

2013 IEEE Symposium on Differential Evolution

(SDE 2013)

**Singapore
16 – 19 April 2013**



IEEE Catalog Number: CFP1321N-POD
ISBN: 978-1-4673-5872-9

TABLE OF CONTENTS

Parameter Control Mechanisms in Differential Evolution: A Tutorial Review and Taxonomy.....	1
<i>T. Chiang, C. Chen, Y. Lin</i>	
Fruitless Search in Differential Evolution	9
<i>A. Engelbrecht</i>	
A Novel Differential Evolution Algorithm with Gaussian Mutation that Balances Exploration and Exploitation	18
<i>D. Li, J. Chen, B. Xin</i>	
A Hybrid Algorithm for Spatial Small Area Estimation under Models with Complex Contiguity	25
<i>G. Sofronov</i>	
Evaluate till you Violate: A Differential Evolution Algorithm Based on Partial Evaluation of the Constraint Set	31
<i>M. Asafuddoula, T. Ray, R. Sarker</i>	
Adaptive Differential Evolution with Difference Mean Based Perturbation for Dynamic Economic Dispatch Problem	38
<i>R. Kundu, R. Mukherjee, S. Das, A. Vasilakos</i>	
Micro-Differential Evolution with Extra Moves Along the Axes.....	46
<i>F. Caraffini, F. Neri, I. Poikolainen</i>	
Censoring Mutation in Differential Evolution.....	54
<i>K. Opara, J. Arabas</i>	
Synchronizing Differential Evolution with A Modified Affinity-Based Mutation Framework.....	61
<i>S. Biswas, S. Kundu, D. Bose, S. Das, P. Suganthan</i>	
Performance Tuning of Java EE Application Servers with Multi-Objective Differential Evolution	69
<i>M. Lesnik, B. Boskovic, J. Brest</i>	
Investigating Differential Evolution Based Rule Discovery in Learning Classifier Systems.....	77
<i>E. Debie, K. Shafi, C. Lokan, K. Merrick</i>	
LuGre Friction Model Identification and Compensator Tuning Using A Differential Evolution Algorithm	85
<i>P. Feyel, G. Duc, G. Sandou</i>	
Null Control in Linear Antenna Arrays with Ensemble Differential Evolution.....	92
<i>M. Secmen, M. Tasgetiren, K. Karabulut</i>	
An Optimized watermarking Technique Based on DE in DWT-SVD Domain: Optimized Watermarking Technique.....	99
<i>M. Ali, C. Ahn, M. Pant</i>	
A Differential Evolution Based Algorithm for Single Container Loading Problem.....	105
<i>B. Domingo, S. Ponnambalam, G. Kanagaraj</i>	
Differential Evolution with Automatic Population Injection Scheme for Constrained Problems	112
<i>S. Elsayed, R. Sarker</i>	
Scheduling the Lot-Streaming Flowshop Scheduling Problem with Setup Time with the Chaos-Induced Enhanced Differential Evolution	119
<i>D. Davendra, M. Bialic-Davendra, R. Senkerik</i>	
Dynamic Differential Evolution with Difference Mean Based Perturbation	127
<i>R. Kundu, R. Mukherjee, S. Debchoudhury, S. Das, A. Vasilakos</i>	
Ensemble Crowding Differential Evolution with Neighborhood Mutation for Multimodal Optimization	135
<i>S. Hui, P. Suganthan</i>	
An Improved Parallel Differential Evolution Approach for Protein Structure Prediction Using Both 2D and 3D Off-Lattice Models.....	143
<i>D. Kalegari, H. Lopes</i>	
Statistical Analysis of Convergence Performance throughout the Evolutionary Search: A Case Study with SaDE-MMTS and Sa-EPSDE-MMTS	151
<i>J. Derrac, S. Garcia, S. Hui, F. Herrera, P. Suganthan</i>	
A Brief Survey of Differential Evolution on Graphic Processing Units	157
<i>P. Kromer, J. Platos, V. Snasel</i>	
Author Index	