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Ant colony system: a cooperative learning approach to the traveling salesman problem

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2303	Performance evaluation of ant system optimization processes.		
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2299	Dynamic time programming based on ant colony algorithm.		
2298	Further example study on ant system algorithm based continuous space optimization.		0
2297	Ant colony system: a cooperative learning approach to the traveling salesman problem. <i>IEEE Transactions on Evolutionary Computation</i> , 1997 , 1, 53-66	15.6	4401
2296	A molecular quasi-random model of computations applied to evaluate collective intelligence. 1998 , 14, 321-339		4
2295	Ant colonies for adaptive routing in packet-switched communications networks. 1998 , 673-682		52
2294	Mobile agents for adaptive routing.		44
2293	Similarity clustering of dimensions for an enhanced visualization of multidimensional data.		114
2292	A novel routing algorithm for MCM substrate verification using single-ended probe.		
2291	Parallelization strategies for Ant Colony Optimization. 1998 , 722-731		63
2290	A probe routing algorithm for MCM substrate test.		
2289	Routing in telecommunications networks with ant-like agents. 1998 , 60-71		59
2288	Preying on optima: a predatory search strategy for combinatorial problems.		8
2287	A new population-based incremental learning method for the traveling salesman problem.		

2286 Performance of genetic approach using only two individuals.

2285 A general CAC approach using novel ant algorithm training based neural network.

2

2284 An ant system approach to redundancy allocation.

5

2283 Ant Colony Optimization for the Ship Berthing Problem. **1999**, 359-370

13

2282 Combined heat and power economic dispatch by improved ant colony search algorithm. **1999**, 52, 115-121

137

2281 Towards hybrid evolutionary algorithms. **1999**, 6, 557-570

71

2280 The emergence of cellular computing. **1999**, 32, 18-26

74

2279 Synthesizing a predatory search strategy for VLSI layouts. *IEEE Transactions on Evolutionary Computation*, **1999**, 3, 147-152

15.6 30

2278 Ant colony optimization: a new meta-heuristic.

759

2277 Ant algorithms for discrete optimization. **1999**, 5, 137-72

1706

2276 Experiences with teaching adaptive optimization to engineering graduate students.

0

2275 Ant colony optimisation for virtual-wavelength-path routing and wavelength allocation.

22

2274 An ant colony optimization approach for the single machine total tardiness problem.

40

2273 A QoS routing algorithm based on ant algorithm.

4

2272 Ant colony framework for optimal design and scheduling of batch plants. **2000**, 24, 1901-1912

72

2271 Ant algorithms and stigmergy. **2000**, 16, 851-871

506

2270 Ant System. **2000**, 16, 889-914

1793

2269 A Graph-based Ant System and its convergence. **2000**, 16, 873-888

237

2268	On how <i>Pachycondyla apicalis</i> ants suggest a new search algorithm. 2000 , 16, 937-946	170
2267	A framework for the description of evolutionary algorithms. 2000 , 126, 1-12	96
2266	Ant colony algorithm for finding good interleaving pattern in turbo codes. 2000 , 147, 257	4
2265	A new approach to VC routing in ATM networks. 2000 , 5, 329-333	
2264	Ant Colony Optimization for the Total Weighted Tardiness Problem. 2000 , 611-620	73
2263	Feedback model inspired by biological development to hierarchically design complex structure.	0
2262	Dynamic Scheduling and Division of Labor in Social Insects. 2000 , 8, 83-95	71
2261	A new dynamic distributed routing algorithm on telecommunication networks.	
2260	Distributed dynamic routing using ant algorithm for telecommunication networks.	0
2259	Ant Colony Approach to Continuous Function Optimization. 2000 , 39, 3814-3822	96
2258	Designing pixel-oriented visualization techniques: theory and applications. 2000 , 6, 59-78	232
2257	. 2000 , 30, 485-497	49
2256	.	5
2255	An Ant Colony System Hybridized with a New Local Search for the Sequential Ordering Problem. 2000 , 12, 237-255	240
2254	Pheromone evaluation in Ant Colony Optimization.	7
2253	A new approach for AntNet routing.	33
2252	A novel routing algorithm for ad hoc networks.	14
2251	A GPS/ant-like routing algorithm for ad hoc networks.	20

2250	Expertness measuring in cooperative learning.	7
2249	Amplification of perspectives in the use of evolutionary computation.	
2248	Multicast routing based on ant-algorithm with delay and delay variation constraints.	2
2247	Multicast routing based on ant algorithm for delay-bounded and load-balancing traffic.	4
2246	An Ant Algorithm with a New Pheromone Evaluation Rule for Total Tardiness Problems. 2000 , 290-299	35
2245	Enhancement of hydroelectric generation scheduling using ant colony system based optimization approaches. 2001 , 16, 296-301	106
2244	Ant system algorithm for optimization in continuous space.	8
2243	Linear system parameters identification based on ant system algorithm.	1
2242	Cooperative Q-learning: the knowledge sharing issue. 2001 , 15, 815-832	18
2241	MBO: marriage in honey bees optimization-a Haplometrosis polygynous swarming approach.	93
2240	Adaptive memory programming: A unified view of metaheuristics. 2001 , 135, 1-16	152
2239	A novel short-term generation scheduling technique of thermal units using ant colony search algorithms. 2001 , 23, 471-479	19
2238	Dynamic optimization of chemical processes using ant colony framework. 2001 , 25, 583-95	69
2237	On metaheuristic algorithms for combinatorial optimization problems. 2001 , 32, 33-55	55
2236	Social cognition, artefacts, and stigmergy: A comparative analysis of theoretical frameworks for the understanding of artefact-mediated collaborative activity. 2001 , 2, 273-290	72
2235	A COMPARATIVE STUDY OF ANT-BASED OPTIMIZATION FOR DYNAMIC ROUTING. 2001 , 153-164	6
2234	Neural network training using ant algorithm in ATM traffic control.	1
2233	Multiagent reinforcement learning method with an improved ant colony system.	4

2232	Cooperative Ant Colonies for Optimizing Resource Allocation in Transportation. 2001 , 70-79	15
2231	Optimization of Disassembly Sequences for Recycling of End-of-Life Products by Using a Colony of Ant-Like Agents. 2001 , 632-639	16
2230	A novel method for building regression tree models for QSAR based on artificial ant colony systems. 2001 , 41, 176-80	61
2229	Improved AntNet routing. 2001 , 31, 42-48	7
2228	A QoS routing algorithm based on ant algorithm.	3
2227	OPTIMAL STRUCTURAL DESIGN BY ANT COLONY OPTIMIZATION. 2001 , 33, 425-443	23
2226	Ant colony control for autonomous decentralized shop floor routing.	18
2225	Solving traveling salesman problems by combining global and local search mechanisms.	6
2224	Transportation modeling: an artificial life approach.	25
2223	Letting ants labeling point features [sic.: for 'labeling' read 'label'].	2
2222	Variable selection for QSAR by artificial ant colony systems. 2002 , 13, 417-23	51
2221	A new approach for solving large traveling salesman problem.	1
2220	A heuristic ant algorithm for solving QoS multicast routing problem.	3
2219	An Ant Colony Optimization Approach to the Probabilistic Traveling Salesman Problem. 2002 , 883-892	45
2218	Application of the ant colony system for optimum switch adjustment.	2
2217	ACO Applied to Group Shop Scheduling: A Case Study on Intensification and Diversification. 2002 , 14-27	16
2216	A novel and efficient ant-based algorithm for solving traveling salesman problem.	
2215	Ant colony optimization for intelligent scheduling.	1

2214	Ant System algorithm based Rosenbrock function optimization in multi-dimension space.	1
2213	Sequence alignment by rare event simulation.	16
2212	An ant colony optimization based layout optimization algorithm.	
2211	Ant colony optimization and stochastic gradient descent. 2002 , 8, 103-21	67
2210	Unsupervised Image Segmentation Using a Colony of Cooperating Ants. 2002 , 109-116	3
2209	Ant Colony Optimization: An Overview. 2002 , 469-492	20
2208	Using Genetic Algorithms to Optimize ACS-TSP. 2002 , 282-287	34
2207	Ant colony system with extremal dynamics for point matching and pose estimation.	8
2206	Reduction of printed circuit board group assembly time through the consideration of efficiency loss of placement time. 2002 , 22, 360-370	4
2205	Application of multiagent reinforcement learning - to multicast routing in wireless ad hoc networks ensuring resource reservation.	1
2204	Cooperative Q-learning with heterogeneity in actions.	1
2203	A modified multiple-searching method to genetic algorithms for solving traveling salesman problem.	6
2202	On combining recursive partitioning and simulated annealing to detect groups of biologically active compounds. 2002 , 42, 393-404	45
2201	Ants Foraging Mechanism in the Design of Multiproduct Batch Chemical Process. 2002 , 41, 6678-6686	9
2200	Comparing Distributed Reinforcement Learning Approaches to Learn Agent Coordination. 2002 , 575-584	
2199	Ant Colony System for Image Segmentation Using Markov Random Field. 2002 , 294-295	2
2198	Unit commitment using the ant colony search algorithm.	34
2197	Cross-entropy and rare events for maximal cut and partition problems. 2002 , 12, 27-53	59

2196	Solving the Homogeneous Probabilistic Traveling Salesman Problem by the ACO Metaheuristic. 2002 , 176-187		22
2195	Ant Algorithms for Assembly Line Balancing. 2002 , 65-75		33
2194	Ant Colony Optimisation Applied to a Dynamically Changing Problem. 2002 , 618-627		16
2193	Ant Systems for a Dynamic TSP. 2002 , 88-99		75
2192	A Population Based Approach for ACO. 2002 , 72-81		80
2191	Multiple ant-colony optimization for network routing.		4
2190	A new approach to exploiting parallelism in ant colony optimization.		4
2189	. 2002 , 44, 11-23		29
2188	Dynamic Wavelength Routing in WDM Networks via Ant Colony Optimization. 2002 , 250-255		17
2187	Colonies of learning automata. 2002 , 32, 772-80		39
2186	A short convergence proof for a class of ant colony optimization algorithms. <i>IEEE Transactions on Evolutionary Computation</i> , 2002 , 6, 358-365	15.6	248
2185	Guest editorial: special section on ant colony optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2002 , 6, 317-319	15.6	88
2184	Ants can solve constraint satisfaction problems. <i>IEEE Transactions on Evolutionary Computation</i> , 2002 , 6, 347-357	15.6	134
2183	Ant colony optimization for resource-constrained project scheduling. <i>IEEE Transactions on Evolutionary Computation</i> , 2002 , 6, 333-346	15.6	393
2182	Expertness based cooperative Q-learning. 2002 , 32, 66-76		58
2181	A new approach for solving large traveling salesman problem using evolutionary ant rules.		4
2180	A Parallel Implementation of Ant Colony Optimization. 2002 , 62, 1421-1432		130
2179	Application of ant colony optimization to adaptive routing in also telecommunications satellite network. 2002 , 57, 520-539		20

2178	Ant colony optimization for learning Bayesian networks. 2002 , 31, 291-311	124
2177	Searching for the best elimination sequence in Bayesian networks by using ant colony optimization. 2002 , 23, 261-277	25
2176	The Ant-Q algorithm applied to the nuclear reload problem. 2002 , 29, 1455-1470	59
2175	Ant algorithm for single and multiobjective reliability optimization problems. 2002 , 18, 497-514	65
2174	Theoretical and numerical constraint-handling techniques used with evolutionary algorithms: a survey of the state of the art. 2002 , 191, 1245-1287	1493
2173	An immunity-based ant colony optimization algorithm for solving weapon-target assignment problem. 2002 , 2, 39-47	139
2172	An improved ant colony algorithm in continuous optimization. 2003 , 12, 224-235	26
2171	Dynamic ant colony optimisation for TSP. 2003 , 22, 528-533	32
2170	A faster, more reliable solver of regular-grid TSPs: single value threshold accepting. 2003 , 22, 1-11	
2169	An Artificial Intelligent design for GPS Surveying Networks. 2003 , 7, 101-108	2
2168	Ant colony search algorithms for optimal polygonal approximation of plane curves. 2003 , 36, 1783-1797	77
2167	Optimization of multi-pass turning operations using ant colony system. 2003 , 43, 1633-1639	97
2166	Swarm intelligence in optimisation problems. 2003 , 502, 364-368	12
2165	Evolutionary approaches to the design and organization of manufacturing systems. 2003 , 44, 339-364	44
2164	A new and efficient ant-based heuristic method for solving the traveling salesman problem. 2003 , 20, 179-186	13
2163	Intelligent selective disassembly using the ant colony algorithm. 2003 , 17, 325-333	42
2162	An evolutionary approach to visual sensing for vehicle navigation. 2003 , 50, 18-29	22
2161	A novel ACS-based optimum switch relocation method. 2003 , 18, 113-120	85

2160	Ant colony system with local search for Markov random field image segmentation.	8
2159	Heterogeneous Selection Genetic Algorithms For Traveling Salesman Problems. 2003 , 35, 297-311	13
2158	Ant colony search algorithm for unit commitment.	33
2157	Metaheuristics in combinatorial optimization. 2003 , 35, 268-308	1969
2156	Optimal path planning for mobile robots based on intensified ant colony optimization algorithm.	12
2155	Ant colony optimization for routing and load-balancing: survey and new directions. 2003 , 33, 560-572	263
2154	An efficient self-organizing map designed by genetic algorithms for the traveling salesman problem. 2003 , 33, 877-88	45
2153	Searching for Maximum Cliques with Ant Colony Optimization. 2003 , 236-245	22
2152	Ant routing algorithm for mobile ad-hoc networks (ARAMA).	42
2151	Obtaining subtrees from graphs: an ant colony approach.	1
2150	.	8
2149	Ant algorithms for the optimal restoration of distribution feeders during cold load pickup.	9
2148	The Ant Colony Optimization Metaheuristic: Algorithms, Applications, and Advances. 2003 , 250-285	217
2147	A normalized minimum cross-entropy pheromone updating rule for ACO algorithm.	
2146	An ACS-based partitioning method for distributed virtual environment systems.	4
2145	Hybrid ant colony algorithm for texture classification.	9
2144	.	5
2143	Inverse Design of Airfoils Based on a Novel Formulation of the Ant Colony Optimization Method. 2003 , 11, 21-38	27

2142	Optimal layout design of a satellite module. 2003 , 35, 513-529	60
2141	A New Class of Greedy Heuristics for Job Shop Scheduling Problems. 2003 , 223-236	13
2140	Ant Algorithms for the University Course Timetabling Problem with Regard to the State-of-the-Art. 2003 , 334-345	54
2139	DNA fragment assembly using an ant colony system algorithm.	17
2138	Scheduling of flexible manufacturing systems: An ant colony optimization approach. 2003 , 217, 1443-1453	70
2137	ACO Algorithm for MKP Using Various Heuristic Information. 2003 , 438-444	11
2136	Ant-Tree: an ant colony optimization approach to the generalized minimum spanning tree problem. 2003 , 15, 103-112	23
2135	The application of ant colony system to image texture classification [texture read texture].	2
2134	Noise suppression for shape-gain vector quantization by index assignment using ant colony systems.	
2133	Dynamic vehicle routing problem using hybrid ant system.	8
2132	.	0
2131	On the performance of the ant colony system for solving the multidimensional knapsack problem.	3
2130	A Comparison of the Performance of Different Metaheuristics on the Timetabling Problem. 2003 , 329-351	54
2129	Swarm optimization with instinct-driven particles.	7
2128	An improved self-organizing map approach to traveling salesman problem.	3
2127	Adaptivity in cell based optimization for information ecosystems.	3
2126	Vision-based pedestrian detection: will ants help?.	6
2125	Intelligent computational methods for power systems optimization problems.	1

2124	IMITATING HUMAN VISUAL ATTENTION AND REPRODUCING OPTICAL ILLUSIONS BY ANT SCAN. 2003 , 03, 157-166	5
2123	The Ant(/spl lambda/) ant colony optimization algorithm based on eligibility trace.	
2122	Dynamic Placement Using Ants for Object Based Simulations. 2003 , 1263-1274	1
2121	The degree-constrained multicasting algorithm using ant algorithm.	0
2120	An ant colony optimization approach for no-wait flow-line batch scheduling with limited batch sizes.	
2119	Scalable distributed discovery of resource paths in telecommunication networks using cooperative ant-like agents.	2
2118	Application of an EACS algorithm to obstacle detour routing in VLSI physical design.	
2117	THE ACCUMULATED EXPERIENCE ANT COLONY FOR THE TRAVELING SALESMAN PROBLEM. 2003 , 03, 189-198	18
2116	Parallel Ant Colony Systems. 2003 , 279-284	8
2115	An Extension of Ant Colony System to Continuous Optimization Problems. 2004 , 294-301	42
2114	Route Reinforcement for Efficient QoS Routing Based on Ant Algorithm. 2004 , 342-349	3
2113	Parallel Ant Systems for the Capacitated Vehicle Routing Problem. 2004 , 72-83	26
2112	Metaheuristics for the Vehicle Routing Problem with Stochastic Demands. 2004 , 450-460	20
2111	Near Parameter Free Ant Colony Optimisation. 2004 , 374-381	20
2110	Key-dependant decomposition based image watermarking. 2004 ,	3
2109	A comparison of distributed restricted recombination operators for genetic and evolutionary societies of hill-climbers: a DisACSP perspective.	0
2108	A hybrid evolutionary algorithm for traveling salesman problem.	8
2107	Heuristics for ant colony optimisation using the generalised assignment problem.	7

2106	Instinct-based PSO with local search applied to satisfiability.	7
2105	A hybrid ant colony algorithm for global optimization of continuous multi-extreme functions.	1
2104	A Comparison Between ACO Algorithms for the Set Covering Problem. 2004 , 1-12	40
2103	An ant system based exploration-exploitation for reinforcement learning.	1
2102	Solving point covering problem by ant algorithm.	1
2101	Application of the ant colony system for open wye-open delta transformer's phase sequence adjustment.	
2100	Chaotic sequences in ACO algorithms.	1
2099	Ant colony system application to macrocell overlap removal. 2004 , 12, 1118-1123	23
2098	.	
2097	A new approach to the traveling salesman problem using genetic algorithms with priority encoding.	0
2096	An immunity-based ant system for continuous space multi-modal function optimization.	3
2095	Ant Colony Optimization. 2004 , 101-121	45
2094	An Experimental Study of the Ant Colony System for the Period Vehicle Routing Problem. 2004 , 286-293	17
2093	An obstacle detoured routing algorithm based on the enhanced ACS.	
2092	A new pheromone updating strategy in ant colony optimization.	7
2091	Diversity control approach to ant colony optimization for unit commitment problem.	5
2090	THE COMBINATORIAL ANT SYSTEM. 2004 , 18, 427-446	5
2089	The analysis and performance evaluation of the pheromone-Q-learning algorithm. 2004 , 21, 80-91	9

2088	An expanding self-organizing neural network for the traveling salesman problem. 2004 , 62, 267-292	75
2087	. 2004 , 53, 417-423	249
2086	Pareto Ant Colony Optimization: A Metaheuristic Approach to Multiobjective Portfolio Selection. 2004 , 131, 79-99	281
2085	GENI Ants for the Traveling Salesman Problem. 2004 , 131, 187-201	12
2084	An Ant Colony Optimization Algorithm for the Minimum Weight Vertex Cover Problem. 2004 , 131, 283-304	64
2083	Model-Based Search for Combinatorial Optimization: A Critical Survey. 2004 , 131, 373-395	141
2082	Ant colony system algorithm for the optimization of beer fermentation control. 2004 , 5, 1597-603	15
2081	Distributed soft policy enforcement by swarm intelligence; application to loadsharing and protection. 2004 , 59, 10-24	8
2080	Ant colony algorithm for solving QoS routing problem. 2004 , 9, 449-453	4
2079	Binary-coding-based ant colony optimization and its convergence. 2004 , 19, 472-478	7
2078	Agent-based throughput response in presence of node and/or link failure (on demand) for circuit switched telecommunication networks. 2004 , 27, 230-238	11
2077	A hybrid ant colony optimization approach for finite element mesh decomposition. 2004 , 28, 307-316	1
2076	Design of PID controller with incomplete derivation based on ant system algorithm. 2004 , 2, 246-252	8
2075	Intelligent PID controller based on ant system algorithm and fuzzy inference and its application to bionic artificial leg. 2004 , 11, 316-322	6
2074	Ant colony optimization algorithm to the inter-cell layout problem in cellular manufacturing. 2004 , 157, 592-606	122
2073	D-Ants: Savings Based Ants divide and conquer the vehicle routing problem. 2004 , 31, 563-591	261
2072	An ant colony system for permutation flow-shop sequencing. 2004 , 31, 791-801	127
2071	High-level synthesis by dynamic ant. 2004 , 19, 25-38	2

2070	Solving the mesh-partitioning problem with an ant-colony algorithm. 2004 , 30, 785-801	44
2069	Self-organization in sensor networks. 2004 , 64, 866-873	43
2068	Ant colony system with communication strategies. 2004 , 167, 63-76	109
2067	Application of ant colony optimization for no-wait flowshop scheduling problem to minimize the total completion time. 2004 , 47, 181-193	101
2066	A novel metaheuristic approach for the flow shop scheduling problem. 2004 , 17, 289-300	38
2065	Fast and high precision algorithms for optimization in large-scale genomic problems. 2004 , 28, 281-90	36
2064	Data Gathering Communication in Wireless Sensor Networks Using Ant Colony Optimization.	6
2063	Optimal path for automated drilling operations by a new heuristic approach using particle swarm optimization. 2004 , 42, 473-491	122
2062	An on demand path marking and capacity reservation method using split agent.	3
2061	Applications of AI techniques to generation planning and investment.	
2060	A/sup 4/C: an adaptive artificial ants clustering algorithm.	1
2059	Cooperative agents through bidding.	
2058	Stigmergy in multiagent reinforcement learning.	1
2057	.	5
2056	Parallel framework for ant-like algorithms.	3
2055	A multi-group ant colony system algorithm for TSP.	4
2054	A hybrid approach of GA and ACO for TSP.	7
2053	A Hybrid Ant Colony System Approach for the Capacitated Vehicle Routing Problem. 2004 , 414-415	2

2052	Modified particle swarm optimization based on space transformation for solving traveling salesman problem.	6
2051	Optimization algorithms and natural computing in drug discovery. 2004 , 1, 247-52	9
2050	Ant Colony Optimization for the Maximum Edge-Disjoint Paths Problem. 2004 , 160-169	11
2049	Ant colony optimization and local search for bin packing and cutting stock problems. 2004 , 55, 705-716	112
2048	Design of Space Trusses Using Ant Colony Optimization. 2004 , 130, 741-751	197
2047	Investigation of Simulated annealing, ant-colony optimization, and genetic algorithms for self-structuring antennas. 2004 , 52, 1007-1014	88
2046	Fuzzy discrete particle swarm optimization for solving traveling salesman problem.	27
2045	Multi-level ant colony algorithm for optimal placement of capacitors in distribution systems.	14
2044	Applying ant colony optimization to routing in optical multistage interconnection networks with limited crosstalk.	5
2043	An ant algorithm for cell assignment in PCS networks.	6
2042	Backtracking Ant System for the Traveling Salesman Problem. 2004 , 318-325	4
2041	Optimizing CNC Drilling Machine Operations: Traveling Salesman Problem-Differential Evolution Approach. 2004 , 537-565	15
2040	Multiobjective ant colony search algorithm optimal electrical distribution system planning.	2
2039	Novel low-complexity DS-CDMA multiuser detector based on ant colony optimization.	17
2038	Ant colony system algorithm for the planning of primary distribution circuits. 2004 , 19, 996-1004	166
2037	MAGMA: a multiagent architecture for metaheuristics. 2004 , 34, 925-41	57
2036	The hyper-cube framework for ant colony optimization. 2004 , 34, 1161-72	235
2035	Using ant colonies to solve data-mining problems.	1

