

1. Record Nr.	UNINA9910465231203321
Titolo	Applications of swarm intelligence [[electronic resource] /] / Louis P. Walters, editor
Pubbl/distr/stampa	[Hauppauge], N.Y., : Nova Science Publishers, c2011
ISBN	1-61728-813-6
Descrizione fisica	1 online resource (234 p.)
Collana	Engineering tools, techniques and tables
Altri autori (Persone)	WaltersLouis P
Disciplina	006.3
Soggetti	Problem solving Swarm intelligence Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>""APPLICATIONS OF SWARM INTELLIGENCE""; ""APPLICATIONS OF SWARM INTELLIGENCE""; ""CONTENTS ""; ""PREFACE ""; ""SWARM INTELLIGENCE AND FUZZY SYSTEMS ""; ""Abstract ""; ""1. Optimizing the Parameters of Fuzzy Systems Using Swarm Intelligence Algorithms ""; ""1.1. Fuzzy Systems ""; ""1.1.1. Membership Functions ""; ""1.1.2. Fuzzy Rules ""; ""1.2. Designing a Fuzzy Classifier Using Particle Swarm Optimization Algorithm (PSO) ""; ""1.2.1. Integer-Valued Particle Swarm Optimization with Constriction Coefficient ""; ""1.2.2. Particle Representation""; ""1.2.3. Fitness Function Definition ""</p> <p>""1.3. Experimental Results """"1.4. Other Related Researches ""; ""2-Intelligently Controlling the Multi-objective Swarm Intelligence Parameters Using Fuzzy Systems ""; ""2.1. A Review on the Past Researches on Multi-objective PSO ""; ""2.2. Fuzzy-MOPSO Algorithm ""; ""2.2.1. Integer-Valued MOPSO with Constriction Coefficient ""; ""2.2.2. Designing Fuzzy-Controller for MOPSO ""; ""2.2.2.1. Metrics of Performance""; ""a) Minimal spacing ""; ""b) Aggregation factor ""; ""2.2.2.2. Fuzzy Parameters ""; ""a) Inputs of fuzzy controller ""; ""b) Outputs of fuzzy controller ""; ""c) Fuzzy rules ""</p> <p>""2.3. Space Allocation (Problem Description and Formulation) """"2.4. Implementation and Experimental Results ""; ""2.4.1. Application on Well-Known Benchmarks ""; ""2.4.2. Application of Fuzzy-MOPSO on Space Allocation ""; ""a) Particle Representation ""; ""b) Experimental and</p>

Comparative Results ""; ""3. Conclusion ""; ""References "";  
""EVOLUTIONARY STRATEGIES TO FIND PARETO FRONTS IN  
MULTIOBJECTIVE PROBLEMS ""; ""Abstract ""; ""1. Introduction ""; ""2.  
Pareto Optimality ""; ""3. Multi-objective Optimization with PSO""; ""A1.  
Algorithm for MOPSO ""; ""4. Movement Strategies ""  
""4.1. Ms1: Pick a Global Guidance Located in the Least Crowded Areas  
""""A2. Algorithm for Ms1 ""; ""4.2. Ms2: Create the Perturbation with  
Differential Evolution Concept ""; ""A3. Algorithm for Ms2 ""; ""4.3. Ms3:  
Search the Unexplored Space in the Non-Dominated Front ""; ""A4.  
Algorithm for Ms3 ""; ""4.4. Ms4: Combination of Ms1 and Ms2 ""; ""4.5.  
Ms5: Explore Solution Space with Mixed Particles ""; ""4.6. Ms6:  
Adaptive Weight Approach ""; ""5. Design of Experiments ""; ""6. Results  
and Discussions ""; ""7. Conclusions ""; ""Acknowledgment "";  
""References ""

""PARTICLE SWARM OPTIMIZATION APPLIED TO REAL-WORLD  
COMBINATORIAL PROBLEMS: THE CASE STUDY OF THE IN-CORE FUEL  
MANAGEMENT OPTIMIZATION """"Abstract ""; ""1. Introduction ""; ""2.  
Particle Swarm Optimization ""; ""3. Models of Particle Swarm  
Optimization for Combinatorial Problems ""; ""4. Particle Swarm  
Optimization with Random Keys ""; ""4.1. Random Keys ""; ""4.2. Particle  
Swarm Optimization with Random Keys ""; ""5. Optimization of Real-  
World Problems: The Case Study of the in-Core Fuel Management  
Optimization ""; ""5.1. The Traveling Salesman Problem ""  
""5.2. The In-Core Fuel Management Optimization ""

---