Analysis of BSNL.	502
<i>N. Albert Singh and T. Naryanan</i>	
Application of Support Vector Machine Classifier for Computer Aided Diagnosis of Brain Tumor from MRI.	514
<i>V. Amsaveni, N. Albert Singh, and J. Dheeba</i>	
Tuning a Robust Performance of Adaptive Fuzzy-PI Driven DSTATCOM for Non-linear Process Applications.	523
<i>G. Satyanarayana and K. Lakshmi Ganesh</i>	
The Effect of Swapping Vectors During Mutation in Differential Evolution.	534
<i>Goran Martinović and Dražen Bajer</i>	

Development of Self-consistent Multi-objective Harmony Search Algorithm 547
Siddharth Jain, Jaydev Kalivarapu, and Swarup Bag

Predicting Trends in the Twitter Social Network: A Machine Learning Approach 570
Anubrata Das, Moumita Roy, Soumi Dutta, Saptarshi Ghosh, and Asit Kumar Das

Optimizing the Efficiency of Straight and U-Shaped Robotic Assembly Lines. 582
J. Mukund Nilakantan and S.G. Ponnambalam

Trajectory Planning and Obstacle Avoidance Control of Redundant Robots Using Differential Evolution and Particle Swarm Optimization Algorithms. . . 596
Sujan Warnakulasooriya and S.G. Ponnambalam

Meta-Cognitive Learning Neural Classifier for Alzheimer’s Disease Detection 606
B.S. Mahanand, G. Sateesh Babu, and S. Suresh

Privacy Preserving Data Mining Using General Regression Auto-Associative Neural Network: Application to Regression Problems 618
Vadlamani Ravi and Amit Yadav

Opposition Based Particle Swarm Optimizer with Ring Topology 625
Tapas Si and Biplab Mandal

Memetic Algorithm Used in Character Recognition 636
Rashmi Welekar and Nileshsingh V. Thakur

Hybrid Particle Swarm Optimization Algorithm and Firefly Algorithm Based Combined Economic and Emission Dispatch Including Valve Point Effect 647
S. Arunachalam, T. AgnesBhomila, and M. Ramesh Babu

Solution of Optimal Power Flow with FACTS Devices Using Opposition-Based Gravitational Search Algorithm 661
Binod Shaw, V. Mukherjee, and S.P. Ghoshal

Multi Robot Path Planning for Known and Unknown Target Using Bacteria Foraging Algorithm. 674
Sanjeev Sharma, Chiranjib Sur, Anupam Shukla, and Ritu Tiwari

Stochastic Unit Commitment Problem Incorporating Renewable Energy Power 686
N.M. Ramya, M. Ramesh Babu, and S. Arunachalam

Nondominated Sorting Genetic Algorithm-II Based Sidelobe Suppression of Concentric Regular Hexagonal Array of Antennas	697
<i>Sudipta Das, Durbadal Mandal, Rajib Kar, and Sakti Prasad Ghoshal</i>	
G_{best} Guided Gravitational Search Algorithm for Economic Load Dispatch. . .	706
<i>Hari Mohan Dubey, B.K. Panigrahi, Manjaree Pandit, and Mugdha Udgir</i>	
Improved Flower Pollination Algorithm for Short Term Hydrothermal Scheduling	721
<i>Hari Mohan Dubey, B.K. Panigrahi, and Manjaree Pandit</i>	
Proposal of a CBIR Framework for Retinal Images Using Fusion Edge Detection and Zernike Moments	738
<i>J. Sivakamasundari and V. Natarajan</i>	
Different Penalty Handling Based Economic Dispatch Using Time Varying Acceleration Coefficients	750
<i>Ruchi Solanki, K.T. Chaturvedi, and N.P. Patidar</i>	
An Efficient Method for Parameter Estimation of Software Reliability Growth Model Using Artificial Bee Colony Optimization.	765
<i>Rao K. Mallikharjuna and Anuradha Kodali</i>	
Genetic Algorithm Based Placement of Radio Interferometry Antennas	777
<i>Amit Kumar Mishra and Adi Lazar</i>	
An Improved Cuckoo Search Algorithm for Parallel Machine Scheduling . . .	788
<i>Dipak Laha and Dhiren Kumar Behera</i>	
Application of Artificial Bee Colony Optimization: Power System Voltage Stability Problems	801
<i>Kiran S. Harish, Sekhar Dash Subhransu, C. Subramani, and ChandraBabu Paduchuri</i>	
Multi-objective Optimization of Economic-Emission Load Dispatch Using Cluster Based Differential Evolution	809
<i>Deep Kiran, B.K. Panigrahi, and A.R. Abhyankar</i>	
ROBOG Autonomously Navigating Outdoor Robo-Guide	821
<i>Kranthi Kumar Rachavarapu, Irfan Feroz Gramoni Mohammed, Chakravarthi Jada, Harish Yenala, and Anil Kumar Vadathya</i>	
Complexity Reduction Using Two Stage Tracking	837
<i>Ravi Narayan Panda, Sasmita Kumari Padhy, and Siba Prasada Panigrahi</i>	

FFA Trained Radial Basis Function Neural Networks in Channel
 Equalization 847
Pradumna Mohapatra and Siba Prasada Panigrahi

Image Inpainting with Modified F-Transform 856
V.B. Surya Prasath and R. Delhibabu

Improved ADALINE Based Algorithm for Power System Frequency
 Estimation 868
S. Nanda, S. Hasan, B.K. Swain, and P.K. Dash

Author Index 879



<http://www.springer.com/978-3-319-20293-8>

Swarm, Evolutionary, and Memetic Computing
5th International Conference, SEMCCO 2014,
Bhubaneswar, India, December 18-20, 2014, Revised
Selected Papers
Panigrahi, B.K.; Suganthan, P.N.; Das, S. (Eds.)
2015, XVII, 881 p. 356 illus., Softcover
ISBN: 978-3-319-20293-8