2034	Design of Low-Weight Steel Frames Using Ant Colony Optimization. 2004 , 1	4
2033	Convergence Proof for a Monte Carlo Method for Combinatorial Optimization Problems. 2004 , 523-530	7
2032	Solving a shortest path problem by ant algorithm.	
2031	An Ant Inspired Technique for Storage Area Network Design. 2004 , 364-379	2
2030	Ant colony optimization for multi-state series-parallel system expansion-scheduling. 2004 , 37, 249-254	
2029	ANT COLONY OPTIMIZATION FOR ACTIVE/REACTIVE OPERATIONAL PLANNING. 2005 , 38, 97-102	1
2028	The role of completeness in convergence of evolutionary algorithms.	1
2027	Data clustering by ant colony on a digraph. 2005 ,	3
2026	An Ant System Heuristic for the Two-Dimensional Finite Bin Packing Problem: preliminary results. 2005 , 233-247	2
2025	11.3.2 Development of an Object-Oriented Multi-Leg Route Choice Model on Transportation Network Simulation. 2005 , 15, 1651-1663	
2024	Multiagent Reinforcement Learning Algorithm Using Temporal Difference Error. 2005 , 627-633	3
2023	A Reinforcement Learning Algorithm Using Temporal Difference Error in Ant Model. 2005 , 217-224	2
2022	Counter-Based Ant Colony Optimization as a Hardware-Oriented Meta-heuristic. 2005 , 235-244	1
2021	The Packet-World: A Test Bed for Investigating Situated Multi-Agent Systems. 2005 , 383-408	6
2020	Ant colony optimization for the seismic nonlinear inversion. 2005 ,	5
2019	Applying a Hybrid Ant Colony System to the Vehicle Routing Problem. 2005 , 417-426	8
2018	Ant Algorithm for the Graph Matching Problem. 2005 , 213-223	10
2017	On connectivity of reconfigurable impact networks in ageless aerospace vehicles. 2005 , 53, 36-58	20

2016	Ant colony optimization: Introduction and recent trends. 2005 , 2, 353-373	613
2015	Efficient implementations of all-to-all broadcasting in mobile ad hoc networks. 2005 , 1, 311-342	5
2014	Distribution network reconfiguration for loss reduction by ant colony search algorithm. 2005 , 75, 190-199	208
2013	An ant algorithm for the single row layout problem in flexible manufacturing systems. 2005 , 32, 583-598	123
2012	New metaheuristic approaches for the edge-weighted k-cardinality tree problem. 2005 , 32, 1355-1377	48
2011	Prediction of MHC class II binders using the ant colony search strategy. 2005 , 35, 147-56	45
2010	Algorithm for Low Altitude Penetration Aircraft Path Planning with Improved Ant Colony Algorithm. 2005 , 18, 304-309	30
2009	Learning cooperative linguistic fuzzy rules using the best-worst ant system algorithm. 2005 , 20, 433-452	32
2008	Machine cell formation for cellular manufacturing systems using an ant colony system approach. 2005 , 25, 1013-1019	24
2007	Optimization of Machining Parameters for Milling Operations Using Non-conventional Methods. 2005 , 25, 1078-1088	69
2006	A novel ant colony algorithm for assembly sequence planning. 2005 , 25, 1137-1143	137
2005	Toward a theory of evolutionary computation. 2005 , 82, 1-19	29
2004	Reliability optimization using ant colony algorithm under performance and cost constraints. 2005 , 76, 1-8	45
2003	Ant colony optimization theory: A survey. 2005 , 344, 243-278	1400
2002	Recent Advances for the Quadratic Assignment Problem with Special Emphasis on Instances that are Difficult for Meta-Heuristic Methods. 2005 , 139, 65-94	75
2001	Metaheuristics in Combinatorial Optimization. 2005 , 140, 189-213	140
2000	Application of the Cross-Entropy Method to the Buffer Allocation Problem in a Simulation-Based Environment. 2005 , 134, 137-151	80
1999	Dynamic Ant Colony Optimisation. 2005 , 23, 33-38	22

1998	Ant Colony Search Algorithm for Optimal Strategic Planning of Electrical Distribution Systems Expansion. 2005 , 23, 139-152	12
1997	Ant-Based Distributed Topology Control Algorithms for Mobile Ad hoc Networks. 2005 , 11, 299-317	12
1996	New Multiobjective Metaheuristic Solution Procedures for Capital Investment Planning. 2005 , 11, 183-199	35
1995	An Extended Ant Colony Algorithm and Its Convergence Analysis. 2005 , 7, 249-263	11
1994	Ant Algorithms: Theory and Applications. 2005 , 31, 167-178	44
1993	Using the Ant Algorithm to Derive Pareto Fronts for Multiobjective Siting of Emergency Service Facilities. 2005 , 1935, 120-129	4
1992	Integrating Free-Flow Architectures with Role Models Based on Statecharts. 2005 , 104-120	3
1991	Ant Colonies Optimization (ACO) for the solution of the Vehicle Routing Problem (VRP). 2005 , 26, 135-142	2
1990	An ant colony algorithm for multi-user detection in wireless communication systems. 2005 ,	6
1989	An Self-organizing Neural Network with Convex-hull Expanding Property for TSP.	2
1988	Emergence of cooperation: state of the art. 2005 , 11, 367-96	13
1987	Call me e-mail. 2005 ,	2
1986	Ant colony approach to defining Hamilton cycle on segments.	
1985	Dynamically Updating the Exploiting Parameter in Improving Performance of Ant-Based Algorithms. 2005 , 340-349	
1984	Operation sequencing using ant colony optimization technique.	1
1983	Ant colony optimization for power plant maintenance scheduling optimization. 2005 ,	4
1982	Solving geometric TSP with ants. 2005 ,	1
1981	Coordinating multi-rover systems. 2005 ,	17

1980	Data gathering communication in wireless sensor networks using ant colony optimization. 2005,	3
1979	Computer aided diagnosis for lung CT using artificial life models. 2005,	4
1978	Solving Partitioning Problem in Codesign with Ant Colonies. 2005, 324-337	4
1977	Optimal Multi-Objective VAr Planning Using Accelerated Ant Colony and Analytical Hierarchy Process Methods.	1
1976	A heuristic approach to auto-recovery in the supervisory control of heterogeneous automatic equipment for material handling. 2005,	1
1975	A comparison of particle swarms techniques for the development of quantitative structure-activity relationship models for drug design.	5
1974	An agile approach to distributed information dissemination in mobile ad hoc networks.	2
1973	IDEAS: intrusion detection based on emotional ants for sensors. 2005,	18
1972	Learning to cooperate in solving the traveling salesman problem. 2005, 15, 151-62	1
1971	Optimal Capacitor Placement in Distribution Systems Employing Ant Colony Search Algorithm. 2005, 33, 931-946	19
1970	A 2-DIMENSIONAL CELLULAR AUTOMATON FOR AGENTS MOVING FROM ORIGINS TO DESTINATIONS. 2005, 16, 1849-1860	3
1969	Ant Colony Optimization for Multiple Knapsack Problem and Model Bias. 2005, 280-287	8
1968	A Novel Ant Clustering Algorithm with Digraph. 2005, 1218-1228	5
1967	NOVEL LOW-COMPLEXITY ANT COLONY BASED MULTIUSER DETECTOR FOR DIRECT SEQUENCE CODE DIVISION MULTIPLE ACCESS. 2005, 05, 201-214	2
1966	Adaptive Parallel Ant Colony Optimization. 2005, 275-285	
1965	A Fault Tolerant Distributed Routing Algorithm Based on Combinatorial Ant Systems. 2005, 514-523	
1964	ROUTING IN OPTICAL MULTISTAGE NETWORKS WITH LIMITED CROSSTALK USING ANT COLONY OPTIMIZATION. 2005, 16, 301-320	4
1963	A PROCESS PARAMETERS DETERMINATION MODEL BY INTEGRATING ARTIFICIAL NEURAL NETWORK AND ANT COLONY OPTIMIZATION. 2005, 22, 346-354	9

1962	Particle swarms for drug design.	2
1961	A multiobjective approach to the portfolio optimization problem.	24
1960	Ant-colony based optimal MC-CDMA multiuser detector.	3
1959	Performance of aggregation pheromone system on unimodal and multimodal problems.	10
1958	Isomorphism Identification of Kinematic Chains Using Novel Evolutionary Approaches. 2005 , 5, 18-24	10
1957	DATA GATHERING AND COMMUNICATION FOR WIRELESS SENSOR NETWORKS [A CENTRALIZED APPROACH. 2005 , 02, 267-278	1
1956	A mitigating stagnation-based ant colony optimization routing algorithm.	
1955	A distributed strategy for dynamic routing and wavelength assignment in ASON network.	
1954	Search for an optimal rapid charging pattern for lithium-ion batteries using ant colony system algorithm. 2005 , 52, 1328-1336	124
1953	Parametric study for an ant algorithm applied to water distribution system optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2005 , 9, 175-191	15.6 112
1952	Modified ant colony optimization algorithm for variable selection in QSAR modeling: QSAR studies of cyclooxygenase inhibitors. 2005 , 45, 1024-9	71
1951	Economic dispatch by ant colony search algorithm.	9
1950	A QoS multicast routing algorithm based on ant colony algorithm.	
1949	Towards a mobile agent framework for sensor networks.	11
1948	Ant Colony Self-Healing Schemes for Survivable Optical Networks. 2005 ,	
1947	Using Ant Colony Optimization for Learning Maximal Structure Fuzzy Rules.	2
1946	Optimization of Power Systems based on Ant Colony System Algorithms: An Overview.	8
1945	Implementation and evaluation of AntNet, a distributed shortest-path algorithm. 2005 ,	4

1944	Topological communication network design using ant colony optimization. 2005,	6
1943	An ACO-based approach for scheduling task graphs with communication costs.	5
1942	A novel response surface method for design optimization of electronic packages.	3
1941	. 2005,	5
1940	Bandwidth clustering for reliable and prioritized network routing using split agent-based method.	2
1939	Re-optimization in dynamic vehicle routing problem based on Wasp-like agent strategy.	2
1938	A power-saving routing algorithm based on ant algorithm in mobile ad hoc networks.	2
1937	A MCM Interconnect Test Generation Optimization Scheme Based on Ant Algorithm and Genetic Algorithm.	
1936	ACO for a new TSP in region coverage. 2005,	8
1935	Novel Pheromone Updating Strategy for Speeding up ACO Applied to VRP. 2005, 175-182	0
1934	Ant colony system-based algorithm for constrained load flow problem. 2005, 20, 1241-1249	66
1933	Adaptive and Robust Design for PID Controller Based on Ant System Algorithm. 2005, 915-924	6
1932	Distribution Network Reconfiguration For Loss Reduction Using Ant Colony System Algorithm.	7
1931	Ant colony system for the beam angle optimization problem in radiotherapy planning: a preliminary study.	1
1930	Rank-based ant colony optimization applied to dynamic traveling salesman problems. 2005, 37, 831-847	16
1929	Using ant colony optimization for loss minimization in distribution networks.	19
1928	Ant Colony Robot Motion Planning. 2005,	16
1927	Flowshop-scheduling problems with makespan criterion: a review. 2005, 43, 2895-2929	215

1926	Swarm Intelligence. 2005 , 401-435	10
1925	Study of Parametric Relation in Ant Colony Optimization Approach to Traveling Salesman Problem. 2006 , 22-32	4
1924	Optimization of Active Power Filter System PI Parameters Based on Improved Ant Colony Algorithm. 2006 ,	1
1923	Cat Swarm Optimization. 2006 , 854-858	253
1922	Ant Colony Optimization. 2006 , 153-180	3
1921	Research on Optimization of Fuzzy Membership Function Based on Ant Colony Algorithm. 2006 ,	
1920	Accelerating the Radiotherapy Planning with a Hybrid Method of Genetic Algorithm and Ant Colony System. 2006 , 340-349	5
1919	ANTBAL: an ant colony optimization algorithm for balancing mixed-model assembly lines with parallel workstations. 2006 , 44, 291-303	72
1918	Particle Swarm for the Traveling Salesman Problem. 2006 , 99-110	25
1917	Articulated Robot Motion Planning Using Ant Colony Optimisation. 2006 ,	7
1916	Ant colony system based unit commitment problem with Gaussian load distribution. 2006 ,	5
1915	Ant Algorithm for Grid Scheduling Problem. 2006 , 405-412	36
1914	. 2006 ,	4
1913	An Ant Colony based Hybrid Intelligent Controller for looper tension in steel rolling mills. 2006 ,	
1912	An Efficient Multi-Agent Q-learning Method Based on Observing the Adversary Agent State Change. 2006 ,	2
1911	Path Planning Optimization Using Bio-Inspired Algorithms. 2006 ,	8
1910	A Study of Concurrency in the Ant Colony System Algorithm.	
1909	ACO-VRPTWRV: A New Algorithm for the Vehicle Routing Problems with Time Windows and Re-used Vehicles based on Ant Colony Optimization. 2006 ,	8

1908	An Ant Colony Optimization Algorithm for Learning Classification Rules. 2006,	8
1907	A Virus Co-evolution Genetic Algorithm Based on Niche Technology. 2006,	1
1906	A MCM Interconnect Test Generation Approach Using Ant Colony Algorithm with Crossover and Mutation Operator. 2006,	
1905	A Novel ACO Algorithm with Adaptive Parameter. 2006, 12-21	4
1904	Ant Colony System for Optimizing Vehicle Routing Problem with Time Windows (VRPTW). 2006, 33-38	11
1903	Ant Colony Optimization based Simultaneous Task Allocation and Path Planning of Autonomous Vehicles. 2006,	17
1902	Parallel ant colony algorithm for mining classification rules.	2
1901	AntSeg: an Ant Approach to Disambiguation of ChineseWord Segmentation. 2006,	
1900	Ant Algorithms for Search in Unstructured Peer-to-Peer Networks. 2006,	27
1899	A nature-inspired algorithm for the disjoint paths problem. 2006,	
1898	. 2006,	1
1897	On-line Voidage Measurement of Two-phase Flow Based on Ant System Algorithm. 2006,	3
1896	Aggregation Pheromone Density Based Clustering. 2006,	3
1895	Neural Network Ensemble Based Ant Colony Classification Rule Mining.	4
1894	Robot Planning with Ant Colony Optimization Algorithms. 2006,	
1893	Ant Colony Optimization for the Stochastic Loader Problem. 2006,	4
1892	Time Ant Colony Algorithm with Genetic Algorithms. 2006,	1
1891	Foraging Ant Motion Planning for Articulated Robots. 2006,	

1890	.		
1889	Novel Adaptive Heuristic For Search And Optimisation. 2006,		4
1888	Clearance of Nonlinear Flight Control Laws Using Hybrid Evolutionary Optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2006, 10, 689-699	15.6	50
1887	Apriori, Association Rules, Data Mining,Frequent Itemsets Mining (FIM), Parallel Computing. 2006,		1
1886	An ACO-Based Clustering Algorithm. 2006, 340-347		36
1885	Ant Colony Algorithm Based Fuzzy Control for a Brushless DC Motor. 2006,		0
1884	Research on Distribution Network Optimization using Improved Ant Colony Algorithm. 2006,		
1883	An Adaptive Parameter Control Strategy for ACO. 2006,		20
1882	Multiagent technology for an Urban Road Traffic Advisor. 2006,		4
1881	A new efficient approach for data clustering in electronic library using ant colony clustering algorithm. 2006, 24, 548-559		15
1880	Solving the facility and layout and location problem by ant-colony optimization-meta heuristic. 2006, 44, 5187-5196		32
1879	Evolving Neural Networks Using the Hybrid of Ant Colony Optimization and BP Algorithms. 2006, 714-722		16
1878	Swarm Intelligence in Data Mining. 2006, 1-20		44
1877	Ant colony optimisation for task matching and scheduling. 2006, 153, 373		26
1876	Optimal Grade Transition in Polymerization Reactors: A Comparative Case Study 2006, 45, 3583-3592		16
1875	Applying Ant-based Multi-Agent Systems to Query Routing in Distributed Environments. 2006,		8
1874	A Hybrid Ant Algorithm for the Airline Crew Pairing Problem. 2006, 381-391		7
1873	AN IMPROVED ANT COLONY SYSTEM ALGORITHM FOR THE VEHICLE ROUTING PROBLEM. 2006, 23, 115-126		37

1872	The Improved Ant Colony Algorithm Based on Immunity System Genetic Algorithm and Application. 2006,	2
1871	A Congestion Avoidance Routing Algorithm Based on Ant-Algorithm in Satellite IP Networks. 2006,	3
1870	Solution to 0/1 Knapsack Problem Based on Improved Ant Colony Algorithm. 2006,	28
1869	A new ant colony optimization for the knapsack problem. 2006,	12
1868	A Combination of Simulated Annealing and Ant Colony System for the Capacitated Location-Routing Problem. 2006, 409-416	23
1867	Modeling an intelligent continuous authentication system to protect financial information resources. 2006, 7, 91-109	15
1866	An Improved Ant Colony Search Algorithm for Unit Commitment Application. 2006,	3
1865	A Survey on Application of Swarm Intelligence Computation to Electric Power System. 2006,	13
1864	Relativity Pheromone Updating Strategy in Ant Colony Optimization for Constrained Unit Commitment Problem. 2006,	3
1863	ACS-TS: train scheduling using ant colony system. 2006, 2006, 1-28	14
1862	Selecting machines and buffers in unreliable series-parallel production lines. 2006,	
1861	Ant Routing Algorithm for Heavy Load Mobile Ad Hoc Networks. 2006,	
1860	Application and Simulation of Intelligent Ant Algorithm in Routing Choice. 2006,	0
1859	Mutation Ant Colony Algorithms of Constrained Two-dimensional Guillotine Cutting Problems. 2006,	
1858	Review of Candy (2005): Creativity and Cognition: Proceedings 2005. 2006, 14, 569-585	
1857	. 2006,	
1856	Novel approach to nonlinear PID parameter optimization using ant colony optimization algorithm. 2006, 3, 73-78	39
1855	Ant colony optimization for the nonlinear resource allocation problem. 2006, 174, 1438-1453	40

1854	Estimation of distribution algorithms for nuclear reactor fuel management optimisation. 2006 , 33, 1039-1057	43
1853	Ant colony algorithm for the shortest loop design problem. 2006 , 50, 358-366	8
1852	Optimized QoS priority routing for service tunability and overhead reduction using swarm based active network scheme. 2006 , 29, 765-780	6
1851	Subdomain generation using emergent ant colony optimization. 2006 , 84, 1719-1728	4
1850	A hybrid metaheuristic for the resource-constrained project scheduling problem. 2006 , 175, 707-721	70
1849	Mining time series data for segmentation by using Ant Colony Optimization. 2006 , 173, 921-937	20
1848	Production inventory scheduling using Ant System metaheuristic. 2006 , 104, 317-326	26
1847	An ant colony system approach for unit commitment problem. 2006 , 28, 315-323	65
1846	An aggregated clustering approach using multi-ant colonies algorithms. 2006 , 39, 1278-1289	70
1845	Azcatl-CRP: An ant colony-based system for searching full power control rod patterns in BWRs. 2006 , 33, 30-36	9
1844	Ant colony optimization with hill climbing for the bandwidth minimization problem. 2006 , 6, 180-188	38
1843	Performance evaluation of an on demand tunable resource allocation apparatus using constrained active network. 2006 , 14, 768-786	2
1842	Information and material flows in complex networks. 2006 , 363, xi-xvi	42
1841	Ant Colony Optimization for VRP and Mail Delivery Problems. 2006 ,	7
1840	Ant Colony Optimization for Dynamic RWA in WDM Networks with Partial Wavelength Conversion. 2006 , 11, 229-236	5
1839	A study of ACO capabilities for solving the maximum clique problem. 2006 , 12, 155-180	53
1838	Ant Colony Optimization for Multi-Purpose Reservoir Operation. 2006 , 20, 879-898	115
1837	Multiheuristic approach to discrete optimization problems. 2006 , 42, 335-341	5

1836	Problems of discrete optimization: Challenges and main approaches to solve them. 2006 , 42, 465-482	10
1835	Towards Minimal Addition Chains Using Ant Colony Optimisation. 2006 , 5, 525-543	15
1834	Edge detection using ant algorithms. 2006 , 10, 623-628	104
1833	Multi-agent Physical A* with Large Pheromones. 2006 , 12, 3-34	9
1832	Multi-Objective Genetic Algorithms for Vehicle Routing Problem with Time Windows. 2006 , 24, 17-30	307
1831	Adaptive and Dynamic Ant Colony Search Algorithm for Optimal Distribution Systems Reinforcement Strategy. 2006 , 24, 31-42	30
1830	Optimisation of operations sequence in CAPP using an ant colony algorithm. 2006 , 29, 159-164	53
1829	Optimal allocation of index positions on tool magazines using an ant colony algorithm. 2006 , 30, 717-721	2
1828	Developing a diagnostic system through the integration of ant colony optimization systems and case-based reasoning. 2006 , 30, 750-760	2
1827	Savings based ant colony optimization for the capacitated minimum spanning tree problem. 2006 , 33, 1794-1822	22
1826	On the efficiency and performance evaluation of the bandwidth clustering scheme for adaptive and reliable resource allocation. 2006 , 79, 1064-1078	0
1825	Pareto ant colony optimization with ILP preprocessing in multiobjective project portfolio selection. 2006 , 171, 830-841	116
1824	Global optimal path planning for mobile robot based on improved Dijkstra algorithm and ant system algorithm. 2006 , 13, 80-86	23
1823	A routing algorithm for risk-scanning agents using ant colony algorithm in P2P network. 2006 , 11, 1097-1103	3
1822	A multi-agent approach for solving traveling salesman problem. 2006 , 11, 1104-1108	8
1821	Time-based dynamic trust model using ant colony algorithm. 2006 , 11, 1462-1466	13
1820	A hybrid particle swarm optimization algorithm for optimal task assignment in distributed systems. 2006 , 28, 441-450	82
1819	A GIS supported Ant algorithm for the linear feature covering problem with distance constraints. 2006 , 42, 1063-1075	29

1818	Ant colony optimization. 2006 , 1, 28-39	2001
1817	Artificial ants deposit pheromone to search for regulatory DNA elements. 2006 , 7, 221	3
1816	ACSBased dynamic optimization for curing of polymeric coating. 2006 , 52, 1410-1422	21
1815	A Dynamic Ant Colony Algorithm with Disaster. 2006 ,	
1814	A Convergence Proof for Ant Colony Algorithm. 2006 ,	1
1813	Ant Colony Optimization based on Pheromone Trail Centralization. 2006 ,	1
1812	A New Approach of Ant Colony Algorithm and Its Proof of Convergence. 2006 ,	
1811	The Ant Colony Optimization for Ship Pipe Route Design in 3D Space. 2006 ,	4
1810	A New Way of Solving Multiple Constrained QoS Multi-routing Problems. 2006 ,	
1809	Ant Colony Optimization for Dynamical Resource Allocation in a Multizone Temperature Experimentation Platform. 2006 ,	1
1808	Image Texture Segmentation with Ant Colony Systems.	
1807	A Novel Genetic Algorithm for Multicast Routing Problem on the QoS Constrain. 2006 ,	
1806	An Onboard ATM Switching Fabric Based on Ant Algorithm with Blocking Avoidance.	0
1805	An Intensified Ant Colony System Algorithm Applied to a Class of Air Vehicle Route Planning Problem. 2006 ,	
1804	An Attribute Reduction Method Based on Ant Colony Optimization. 2006 ,	2
1803	Selective self-adaptive approach to ant system for solving unit commitment problem. 2006 ,	7
1802	Performance of pheromone model for predicting traffic congestion. 2006 ,	23
1801	Ant Colony Algorithm for Scheduling Parallel Program Based on DAG Graph Heuristics. 2006 ,	1

