Bibliography containing the below-mentioned articles

[1] Yuan-Long Li; Zhi-Hui Zhan; Yue-Jiao Gong; Wei-Neng Chen; Jun Zhang; Yun Li, "*Differential Evolution with an Evolution Path: A DEEP Evolutionary Algorithm*", IEEE Transactions on Cybernetics (Pages: 1798 - 1810, Volume: 45, Issue: 9, September 2015)

[2] Jun Zhang; Henry Shu-Hung Chung; Wai-Lun Lo, "*Clustering-Based Adaptive Crossover and Mutation Probabilities for Genetic Algorithms*", IEEE Transactions on Evolutionary Computation (Pages: 326 - 335 Volume: 11, Issue: 3, June 2007)

[3] Bing Xue; Mengjie Zhang; Will N. Browne, "*Particle Swarm Optimization for Feature Selection in Classification: A Multi-Objective Approach*", IEEE Transactions on Cybernetics (Pages: 1656 - 1671, Volume: 43, Issue: 6, December 2013)

[4] Wenyin Gong; Zhihua Cai, "*Differential Evolution With Ranking-Based Mutation Operators*", IEEE Transactions on Cybernetics (Pages: 2066 - 2081, Volume: 43, Issue: 6, December 2013)

[5] J.S. Eccles; J.A. Dickerson; Junqing Shao, "*Evolving a virtual ecosystem with genetic algorithms*", Proceedings of the 2000 Congress on Evolutionary Computation.

1. Differential Evolution with an Evolution Path: A DEEP Evolutionary Algorithm

<u>Relevance:</u>

Utilizing cumulative correlation information already existing in an evolutionary process, this paper proposes a predictive approach to the reproduction mechanism of new individuals for differential evolution (DE) algorithms.

<u>Structure:</u>

I. Introduction

- explains terminology and what issues this paper attempts to address .

II. Reproduction Models

- DM and CM are fully analyzed, with reviews on several related search models.

III. DEEP Framework

- the DEEP framework is introduced.

IV. Two DEEP Algorithms Illustrated With Experimental Studies

- two DEEP algorithms are developed and experiments on the CEC'13 test suites are performed to test the DEEP algorithms fully.

V. Conclusion

- the conclusion is with future work also highlighted.

References:

This paper has 54 references and 110 paper citations. Reference example:

[2] R. Storn and K. V. Price, "Differential evolution—A simple and efficient heuristic for global optimization over continuous spaces", J. Global Optim., vol. 11, no. 4, pp. 341-359, 1997.

2. Clustering-Based Adaptive Crossover and Mutation Probabilities for Genetic Algorithms

Relevance:

Instead of using fixed values of p x and p m , this paper presents the use of fuzzy logic to adaptively adjust the values of p x and p m in GA. It is based on considering the relative size of the cluster containing the best chromosome and the one containing the worst chromosome.

Structure:

I. Introduction

- presents the use for optimization strategies.

II. Brief Review on the GA Operation

- presents the steps for optimizing PCS and FN .

III. Adaptive Control of px and pm

- presents the procedures and rules for population distribution.

IV. Examples and Comparisons

- two categories of examples have been studied: mathematical functions and circuit parameters of a buck regulator.

V. Conclusion

- the advantages of a fuzzy-controlled crossover and mutation probabilities in GA for optimization of PECs are presented.

References:

This paper has 28 references and 195 paper citations. Reference example:

[1] K. K. Sum, Switch Mode Power Conversion: Basic Theory and Design. New York: Marcel Dekker, 1984

3. Particle Swarm Optimization for Feature Selection in Classification: A Multi-Objective Approach

Relevance:

This paper presents the first study on multi-objective particle swarm optimization (PSO) for feature selection.

Structure:

I. Introduction

- presents the importance of classification

II. Background

- presents background about PSO and multiobjective optimization and also reviews typical related work on feature selection.

III. Multi-Objective Approaches

-a commonly used PSO-based single objective feature selection algorithm and a PSO-based two-stage training feature selection algorithm are firstly described.

- development of two multi-objective feature selection algorithms using PSO, with the goals of selecting a smaller number of features and achieving a lower classification error rate.

IV. Experimental Design

- Benchmark Techniques and Data Sets and Parameter Settings

V. Results and Discussions

- Results of LFS, GSBS, ErFS, 2SFS, NSPSOFS, CMDPSOFS and comparisons

VI. Conclusion and future work

- conclusion about how this paper has conducted the first study on multi-objective PSO for feature selection

References:

This paper has 28 references and 707 paper citations. Reference example:

[1] I. A. Gheyas and L. S. Smith, “Feature subset selection in large dimensionality domains,” Pattern Recognit., vol. 43, no. 1, pp. 5–13, Jan. 2010.

4. Differential Evolution With Ranking-Based Mutation Operators

Relevance:

This paper proposes the ranking-based mutation operators for the DE algorithm, where some of the parents in the mutation operators are proportionally selected according to their rankings in the current population.

Structure:

I. Introduction

- presents introduction to evolutionary algorithms and research about it.

II. Related Work

- it describes the original DE algorithm briefly. Then, some related works to the mutation operators in DE are presented.

III. Ranking-Based Mutation Operators

- proposal and description of ranking-based mutation operators

IV. Experimental Results and Analysis

- showcase of comprehensive experiments to verify the performance of the proposed ranking-based DE algorithm.

- selection of 25 benchmark functions presented in the CEC2005 competition on real-parameter optimization as the test suite.

V. Conclusion and Future Work

- summary about why the paper proposed simple yet effective ranking- based mutation operators for the DE algorithm

References:

This paper has 48 references and 262 paper citations. Reference example:

[1] T. Bäck, Evolutionary Algorithms in Theory and Practice: Evolution Strategies, Evolutionary Programming, Genetic Algorithms. Oxford, U.K.: Oxford Univ. Press, 1996.

5. Evolving a virtual ecosystem with genetic algorithms

Relevance:

A virtual ecosystem was developed using genetic algorithms, artificial neural networks, and fuzzy systems. The ecosystem simulated and regulated the motions and interactions of computer animated agents in a virtual environment.

Structure:

I. Introduction

- explains that the motivation behind evolving a virtual ecosystem was to create a more realistic virtual environment.

II. Virtual Environment and Animated Agents

- presents what the virtual environment is consisted of: Food Sources, Prey, Predator, Sensors

III. Neural Networks for Motion Control

- showcases the neural control structures of the animated agents

IV. Genetic Algorithms for Motion Control

- presents what selections, crossovers and fitness functions were used

V. Motion Loops

- explains the motion strategy for every animated agent

VI. Experiment Results and Discussion

- presents the goal, problems and results of this experiment

VII. Conclusions

- concludes that this paper demonstrated a method of designing autonomous agents that employed principles from multiple disciplines of artificial life, artificial intelligence, and fuzzy systems.

References:

This paper has 12 references and 5 paper citations. Reference example:

Anderson, D. B. and M. A. Casey. (1997). The sound dimension. IEEE Spectrum. pp. 46-51.