1800	Distributed evaluation functions for fault tolerant multi-rover systems. 2006,	4
1799	Neighbourhood searches for the bounded diameter minimum spanning tree problem embedded in a VNS, EA, and ACO. 2006,	24
1798	Ant colony based routing architecture for minimizing hot spots in NOCs. 2006,	2
1797	An agent-based algorithm for generalized graph colorings. 2006,	1
1796	An Ant Colony Optimization Algorithm with Evolutionary Operator for Traveling Salesman Problem. 2006,	2
1795	Real-Time Global Optimal Path Planning of Mobile Robots Based on Modified Ant System Algorithm. 2006, 204-214	3
1794	Multiprocessor task scheduling in multistage hybrid flow-shops: an ant colony system approach. 2006, 44, 3161-3177	88
1793	Implementation of an Ant Colony Optimization technique for job shop scheduling problem. 2006, 28, 93-108	43
1792	A New Migration Algorithm of Mobile Agent Based on Ant Colony Algorithm in P2P Network. 2006, 107-114	1
1791	A Hybrid Ant Colony Algorithm for Capacitated Vehicle Routing Problem. 2006,	1
1790	Computational Intelligence Approaches for Improving Serviceability of Material Handling Systems. 2006,	1
1789	Self-Organization for Search in Peer-to-Peer Networks: The Exploitation-Exploration Dilemma. 2006,	4
1788	Optimizing ACS for Big TSP Problems Distributing Ant Parameters. 2006,	0
1787	. 2006, 2, 269-280	5
1786	Auto-adapted Ant Colony Optimization Algorithm for Wavelet Network and Its Applications. 2006,	
1785	Spinning reserve scheduling of power systems: An ant colony approach. 2006, 29, 1061-1069	
1784	A Model and Analysis for Ants-like Agents.	
1783	Comparison of Different ACS Methods and Analysis about Efficiency of Novel ACS Approaches. 2006,	

1782	A New ACO with Immune Ability. 2006,	1
1781	. 2006,	1
1780	Numerical Potential Field and Ant Colony Optimization Based Path Planning in Dynamic Environment. 2006,	6
1779	AN ANT COLONY APPROACH TO THE ORIENTEERING PROBLEM. 2006, 23, 403-414	17
1778	Solving Problems with Hidden Dynamics - Comparison of Extremal Optimisation and Ant Colony System.	8
1777	Linguistic Hedges for Ant-generated Rules. 2006,	4
1776	Image Segmentation Method by Combining Watersheds and Ant Colony Clustering. 2006,	
1775	A New Approach for Solving 0/1 Knapsack Problem. 2006,	13
1774	A Graphic Clustering Algorithm Based on MMAS.	1
1773	An Artificial Life Technique for the Cryptanalysis of Simple Substitution Ciphers. 2006,	3
1772	. 2006,	1
1771	An Enhanced Genetic Algorithm with Orthogonal Design.	0
1770	An Algorithm of Optimizing Subband Filter Banks Based on ACA. 2006,	1
1769	A New Ant Colony Optimization Applied for the Multidimensional Knapsack Problem. 2006, 142-149	1
1768	A Comparison of Evolutionary Protocols for Solving Distributed Constraint Satisfaction Problems.	
1767	A Multi-Ant Colony System for Vehicle Routing Problems. 2006,	
1766	PARALLEL COOPERATIVE SAVINGS BASED ANT COLONY OPTIMIZATION [MULTIPLE SEARCH AND DECOMPOSITION APPROACHES. 2006, 16, 351-369	36
1765	Ant colony system solving capacitated location-allocation problems on a line. 2006, 27, 81-96	

1764	ANALYTICAL AND NUMERICAL INVESTIGATION OF ANT BEHAVIOR UNDER CROWDED CONDITIONS. 2006 , 09, 337-352	8
1763	A Novel Ant Colony Algorithm with Grouping Strategy Based on Time Model. 2006 ,	0
1762	Ant algorithms: web-based implementation and applications to manufacturing system problems. 2006 , 19, 264-277	5
1761	An ant colony system approach for variants of the traveling salesman problem with time windows. 2006 , 27, 35-54	11
1760	An Optimization Model for Multisatellite Resources Scheduling. 2006 ,	0
1759	A Constructive Hybrid Algorithm for Crew Pairing Optimization. 2006 , 45-55	3
1758	An ant colony optimization approach for SAR image segmentation. 2007 ,	
1757	An Improved Clustering Algorithm Based on Ant Colony Approach. 2007 ,	1
1756	Ant Colony System Based on the ASRank and MMAS for the VRPSPD. 2007 ,	2
1755	Urban Satellite Image Classification using Biologically Inspired Techniques. 2007 ,	15
1754	Elevator group control system using genetic network programming with ACO considering transitions. 2007 ,	4
1753	A Novel QoS Multicast Routing Algorithm Based on Ant Algorithm. 2007 ,	
1752	An optimization model for container transportation network with ACO approach. 2007 ,	
1751	Enhanced differential evolution hybrid scatter search for discrete optimization. 2007 ,	8
1750	Swarm robotics and minimalism. 2007 , 19, 245-260	24
1749	Ant Colony Optimization Algorithm-Based Disassembly Sequence Planning. 2007 ,	9
1748	Using Ant Colony Optimization Algorithm to Solve Airline Crew Scheduling Problems. 2007 ,	5
1747	Using data mining technology to provide a recommendation service in the digital library. 2007 , 25, 711-724	21

1746	Optimal solid waste collection routes identified by the ant colony system algorithm. 2007 , 25, 139-47	65
1745	A Novel Quantum Ant Colony Optimization Algorithm. 2007 , 277-286	17
1744	Fuzzy systems design by clustering-aided ant colony optimization for plant control. 2007 , 36, 623-641	12
1743	A hybrid ant strategy and genetic algorithm to tune the population size for efficient structural optimization. 2007 , 24, 237-254	16
1742	Real-time routing in flexible flow shops: a self-adaptive swarm-based control model. 2007 , 45, 5157-5172	2
1741	Evaluation of an ant colony optimization based scheduler for the transmission of multimedia traffic in the 802.11e edca. 2007 ,	1
1740	The effectiveness of dynamic ant colony tuning. 2007 ,	0
1739	Multiagent based construction for human-like architecture. 2007 ,	5
1738	Coupling ant colony optimization and the extended great deluge algorithm for the discrete facility layout problem. 2007 , 39, 953-968	10
1737	An Improved Ant Colony Optimization for the Maximum Clique Problem. 2007 ,	3
1736	An Ant Colony System Algorithm for the Multicast Routing Problem. 2007 ,	3
1735	Stability Analysis of the Ant System Dynamics with Non-uniform Pheromone Deposition Rules. 2007 ,	
1734	Continuous ant colony optimization algorithms in a support vector regression based financial forecasting model. 2007 ,	4
1733	A Two-Phase Optimization Algorithm For Mastermind. 2007 , 50, 435-443	11
1732	Towards Termination Criteria of Ant Colony Optimization. 2007 ,	4
1731	Improved Ant Colony Optimization for One-Dimensional Bin Packing Problem with Precedence Constraints. 2007 ,	1
1730	SoC-based implementation for modular exponentiation using evolutionary addition chains. 2007 ,	
1729	Cooperative ant colony optimization for multisatellite resource scheduling problem. 2007 ,	1

1728	Ant System for a Multi-vehicle Routing Problem. 2007,	0
1727	Cryptanalysis of Pointcheval's identification scheme using ant colony optimization. 2007,	
1726	Anti-periodic Boundary Value Problem for Impulsive Differential Equations with Delay. 2007,	
1725	Ant Colony Systems for Large Sequential Ordering Problems. 2007,	13
1724	A hybrid ant colony optimization approach for the design of reliable networks. 2007,	2
1723	The Travelling Salesman's Problem: A self-adapting PSO-ACS algorithm. 2007,	5
1722	Architecture for high-speed Ant Colony Optimization. 2007,	4
1721	A Selecting Method of Virtual Enterprise Members Based on Ant Algorithm. 2007,	
1720	An Enhanced ACO Algorithm for Multi-objective Maintenance Scheduling of Oil Tanks. 2007,	
1719	Solving permutation flow shop sequencing using ant colony optimization. 2007,	4
1718	Construction Time-cost Trade-off Analysis Using Ant System. 2007, 3, 99-108	1
1717	Recent Advances in Optimal Reliability Allocation. 2007, 1-36	27
1716	An Ant Colony Verification Algorithm. 2007,	1
1715	Evolving ant colony system for optimizing path planning in mobile robots. 2007,	10
1714	Ant Colony System Algorithm for Path Routing of Urban Traffic Vehicles. 2007,	6
1713	Max-Min ant system for generator maintenance scheduling in power systems. 2007, 28, 299-314	1
1712	An Improved Ant Colony QoS Routing Algorithm Applied to Mobile Ad Hoc Networks. 2007,	7
1711	A New Method for Optimizing Fuzzy Membership Function. 2007,	6

1710	Optimal Excitation Control of Synchronous Generator Based on Adaptive Ants Colony Algorithm. 2007,		1
1709	Activity Recognition Based on Hidden Markov Models. 2007, 532-537		4
1708	Chaotic Ant Colony Algorithm for Preliminary Ship Design. 2007,		
1707	An Analysis of Problem Difficulty for a Class of Optimisation Heuristics. 2007, 198-209		4
1706	A Routing Strategy Based on Ant Algorithm for WSN. 2007,		6
1705	Ant colony optimization for real-world vehicle routing problems. 2007, 2, 2-9		10
1704	METAHEURISTICS FOR THE OPTIMIZATION IN PLANNING AND SCHEDULING. 2007, 40, 1-7		1
1703	Function-technology-based product platform formation. 2007, 45, 5687-5714		16
1702	A biologically-inspired multi-agent framework for autonomic service management. 2007, 2, 261-276		12
1701	An optimal-fuzzy two-phase CLOS guidance law design using ant colony optimisation. 2007, 111, 621-636		3
1700	. 2007, 37, 143-156		227
1699	Classification With Ant Colony Optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2007, 11, 651-665	15.6	270
1698	On the Invariance of Ant Colony Optimization. <i>IEEE Transactions on Evolutionary Computation</i> , 2007, 11, 732-742	15.6	54
1697	Solving Traveling Salesman Problem by Ant Colony Optimization Algorithm with Association Rule. 2007,		6
1696	Model-based comparative prediction of transcription-factor binding motifs in anabolic responses in bone. 2007, 5, 158-65		4
1695	A Solution to the Rural Postman Problem Based on Artificial Ant Colonies. 2007, 220-228		6
1694	ACO Based Algorithm for Distributed Generation Sources Allocation and Sizing in Distribution Systems. 2007,		77
1693	A novel discrete particle swarm optimization to solve traveling salesman problem. 2007,		15

1692	An Ant Algorithm for the Steiner Tree Problem in Graphs. 2007 , 42-51	8
1691	Self-adaptive ant colony optimisation applied to function allocation in vehicle networks. 2007 ,	9
1690	Evolutionary computation of unconstrained and constrained problems using a novel momentum-type particle swarm optimization. 2007 , 39, 287-305	40
1689	Workflow scheduling in grids: an ant colony optimization approach. 2007 ,	8
1688	Constrained non-linear optimization by modified particle swarm optimization. 2007 ,	4
1687	Model and Optimization of Mobile Agent's Migration in Grid. 2007 ,	3
1686	A Time efficient Pattern Reduction algorithm for k-means based clustering. 2007 ,	1
1685	An Investigation of Parameters in Ant Colony Optimization for a Path Optimization Algorithm. 2007	1
1684	Emergent Behavior of Ant Colony System in Digital Images for Acquiring Edge Information. 2007 ,	2
1683	Ants and Multiple Knapsack Problem. 2007 ,	8
1682	Reentry trajectory planning optimization based on ant colony algorithm. 2007 ,	1
1681	A new pheromone design in ACS for solving JSP. 2007 ,	5
1680	A bacterial swarming algorithm for global optimization. 2007 ,	18
1679	A 2opt-DPX genetic local search for solving symmetric traveling salesman problem. 2007 ,	1
1678	An unsupervised target detection algorithm in SAR images. 2007 ,	
1677	Double-deck Elevator Group Supervisory Control System using Genetic Network Programming with Ant Colony Optimization. 2007 ,	1
1676	A New Ant Evolution Algorithm to Resolve TSP Problem. 2007 ,	6
1675	Ant colony system for a VRP with multiple time windows and multiple visits. 2007 , 10, 263-284	58

1674	Crowding Population-based Ant Colony Optimisation for the Multi-objective Travelling Salesman Problem. 2007,	29
1673	An Efficient ID-Based Restrictive Partially Blind Signature Scheme. 2007,	8
1672	A Hybrid Optimization Approach of Max-Min Ant System and Adaptive Genetic Algorithm for MCM Interconnect Test Generation. 2007,	0
1671	The Tree-Based Ant Colony Algorithm for Multi-Constraints Multicast Routing. 2007,	3
1670	An Ant Colony Optimization Approach to the Minimum Tool Switching Instant Problem in Flexible Manufacturing System. 2007,	4
1669	Applying Opposition-Based Ideas to the Ant Colony System. 2007,	48
1668	An Ant Based Hyper-heuristic for the Travelling Tournament Problem. 2007,	26
1667	An Improved Ant Colony Optimization Algorithm Based on Route Optimization and Its Applications in Travelling Salesman Problem. 2007,	4
1666	An Ant Colony System algorithm for path planning in sparse graphs. 2007,	
1665	A Stochastic Rank-Based Ant System for Discrete Structural Optimization. 2007,	2
1664	A framework for determining MIMO process parameters by a neuro-DM&ACO approach. 2007, 45, 3505-3520	5
1663	Ant colony optimization for image regularization based on a nonstationary Markov modeling. 2007, 16, 865-78	25
1662	A Modified Ant Algorithm for Solving the Quadratic Assignment Problem. 2007,	1
1661	Quick Design of Fuzzy Controllers With Good Interpretability in Mobile Robotics. 2007, 15, 636-651	54
1660	Using Ant Colony Optimisation to Improve the Efficiency of Small Meander Line RFID Antennas. 2007,	11
1659	Ant-Colony-Based Multiuser Detection for MC DS-CDMA Systems. 2007,	5
1658	Ant Colony Optimization Based Heat Transfer Coefficient Identification for Secondary Cooling Zone of Continuous Caster. 2007,	5
1657	Optimal Electrical Distribution Systems Reinforcement Planning Using Gas Micro Turbines by Dynamic Ant Colony Search Algorithm. 2007, 22, 580-587	61

1656	Multi-strategies risk programming for virtual enterprise based on ant colony algorithm. 2007,	
1655	Stability analysis of the ant system dynamics with non-uniform pheromone deposition rules. 2007,	5
1654	An Ant Colony Optimization Algorithm for Solving the Multidimensional Knapsack Problems. 2007,	14
1653	An ant system with steps counter for the job shop scheduling problem. 2007,	1
1652	Strategies for accelerating ant colony optimization algorithms on graphical processing units. 2007,	13
1651	A New Meta-heuristic Approach for Combinatorial Optimization and Scheduling Problems. 2007,	1
1650	THE FUZZY ANT SYSTEM FOR THE VEHICLE ROUTING PROBLEM WHEN DEMAND AT NODES IS UNCERTAIN. 2007, 16, 751-770	8
1649	A Model Reference Adaptive Search Method for Global Optimization. 2007, 55, 549-568	117
1648	Image Segmentation Based on Ant Colony Optimization and K-Means Clustering. 2007,	7
1647	Ant Colony Optimization for Sensor Management. 2007,	
1646	Improved Dynamic Ant Colony System (DACS) on symmetric Traveling Salesman Problem (TSP). 2007,	6
1645	An Adaptive Parameter Control Strategy for Ant Colony Optimization. 2007,	7
1644	Ant Algorithm with Summation Rules for Assembly Line Balancing Problem. 2007,	3
1643	Ant Colony Optimization Applied to Water Distribution System Design: Comparative Study of Five Algorithms. 2007, 133, 87-92	72
1642	A General Combinatorial Ant System-based Distributed Routing Algorithm for Communication Networks. 2007, 5, 616-625	2
1641	Memory-Bounded Ant Colony Optimization With Dynamic Programming and A^{*} Local Search for Generator Planning. 2007, 22, 1965-1973	9
1640	The application of the ant colony optimization algorithm to the construction site layout planning problem. 2007, 25, 359-374	53
1639	Spatial Clustering with Obstacles Constraints Using Ant Colony and Particle Swarm Optimization. 2007, 344-356	

1638	An Ant Colony Algorithm for Data Aggregation in Wireless Sensor Networks. 2007 ,	10
1637	Ant Colony Optimization: Introduction and Hybridizations. 2007 ,	2
1636	Contemporary Approaches to Artificial General Intelligence. 2007 , 1-30	26
1635	Time Series Forecasting Energy-efficient Organization of Wireless Sensor Networks. 2007 , 7, 1766-1792	20
1634	Hierarchical Wireless Multimedia Sensor Networks for Collaborative Hybrid Semi-Supervised Classifier Learning. 2007 , 7, 2693-2722	5
1633	A probability distribution estimation based method for dynamic optimization. 2007 , 53, 1805-1816	10
1632	Hardware-oriented ant colony optimization. 2007 , 53, 386-402	9
1631	Predicting coal ash fusion temperature based on its chemical composition using ACO-BP neural network. 2007 , 454, 64-68	44
1630	Using taxonomies for content-based routing with ants. 2007 , 51, 4514-4528	16
1629	A heuristic approach to find the global optimum of function. 2007 , 209, 160-166	11
1628	Association rule mining through the ant colony system for National Health Insurance Research Database in Taiwan. 2007 , 54, 1303-1318	38
1627	QSAR analysis of tyrosine kinase inhibitor using modified ant colony optimization and multiple linear regression. 2007 , 42, 81-6	37
1626	A threshold accepting heuristic with intense local search for the solution of special instances of the traveling salesman problem. 2007 , 177, 1911-1929	18
1625	A comparative study of a new heuristic based on adaptive memory programming and simulated annealing: The case of job shop scheduling. 2007 , 177, 1894-1910	25
1624	Multi-objective task allocation in distributed computing systems by hybrid particle swarm optimization. 2007 , 184, 407-420	42
1623	Hybrid ant colony optimization and visibility studies applied to a job-shop scheduling problem. 2007 , 187, 989-998	64
1622	Ant colony pattern search algorithms for unconstrained and bound constrained optimization. 2007 , 191, 42-56	4
1621	New discrete method for particle swarm optimization and its application in transmission network expansion planning. 2007 , 77, 227-233	108

1620	Chaotic ant swarm optimization to economic dispatch. 2007 , 77, 1373-1380	73
1619	A modified ant colony system for solving the travelling salesman problem with time windows. 2007 , 46, 1225-1235	66
1618	Flexible job-shop scheduling with routing flexibility and separable setup times using ant colony optimisation method. 2007 , 23, 503-516	122
1617	Coupling ant colony and the degraded ceiling algorithm for the redundancy allocation problem of series-parallel systems. 2007 , 92, 211-222	70
1616	Satellite Constellation Design with Adaptively Continuous Ant System Algorithm. 2007 , 20, 297-303	12
1615	A replica exchange Monte Carlo algorithm for protein folding in the HP model. 2007 , 8, 342	73
1614	Multi-heuristic desirability ant colony system heuristic for non-permutation flowshop scheduling problems. 2007 , 33, 793-802	36
1613	Multi-Colony Ant Algorithm for Continuous Multi-Reservoir Operation Optimization Problem. 2007 , 21, 1429-1447	71
1612	Finding Edge-disjoint Paths in Networks: An Ant Colony Optimization Algorithm. 2007 , 6, 361-391	14
1611	ACS algorithm-based adaptive fuzzy PID controller and its application to CIP-I intelligent leg. 2007 , 14, 528-536	3
1610	Mathematical runtime analysis of ACO algorithms: survey on an emerging issue. 2007 , 1, 59-79	43
1609	Ant colony optimization for real-world vehicle routing problems. 2007 , 1, 135-151	121
1608	Ant colony algorithm based on genetic method for continuous optimization problem. 2007 , 11, 597-602	3
1607	Emergency design framework: a satellite preliminary scheme design. 2007 , 2, 184-192	3
1606	A taxonomy and an empirical analysis of multiple objective ant colony optimization algorithms for the bi-criteria TSP. 2007 , 180, 116-148	206
1605	A hybrid approach for feature subset selection using neural networks and ant colony optimization. 2007 , 33, 49-60	171
1604	An ant colony optimization for single-machine tardiness scheduling with sequence-dependent setups. 2007 , 34, 1899-1909	101
1603	Task allocation for maximizing reliability of a distributed system using hybrid particle swarm optimization. 2007 , 80, 724-735	56

1602	Data aggregation in wireless sensor networks using ant colony algorithm. 2008 , 31, 387-401	84
1601	A hybrid Branch-and-Bound and evolutionary approach for allocating strings of applications to heterogeneous distributed computing systems. 2008 , 68, 410-426	12
1600	Stochastic robustness metric and its use for static resource allocations. 2008 , 68, 1157-1173	51
1599	Mining software repositories for comprehensible software fault prediction models. 2008 , 81, 823-839	92
1598	Artificial Intelligence techniques: An introduction to their use for modelling environmental systems. 2008 , 78, 379-400	167
1597	Ant colony optimization combined with taboo search for the job shop scheduling problem. 2008 , 35, 1030-1046	171
1596	A heuristic manipulation technique for the sequential ordering problem. 2008 , 35, 3931-3944	23
1595	Time dependent vehicle routing problem with a multi ant colony system. 2008 , 185, 1174-1191	222
1594	Combining two pheromone structures for solving the car sequencing problem with Ant Colony Optimization. 2008 , 191, 1043-1055	32
1593	An efficient ant colony optimization approach to attribute reduction in rough set theory. 2008 , 29, 1351-1357	137
1592	Solution approaches for the capacitated single allocation hub location problem using ant colony optimisation. 2008 , 39, 239-261	35
1591	Evolving encapsulated programs as shared grammars. 2008 , 9, 203-228	2
1590	Optimal job sequence determination and operation machine allocation in flexible manufacturing systems: an approach using adaptive hierarchical ant colony algorithm. 2008 , 19, 161-173	20
1589	The two-stage assembly flowshop scheduling problem with bicriteria of makespan and mean completion time. 2008 , 37, 166-177	50
1588	Customer order scheduling problem: a comparative metaheuristics study. 2008 , 37, 589-598	23
1587	Microrobot based micro-assembly sequence planning with hybrid ant colony algorithm. 2008 , 38, 1227-1235	32
1586	Ant colony system for job shop scheduling with time windows. 2008 , 39, 151-157	37
1585	Orthogonal Methods Based Ant Colony Search for Solving Continuous Optimization Problems. 2008 , 23, 2-18	75

1584	Swarm intelligence based dynamic obstacle avoidance for mobile robots under unknown environment using WSN. 2008 , 15, 860-868	4
1583	Concept optimization for mechanical product by using ant colony system. 2008 , 22, 628-638	4
1582	Crop classification using biologically-inspired techniques with high resolution satellite image. 2008 , 36, 175-182	27
1581	An effective multi-level algorithm based on ant colony optimization for graph bipartitioning. 2008 , 12, 426-432	2
1580	A framework for multi-robot node coverage in sensor networks. 2008 , 52, 281-305	20
1579	Hybrid ant colony algorithms for path planning in sparse graphs. 2008 , 12, 981-994	58
1578	Neurodynamic programming: a case study of the traveling salesman problem. 2008 , 17, 347-355	4
1577	Improved Ant Colony System for VRSPD with Maximum Distance Constraint. 2008 , 28, 132-140	11
1576	Dynamic ant programming for automatic construction of programs. 2008 , 3, 540-548	21
1575	Optimization of a Process Synthesis Superstructure Using an Ant Colony Algorithm. 2008 , 31, 452-462	3
1574	Dynamic selective pressure using hybrid evolutionary and ant system strategies for structural optimization. 2008 , 73, 544-563	12
1573	Wasp swarm optimization of the c-means clustering model. 2008 , 23, 269-285	23
1572	Electronic design automation using a unified optimization framework. 2008 , 79, 1137-1152	14
1571	Ants for track initiation of bearings-only tracking. 2008 , 16, 626-638	8
1570	Website structure improvement: Quadratic assignment problem approach and ant colony meta-heuristic technique. 2008 , 195, 285-298	21
1569	A new charged ant colony algorithm for continuous dynamic optimization. 2008 , 197, 604-613	26
1568	An effective ant colony optimization algorithm (ACO) for multi-objective resource allocation problem (MORAP). 2008 , 200, 167-177	82
1567	Ant colony optimization for the job rotation scheduling problem. 2008 , 201, 149-160	32

1566	Particle swarm optimization with FUSS and RWS for high dimensional functions. 2008 , 205, 98-108	34
1565	Optimization based on symbiotic multi-species coevolution. 2008 , 205, 47-60	33
1564	An ant-based algorithm for coloring graphs. 2008 , 156, 190-200	47
1563	Ant colony optimization for continuous domains. 2008 , 185, 1155-1173	880
1562	Tuning dynamic vibration absorbers by using ant colony optimization. 2008 , 86, 1539-1549	42
1561	Solution bias in ant colony optimisation: Lessons for selecting pheromone models. 2008 , 35, 2728-2749	12
1560	First steps to the runtime complexity analysis of ant colony optimization. 2008 , 35, 2711-2727	65
1559	A new ant colony optimization algorithm for the multidimensional Knapsack problem. 2008 , 35, 2672-2683	89
1558	On ant routing algorithms in ad hoc networks with critical connectivity. 2008 , 6, 827-859	49
1557	A hybrid approach combining an improved genetic algorithm and optimization strategies for the asymmetric traveling salesman problem. 2008 , 21, 1370-1380	62
1556	Aggregation pheromone density based data clustering. 2008 , 178, 2816-2831	47
1555	Swarm intelligence systems for transportation engineering: Principles and applications. 2008 , 16, 651-667	119
1554	A nuclear reactor core fuel reload optimization using artificial ant colony connective networks. 2008 , 35, 1606-1612	45
1553	Multiprocessor system scheduling with precedence and resource constraints using an enhanced ant colony system. 2008 , 34, 2071-2081	39
1552	An ant direction hybrid differential evolution heuristic for the large-scale passive harmonic filters planning problem. 2008 , 35, 894-904	11
1551	Ant colony-based algorithm for constructing broadcasting tree with degree and delay constraints. 2008 , 35, 1473-1481	21
1550	Zero-order TSK-type fuzzy system learning using a two-phase swarm intelligence algorithm. 2008 , 159, 2910-2926	55
1549	Scalable unit commitment by memory-bounded ant colony optimization with A* local search. 2008 , 30, 403-414	23

1548	Optimization of the location of multiple discrete heat sources in a ventilated cavity using artificial neural networks and micro genetic algorithm. 2008 , 51, 2299-2312	55
1547	Development of new features of ant colony optimization for flowshop scheduling. 2008 , 112, 742-755	35
1546	Overlapping production scheduling planning with multiple objectives. An ant colony approach. 2008 , 115, 163-170	22
1545	Multiple Heterogeneous Ant Colonies with Information Exchange. 2008 ,	2
1544	Local search for Ant colony system to improve the efficiency of small meander line RFID antennas. 2008 ,	11
1543	Finite grade pheromone ant colony optimization for image segmentation. 2008 , 16,	1
1542	An Innovative Method to Classify Remote-Sensing Images Using Ant Colony Optimization. 2008 , 46, 4198-4208	44
1541	Ant-Colony-Based Multiuser Detection for Multifunctional-Antenna-Array-Assisted MC DS-CDMA Systems. 2008 , 57, 658-663	35
1540	Predicting going concern opinion with data mining. 2008 , 45, 765-777	69
1539	An ant colony optimization method for generalized TSP problem. 2008 , 18, 1417-1422	111
1538	DAG Scheduling on Cluster of Workstations Using Hybrid Particle Swarm Optimization. 2008 ,	2
1537	Towards Bio-Inspired Self-Organization in Sensor Networks: Applying the Ant Colony Algorithm. 2008 ,	7
1536	Swarm Intelligence Algorithms for Data Clustering. 2008 , 279-313	69
1535	A New Hybrid Ant Colony Algorithm for Clustering Problem. 2008 ,	1
1534	A Two-Stage Hybrid Ant Colony Algorithm for the CVRP. 2008 ,	1
1533	Reconfiguration and Capacitor Placement for Loss Reduction of Distribution Systems by Ant Colony Search Algorithm. 2008 , 23, 1747-1755	190
1532	An ant colony optimization algorithm for image edge detection. 2008 ,	26
1531	A Data-Aggregation Algorithm Based on Adaptive Ant Colony System in Wireless Sensor Networks. 2008 ,	4

1530	An Ant Colony Optimization Method for Prize-collecting Traveling Salesman Problem with Time Windows. 2008,	5
1529	A collaborative ant colony algorithm to stochastic mixed-model U-shaped disassembly line balancing and sequencing problem. 2008, 46, 1405-1429	153
1528	A novel search algorithm based on fish school behavior. 2008,	69
1527	An ACO Inspired Strategy to Improve Jobs Scheduling in a Grid Environment. 2008, 30-41	10
1526	Ant Colony Optimization for Design of Space Trusses. 2008, 23, 167-181	80
1525	Parallel Cat Swarm Optimization. 2008,	29
1524	On the Dynamic Ant Colony Algorithm Optimization Based on Multi-pheromones. 2008,	16
1523	Ant Colony Optimization for Configuration. 2008,	1
1522	Ant Colony Optimization for Optimal Control of Pumps in Water Distribution Networks. 2008, 134, 337-346	146
1521	Optimizing Construction Time and Cost Using Ant Colony Optimization Approach. 2008, 134, 721-728	80
1520	A Solution of Dynamic Vehicle Routing Problem with Time Window via Ant Colony System Metaheuristic. 2008,	4
1519	Hybrid Ant Colony Algorithm for the Vehicle Routing with Time Windows. 2008,	9
1518	An Ant Colony System Based Energy Prediction Routing Algorithms for Wireless Sensor Networks. 2008,	6
1517	. 2008, 56, 3224-3232	41
1516	Fractal Image Compression by Ant Colony Algorithm. 2008,	6
1515	Combining Lagrangian heuristic and Ant Colony System to solve the Single Source Capacitated Facility Location Problem. 2008, 44, 1099-1122	49
1514	Research and Simulation on Genetic Ant Colony Routing in Wireless Sensor Network. 2008,	1
1513	Self-optimization Rule-chain Mining Based on Potential Association Rule Directed Graph. 2008,	1

1512	Ant Colony Optimization Algorithm for Fuzzy Controller Design and Its FPGA Implementation. 2008 , 55, 1453-1462	72
1511	A Multiagent Swarming System for Distributed Automatic Target Recognition Using Unmanned Aerial Vehicles. 2008 , 38, 549-563	72
1510	Vehicle routing problem research based on genetic-ant colony algorithm. 2008 ,	
1509	A new track initiation method for multi-target tracking. 2008 ,	
1508	Obstacle Avoidance Path Planning for Mobile Robot Based on Multi Colony Ant Algorithm. 2008 ,	9
1507	Swarm Intelligence in Optimization. 2008 , 43-85	171
1506	Modifying Ant Colony Optimization. 2008 ,	8
1505	Optimal ant colony algorithm based multi-robot task allocation and processing sequence scheduling. 2008 ,	2
1504	Topology Design of Hierarchical Hybrid Fiber-VDSL Access Networks with ACO. 2008 ,	2
1503	Test Paper Problem Solved by Binary Ant Colony Algorithm. 2008 ,	
1502	Reducing iteration using candidate list. 2008 ,	3
1501	Hybrid Ant Colony System to Solve a 2-Dimensional Strip Packing Problem. 2008 ,	1
1500	Application of Ant Colony System algorithm to distribution networks reconfiguration for loss reduction. 2008 ,	5
1499	A new ant algorithm based vehicle navigation system: A wireless networking approach. 2008 ,	18
1498	Ant colony optimization for routing in mobile ad hoc networks. 2008 ,	1
1497	VERY STRONGLY CONSTRAINED PROBLEMS: AN ANT COLONY OPTIMIZATION APPROACH. 2008 , 39, 395-424	9
1496	Multi-Direction Searching Ant Colony Optimization for Traveling Salesman Problems. 2008 ,	5
1495	Dimensionality Reduction and Classification based on Ant Colony Algorithm for Hyperspectral Remote Sensing Image. 2008 ,	1

1494	Routing mobile agent to local regions for data fusion in distributed sensor networks. 2008,	
1493	Approaches to Analyze and Optimize Inventory-Controlled Service Systems using Taguchi Method and Ant Algorithms. 2008,	
1492	Using Ant Colony System and Local Search Methods to Solve VRPTW. 2008,	2
1491	Multi-Population Agent Search: Stigmergy and Heterogeneity. 2008,	
1490	Ant Colony intelligence based solution for Grid services selection. 2008,	
1489	Settings of Algorithm Parameters in Ant Colony Algorithm. 2008,	1
1488	An ant colony algorithm for the sequential testing problem under precedence constraints. 2008,	0
1487	Intelligent decision-making method for multi-interceptor cooperative attack. 2008,	1
1486	Performance analysis of elitism in multi-objective ant colony optimization algorithms. 2008,	5
1485	A New Route Selection System: Multiparameter Ant Algorithm Based Vehicle Navigation Approach. 2008,	10
1484	A Novel Ant Colony Optimization Algorithm for U-Shaped Line Balancing Problem. 2008,	2
1483	Aggregation Pheromone Density Based Classification. 2008,	1
1482	Hardware implementations of Swarming Intelligence \square survey. 2008,	5
1481	Near-Optimum Soft-Output Ant-Colony-Optimization Based Multiuser Detection for the DS-CDMA Uplink. 2008,	5
1480	Ant Colony Optimization for Neural Network. 2008, 392-394, 677-681	5
1479	A Tracking Range Based Ant-Colony Routing Protocol for Mobile Wireless. 2008,	
1478	UAV route planning using Multiobjective Ant Colony System. 2008,	13
1477	Research on analysis of convergence of an adaptive Ant Colony Optimization Algorithm. 2008,	

1476	An Invalidation Cache Model Based on Ant Colony Algorithm in Mobile Databases. 2008,	
1475	A New Hybrid Ant Colony Algorithm for Clustering Problem. 2008,	1
1474	. 2008,	2
1473	An improved genetic algorithm for grain distribution centers locations. 2008,	
1472	Ant colony optimization applied to array thinning. 2008,	5
1471	Ant colony optimization for mapping and scheduling in heterogeneous multiprocessor systems. 2008,	9
1470	The routing of reconfigurable network based on ant algorithm. 2008,	
1469	A two-step evolutionary and ACO approach for solving the multi-agent patrolling problem. 2008,	6
1468	An Efficient Ant Colony Optimization Approach to Agent Coalition Formation Problem. 2008,	
1467	Using particle swarm optimization to solve resource-constrained scheduling problems. 2008,	4
1466	Learning and knowledge generation in General Games. 2008,	4
1465	An intelligent multi-colony multi-objective ant colony optimization (ACO) for the 0/1 knapsack problem. 2008,	4
1464	Multi-agent ant system for redundancy allocation problem of multi states power system. 2008,	1
1463	Ant colony optimization system for a multi-quantitative and qualitative objective job-shop parallel-machine-scheduling problem. 2008, 46, 5719-5759	22
1462	Dynamic analysis on optimal placement of fixturing elements using evolutionary techniques. 2008, 46, 4177-4214	29
1461	Ant colony optimization for solving a bi-criteria hybrid flow shop problem. 2008,	3
1460	A Methodology of Extended Changing Crossover Operators to Solve the Traveling Salesman Problem. 2008,	1
1459	COMPARATIVE STUDY OF SOME SOLUTION METHODS FOR TRAVELING SALESMAN PROBLEM USING GENETIC ALGORITHMS. 2008, 40, 1-24	14

1458	Improvement of a car racing controller by means of Ant Colony Optimization algorithms. 2008,	3
1457	An effective ant colony optimization-based algorithm for flow shop scheduling. 2008,	5
1456	An ant colony optimisation algorithm for scheduling in agile manufacturing. 2008, 46, 1813-1824	14
1455	Parameter tuning for ant colony optimization: A review. 2008,	4
1454	Ant Colony Optimization for the Traveling Salesman Problem Based on Ants with Memory. 2008,	17
1453	Novel Ant Colony Optimization for Solving Traveling Salesman Problem in Congested Transportation System. 2008,	
1452	Optimal Mobile Agent Routing for Data Fusion in Distributed Sensor Networks Using Improved Ant Colony Algorithm. 2008,	3
1451	Ant colonies for structure optimisation in a failure prone series-parallel production system. 2008, 14, 7-33	7
1450	Combination of Multiple Ant Colony System and Simulated Annealing for the Multidepot Vehicle-Routing Problem with Time Windows. 2008, 2089, 85-92	11
1449	Ant Colony Optimization algorithm for remote sensing image classification using combined features. 2008,	3
1448	A Self-Organizing Map Algorithm for the Traveling Salesman Problem. 2008,	3
1447	Ant Colony Optimization Algorithm Based on Adaptive Weight and Volatility Parameters. 2008,	5
1446	AMR System Adopting Routing Algorithm of Wireless Sensor Networks. 2008,	0
1445	Ant Colony Optimization-Based Location-Aware Routing for Wireless Sensor Networks. 2008, 109-120	26
1444	A Hybrid Intelligent Algorithm for the Vehicle Routing with Time Windows. 2008, 47-54	2
1443	Ant Algorithm Applied in the Minimal Cost Maximum Flow Problem. 2008, 201-208	
1442	Cascade stilling basin design using continuous ant algorithm. 2008, 161, 151-159	1
1441	New Little-Window-Based Self-adaptive Ant Colony-Genetic Hybrid Algorithm. 2008,	1

- 1440 An Ant Colony Optimization Algorithm Based on the Nearest Neighbor Node Choosing Rules and the Crossover Operator. **2008,**
- 1439 Improvements in the identification of interpretable fuzzy models with exceptions based on ant colony optimization. **2008,** 1
- 1438 An Adaptive Ant Colony Optimization Algorithm Approach to Reinforcement Learning. **2008,** 1
- 1437 Agent-based simulation using prometheus methodology in evacuation planning. **2008,** 4
- 1436 The Application of Pareto Ant Colony Algorithm in Multi-Objective Power Network Planning. **2008,**
- 1435 Continuous Ant Colony Algorithm Based on Entity and Its Convergence. **2008,** 1
- 1434 Path Planning for Deep Sea Mining Robot Based on ACO-PSO Hybrid Algorithm. **2008,** 5
- 1433 Research on the application of improved hybrid genetic algorithm in the vehicle routing problem. **2008,**
- 1432 An Ant Colony Algorithm with Stochastic Local Search for the VRP. **2008,**
- 1431 An optimization scheduling method for coke oven pushing plan in abnormal operating conditions. **2008,**
- 1430 Distribution network reconfiguration based on ant colony system algorithm. **2008,**
- 1429 Application of Improved Ant Colony System Algorithm in Optimization of Irregular Parts Nesting. **2008,** 5
- 1428 A Computation Method for the Value of Globe Trust Based on MAX-MIN Ant System. **2008,** 1
- 1427 Intelligent Artificial Ants based feature extraction from wavelet packet coefficients for biomedical signal classification. **2008,** 4
- 1426 A unified optimization framework for population-based methods. **2008,**
- 1425 Research on missing value estimation in data mining. **2008,** 1
- 1424 A New Pheromone Control Algorithm of Ant Colony Optimization. **2008,** 2
- 1423 A Novel Algorithm for Outlier Detection in High Dimension and its Application in Mine Disaster Forewarning. **2008,** 2

1422	NEW METAHEURISTIC APPROACHES FOR THE LEAF-CONSTRAINED MINIMUM SPANNING TREE PROBLEM. 2008 , 25, 575-589	9
1421	Constrained Multi-objective Task Assignment for UUVs Using Multiple Ant Colonies System. 2008 ,	8
1420	A multi-objective ant colony approach for pareto-optimization using dynamic programming. 2008 ,	7
1419	An ACS cooperative learning approach for route finding in natural environment. 2008 ,	
1418	Instruction set extension exploration in multiple-issue architecture. 2008 ,	1
1417	A Hybrid Ant-Based System for Gate Assignment Problem. 2008 , 273-280	3
1416	Power plant maintenance scheduling using ant colony optimization: an improved formulation. 2008 , 40, 309-329	19
1415	Parallel implementation of ant colony optimization on MPP. 2008 ,	1
1414	Hybrid Metaheuristics: An Introduction. 2008 , 1-30	53
1413	A hybrid approach for single-machine tardiness problems with sequence-dependent setup times. 2008 , 59, 1109-1119	19
1412	The Comparison Between Genetic Simulated Annealing Algorithm and Ant Colony Optimization Algorithm for ASP. 2008 ,	2
1411	Applying an improved fast ant system to DAG scheduling for computational grids. 2008 , 31, 1113-1125	3
1410	Double-deck elevator system using genetic network programming with genetic operators based on pheromone information. 2008 ,	2
1409	Scaling ant colony optimization with hierarchical reinforcement learning partitioning. 2008 ,	2
1408	An Efficient Approach for Solving TSP: The Rapidly Convergent Ant Colony Algorithm. 2008 ,	1
1407	An Improved Ant Colony Algorithm for VRPTW. 2008 ,	7
1406	A Novel Association Rule Decision Algorithm Based on Ant Colony Optimization Algorithm for Ball Mill Pulverizing System. 2008 ,	2
1405	Reactive Power Optimization for distribution systems based on Dual Population Ant Colony Optimization. 2008 ,	

1404	A population-based cross-entropy method with dynamic sample allocation. 2008,	
1403	Deterministic Model for Analyzing the Dynamics of Ant System Algorithm and Performance Amelioration through a New Pheromone Deposition Approach. 2008,	1
1402	The Emergent Patterns of Artificial Ant Colony's Collective Behavior in Gray-Scale Images for Feature Extraction. 2008,	1
1401	A memetic algorithm for symmetric traveling salesman problem. 2008, 3, 275-283	1
1400	Test point selection of analog circuits based on fuzzy theory and ant colony algorithm. 2008,	12
1399	An energy efficient routing protocol for cluster-based wireless sensor networks using ant colony optimization. 2008,	16
1398	Evaluation of Ordering Methods for DNA Sequence Design Based on Ant Colony System. 2008,	9
1397	Research on Peer Selection in Peer-to-Peer Networks using Ant Colony Optimization. 2008,	3
1396	. 2008,	2
1395	A Novel Cloud-Based Fuzzy Self-Adaptive Ant Colony System. 2008,	6
1394	Hybrid Approach to Crew Pairing Optimization. 2008,	
1393	Minimizing the total completion time on a single batch processing machine with non-identical job sizes using ant colony optimization. 2008,	
1392	. 2008,	4
1391	A Fast and Efficient Ant Colony Optimization Approach for the Set Covering Problem. 2008,	
1390	Theoretical Framework of Binary Ant Colony Optimization Algorithm. 2008,	
1389	Research on vehicle routing problem based on improved hybrid genetic algorithm. 2008,	
1388	Extracting membership functions in fuzzy data mining by Ant Colony Systems. 2008,	1
1387	Fast genetic algorithm based on pattern reduction. 2008,	

1386	An Improved Ant Colony Optimization Algorithm Based on Dynamic Control of Solution Construction and Mergence of Local Search Solutions. 2008,	4
1385	An improved ant colony optimization algorithm with embedded genetic algorithm for the traveling salesman problem. 2008,	1
1384	Optimization of power electronic circuits using ant colony system. 2008,	1
1383	An Improved Ant Colony Algorithm. 2008,	0
1382	Ant colony optimization with local search applied to the Flexible Job Shop Scheduling Problems. 2008,	2
1381	A novel geometric center design method for genetic algorithm optimization. 2008,	
1380	Kernel Function Clustering Based on Ant Colony Algorithm. 2008,	2
1379	Ant colony approach for optimum multiuser detector of MC-CDMA system. 2008,	1
1378	Evolutionary Multi-objective Simulated Annealing with adaptive and competitive search direction. 2008,	6
1377	Optimization of electric power circuitry examination management. 2008,	
1376	Generation of optimized robotic assembly sequence using ant colony optimization. 2008,	9
1375	A New Mechanism of Pheromone Increment and Diffusion for Solving Travelling Salesman Problems with Ant Colony Algorithm. 2008,	1
1374	An ant colony algorithm based on orientation factor for QoS multicast routing in ad hoc networks. 2008,	
1373	A Hybrid Ant Colony Optimization to Minimize the Total Completion Time on a Single Batch Processing Machine with Non-identical Job Sizes. 2008,	
1372	Ant colony system approach for protein folding. 2008,	9
1371	. 2008,	
1370	An Improved Ant Colony Algorithm for the Logistics Vehicle Scheduling Problem. 2008,	
1369	Optimal PID Control of Self-Adapted Ant Colony Algorithm Based on Genetic Gene. 2008,	1

1368	Study on MCM interconnect test generation using ant algorithm and particle swarm optimization algorithm. 2008,	
1367	Multi-Objective Optimization of Continuous Casting Billet Based on Ant Colony System Algorithm. 2008,	1
1366	An unorthodox introduction to Memetic Algorithms. 2008, 3, 6-15	2
1365	Robust supplier set selection for changing product architectures. 2008, 31, 197	7
1364	Optimal structural design family by genetic search and ant colony approach. 2008, 25, 268-288	16
1363	An Improved Ant Colony Algorithm for UE Traffic Assignment Problem. 2008,	
1362	Self-adaptive Ant Algorithm for Solving Real Estate Portfolio Optimization. 2008,	0
1361	Fuzzy Controller Design by Clustering-Aided Ant Colony Optimization. 2008, 41, 12297-12302	
1360	An onboard ATM switching fabric based on Adaptive Ant Colony Algorithm. 2008,	
1359	Optimization of Torch Movements of Welding and Cutting Using Ant Colony Method. 2008, 7, 73-79	
1358	Computational intelligence in multiple sequence alignment. 2008, 1, 8-24	3
1357	Impact of the pheromone trail on the performance of ACO algorithms for solving the car-sequencing problem. 2008, 59, 1077-1090	2
1356	Fundamentos de otimizaçã por inteligêcia de enxames: uma visã geral. 2009, 20, 271-304	10
1355	Review of Digital Library Book Recommendation Models. 2009,	1
1354	Adding diversity to a Multiobjective Ant Colony algorithm for time and Space Assembly Line Balancing. 2009,	2
1353	SWARM INTELLIGENCE TECHNIQUES AND ITS APPLICATIONS IN WATER RESOURCES MANAGEMENT. 2009, 15, 151-169	1
1352	A Novel Data Association Approach of SLAM. 2009,	
1351	A Particle Swarm Optimization Algorithm with Ant Search for Solving Traveling Salesman Problem. 2009,	6

1350 Design of Optimizing Stack Filters by an Ant Colony - Clonal Selection Algorithm. **2009,**

1349 Emergent Behavior Control Patterns in Robotic Collectives. **2009,** 165-173

1348 Research of Improved GA in WSN Mobile Agent Routing Algorithm. **2009,**

1347 Noise-robust Binary segmentation based on Ant Colony System and Modified Fuzzy C-Means algorithm. **2009,**

1346 Edge detection using ant colony search algorithm and multiscale contrast enhancement. **2009,**

1345 Distribution maintenance scheduling using ant colony algorithm (ACA). **2009,**

1344 Research on Fuzzy Data Mining Based on MAX-MIN Ant System. **2009,**

1343 . **2009,**

1342 Unit commitment with nature and biologically inspired computing. **2009,**

1341 Ant Colony Optimization to price exotic options. **2009,**

1340 Improved ant colony optimization algorithm solve logistics distribution center allocation. **2009,**

1339 The Application of Ant Colony Optimization Technique (ACOT) for Employees Selection and Training. **2009,**

1338 An effective initialization strategy of pheromone for ant colony optimization. **2009,**

1337 Ant Colony Optimization for Facility Location for Large-Scale Emergencies. **2009,**

1336 A Brief Review of Ant Algorithms. **2009,**

1335 Self-adaptive ant colony system for the traveling salesman problem. **2009,**

1334 Solving the Travelling Salesman Problem by the Program of Ant Colony Algorithm. **2009,**

1333 Ant Colony System Algorithm for the Vehicle Routing Problem with Simultaneous Delivery and Pick-Up. **2009,**

- 1332 MANA : A New Multi-agent Approach for Complex Assignment Problems. **2009,**
- 1331 Notice of Retraction: Optimization of Locations of Grain Logistics Centers Based on improved Genetic Algorithm. **2009,**
- 1330 An Ant Colony Optimization Approach for the Multi-Level Unconstrained Lot-Sizing Problem. **2009,**
- 1329 A modified Ant Colony Algorithm with local search for capacitated vehicle routing problem. **2009,**
- 1328 An optimization ant colony algorithm for composition of semantic Web services. **2009,** 6
- 1327 A Dynamic Cooperative Swarm Optimization Model for MRF-Based Early Vision Problem. **2009,**
- 1326 Hybrid Ant Colony Systems For Course Timetabling Problems. **2009,** 17
- 1325 An Optimization Approach of Ant Colony Algorithm and Adaptive Genetic Algorithm for MCM Interconnect Test. **2009,**
- 1324 Research on Intelligent Auto-Generating Test Paper Based on Ant Colony Algorithm. **2009,** 1
- 1323 HCRS: A Routing Scheme for Ad Hoc Networks as a QoS Guarantee Primitive. **2009,**
- 1322 A hybrid Ant Colony System for machine assignment problem in flexible manufacturing systems. **2009,**
- 1321 Coevolving intelligent game players in a cultural framework. **2009,** 2
- 1320 Improved Ant Colony Algorithm with Emphasis on Data Processing and Dynamic City Choice. **2009,**
- 1319 A Bottleneck Assigned Binary Ant System for multimodal optimization. **2009,** 1
- 1318 An Aggregated Ant Colony Optimization approach for pricing options. **2009,** 0
- 1317 An improved ant colony algorithm for UAV route planning in complex battlefield environment. **2009,** 4
- 1316 The Application of the Ant Colony Pheromones in Intelligent Learning. **2009,**
- 1315 Tobacco distribution vehicle routing program and the resolving method. **2009,** 0

1314	Microarray Biclustering with Crowding Based MOACO. 2009,	1
1313	Evolving an edge selection formula for ant colony optimization. 2009,	12
1312	Multi-criteria optimization evolving artificial ants as a computational intelligence technique. 2009,	1
1311	An Improvement Text Clustering Algorithm Based on Ant Colony. 2009,	1
1310	Technology Program Financial Forecast Model Based on CACO-SVM. 2009,	2
1309	Bus Travel Transit Path Query Algorithm Based on Ant Algorithm. 2009,	1
1308	Solving the flight frequency programming problem with particle swarm optimization. 2009,	2
1307	Multi-resolution Ant Colony - A New Approach to Use Swarm Intelligence in Continuous Problems. 2009,	
1306	An intelligent testing system embedded with an ant colony optimization based test composition method. 2009,	
1305	. 2009,	
1304	A Convergence Proof for Ant Colony Algorithm. 2009,	1
1303	Data clustering method based on ant swarm intelligence. 2009,	
1302	A Hybrid Meta-Heuristic for the VRPTW with Cluster-Dependent Tour Starts in the Newspaper Industry. 2009,	
1301	An ant colony algorithm Hybridized with Iterated Local Search for the QAP. 2009,	0
1300	Fuzzy Ant Colony Optimization for optimal control. 2009,	12
1299	An improved association method of SLAM based on ant colony algorithm. 2009,	1
1298	3D Space Path Planning of Complex Environmental Underwater Vehicle. 2009,	2
1297	Multi-colony Ant Algorithm Using Both Repulsive Operator and Pheromone Crossover Based on Multi-optimum for TSP. 2009,	3

1296	System Optimization for Design Chain Based on Entropy Theory. 2009,	
1295	Ant colony optimisation of spatial steel structures under static and earthquake loading. 2009, 26, 339-354	6
1294	Novel ant colony optimization approach to optimal control. 2009, 2, 414-434	8
1293	Robot Obstacle Avoidance based on an Improved Ant Colony Algorithm. 2009,	2
1292	ANT COLONY OPTIMIZATION FOR VLSI FLOORPLANNING WITH CLUSTERING CONSTRAINTS. 2009, 26, 440-448	6
1291	Ant Colony Optimization for single car scheduling of elevator systems with full information. 2009,	1
1290	. 2009,	2
1289	The mixed algorithm for vehicle routing problem with simultaneous pick-up and delivery. 2009,	2
1288	A clustering-based adaptive parameter control method for continuous ant colony optimization. 2009,	6
1287	Chaotic Immune Clonal Selection Algorithm and Its Application. 2009,	1
1286	. 2009,	
1285	The bee colony-inspired algorithm (BCiA). 2009,	9
1284	A Review of Bio-inspired Algorithms for Vehicle Routing. 2009, 1-34	20
1283	Information entropy based interaction model and optimization method for swarm intelligence. 2009, 31, 461-474	5
1282	A Time-Efficient Method for Metaheuristics: Using Tabu Search and Tabu GA as a Case. 2009,	
1281	Mobile Robot Navigation in Unknown Dynamic Environment Based on Ant Colony Algorithm. 2009,	2
1280	Study of the Logistics Vehicle Scheduling Problem Based on Improved Ants Algorithm. 2009,	
1279	A SWRL Rules Parser Algorithm Based on the Topic Semantic Comparability and Ant Colony Algorithm. 2009,	

1278	Real-Time Globally Optimized Path Planning in a Dynamic Environment. 2009,	1
1277	A New Method for Sequential Fault Diagnosis Based on Ant Algorithm. 2009,	3
1276	A new method for handling the traveling salesman problem based on parallelized genetic ant colony systems. 2009,	1
1275	Research on the GARCH Model Optimized by the Ant Colony Algorithm of Forecast Exchange Rate. 2009,	1
1274	. 2009,	6
1273	Research on assembly sequence planning based on genetic simulated annealing algorithm and ant colony optimization algorithm. 2009, 29, 249-256	38
1272	A New Best-Worst Ant System with Heuristic Crossover Operator for Solving TSP. 2009,	2
1271	Méthodes multi-objectifs pour l'ordonnement de lignes rentrantes. 2009, 18, 231-255	3
1270	Partner Selection Model on Bidding Alliance for BOT Projects Based on Modified Auto-adapted Ant Colony Algorithm. 2009,	0
1269	AN INNOVATIVE LOGISTICS MODEL FOR MULTI-CHANNEL RETAILING. 2009, 26, 327-336	1
1268	Ant colony system based on receding horizon control for aircraft arrival sequencing and scheduling. 2009,	1
1267	Parallel shared memory strategies for ant-based optimization algorithms. 2009,	3
1266	On the Faster Ant Colony Optimization Algorithm. 2009,	1
1265	An intra-cluster QoS routing scheme for ad hoc networks based on improved ant colony algorithm. 2009,	
1264	QoS-based MPLS multicast tree selection algorithms. 2009,	0
1263	Replenishment policy based on modified ant colony optimisation and statistical analysis under the pre-order penetration point. 2009, 86, 477-491	2
1262	Ant intelligence for solving optimal path-covering problems with multi-objectives. 2009, 23, 839-857	26
1261	Multi-colony ant colony optimization for the node placement problem. 2009,	

1260	A TWO-STATE ANT COLONY ALGORITHM FOR SOLVING THE MINIMUM GRAPH BISECTION PROBLEM. 2009 , 08, 487-498		3
1259	A novel Max-Min ant system algorithm for traveling salesman problem. 2009 ,		1
1258	ACO-based hybrid classification system with feature subset selection and model parameters optimization. 2009 , 73, 438-448		83
1257	Online Voidage Measurement of Two-Phase Flow Based on the Ant System Algorithm. 2009 , 58, 411-415		3
1256	Boundary Search for Constrained Numerical Optimization Problems With an Algorithm Inspired by the Ant Colony Metaphor. <i>IEEE Transactions on Evolutionary Computation</i> , 2009 , 13, 350-368	15.6	30
1255	Using an Ant Colony Metaheuristic to Optimize Automatic Word Segmentation for Ancient Greek. <i>IEEE Transactions on Evolutionary Computation</i> , 2009 , 13, 742-753	15.6	7
1254	Ant-Colony-Optimization-Based Scheduling Algorithm for Uplink CDMA Nonreal-Time Data. 2009 , 58, 231-241		20
1253	Detection of blood vessels in ophthalmoscope images using MF/ant (matched filter/ant colony) algorithm. 2009 , 96, 85-95		145
1252	Local search: A guide for the information retrieval practitioner. 2009 , 45, 159-174		7
1251	Multiobjective optimization for small meander wire dipole antennas in a fixed area using ant colony system. 2009 , 19, 592-597		17
1250	Implementation of an ant colony system for DNA sequence optimization. 2009 , 14, 293-296		10
1249	Trading-off security and performance in barrier slicing for remote software entrusting. 2009 , 16, 235-261		3
1248	Detecting unknown paths on complex networks through random walks. 2009 , 388, 514-522		9
1247	Genetic algorithms optimization for normalized normal constraint method under Pareto construction. 2009 , 40, 260-267		23
1246	An interactive simulation and analysis software for solving TSP using Ant Colony Optimization algorithms. 2009 , 40, 341-349		43
1245	2-ANTBAL: An ant colony optimisation algorithm for balancing two-sided assembly lines. 2009 , 56, 489-506		135
1244	Finding the longest common subsequence for multiple biological sequences by ant colony optimization. 2009 , 36, 73-91		41
1243	Allocation search methods for a generalized class of location allocation problems. 2009 , 192, 793-807		19

1242	Minimizing the multimodal functions with Ant Colony Optimization approach. 2009 , 36, 6030-6035	19
1241	Population declining ant colony optimization algorithm and its applications. 2009 , 36, 6276-6281	25
1240	A review of ant algorithms. 2009 , 36, 9608-9617	132
1239	An ACS-based framework for fuzzy data mining. 2009 , 36, 11844-11852	14
1238	A survey on metaheuristics for stochastic combinatorial optimization. 2009 , 8, 239-287	398
1237	An Improved Continuous Ant Algorithm for Optimization of Water Resources Problems. 2009 , 23, 2119-2139	41
1236	Glowworm swarm optimization for simultaneous capture of multiple local optima of multimodal functions. 2009 , 3, 87-124	276
1235	Metaheuristics for the bi-objective orienteering problem. 2009 , 3, 179-201	117
1234	Estimation-based ant colony optimization and local search for the probabilistic traveling salesman problem. 2009 , 3, 223-242	39
1233	Computational models of the emotions: from models of the emotions of the individual to modelling the emerging irrational behaviour of crowds. 2009 , 24, 403-414	8
1232	An ant colony optimization approach to multi-objective optimal design of symmetric hybrid laminates for maximum fundamental frequency and minimum cost. 2009 , 37, 367-376	64
1231	Hybridizing tabu search with ant colony optimization for solving job shop scheduling problems. 2009 , 40, 1004-1015	37
1230	Application of chance-constrained programming for stochastic group shop scheduling problem. 2009 , 42, 321-334	8
1229	Machining fixture layout design using ant colony algorithm based continuous optimization method. 2009 , 45, 922-934	53
1228	Ant colony optimization algorithm for stochastic project crashing problem in PERT networks using MC simulation. 2009 , 45, 1051-1067	28
1227	A Bayesian Network Learning Algorithm Based on Independence Test and Ant Colony Optimization. 2009 , 35, 281-288	20
1226	Max-Min Adaptive Ant Colony Optimization Approach to Multi-UAVs Coordinated Trajectory Replanning in Dynamic and Uncertain Environments. 2009 , 6, 161-173	69
1225	Ant colony optimization for the single model U-type assembly line balancing problem. 2009 , 120, 287-300	72

1224	A swarm-inspired projection algorithm. 2009 , 42, 2764-2786	21
1223	Use of aggregation pheromone density for image segmentation. 2009 , 30, 939-949	17
1222	Determination of the critical failure surface for slope stability analysis using ant colony optimization. 2009 , 108, 133-141	81
1221	The efficient search method of simulated annealing using fuzzy logic controller. 2009 , 36, 7099-7103	21
1220	An ant algorithm for balanced job scheduling in grids. 2009 , 25, 20-27	103
1219	Thermal processing optimization through a modified adaptive random search. 2009 , 93, 200-209	16
1218	Particle Swarm Optimization applied to the nuclear reload problem of a Pressurized Water Reactor. 2009 , 51, 319-326	86
1217	Towards an explanatory and computational theory of scientific discovery. 2009 , 3, 191-209	203
1216	A new relevance feedback technique for iconic image retrieval based on spatial relationships. 2009 , 82, 685-696	5
1215	Real world disassembly modeling and sequencing problem: Optimization by Algorithm of Self-Guided Ants (ASGA). 2009 , 25, 483-496	69
1214	A novel estimator with moving ants. 2009 , 17, 1663-1677	12
1213	Computation of multiple global optima through chaotic ant swarm. 2009 , 40, 1399-1407	10
1212	Superior/Inferior Segment-Discriminated Ant System for combinatorial optimization problems. 2009 , 57, 475-495	3
1211	Track initiation with ant colony optimization. 2009 , 14, 3629-3644	3
1210	Reliability optimization of topology communication network design using an improved ant colony optimization. 2009 , 35, 730-747	32
1209	The reliable design of one-piece flow production system using fuzzy ant colony optimization. 2009 , 36, 1656-1663	19
1208	Multi-objective flexible job shop schedule: Design and evaluation by simulation modeling. 2009 , 9, 362-376	83
1207	Ant colony optimization with a specialized pheromone trail for the car-sequencing problem. 2009 , 197, 1185-1191	20

1206	An attribute-based ant colony system for adaptive learning object recommendation. 2009 , 36, 3034-3047	72
1205	Applying artificial immune system and ant algorithm in air-conditioner market segmentation. 2009 , 36, 4437-4442	15
1204	A self-generating fuzzy system with ant and particle swarm cooperative optimization. 2009 , 36, 5362-5370	35
1203	Ontological recommendation multi-agent for Tainan City travel. 2009 , 36, 6740-6753	68
1202	Efficient force method for the analysis of finite element models comprising of triangular elements using ant colony optimization. 2009 , 45, 710-720	4
1201	An efficient variable selection method based on the use of external memory in ant colony optimization. Application to QSAR/QSPR studies. 2009 , 646, 39-46	44
1200	HOPNET: A hybrid ant colony optimization routing algorithm for mobile ad hoc network. 2009 , 7, 690-705	126
1199	A hybrid heuristic to solve the parallel machines job-shop scheduling problem. 2009 , 40, 118-127	20
1198	Automatic boiling water reactor loading pattern design using ant colony optimization algorithm. 2009 , 36, 1151-1158	9
1197	Solving One-dimensional Cutting-Stock Problem Based on Ant Colony Optimization. 2009 ,	2
1196	Supply Chain Redesign Multimodal Optimization Using a Hybrid Evolutionary Algorithm. 2009 , 48, 11094-11107	12
1195	Optimal Reactive Power Optimization by Ant Colony Search Algorithm. 2009 ,	2
1194	Steady-state security assessment based on online learning k-nearest neighbor classifier. 2009 ,	
1193	Swarm intelligence managed UWB waveform and cognitive sensor network protocol. 2009 ,	
1192	Ant colony optimization based scheduling for a semiconductor wafer fabrication facility with bottleneck stations. 2009 ,	
1191	USING ANT COLONY OPTIMIZATION TO MINIMIZE THE FUZZY MAKESPAN AND TOTAL WEIGHTED FUZZY COMPLETION TIME IN FLOW SHOP SCHEDULING PROBLEMS. 2009 , 17, 559-584	5
1190	Block-Layout Design Using MAXMIN Ant System for Saving Energy on Mass Rapid Transit Systems. 2009 , 10, 226-235	80
1189	Scheduling Jobs in Grids Adaptively. 2009 ,	

1188	Trusted Evolutionary Algorithm for Global Optimization. 2009 ,	
1187	Color Image Segmentation Method Based on Region Growing and Ant Colony Clustering. 2009 ,	5
1186	UAVs task allocation using multiple colonies of ants. 2009 ,	1
1185	Cat Swarm Optimization for Clustering. 2009 ,	58
1184	A Hybrid Method of Genetic Algorithms and Ant Colony Optimization to Solve the Traveling Salesman Problem. 2009 ,	7
1183	An integrated ant colony optimization algorithm for the hybrid flow shop scheduling problem. 2009 ,	2
1182	Using ant swarm intelligence for data clustering analysis. 2009 ,	
1181	Applying adaptive swarm intelligence technology with structuration in web-based collaborative learning. 2009 , 52, 789-799	17
1180	Safety evaluation of human accidents in coal mine based on ant colony optimization and SVM. 2009 , 1, 1418-1424	11
1179	Ant Colony Optimization-Based Method for Placement of Sectionalizing Switches in Distribution Networks Using a Fuzzy Multiobjective Approach. 2009 , 24, 268-276	129
1178	A Novel Routing Algorithm Based on Ant Colony System for Wireless Sensor Networks. 2009 ,	0
1177	Unit commitment by Genetic Evolving Ant Colony Optimization. 2009 ,	2
1176	Evolutionary optimization as applied to inverse scattering problems. 2009 , 25, 123003	241
1175	Metaheuristic Pattern Clustering [An Overview. 2009 , 1-62	18
1174	Incorporating Tabu Search Principles into ACO Algorithms. 2009 , 130-140	3
1173	An Ant Colony Optimization Approach to a Grid Workflow Scheduling Problem With Various QoS Requirements. 2009 , 39, 29-43	211
1172	. 2009 , 39, 520-533	11
1171	An Intelligent Testing System Embedded With an Ant-Colony-Optimization-Based Test Composition Method. 2009 , 39, 659-669	22

1170	Bacterial Foraging Optimization Algorithm: Theoretical Foundations, Analysis, and Applications. 2009 , 23-55	133
1169	Niching for Ant Colony Optimisation. 2009 , 165-188	7
1168	Automatic Test Data Generation Based on Ant Colony Optimization. 2009 ,	12
1167	ACO algorithm processing multisensor data for urban land cover. 2009 ,	
1166	The Fusion Algorithm of Genetic and Ant Colony and Its Application. 2009 ,	1
1165	Fuzzy Logic, Soft Computing, and Applications. 2009 , 236-244	4
1164	Extended Ant Colony Optimization Algorithm for Power Electronic Circuit Design. 2009 , 24, 147-162	58
1163	Reactive power optimization in power system based on chaos ant colony algorithm. 2009 ,	2
1162	Feature Selection and Classification Based on Ant Colony Algorithm for Hyperspectral Remote Sensing Images. 2009 ,	15
1161	Biologically inspired optimization: a review. 2009 , 31, 495-515	30
1160	An ant colony optimization algorithm for the time-varying workflow scheduling problem in grids. 2009 ,	3
1159	A novel ant-based QoS routing for mobile adhoc networks. 2009 ,	7
1158	Selecting machines and buffers in unreliable series-parallel production lines. 2009 , 47, 3741-3774	35
1157	Intelligent GIS for solving high-dimensional site selection problems using ant colony optimization techniques. 2009 , 23, 399-416	44
1156	Tuning fuzzy PID controllers using ant colony optimization. 2009 ,	10
1155	An ant colony optimization approach to the traveling tournament problem. 2009 ,	5
1154	An Improved Excitation Matching Method Based on an Ant Colony Optimization for Suboptimal-Free Clustering in Sum-Difference Compromise Synthesis. 2009 , 57, 2297-2306	33
1153	Autonomous control laws for mobile robotic surveillance swarms. 2009 ,	3

1152	MAX-MIN Ant System on GPU with CUDA. 2009,	26
1151	Optimising efficiency and gain of small meander line RFID antennas using ant colony system. 2009,	16
1150	GSP-ANT: An efficient ant colony optimization algorithm with multiple good solutions for pheromone update. 2009,	
1149	Non-dominated archiving multi-colony ant algorithm for multi-objective optimization: Application to multi-purpose reservoir operation. 2009, 41, 313-325	42
1148	Application of ant colony optimization to optimal design of open channels. 2009, 47, 656-665	29
1147	Rank-Based Ant System to Solve the Undirected Rural Postman Problem. 2009, 507-514	6
1146	The cloud-based framework for ant colony optimization. 2009,	3
1145	. 2009,	6
1144	Ant-Colony-Based Resource Allocation in OFDMA MESH Network. 2009,	2
1143	An Ant based simulation optimization for Vehicle Routing Problem with stochastic demands. 2009,	7
1142	On the influence of the swimming operators in the Fish School Search algorithm. 2009,	13
1141	Near-optimal joint selection of transmit and receive antennas for MIMO systems. 2009,	2
1140	Meeting demand variation using flexible U-shaped assembly lines. 2009, 47, 3937-3955	20
1139	Dedicated Hardware for Ant Colony Optimization Using Distributed Memory. 2009,	
1138	An improved ant colony algorithm for multi-objective flexible job shop scheduling problem. 2009,	1
1137	Development of Ant Algorithm for load flow analysis. 2009,	1
1136	Variable Strength Interaction Testing with an Ant Colony System Approach. 2009,	36
1135	A Novel Multi-objective Affinity Set Classification System: An Investigation of Delayed Diagnosis Detection. 2009,	

1134	An Overview of Ant Colony Optimization Algorithm and Its Application on Production Scheduling. 2009,	0
1133	. 2009,	
1132	A study on two novel ant estimators. 2009,	
1131	Graceful Network Operations. 2009,	7
1130	Integration of an EMO-based preference elicitation scheme into a multi-objective ACO algorithm for time and Space Assembly Line Balancing. 2009,	4
1129	Let the Ants Deploy Your Software - An ACO Based Deployment Optimisation Strategy. 2009,	15
1128	A multi-level ant-based algorithm for fuzzy data mining. 2009,	2
1127	. 2009,	6
1126	A Game Theoretic Approach for Resource Allocation Based on Ant Colony Optimization in Emergency Management. 2009,	5
1125	Web document retrieval using manifold learning and ACO algorithm. 2009,	
1124	Ant Colony Optimizations for Initialization of Synchronous Sequential Circuits. 2009,	0
1123	Multiprocessor scheduling with evolving cellular automata based on ant colony optimization. 2009,	8
1122	Using LDA and Ant Colony Algorithm for Spam Mail Filtering. 2009,	2
1121	A Novel Approach for Edge Detection using AntColony Otimization and Fuzz Derivative Technique. 2009,	5
1120	Learning Structure of Bayesian Network Using Ant Colony Algorithm Assisted by Genetic Algorithm. 2009,	
1119	Redundant Instruments Placement Using ACO. 2009,	1
1118	Airline network design with variable hub number. 2009,	
1117	. 2009,	4

1116	Ant-like courseware lookup in pervasive learning. 2009,	1
1115	Adaptive Template Matching Based on Improved Ant Colony Optimization. 2009,	2
1114	An Educational Tool for the Ant Colony Optimization Algorithm. 2009,	1
1113	Optical reflectance spectroscopy for detection of human prostate cancer. 2009, 2009, 118-21	4
1112	A COP for cooperation in a P2P streaming protocol. 2009,	1
1111	Application of ant colony optimization to inspection planning. 2009,	3
1110	Generation of robotic assembly sequence using ant colony optimization. 2009,	2
1109	A Model on Location Decision for Distribution Centers of Emergency Food Logistics. 2009,	1
1108	Hybrid Ant Colony Algorithm Based on Vehicle Routing Problem with Time Windows. 2009,	2
1107	An Adaptive Dynamic Ant System Based on Acceleration for TSP. 2009,	2
1106	Data Cache Strategy Based on Colony Algorithm in Mobile Computing Environment. 2009,	
1105	Applying self-adaptive ant colony optimization for construction time-cost optimization. 2009,	
1104	Reliable Swarm Design. 2009,	1
1103	Ant supervised by PSO. 2009,	13
1102	On ACO-Based Fuzzy Clustering for Image Segmentation. 2009, 717-726	4
1101	Keyword Combination Extraction in Text Categorization Based on Ant Colony Optimization. 2009,	1
1100	MMAS Based on Grey Prediction and Cloud Association Rules. 2009,	
1099	MCM Interconnect Test Scheme Based on Ant Colony Algorithm and Particle Swarm Optimization Algorithm. 2009,	

1098	Voltage security assessment and control system using a hybrid intelligent method. 2009,	3
1097	AMIRA: Interference-Aware Routing Using Ant Colony Optimization in Wireless Mesh Networks. 2009,	6
1096	Distributed resource discovery in grid with efficient range query. 2009,	1
1095	Protective circuit routing algorithm based on multiple ant colonies algorithm. 2009,	
1094	On Stability of the Chemotactic Dynamics in Bacterial-Foraging Optimization Algorithm. 2009, 39, 670-679	57
1093	. 2009, 39, 597-608	28
1092	A pheromone-rate-based analysis on the convergence time of ACO algorithm. 2009, 39, 910-23	28
1091	Reinforcement interval type-2 fuzzy controller design by online rule generation and q-value-aided ant colony optimization. 2009, 39, 1528-42	64
1090	. 2009,	39
1089	Community-based program recommendation for the next generation electronic program guide. 2009, 55, 707-712	17
1088	Adaptive Scheduling Algorithm for Real-Time Multiprocessor Systems. 2009,	4
1087	Hybrid ant colony algorithm for QAP. 2009,	
1086	Optimization techniques for power distribution planning with uncertainties: A comparative study. 2009,	7
1085	Pattern Clustering Using a Swarm Intelligence Approach. 2009, 469-504	
1084	. 2009,	63
1083	A Modified Algorithm for Sequence Alignment Using Ant Colony System. 2009, 2, 63-73	1
1082	. 2009,	5
1081	Transportation network user equilibrium assignment by ant colony systems with a variable trail decay coefficient. 2009, 42, 420-427	

1080	Quantum Interference Crossover-Based Clonal Selection Algorithm and Its Application to Traveling Salesman Problem. 2009 , E92-D, 78-85	12
1079	The Improvement Research of Ant Colony Algorithm In The Bullwhip Effect Application. 2009 ,	
1078	Ant Colony Optimization with Genetic Operation and Its Application to Traveling Salesman Problem. 2009 , E92-A, 1368-1372	3
1077	Ant Colony Optimization Algorithm for Vertical Alignment of Highways. 2009 ,	0
1076	V2G Scheduling - A Modern Approach to Unit Commitment with Vehicle-to-Grid using Particle Swarm Optimization. 2009 , 42, 261-266	2
1075	Review of McGregor (2005): Animal Communication Networks & Wyatt (2003/2004): Pheromones and Animal Behaviour: Communication by Smell and Taste. 2009 , 17, 482-490	3
1074	. 2009 ,	
1073	An improved ant colony algorithm for continuous space optimization. 2010 ,	0
1072	Application of neural network based on improved Ant Colony Optimization in soft sensor modeling of polymer electrolyte membrane moisture. 2010 ,	
1071	Ants Based Control of Swarm Robots for Bushfire Fighting. 2010 ,	2
1070	Notice of Retraction: Single neuron adaptive control based on ant colony algorithm. 2010 ,	0
1069	Research on ant colony algorithm based on enhanced feedback in route optimization of equipment support. 2010 ,	
1068	Chaos control via variable universe fuzzy theory in auto gauge control system. 2010 ,	2
1067	Suboptimal cycle bases of graphs using ant colony system algorithm. 2010 , 27, 485-494	3
1066	A New Local Search Based Ant Colony Optimization Algorithm for Solving Combinatorial Optimization Problems. 2010 , E93-D, 1127-1136	2
1065	Ant Local Search and its efficient adaptation to graph colouring. 2010 , 61, 819-826	26
1064	Rolling Stock Planning for Passenger Trains Based on Ant Colony Optimization(Mechanical Systems). 2010 , 76, 397-406	2
1063	Automatic vehicle navigation with bandwidth constraints. 2010 ,	4

1062	An innovative automated storage and retrieval system for B2C e-commerce logistics. 2010 , 48, 297-305	19
1061	An ant colony system approach for fuzzy traveling salesman problem with time windows. 2010 , 50, 1203-1215	12
1060	Particle tracking velocimetry with an ant colony optimization algorithm. 2010 , 48, 589-605	13
1059	Application of chaotic ant swarm optimization in electric load forecasting. 2010 , 38, 5830-5839	98
1058	Ant colony optimization algorithm with mutation mechanism and its applications. 2010 , 37, 4805-4810	46
1057	An ant direction hybrid differential evolution algorithm in determining the tilt angle for photovoltaic modules. 2010 , 37, 5415-5422	21
1056	Emergent algorithms for replica location and selection in data grid. 2010 , 26, 934-946	5
1055	An ant colony optimization algorithm for the bi-objective shortest path problem. 2010 , 10, 1237-1246	65
1054	Multi-objective vehicle routing problem with time windows using goal programming and genetic algorithm. 2010 , 10, 1096-1107	160
1053	Improved ant colony optimization algorithms for determining project critical paths. 2010 , 19, 676-693	18
1052	Open architecture of CNC system research based on CAD graph-driven technology. 2010 , 26, 720-724	11
1051	The J 2 invariant relative configuration of spaceborne SAR interferometer for digital elevation measurement. 2010 , 26, 643-651	4
1050	Automatic circle detection on digital images with an adaptive bacterial foraging algorithm. 2010 , 14, 1151-1164	54
1049	Trail formation in ants. A generalized Polya urn process. 2010 , 4, 145-171	7
1048	Multi-group ant colony algorithm based on simulated annealing method. 2010 , 14, 464-468	2
1047	Development and analysis of cooperative model-based metaheuristics. 2010 , 46, 710-717	
1046	Continuous ant colony system and tabu search algorithms hybridized for global minimization of continuous multi-minima functions. 2010 , 45, 639-661	26
1045	Discrete and continuous optimization based on multi-swarm coevolution. 2010 , 9, 659-682	26

1044	Automata and processes on multisets of communicating objects. 2010 , 9, 865-887		
1043	Quantifying Heuristics in the Ordinal Optimization Framework. 2010 , 20, 441-471		6
1042	Ant colony optimization for the arc routing problem with intermediate facilities under capacity and length restrictions. 2010 , 16, 211-233		21
1041	Analyzing Convergence in e-Learning Resource Filtering Based on ACO Techniques: A Case Study With Telecommunication Engineering Students. 2010 , 53, 542-546		4
1040	A Novel Set-Based Particle Swarm Optimization Method for Discrete Optimization Problems. <i>IEEE Transactions on Evolutionary Computation</i> , 2010 , 14, 278-300	15.6	297
1039	An Accelerating Two-Layer Anchor Search With Application to the Resource-Constrained Project Scheduling Problem. <i>IEEE Transactions on Evolutionary Computation</i> , 2010 , 14, 975-984	15.6	11
1038	Optimal feedback controller design for a buck converter using Gaussian type pheromone profile. 2010 , 20, 979-993		2
1037	Extended changing crossover operators to solve the traveling salesman problem. 2010 , 93, 1-16		1
1036	An improved ant colony optimization algorithm for solving a complex combinatorial optimization problem. 2010 , 10, 653-660		83
1035	Nature-inspired techniques for conformance testing of object-oriented software. 2010 , 10, 730-745		10
1034	A novel formulation of carbon emissions costs for optimal design configuration of system transmission planning. 2010 , 35, 1091-1097		14
1033	Ant estimator with application to target tracking. 2010 , 90, 1496-1509		15
1032	A temporal ant colony optimization approach to the shortest path problem in dynamic scale-free networks. 2010 , 389, 629-636		14
1031	Intelligent unit commitment with vehicle-to-grid A cost-emission optimization. 2010 , 195, 898-911		207
1030	A new approach for heuristics-guided search in the In-Core Fuel Management Optimization. 2010 , 52, 339-351		15
1029	Ant colony optimisation for economic dispatch problem with non-smooth cost functions. 2010 , 32, 478-487		162
1028	Reliability worth applied to transmission expansion planning based on ant colony system. 2010 , 32, 1077-1084		58
1027	An ant colony system for enhanced loop-based aisle-network design. 2010 , 207, 110-120		7

1026	Multi-objective optimization based on ant colony optimization in grid over optical burst switching networks. 2010 , 37, 1769-1775	16
1025	Analysis of the efficacy of a Two-Stage methodology for ant colony optimization: Case of study with TSP and QAP. 2010 , 37, 5443-5453	38
1024	A new saving-based ant algorithm for the Vehicle Routing Problem with Simultaneous Pickup and Delivery. 2010 , 37, 6809-6817	78
1023	MGA trajectory planning with an ACO-inspired algorithm. 2010 , 67, 1202-1217	37
1022	An efficient hybrid approach based on PSO, ACO and k-means for cluster analysis. 2010 , 10, 183-197	306
1021	Honey Bees Mating Optimization algorithm for financial classification problems. 2010 , 10, 806-812	52
1020	New ideas for applying ant colony optimization to the set covering problem. 2010 , 58, 774-784	64
1019	Track initiation of bearings-only tracking based on ant navigation concept. 2010 , 15, 3557-3567	1
1018	Ant-based routing for wireless multimedia sensor networks using multiple QoS metrics. 2010 , 54, 2991-3010	104
1017	Group shops scheduling with makespan criterion subject to random release dates and processing times. 2010 , 37, 152-162	30
1016	Bi-Objective Ant Colony Optimization approach to optimize production and maintenance scheduling. 2010 , 37, 1584-1596	116
1015	Estimation-based metaheuristics for the probabilistic traveling salesman problem. 2010 , 37, 1939-1951	27
1014	A comparative study of various meta-heuristic techniques applied to the multilevel thresholding problem. 2010 , 23, 676-688	153
1013	A meta-heuristic approach to solve a JIT scheduling problem in hybrid flow shop. 2010 , 23, 765-771	47
1012	An efficient hybrid algorithm for resource-constrained project scheduling. 2010 , 180, 1031-1039	83
1011	Multiobjective constructive heuristics for the 1/3 variant of the time and space assembly line balancing problem: ACO and random greedy search. 2010 , 180, 3465-3487	57
1010	Multi-objective Optimization Method for Automatic Drilling and Riveting Sequence Planning. 2010 , 23, 734-742	10
1009	A Review of Nature-Inspired Algorithms. 2010 , 7, S232-S237	139

1008	Simulating the folding pathway of RNA secondary structure using the modified ant colony algorithm. 2010 , 7, 382-389	9
1007	A hybrid swarm intelligence algorithm for the travelling salesman problem. 2010 , 27, 166-179	13
1006	Adaptive subcarrier and bit allocation based on ant colony optimization. 2010 , 17, 59-64	1
1005	Ant Clustering Algorithms. 2010 , 1, 1-15	2
1004	A multi-objective ant colony optimization method applied to switch engine scheduling in railroad yards. 2010 , 30, 486-514	7
1003	Unit Commitment by Evolving Ant Colony Optimization. 2010 , 1, 67-77	2
1002	Composite Laminates Buckling Optimization through Levy Based Ant Colony Optimization. 2010 , 288-297	7
1001	Global Path Planning for Mobile Robot Based on Improved Dijkstra Algorithm and Particle Swarm Optimization. 2010 , 26-28, 909-912	3
1000	An Improved Ant Colony System Based on Negative Biased. 2010 , 439-440, 558-562	
999	Notice of Retraction: Exploring bio-inspired algorithm for service discovery in pervasive environments. 2010 ,	
998	Performance Evaluation of Ant Colony Algorithm with New Parameters. 2010 ,	
997	Two-Stage Inter-Cell Layout Design for Cellular Manufacturing by Using Ant Colony Optimization Algorithms. 2010 , 281-289	7
996	Distributed Ant Colony Clustering Using Mobile Agents and Its Effects. 2010 , 198-208	2
995	Solutions to VRP in Home Delivery Based on Ant Colony Optimization Algorithm. 2010 , 159, 100-104	
994	A Modified Gene Optimization for TSP. 2010 , 29-32, 2576-2579	
993	Detecting Moving Objects by Ant Colony System in a MAP-MRF Framework. 2010 ,	2
992	Ant colony optimisation with parameterised search space for the job shop scheduling problem. 2010 , 48, 1143-1154	35
991	A Multiple-Data Multicast Routing Protocol for DTN. 2010 ,	1

990	Fuzzy Project Scheduling. 2010 , 143-170	2
989	The ACO Encoding. 2010 , 528-535	
988	Particle Swarm Optimization with Resets [Improving the Balance between Exploration and Exploitation. 2010 , 371-381	4
987	A New Model Based on Improved ACA and BP to Predict Silicon Content in Hot Metal. 2010 ,	2
986	Credit rating prediction using Ant Colony Optimization. 2010 , 61, 561-573	40
985	The Novel Routing Algorithms Based on ACO and GAs. 2010 , 121-122, 329-334	
984	An approximate Annealing Search algorithm to global optimization and its connection to stochastic approximation. 2010 ,	4
983	Applying ant colony optimization to search all extreme points of function. 2010 ,	1
982	Using ants as a genetic crossover operator in GLS to solve STSP. 2010 ,	2
981	Adaptive Genetic Algorithm with Application for Solving Traveling Salesman Problems. 2010 ,	1
980	Approximate termination condition analysis for ant colony optimization algorithm. 2010 ,	4
979	Modifications and Additions to Ant Colony Optimisation to Solve the Set Partitioning Problem. 2010 ,	1
978	New pheromone trail updating method of ACO for satellite control resource scheduling problem. 2010 ,	0
977	A variable scale ant colony algorithm to the optimization of beer recipe. 2010 ,	
976	Evolutionary multi-objective optimization algorithms with probabilistic representation based on pheromone trails. 2010 ,	6
975	Ant System with Negative Feedback for bushfire fighting with swarm robots. 2010 ,	1
974	An analysis of sequence alignment: heuristic algorithms. 2010 , 2010, 1824-7	2
973	An ant optimization method for path planning on a cuboid. 2010 ,	

972	Routing Algorithms for Wireless Sensor Networks Using Ant Colony Optimization. 2010 , 337-348	6
971	A negotiation based approach to Waste Load Allocation problems. 2010 ,	2
970	Study of Ant Colony Optimization Algorithm Based on Adaptive Theory. 2010 ,	
969	An Ant System algorithm for automated trajectory planning. 2010 ,	
968	Performance Evaluation by Ant Colony Algorithm. 2010 ,	
967	Ant colony optimization algorithm based on space contraction. 2010 ,	
966	Application of particle swarm optimization method in fractional Fourier transform. 2010 ,	0
965	SFBASOP: A static routing protocol based on acoustic delay problems. 2010 ,	
964	An Improved PSO-ACO Algorithm for Solving Large-Scale TSP. 2010 , 143-144, 1154-1158	2
963	The Application of Max-Min Ant System Algorithm on the Maximum Flow Problem. 2010 ,	
962	An Application of the Ant Colony System Metaheuristic to the Vehicle Routing Problem with Pickup and Delivery and Time Windows. 2010 ,	4
961	Optimization of autonomous ship maneuvers applying swarm intelligence. 2010 ,	2
960	Multi-population Binary ant Colony Algorithm with Concrete Behaviors for multi-objective optimization problem. 2010 ,	1
959	Multi-path anycast routing based on ant colony optimization in multi-gateway WMN. 2010 ,	1
958	Artificial intelligence in supply chain management: theory and applications. 2010 , 13, 13-39	128
957	Apply the Feature of Entropy Convergence of ACO to Short the Runtime of Gene Order. 2010 ,	
956	Direct Blind Signal Detection Based on Improved Ant Colony Algorithm. 2010 ,	
955	An attribute-based scheme for service recommendation using association rules and ant colony algorithm. 2010 ,	1

954	Generalized pheromone update for Ant Colony Learning in continuous state spaces. 2010,	
953	An improved ant colony optimization algorithm for image extracting. 2010,	0
952	A New Algorithm for QoS-Aware Composite Web Services Selection. 2010,	4
951	An Attribute Reduction Algorithm based on Rough Set, Information Entropy and Ant Colony optimization. 2010,	2
950	Improved ant colony algorithm for continuous function optimization. 2010,	1
949	Unmanned Aerial Vehicle route optimization using ant system algorithm. 2010,	8
948	. 2010,	1
947	Pre-scheduled and adaptive parameter variation in MAX-MIN Ant System. 2010,	1
946	Dynamic scheduling for real-time distributed systems using ant colony optimization. 2010, 3, 279-292	6
945	Quantum Dynamic Mechanism-based Parallel Ant Colony Optimization Algorithm. 2010, 3, 101-113	10
944	Hybrid simulated annealing with memory: an evolution-based diversification approach. 2010, 48, 5455-5480	3
943	A Path Planning Method of Contingency Logistics Based on Max-Min Ant System. 2010,	2
942	Agent Coalition Formation of Chinese Question Answering System Based on Improved Ant Colony Algorithm. 2010,	
941	Fish Migration Optimization Based on the Fishy Biology. 2010,	2
940	Research on BP Neural Network Optimal Method Based on Improved Ant Colony Algorithm. 2010,	2
939	The Research on the Path Optimization of Container Truck Based on Ant Colony Algorithm and MAS. 2010,	
938	Parameters Optimization in SVM Based-On Ant Colony Optimization Algorithm. 2010, 121-122, 470-475	5
937	TUNINGS OF PARAMETERS AND PHEROMONE UPDATE STRATEGY IN ANT COLONY OPTIMIZATION. 2010, 09, 73-83	

936	Ant Colony Optimization for a stochastic vehicle routing problem with driver learning. 2010,	2
935	A unified fitness calculation method for automatic modeling algorithms. 2010,	
934	A possibilistic programming approach for the vehicle routing problem with time windows. 2010,	0
933	Studies on Fuzzy C-Means Based on Ant Colony Algorithm. 2010,	2
932	Analysis the Uncertainties of the Ant Colony Algorithm. 2010,	
931	Digital image edge detection using an ant colony optimization based on genetic algorithm. 2010,	7
930	Resource Allocation in Multiuser OFDM System Based on Ant Colony Optimization. 2010,	12
929	Remotely sensed data processing task scheduling based on limited concentration model. 2010,	1
928	An Improved Ant Colony System Algorithm for Optimal Path Planning Problem of Mobile Robots. 2010,	2
927	Automated Multigravity Assist Trajectory Planning with a Modified Ant Colony Algorithm. 2010, 7, 261-293	18
926	Hierarchical Swarm Model: A New Approach to Optimization. 2010, 2010, 1-30	19
925	Virtual Enterprise Risk Management Using Artificial Intelligence. 2010, 2010, 1-20	6
924	An Ant Colony Optimization Algorithm for Image Edge Detection. 2010,	6
923	Chaotic Clonal Selection Algorithm for function optimization. 2010,	0
922	Selective ant colony optimization considering static evaluation. 2010,	0
921	The mission design tool for hybrid orbit satellite constellation about configuration design and management strategy. 2010,	
920	The application of the improved hybrid Ant Colony Algorithm in Vehicle Routing optimization problem. 2010,	3
919	A theoretical framework for runtime analysis of ant colony optimization. 2010,	1

918	Fermentation temperature control optimisation in laboratory scale using MAX-MIN ant system and multi-point temperature instrument. 2010,	
917	Notice of Retraction: Application research of vehicle routing problem based on an improved ant colony algorithm. 2010,	1
916	Multi-objective ant colony optimization model for emergency evacuation. 2010,	4
915	Progresses of ant colony optimization algorithm applications. 2010,	
914	Solving TSP by an ACO-and-BOA-based hybrid algorithm. 2010,	1
913	Quantum ant colony optimization with application. 2010,	5
912	Notice of Retraction: Partner selection of virtual enterprise using two-layer ant colony optimization. 2010,	
911	The application of RBF network with ant colony algorithm in eddy current nondestructive detecting. 2010,	
910	Identification and control based on neural networks and ant colony optimization algorithm. 2010,	
909	Dynamic robustness analysis of container marine transportation network using improved ACO approach. 2010,	1
908	A graph-based ant system with walking stepped pattern. 2010,	
907	ACO with semi-random start applied on MKP. 2010,	
906	Research on a kind of improved network transport model and its application in logistics industry. 2010,	
905	A Single-parameter intelligent algorithm for the traveling salesman problem. 2010,	
904	Pheromone-distribution-based adaptive ant colony system. 2010,	1
903	The impact of design choices of multiobjective antcolony optimization algorithms on performance. 2010,	13
902	Hybrid feature selection algorithm based on dynamic weighted ant colony algorithm. 2010,	2
901	Adaptability in XML-to-relational mapping strategies. 2010,	1

900	A baseline method for search-based software engineering. 2010,	1
899	Ant colony optimization. 2010,	0
898	Notice of Retraction: Research on two-dimensional irregular parts nesting with ant colony system. 2010,	
897	Consultant-guided search combined with local search for the traveling salesman problem. 2010,	
896	An Experimental Comparison of Different Heuristics for the Master Bay Plan Problem. 2010, 314-325	21
895	Study on improved ant colony algorithm of swarm intelligence algorithm. 2010,	
894	. 2010,	10
893	. 2010,	3
892	Ant Colony Decision Trees A New Method for Constructing Decision Trees Based on Ant Colony Optimization. 2010, 373-382	30
891	Ant Colony Optimization: Overview and Recent Advances. 2010, 227-263	198
890	Quantitative Stochastic Reconstruction Methods. 2010, 153-192	1
889	Power Reduction of Wireless Sensor Networks Using Ant Colony Optimization. 2010,	2
888	A multipath routing protocol based on clustering and ant colony optimization for wireless sensor networks. 2010, 10, 4521-40	82
887	An ant-based algorithm for distributed routing and wavelength assignment in dynamic optical networks. 2010, 28, 542-552	22
886	Adaptive artificial ant colonies for edge detection in digital images. 2010,	5
885	Hybrid Markov Random Field with Parallel Ant Colony Optimization and Fuzzy C Means for MRI Brain Image segmentation. 2010,	4
884	Artificial Fish School Algorithm for Function Optimization. 2010,	7
883	Mobile Agent Routing Algorithm in Dynamic Sensor Network. 2010,	3

882	Simultaneous Determination of Guaifenesin and Theophylline by Chemometrics Methods. 2010 , 43, 687-700	18
881	Multi-ant colony system for evacuation routing problem with mixed traffic flow. 2010 ,	10
880	Ant colony optimization with direct communication for the traveling salesman problem. 2010 ,	3
879	An ant colony system-based hybrid algorithm for square root concave cost transshipment problems. 2010 , 42, 983-1001	5
878	A fast Ant Colony Optimization for traveling salesman problem. 2010 ,	7
877	An Improved Ant Colony Optimization for the Vehicle Routing Problem in Logistics Distribution. 2010 , 121-122, 1006-1011	1
876	Cooperative multi-ant colony pseudo-parallel optimization algorithm. 2010 ,	3
875	DNA Codewords Design Using Ant Colony Optimization Algorithm. 2010 ,	
874	Extracting membership functions by ACS algorithm without specifying actual minimum support. 2010 ,	1
873	A hybrid algorithm to minimize makespan for the permutation flow shop scheduling problem. 2010 , 3, 853-861	12
872	Network migration using ant colony optimization. 2010 ,	9
871	GMC: A performance model checker for concurrent systems. 2010 ,	
870	GPS based road monitoring system. 2010 ,	4
869	Ant Colony Optimization for traffic dispersion routing. 2010 ,	17
868	Improved artificial bee colony algorithm and its application in data clustering. 2010 ,	
867	. 2010 ,	
866	An application of ACO in system reconfiguration. 2010 ,	1
865	PTG-based parallel scheduling algorithm research on grid DAG task. 2010 ,	

864	Remote Sensing Image Change Detection Based on Swarm Intelligent Algorithm. 2010,	2
863	Designing Fuzzy-Rule-Based Systems Using Continuous Ant-Colony Optimization. 2010, 18, 138-149	92
862	Synchronized task decomposition for two cooperative agents. 2010,	4
861	Can ant algorithms make automated guided vehicle system more intelligent?. 2010,	6
860	An improved Ant Colony algorithm for Urban Transit Network Optimization. 2010,	2
859	An Efficient Algorithm for QCDP and Implementation. 2010, 25, 234-242	4
858	Finding Optimal LSB Substitution Using Ant Colony Optimization Algorithm. 2010,	8
857	Near-MLD MIMO Detection Based on a Modified Ant Colony Optimization. 2010, 14, 722-724	16
856	SamACO: variable sampling ant colony optimization algorithm for continuous optimization. 2010, 40, 1555-66	50
855	Study of Reconfiguration for the Distribution System With Distributed Generators. 2010, 25, 1678-1685	216
854	A hybrid Memory-based ACO algorithm for the QAP. 2010,	1
853	Optimizing Discounted Cash Flows in Project Scheduling An Ant Colony Optimization Approach. 2010, 40, 64-77	55
852	Consultant-guided search. 2010,	19
851	. 2010,	
850	An ant-colony-system-based activity scheduling method for the lifetime maximization of heterogeneous wireless sensor networks. 2010,	11
849	Task scheduling with load balancing using multiple ant colonies optimization in grid computing. 2010,	4
848	. 2010,	1
847	Intelligent optimization techniques for mammogram image analysis through bilateral subtraction. 2010,	

846	Improved ant colony algorithm for solving assignment problem. 2010,	
845	Solving the Multi-dimensional Multi-choice Knapsack Problem with the Help of Ants. 2010, 312-323	11
844	Multidimensional MUSIC DOA estimation using ant colony optimization algorithm. 2010,	0
843	Ant routing optimization algorithm for extending the lifetime of wireless sensor networks. 2010,	6
842	ACO-Based multiple geometric elements measure path planning for CMM. 2010,	
841	Study on the Path Planning of Tourist Scenic Area Based on BVC Ant Colony Algorithm. 2010,	
840	Genetic Ant Algorithm for Continuous Function Optimization and Its MATLAB Implementation. 2010,	0
839	Parallelized Artificial Bee Colony with Ripple-communication Strategy. 2010,	2
838	AntSLAM: Global map optimization using swarm intelligence. 2010,	4
837	An ant colony optimization approach to the multiple-choice multidimensional knapsack problem. 2010,	3
836	Biogeography-Based Optimization for the Traveling Salesman Problems. 2010,	26
835	Introducing a new intelligent adaptive learning content generation method. 2010,	4
834	. 2010,	3
833	NEW APPROACH TO MULTI-LEVEL PROCESSOR SCHEDULING. 2010, 19, 335-346	1
832	An ACO Approach to Job Scheduling in Grid Environment. 2010, 286-295	8
831	Improved implementation of brain MRI image segmentation using Ant Colony System. 2010,	17
830	A Novel Fuzzy Ant System for Edge Detection. 2010,	13
829	Pac-mAnt: Optimization based on ant colonies applied to developing an agent for Ms. Pac-Man. 2010,	6

828	Relative Coordination 3D Trajectory Generation Based on the Trimmed ACO. 2010,	0
827	An Efficient Ant Colony System Based on Receding Horizon Control for the Aircraft Arrival Sequencing and Scheduling Problem. 2010, 11, 399-412	104
826	Secondary Cooling Parameters Optimization in Continuous Casting Process Based on Ant Colony System Algorithm. 2010,	0
825	Suitability factor on the Capacitated Vehicle Routing Problem. 2010,	
824	A hybrid PSO/ACO algorithm for land cover classification. 2010,	4
823	An Improved Ant System Algorithm Based on PPL. 2010,	2
822	An Improved Ant Colony Algorithm for Path Optimization in Emergency Rescue. 2010,	2
821	Hybrid Ant Colony Optimization for intensification and diversification. 2010,	
820	A novel ACO technique for fast and near optimal solutions for the Multi-dimensional Multi-choice Knapsack Problem. 2010,	2
819	An Multicast Routing Based on Ant Colony Optimization Algorithm for DTN. 2010,	1
818	Pheromone Pre-seeding for the Construction of RFID Antenna Structures Using ACO. 2010,	2
817	Feature Selection for Classification Using an Ant Colony System. 2010,	10
816	Regional ACO-based routing for load-balancing in NoC systems. 2010,	6
815	A metaheuristic approach to spectrum assignment for opportunistic spectrum access. 2010,	12
814	AUTOMATIC FLOWER BOUNDARY EXTRACTION USING IPSOAntK-MEANS ALGORITHM. 2010, 41, 416-434	2
813	Analyzing Electroencephalograms Using Cloud Computing Techniques. 2010,	13
812	ACO-based Cascaded Adaptive Routing for traffic balancing in NoC systems. 2010,	1
811	Nonlinear ant system for large scale search spaces. 2010,	

810	Fuzzy unit commitment using the Ant Colony Search Algorithm. 2010 ,	1
809	An Improved MMAS Algorithm for Path Optimization in Emergency Rescue. 2010 ,	
808	A Monte-Carlo ant colony system for scheduling multi-mode projects with uncertainties to optimize cash flows. 2010 ,	1
807	A novel Ant algorithm for permutation flow shop problem. 2010 ,	
806	Application of Ant Colony Clustering Algorithm in Discrimination the Origin of Longjing Tea. 2010 ,	
805	A New Multi-Vendor Logistics and Distribution Optimized Algorithm Based on Ant Colony System. 2010 ,	
804	Unit commitment with nature and biologically inspired computing. 2010 ,	
803	An Analysis of Foraging and Echolocation Behavior of Swarm Intelligence Algorithms in Optimization: ACO, BCO and BA. 2018 , 08, 1-27	3
802	An Improved Ant Colony Optimization Algorithm for Construction Site Layout Problems. 2015 , 03, 221-232	4
801	An Improved Genetic Algorithm for Flight Path Re-Routes with Reduced Passenger Impact. 2017 , 05, 65-75	6
800	Research on Heuristics Logistics Distribution Algorithm Based on Parallel Multi-ant Colonies. 2011 , 6,	2
799	Optimal Power Flow Solution Using Ant Manners for Electrical Network. 2009 , 9, 34-40	18
798	Elitist Ant System with 2-opt Local Search for the Traveling Salesman Problem. 2012 , 12, 25-32	4
797	A Novel Binary Ant Colony Optimization: Application to the Unit Commitment Problem of Power Systems. 2011 , 6, 174-181	20
796	Distortion Invariant Vehicle License Plate Extraction and Recognition Algorithm. 2011 , 11, 1-8	5
795	Balance between Intensification and Diversification in Ant Colony Optimization. 2011 , 11, 100-107	3
794	Operations planning for agricultural harvesters using ant colony optimization. 2013 , 11, 652	13
793	THE USE OF HEURISTIC ALGORITHMS TO OPTIMIZE THE TRANSPORT ISSUES ON THE EXAMPLE OF MUNICIPAL SERVICES COMPANIES. 2014 , 29, 27-36	12

792	Application of Ant Colony Optimization Technique to Real Time Search of Optimal Evacuation Route after Severe Earthquake. 2016 , 16, 5_93-5_110	1
791	Introductory Chapter: Traveling Salesman Problem - An Overview.	1
790	A Novel Particle Swarm Optimization with Passive Congregation via Chaotic Sequences. 2012 , 809-815	1
789	Solving Traveling Salesman Problem by Using Improved Ant Colony Optimization Algorithm. 2011 , 404-409	13
788	Ant Colony System for solving the traveling Salesman Problem Considering the Overlapping Edge of Global Best Path. 2011 , 16, 203-210	2
787	Performance Study of Ant Colony Optimization for Feature Selection in EEG Classification. 2021 , 323-336	
786	A Home Energy Management System with Peak Demand Reduction Using Ant Colony Optimization and Time of Use Pricing Scheme. 2021 , 531-546	0
785	Model. 2021 , 15-39	
784	Ant Colony Optimization Technique in Soft Computational Data Research for NP-Hard Problems. 2021 , 197-211	0
783	An improved ant colony optimization algorithm in mobile robot path planning. 2021 ,	
782	Adaptive Wireless Multi-hop Routing Less Affected by Processing Delay. 2021 ,	
781	Risk Prediction Algorithm of Social Security Fund Operation Based on RBF Neural Network. 2021 , 2021, 1-8	1
780	Multi-objective workflow scheduling in cloud computing: trade-off between makespan and cost. 1	3
779	Optimization Algorithms and Applications. 2022 , 47-71	
778	An Improved Ant Colony Optimization Based on an Adaptive Heuristic Factor for the Traveling Salesman Problem. 2021 , 2021, 1-16	1
777	Ant Colony Optimization with Warm-Up. 2021 , 14, 295	2
776	Coverage path planning of heterogeneous unmanned aerial vehicles based on ant colony system. 2021 , 69, 101005	18
775	A hybrid ACS-VTM algorithm for the vehicle routing problem with simultaneous delivery & pickup and real-time traffic condition. 2021 , 162, 107747	2

774	Dynamic impact for ant colony optimization algorithm. 2021 , 100993	4
773	References. 2001 , 475-495	
772	Solving Network Synthesis Problems Using Ant Colony Optimisation. 2001 , 1-10	2
771	Ant based approaches to analyze strategic management problems. 2002 , 83-94	
770	Collective Behavior Evolution in a Group of Cooperating Agents. 2002 , 173-216	
769	Techniques for Designing and Refining Linguistic Fuzzy Models to Improve Their Accuracy. 2002 ,	
768	COR Methodology: A Simple Way to Obtain Linguistic Fuzzy Models with Good Interpretability and Accuracy. 2003 , 27-45	3
767	A Study about Additional Reinforcement in Local Updating and Global Updating for Efficient Path Search in Ant Colony System. 2003 , 10B, 237-242	2
766	A Study of Ant Colony System Design for Multicast Routing. 2003 , 10A, 369-374	
765	Multi Colony Ant Model using Positive.Negative Interaction between Colonies. 2003 , 10B, 751-756	
764	Heuristic Based Sampling in Estimation of Distribution Algorithms: An Initial Approach. 2004 , 384-393	
763	AntSearch \bar{b} new search algorithm. 2004 , 404-408	
762	Time-Scattered Heuristic for the Hardware Implementation of Population-Based ACO. 2004 , 250-261	1
761	Ant Algorithm for Detection of Retentive Structures in Coastal Waters. 2004 , 166-176	
760	A New Document Watermarking Algorithm Based on Hybrid Multi-scale Ant Colony System. 2004 , 440-448	0
759	Minimal Addition-Subtraction Chains with Ant Colony. 2004 , 1082-1087	1
758	Application of Soft Computing Techniques to Rescue Operation Planning. 2004 , 897-902	1
757	An Introduction to Collective Intelligence. 2004 , 133-178	4

- 756 A Reinforcement Learning Method using TD-Error in Ant Colony System. **2004**, 11B, 77-82
- 755 Thinning Compensation and Pseudo Minutiae Removal Using Ridge Trace. **2004**, 11B, 7-12
- 754 An Improved ACO Algorithm for Multicast Routing. **2005**, 238-244
- 753 Miner Ants Colony: A New Approach to Solve a Mine Planning Problem. **2005**, 328-338
- 752 A Pair-Ant Colony Algorithm for CDMA Multiuser Detector. **2005**, 978-987
- 751 Multiagent Elite Search Strategy for Combinatorial Optimization Problems. **2005**, 432-441 1
- 750 BIBLIOGRAPHY. **2005**, 575-631
- 749 Parallel Mining for Classification Rules with Ant Colony Algorithm. **2005**, 261-266 3
- 748 Efficient Pre-processing for Large Window-Based Modular Exponentiation Using Ant Colony. **2005**, 640-646
- 747 Improved Ant Colony System for the Traveling Salesman Problem. **2005**, 12B, 823-828 4
- 746 From Reactive Robotics to Situated Multiagent Systems. **2006**, 63-88 5
- 745 On the Efficient Implementation Biologic Reinforcement Learning Using Eligibility Traces. **2006**, 476-481
- 744 DNA Fragment Assembly: An Ant Colony System Approach. **2006**, 231-242 1
- 743 Parallel Particle Swarm Optimization Algorithms with Adaptive Simulated Annealing. **2006**, 261-279 1
- 742 Efficient Reward Functions for Adaptive Multi-rover Systems. **2006**, 177-191 1
- 741 An Ant Clustering Method for a Dynamic Database. **2006**, 169-178
- 740 A Swarm Optimization Model for Energy Minimization Problem of Early Vision. **2006**, 1128-1137
- 739 Continuous Function Optimization Using Hybrid Ant Colony Approach with Orthogonal Design Scheme. **2006**, 126-133 4

738	An Orthogonal Search Embedded Ant Colony Optimization Approach to Continuous Function Optimization. 2006 , 372-379	1
737	Three-Tier Multi-agent Approach for Solving Traveling Salesman Problem. 2006 , 813-817	1
736	Efficient Ant Reinforcement Learning Using Replacing Eligibility Traces. 2006 , 823-832	
735	An Improved Multi-agent Approach for Solving Large Traveling Salesman Problem. 2006 , 351-361	2
734	Hybrid Heuristic Algorithm for GPS Surveying Problem. 2007 , 239-246	4
733	Use of Ant Colony Optimization for Finding Neighborhoods in Image Non-stationary Markov Random Field Classification. 2007 , 279-286	
732	Multiagent Search Strategy for Combinatorial Optimization Problems in Ant Model. 2007 , 367-373	
731	Multi-constraint System Scheduling Using Dynamic and Delay Ant Colony System. 2007 , 655-664	1
730	Bibliography. 2007 , 435-440	
729	An Adaptive Genetic Algorithm for Solving Traveling Salesman Problem. 2008 , 182-189	1
728	General Game Playing with Ants. 2008 , 381-390	4
727	A Scalable and Adaptive Distributed Service Discovery Mechanism in SOC Environments. 2008 , 349-360	1
726	Can a Swarm Be Embodied?. 2008 , 59-78	1
725	An (r,s)-derived sets and double fuzzy closure operators. 2008 , 8, 6-10	
724	Multi-vehicle Route Selection Based on an Ant System. 2008 , 8, 61-67	
723	Heuristic Search for Cluster Centroids: An Ant-Based Approach for FCM Initialization. 2009 , 810-820	
722	Evolutionary and Ant Colony Optimization Based Approaches for a Two-Dimensional Strip Packing Problem. 2009 , 245-266	0
721	Handling Dynamic Networks Using Ant Colony Optimization on a Distributed Architecture. 2009 , 653-664	

- 720 A Post-optimization Method to Improve the Ant Colony System Algorithm. **2009**, 424-431
- 719 Research on Improvement Strategies and Parameter Analysis of Ant Colony Algorithm for One-Dimensional Cutting Stock Problem. **2009**, 319-329
- 718 A Hybrid Algorithm Based on Tabu Search and Ant Colony Optimization for k-Minimum Spanning Tree Problems. **2009**, 315-326
- 717 The Convergence Control to the ACO Metaheuristic Using Annotated Paraconsistent Logic. **2009**, 382-391 1
- 716 Combine the Objective Features with the Subjective Feelings in Personal Multi-alternative Decision Making Modeling. **2009**, 194-202
- 715 Improving Query Mechanisms for Unstructured Peer-to-Peer Networks. **2009**, 60-67 1
- 714 An Integrated Context Generation Scheme based on Ant Colony System. **2009**, 16A, 135-142
- 713 Ant colony algorithm based on mind evolution. **2009**, 29, 1267-1269
- 712 Travel Itinerary Planning in Public Transportation Network Using Activity-Based Modeling. **2009**, 9, 2532-2543 3
- 711 An Improved Ant Algorithm for Multidimensional Knapsack Problem. **2009**, 31, 810-819
- 710 Self Organizing Map with Generalized and Localized Parallel Competitions for the TSP. **2009**, 31, 220-227 0
- 709 Inverse Problems and Error Minimisation. **2010**, 5-25
- 708 Robotic Swarms for Mine Detection System of Systems Approach. **2009**, 363-415
- 707 Security in Wireless Sensor Networks. **2009**, 409-454
- 706 Proposta de um framework para prototipagem de sistemas heurísticos multiagentes baseados em algoritmos de colônia de formigas. **2009**, 29, 643-668
- 705 Ant colony algorithm for continuous space optimization. **2009**, 29, 2744-2747 4
- 704 Multi-Agent Coordination for Service Composition. **2010**, 47-80 1
- 703 Pheromone-Balance Driven Ant Colony Optimization with Greedy Mechanism. **2010**, 111-119

- 702 Adding Diversity to Two Multiobjective Constructive Metaheuristics for Time and Space Assembly Line Balancing. **2010**, 211-226
- 701 Consultant-Guided Search Algorithms for the Quadratic Assignment Problem. **2010**, 148-159 4
- 700 ACS Searching for D4t-Hadamard Matrices. **2010**, 368-375
- 699 Images Boundary Extraction Based on Curve Evolution and Ant Colony Algorithm. **2010**, 290-297
- 698 Honey Bee Mating Optimization Algorithm for Approximation of Digital Curves with Line Segments and Circular Arcs. **2010**, 183-192
- 697 Hybridization of GA and ANN to Solve Graph Coloring. **2010**, 517-523 1
- 696 Swarm Intelligence. **2010**, 327-354
- 695 Challenges for the Brazilian Green and Yellow Internet. **2010**, 237-248
- 694 Ant Colony Learning Algorithm for Optimal Control. **2010**, 155-182 1
- 693 Feature Selection for Classification Using an Ant System Approach. **2010**, 233-241 1
- 692 A Cooperative Network Game Efficiently Solved via an Ant Colony Optimization Approach. **2010**, 336-343 0
- 691 Reasoning Elements for a Vehicle Routing System. **2010**, 182-189
- 690 A Novel Ant Colony Optimization Algorithm in Application of Pheromone Diffusion. **2010**, 1-8
- 689 Context Discovery in Mobile Environments: A Particle Swarm Optimization Approach. **2010**, 160-175 1
- 688 Detection and Length Estimation of Linear Scratch on Solid Surfaces Using an Angle Constrained Ant Colony Technique. **2010**, 254-261
- 687 The Research of the Intelligent Fault Diagnosis Optimized by ACA for Marine Diesel Engine. **2010**, 174-181 1
- 686 An Improved Ant Algorithm for Fuzzy Data Mining. **2010**, 344-351 1
- 685 Research on a Novel Ant Colony Optimization Algorithm. **2010**, 339-346

- 684 Swarm Intelligence: The Ant Paradigm. **2010**, 137-157
- 683 Ensuring Fast Adaptation in an Ant-Based Path Management System. **2010**, 24-35
- 682 Coordinating Learning Agents for Multiple Resource Job Scheduling. **2010**, 123-140
- 681 Data Query Protocol Based on Ant Colony Optimization for Wireless Sensor Networks. **2010**, 21, 793-801
- 680 Optimization algorithm of BP networks based on ant colony algorithm. **2010**, 30, 1513-1515 1
- 679 Extended hybrid genetic algorithm for solving Travelling Salesman Problem with sorted population. **2010**, 11, 2269-2275
- 678 Distributed Service Discovery Based on Agent and Ant Colony Algorithm. **2010**, 21, 1795-1809 1
- 677 A Bio-Inspired Scheduling Algorithm for Grid Environments. **2011**, 113-128
- 676 Evolutionary Computation. **2011**, 5-61
- 675 Swarm Intelligence Optimization and Its Applications. **2011**, 458-464
- 674 Based on TSP Problem the Research of Improved Ant Colony Algorithms. **2011**, 827-833 1
- 673 Foraging. **2011**, 87-137
- 672 Research on the variable universe fuzzy algorithm of chaotic systems. **2011**, 60, 010511 2
- 671 Research of Path Planning in Virtual Scenes Based on Ant Colony Algorithm and Axis Aligned Bounding Boxes Collision Detection Technology. **2011**, 615-622
- 670 Intelligent Computational Optimization in Engineering: Techniques and Applications. **2011**, 1-24 2
- 669 An Fast Max-Min Ant Colony Optimization Algorithm for Solving the Static Combinational Optimization Problems. **2011**, 575-581 1
- 668 A Setup Planning Approach Considering Tolerance Cost Factors. **2011**, 251-277 2
- 667 Extended Trail Reinforcement Strategies for Ant Colony Optimization. **2011**, 662-669

- 666 Collaborative Optimization under a Control Framework for ATSP. **2011**, 355-363
- 665 Anytime Ant System for Manipulator Path Planning. **2011**, 411-420 1
- 664 Spam Host Detection Using Ant Colony Optimization. **2011**, 13-21 3
- 663 Application of Estimation of Distribution Algorithms for Nuclear Fuel Management. **2011**, 141-176
- 662 A Modified ACO Algorithm for the Pattern Synthesis of Array Antennas. **2011**, 189-195 0
- 661 Comparative Analysis of Recombination Operators in Genetic Algorithms for the Travelling Salesman Problem. **2011**, 10-17 1
- 660 Emergency Logistics Routing Optimization Algorithm Based on FSACO. **2011**, 163-170 1
- 659 The Performance Evaluation of Heuristic Information-Based Wireless Sensor Network Routing Method. **2011**, 123-130
- 658 GRACE: A Generational Randomized ACO for the Multi-objective Shortest Path Problem. **2011**, 535-549
- 657 Evolutionary Approaches for Optimisation Problems. **2011**, 29-52
- 656 A Multi-MetaHeuristic Combined ACS-TSP System. **2011**, 19-25
- 655 A Pareto Ant Colony Optimization Algorithm for Application-Specific Routing in Wireless Sensor & Actor Networks. **2011**, 36, 346-353 2
- 654 S-MINE Algorithm for the TSP. **2011**, 18B, 73-82
- 653 Improvement of Power Quality Using Optimized Non-Linear SAPF Controller. **2011**, 6, 183-189
- 652 Implementation of ACS-based Wireless Sensor Network Routing Algorithm using Location Information. **2011**, 11, 51-58
- 651 High-dimensional optimization problems via disturbance chaotic ant swarm algorithm. **2011**, 31, 1084-1089
- 650 Solving the Gale-Shapley Problem by Ant-Q learning. **2011**, 18B, 165-172 1
- 649 References. 281-299

- 648 Resource Management Model and ResourceDiscovery Algorithm for P2PGrid. **2011**, 6,
- 647 Research on Improved Ant Colony Algorithm for TSP Problem. **2012**, 243-249
- 646 A Study on Static Situation Awareness System with the Aid of Optimized Polynomial Radial Basis Function Neural Networks. **2011**, 60, 2352-2360
- 645 Rough Sets for Condition Monitoring. **2012**, 151-170
- 644 A Physical Topology-Aware Chord Model based on ACO. **2011**, 6, ○
- 643 Ant Colony Optimization for Collaborative Vehicle Routing Management. **2011**, 19, 125-138
- 642 Theoretical Analysis on Initial Pheromone Values for ACO. **2012**, 339-349 1
- 641 Route Optimization of Marking Torch Using Ant Colony Method. **2012**, 16, 181-187
- 640 Pointwise Convergence of Discrete Ant System Algorithm. **2012**, 342-349
- 639 Fisherman Search Procedure. **2012**, 291-299
- 638 Recombination Operators in Permutation-Based Evolutionary Algorithms for the Travelling Salesman Problem. **2012**, 268-285
- 637 Logistics for the Garbage Collection through the use of Ant Colony Algorithms. **2012**, 33-51
- 636 Searching Experience Sharing Based on Ant Colony Model. **2012**, 05, 645-652
- 635 A Hybrid Approach Based on Ant Colony System for the VRPTW. **2012**, 327-333 2
- 634 A new heuristic algorithm for laser antimissile strategy optimization. **2012**, 8, 457-468 ○
- 633 A Novel Strategy Adaptive Genetic Algorithm with Greedy Local Search for the Permutation Flowshop Scheduling Problem. **2012**, 687-696
- 632 Neighborhood Search Based Artificial Bee Colony Algorithm for Numerical Function Optimization. **2012**, 232-239
- 631 An Ant System with Two Colonies and Its Application to Traveling Salesman Problem. **2012**, 132, 2043-2050

- 630 Models and Optimization Techniques of Machining Parameters in Turning Operations. **2012**, 162-192 2
- 629 Balanced Job Scheduling Based on Ant Algorithm for Grid Network. **2012**, 13-30
- 628 Load Balancing Using Hybrid ACO - Random Walk Approach. **2012**, 402-412
- 627 Application of Improved ACO in the Selection of Emergence Logistics Distribution Routing. **2012**, 438-445
- 626 Balanced Job Scheduling Based on Ant Algorithm for Grid Network. **2012**, 1114-1131 1
- 625 An Ant Colony Algorithm for Solving the Sky Luminance Model Parameters. **2012**, 365-372 1
- 624 Multicast Routing Protocols in MANET. **2012**, 19-50 1
- 623 Computational Intelligent Systems in IndustrialEngineering. **2012**, 1-22
- 622 Parallel Approaches in MOACOs for Solving the Bi-criteria TSP: A Preliminary Study. **2012**, 45-66
- 621 Adaptive image inpainting algorithm based on texture feature. **2012**, 31, 1572-1574 1
- 620 A Modified Ant System using Gaussian Probabilistic Pheromone Updation Technique. **2012**, 6, 16-22
- 619 Integrated bridge management from 3D-model to network level. **2012**, 3449-3455 0
- 618 From the Real Ant to the Artificial Ant. **2012**, 2, 45-68
- 617 A Distributed Method for Constructing a P2P Overlay Multicast Network using Computational Intelligence. **2012**, 11, 95-102
- 616 A Distributed Method for Constructing a P2P Overlay Multicast Network using Computational Intelligence. **2012**, 11, 95-102
- 615 Two Ant Decision Levels and Its Application to Multi-Cell Tracking. **2013**, 288-296
- 614 Dynamic Routing on OpenStreetMap Using Ant Colonies. **2013**, 58-72
- 613 Design and Development of Ant Colony System Algorithms for Block-Based DCT Watermarking. **2013**, 17, 51-60 1

- 612 Intelligent Computation for Manufacturing. **2013**, 211-246 7
- 611 Developing Issues for Ant Colony System Based Approach for Scheduling Problems. **2013**, 119-144
- 610 Integrating the Best 2-Opt Method to Enhance the Genetic Algorithm Execution Time in Solving the Traveler Salesman Problem. **2013**, 195-208 4
- 609 Model Reference Adaptive Search. **2013**, 89-177
- 608 A Hybrid Meta-Heuristic to Solve a Multi-Criteria HFS Problem. **2013**, 252-274 1
- 607 Soft Computing and its Applications. **2013**, 366-394 1
- 606 Feedback-Based Image Retrieval Using Probabilistic Hypergraph Ranking Augmented by Ant Colony Algorithm. **2013**, 387-396
- 605 Evolutionary Algorithms in SVR \bar{B} Parameter Determination. **2013**, 41-92
- 604 Network-Level Infrastructure Management Based on Metaheuristics. **2013**, 497-518
- 603 Introduction. **2013**, 1-71 1
- 602 Experimental Evaluation of Pheromone Structures for Ant Colony Optimization: Application to the Robot Skin Wiring Problem. **2013**, 93-114 2
- 601 Simulation of Scenic Spots Dynamic Pricing Based on Revenue Management. **2013**, 1345-1351
- 600 Cooperative Scheduling System with Emergent Swarm Based Behavior. **2013**, 661-671
- 599 Logistics for the Garbage Collection through the use of Ant Colony Algorithms. **2013**, 1809-1827 1
- 598 A New Ant Colony Optimization Method Considering Intensification and Diversification. **2013**, 445-452
- 597 Adaptive Optics Control of the Propagation of Biphoton Wavepacket. **2013**,
- 596 Ants Searching for a Minimum. **2013**, 211-217
- 595 Swarm Intelligence in Power System Planning. **2013**, 02, 1-7 0

594	Decision Incorporation in Meta-heuristics to Cope with Decision Scheduling Problems. 2013 , 571-599	
593	Improved Ant Colony Algorithm for the Constrained Vehicle Routing. 2013 , 357-364	2
592	Reactive Coordination and Adaptive Lattice Formation in Mobile Robotic Surveillance Swarms. 2013 , 229-242	1
591	A Learnable Artificial Bee Colony Algorithm for Numerical Function Optimization. 2013 , 349-360	
590	Second Order Swarm Intelligence. 2013 , 411-420	1
589	Ant Colony System with Selective Pheromone Memory for SOP. 2013 , 711-720	1
588	ACO Based Dynamic Scheduling Algorithm for Real-Time Multiprocessor Systems. 2013 , 85-96	0
587	Bibliography. 219-230	
586	An Improved Ant Colony Optimization Applied in Robot Path Planning Problem. 2013 , 8,	1
585	A Quality of Service Anycast Routing Algorithm Based on Improved Ant Colony Optimization. 2013 , 8,	0
584	Combined Swarm Intelligence Routing Protocol for MANET. 2013 , 12, 791-797	1
583	Intrusion Detection System based on Ant Colony System. 2013 , 8,	
582	A Multi-objective Ant Colony Optimization Algorithm for Real Time Intrusion Detection Routing in Sensor Network. 2013 , 2, 191-198	
581	A Study on Methodology of the Snow Removal Operation of Air Wing Using Hybrid ACS Algorithm. 2013 , 30, 31-42	
580	Enhancing the Lifetime of Wireless Sensor Network using Cluster Based Approach. 2013 , 2, 7-13	
579	A Distributed Peer Selection Method for Supporting Scalable Peer-to-Peer Services. 2013 , 2, 471-474	
578	Optimal solution search method by using modified local updating rule in ACS-subpath algorithm. 2013 , 11, 443-448	
577	Introduction to Modeling Problems. 2014 , 1-30	1

- 576 An Equal Share Ant Colony Optimization Algorithm for Job Shop Scheduling Adapted to Cloud Environments. **2014**, 81-92
- 575 Metaheuristics in Process Engineering: A Historical Perspective. **2014**, 1-38
- 574 A Dynamic Route-Exchanging Mechanism for Anticipatory Traffic Management. **2014**, 286-293
- 573 Metaheuristics for Solving a Hybrid Flexible Flowshop Problem with Sequence-Dependent Setup Times. **2014**, 9-25
- 572 Introduction. **2014**, 1-4 1
- 571 Ant Colony Optimization Model for Discrete Tomography Problems. **2014**, 785-792
- 570 A Novel Physarum-Based Ant Colony System for Solving the Real-World Traveling Salesman Problem. **2014**, 173-180
- 569 The Comparison between IABC with EGARCH in Foreign Exchange Rate Forecasting. **2014**, 127-136 1
- 568 Sensitive Ants for Denial Jamming Attack on Wireless Sensor Network. **2014**, 409-418 4
- 567 Quantification-Based Ant Colony System for TSP. **2014**, 331-339 1
- 566 SIDE. **2014**, 5, 39-58 7
- 565 Ant Colony Algorithm for Single Stage Supply Chain. **2014**, 131-142
- 564 Evolving Mixtures of n-gram Models for Sequencing and Schedule Optimization. **2014**, 312-321
- 563 Effective Multi-caste Ant Colony System for Large Dynamic Traveling Salesperson Problems. **2014**, 67-78
- 562 Multi-robot Hunting Using Mobile Agents. **2014**, 223-232 2
- 561 Ant Colony Algorithm for Two Stage Supply Chain. **2014**, 143-155
- 560 Autonomous Agents in Cellular Manufacturing. **1999**, 427-438
- 559 Mmoire collective chez les insectes sociaux. **1999**, 141

- 558 On the Implementation of a Class of Stochastic Search Algorithms. **2015**, 427-435
- 557 Cellular Robotic Ants Synergy Coordination for Path Planning. **2015**, 197-228
- 556 Incremental Approximation Models for Constrained Evolutionary Optimization. **2015**, 135-156
- 555 Modified Consensus Based Auction Algorithm for Task Allocation of Multiple Unmanned Aerial Vehicle. **2014**, 23, 197-202 3
- 554 A Movement Algorithm for Evacuee Agents in Disaster Simulators: Towards the Development of Evacuation Guidance Systems Based on Ant Colony Systems Using MANET. **2015**, 369-378
- 553 A Levy Interior Search Algorithm for Chaotic System Identification. **2015**, 137-147
- 552 Applications of Swarm Intelligence in Remanufacturing. **2015**, 66-74
- 551 Multi-Colony Ant Algorithm Using a Sociometry-Based Network and Its Application. **2015**, 205-212 1
- 550 Paramos sistema investuotojui valiutėrinkoje. **2015**, 3
- 549 Ant-Inspired Algorithms for Decision Tree Induction. **2015**, 95-106 1
- 548 Design of the Integrated Logistics Information System Based on Cloud Computing. **2015**, 3, 31-34 1
- 547 Ant Metaheuristic with Adapted Personalities for the Vehicle Routing Problem. **2015**, 3-15
- 546 Network Structure-Aware Ant-Based Routing in Large-Scale Wireless Sensor Networks. **2015**, 2015, 1-16 1
- 545 Modeling Nanorobot Control Using Swarm Intelligence for Blood Vessel Repair: A Rigid-Tube Model. **2015**, 205-236 1
- 544 Das mehrstufige kapazitierte Losgrößenproblem. **2015**, 89-107
- 543 Clustering Algorithm Based on Molecular Dynamics with Nose-Hoover Thermostat. Application to Japanese Candlesticks. **2015**, 330-340 1
- 542 From Optimization to Clustering. **2015**, 594-619 5
- 541 Collective Intelligence-Based Sequential Pattern Mining Approach for Marketing Data. **2015**, 353-361

- 540 Quantum Inspired Swarm Optimization for Multi-Level Image Segmentation Using BDSOINN Architecture. **2015**, 286-326
- 539 Performance Evaluation of Ant Colony Systems for the Single-Depot Multiple Traveling Salesman Problem. **2015**, 257-268 6
- 538 Iterative Cone-Beam CT Reconstruction on GPUs. **2015**, 47-62
- 537 Experimental study on solution possibilities of multiextremal optimization problems through heuristic methods. **2015**, 15, 82-93 2
- 536 An Optimal ANT Algorithm for Balanced Scheduling in Computing Grids. **2015**, 10, 6-19
- 535 Comparing ACO Approaches in Epilepsy Seizures. **2016**, 261-272 1
- 534 Case Study: A Review of Security Challenges, Attacks and Trust and Reputation Models in Wireless Sensor Networks. **2016**, 117-175 1
- 533 EVALUATION OF HYBRID TRUST MODELS USING ANT COLONY OPTIMIZATION IN WIRELESS SENSOR NETWORKS. **2016**, 9, 1243-1260 1
- 532 The Lazy Traveling Salesman [Memory Management for Large-Scale Link Discovery. **2016**, 423-438 1
- 531 Introduction. **2016**, 1-6
- 530 Methoden der Systemgestaltung. **2016**, 173-274
- 529 A Real Adjacency Matrix-Coded Differential Evolution Algorithm for Traveling Salesman Problems. **2016**, 135-140
- 528 An Ant Colony System Adaptation to Deal with Accessibility Issues After a Disaster. **2016**, 415-421
- 527 Exploring Multi-action Relationship in Reinforcement Learning. **2016**, 574-587 2
- 526 On Practical Automated Engineering Design. **2016**, 115-140 2
- 525 Application of Adaptive Tabu Search Algorithm in Hybrid Power Filter and Shunt Active Power Filters. **2016**, 276-308
- 524 A Switching Condition of Search Stages and a Multi-start Strategy in GA-EAX for TSPs. **2016**, 52, 242-248
- 523 A Hybrid ACO-ACM Based Approach for Multi-cell Image Segmentation. **2016**, 458-466

- 522 A Comparative Approach of Ant Colony System and Mathematical Programming for Task Scheduling in a Mineral Analysis Laboratory. **2016**, 413-425 2
- 521 Bibliography. 187-204
- 520 Learning Fuzzy Models with a SAX-based Partitioning for Simulated Seizure Recognition. **2017**, 20-30
- 519 Research on Shortest Path Algorithm in Intelligent Traffic System. **2017**, 301-306
- 518 Swarm Intelligence-based Optimal Design for Selecting the Kinematic Parameters of a Manipulator According to the Desired Task Space Trajectory. **2016**, 25, 504-510
- 517 Terrestrial Laser Scanner Locating assessment in Surveying Projects with Genetic Algorithm. **2016**, 4, 57-76
- 516 Asynchronous Population-Based Hill Climbing Applied to SPICE Model Generation from EM Simulation Data. **2017**, 423-428 0
- 515 Population-Based Heuristics. **2017**, 77-128
- 514 A MODIFIED BFOA APPROACH FOR OPTIMAL LOCATION AND SIZING OF FACTS FOR ENHANCING POWER SYSTEM SECURITY. **2017**, 5, 24
- 513 A Family of Ant Colony P Systems. **2017**, 175-193 2
- 512 A Probabilistic Learning Algorithm for the Shortest Path Problem. **2017**, 631-643 0
- 511 Increasing Route Availability in Internet of Vehicles Using Ant Colony Optimization. **2017**, 318-331 0
- 510 Pre-scheduled Colony Size Variation in Dynamic Environments. **2017**, 128-139
- 509 ANT COLONY OPTIMIZATION BASED SHUNT ACTIVE POWER FILTER FOR HARMONIC COMPENSATION. **2017**, 11, 19
- 508 Multi-Robot Task Allocation Based on Cloud Ant Colony Algorithm. **2017**, 3-10 3
- 507 A Multi-Objective Fuzzy Ant Colony Optimization Algorithm for Virtual Machine Placement. **2017**, 459-486
- 506 Automatic Generation Control of Hydro-Hydro Interconnected Power System Based on Ant Colony Optimization. **2017**, 153-170 0
- 505 Ant Colony Optimization for Semantic Searching of Distributed Dynamic Multiclass Resources. **2017**, 277-303

504 Architecture and Adaptability of Hierarchy.

503 Improve the Urban Basic Construction of Facilities and Guarantee the Urban Traffic Flow. **2017**, 12-19

502 A New Heuristic Function of Ant Colony System for Retinal Vessel Segmentation. **2017**, 2063-2081

501 An Improved Ant Colony Optimization with Subpath-Based Pheromone Modification Strategy. **2017**, 257-265

500 Affinity of Robotics and Insect Behavioral Sciences. **2017**, 35, 459-462

499 Self-Organised Order: Examples. **2017**, 13-77

498 A. **2017**, 1-33

497 Ant-Inspired, Invisible-Hand-Controlled Robotic System to Support Rescue Works After Earthquake. **2017**, 507-517 4

496 An Enhanced Ant Colony Clustering Method for Color Image Segmentation. **2017**, 10, 1-7

495 Ant Colony Optimization Approach for Optimizing Irrigation System Layout: Case of Gravity and Collective Network. **2018**, 323-332 0

494 Bibliography. 251-264

493 Evolutionary Dynamics and Its Network Visualization - Selected Examples. **2018**, 31-63

492 Fuzzy Bio-Inspired Hybrid Techniques for Server Consolidation and Virtual Machine Placement in Cloud Environment. **2017**, 17, 52-68 3

491 A Parallel Pre-schedule Max-Min Ant System. **2018**, 183-193

490 Background on Artificial Intelligence Algorithms for Global Path Planning. **2018**, 13-51 1

489 SIDE. **2018**, 809-832

488 Research on Vehicle Routing Problem and Its Optimization Algorithm Based on Assembled Building. **2018**, 754-762

487 Combining Two-Phase Local Search with Multi-objective Ant Colony Optimization. **2018**, 564-576

- 486 The Multi-criteria Location Problem of the Municipal Plants. **2018**, 493-505 1
- 485 City Group Optimization. **2018**, 73-96
- 484 An Adaptive Ant Colony System for Public Bicycle Scheduling Problem. **2018**, 417-429 2
- 483 Optimal Placement of Power Factor Correction Capacitors Using Taguchi Optimization Method. **2018**, 777-812
- 482 Bibliography. 185-205
- 481 Stochastic Greedy-Based Particle Swarm Optimization for Workflow Application in Grid. 0
- 480 3D Formation Control of Swarm Robots Using Mobile Agents. **2019**, 168-177
- 479 Off-line Robot Optimization with Hybrid Algorithm. **2019**, 351-358
- 478 Cooperative Ant Colony Algorithm for Flexible Manufacturing Systems. **2019**, 372-383
- 477 Modeling of the optimal databases allocation of information systems by the availability of intermediate servers. **2018**, 2018, 54-60
- 476 Optimal foraging and the information theory of gambling.
- 475 A Max-Min Conflict Algorithm for the Stable Marriage Problem. **2019**, 44-53
- 474 Metaheuristic-Based Feature Optimization for Portfolio Management. **2019**, 109-125
- 473 Adjusting Population Size of Ant Colony System Using Fuzzy Logic Controller. **2019**, 309-320 4
- 472 Ecological Data Exploration. **2019**, 27-62
- 471 Multi-Objective Territory Design for Sales Managers of a Direct Sales Company. **2019**, 160-178 1
- 470 Approximate Backbone Subsection Optimization Algorithm for the Traveling Salesman Problem. **2019**, 71-80 1
- 469 An Adapted Ant-Inspired Algorithm for Enhancing Web Service Composition. **2019**, 904-921

- 468 A Min-Max Strategy to Aid Decision Making in a Bi-Objective Discrete Optimization Problem Using an Improved Ant Colony Algorithm. **2019**, 09, 161-174 1
- 467 A Modified Cultural Algorithm for Feature Selection of Biomedical Data. **2019**, 166-177
- 466 Optimierung der Aufspannung und Bearbeitung. **2019**, 91-119
- 465 Application of Nature-Inspired Algorithms for Sensing Error Optimisation in Dynamic Environment. **2019**, 124-169
- 464 A novel ant colony optimization (ACO) based energy efficient multipath routing protocol for sensor communications. **2019**, 1-16
- 463 Assessing Ant Colony Optimization Using Adapted Networks Science Metrics. **2020**, 125-134
- 462 ACO-Inspired Energy-Aware Routing Algorithm for Wireless Sensor Networks. **2019**, 1, 5-13 2
- 461 INTELLIGENT ROUTING IN THE NETWORK OF INFORMATION AND TELECOMMUNICATION SYSTEM OF RAILWAY TRANSPORT. **2019**, 77-90 2
- 460 Application of Improved Ant Colony Algorithm in Path Planning. **2020**, 596-603
- 459 An Improved Chicken Swarm Optimization for TSP. **2020**, 211-220
- 458 PRER-KARAGI ALGORİMASI: GEZGİN SATICI PROBLEMİN YENİBİR YAKLAIM. 1
- 457 Iterated Local Search in Combinatorial Optimization Problem. **2019**, 405-412
- 456 Improving Urban Air Quality Through Long-Term Optimisation of Vehicle Fleets. **2020**, 70-89
- 455 ACO-Based Secure Routing Protocols in MANETs. **2020**, 195-206 0
- 454 Soft Computing in Robotics: A Decade Perspective. **2020**, 59-78 1
- 453 Coverage-Aware Recharge Scheduling Scheme for Wireless Charging Vehicles in the Wireless Rechargeable Sensor Networks. **2020**, 663-671
- 452 Ant Colony Optimization-Based Multiple-AGV Route-and-Velocity Planning for Warehouse Operations. **2020**, 224-229
- 451 Research on Path Planning of Mobile Robot Based on Ant Colony Algorithm. **2019**,

450 Experimental and Numerical Shortest Route Optimization in Generating a Design Template for a Recreation Area in Kadifekale. **2020**, 779-798

449 Introduction. **2020**, 1-31

448 An Efficient Solution to Travelling Salesman Problem using Genetic Algorithm with Modified Crossover Operator. **2019**, 7,

447 Artificial Intelligence Based Optimization Techniques: A Review. **2020**, 95-103

4

446 Role of AI and Bio-Inspired Computing in Decision Making. **2020**, 115-136

445 Optimal Value Capacitor Selection and Power Control Using Continuous Time Ant Colony Algorithm in Nonlinear Loads. 780-792

1

444 SEZGSEL VE METASEZGSEL YNTEMLERN GEZGN SATICI PROBLEMLERIN PERFORMANSLARININ KIYASLANMASI. **2019**, 19,

2

443 Ant Colony Optimization Algorithm to Solve Electrical Cable Routing. **2020**, 69-85

442 From Complex Organisms to Societies. **2020**, 29-44

441 Evolutionary Computation. **2020**, 681-803

1

440 Dynamic Parking Guidance Architecture Using Ant Colony Optimization and Multi-agent Systems. **2020**, 58-63

1

439 Optimization of shunt active filter connected to electrical network system using fuzzy logic controller based on ant colony algorithm. **2020**,

438 Improving TSP Solutions Using GA with a New Hybrid Mutation Based on Knowledge and Randomness. **2020**, 22, 128-139

1

437 A Novel Hybrid Optimization Algorithm Combined with BBO and ACO. **2020**,

436 İnci El Kitab Ticareti iin Elektronik Pazar Modeli, YapıSezgisel Yntemler ve Karıca Kolonisi Optimizasyonu.

435 The Big Data Approach Using Bio-Inspired Algorithms: Data Imputation. **2021**, 1-19

434 Optimizasyon Problemleri iin GeliirilmifFeromonal Yapay ArıKolonisi (gfYAK) Algoritması-442-450

0

433 Two Applications of Inter-Criteria Analysis with Belief Functions. **2020**, 20, 38-59

432	Artificial Cell Swarm Optimization. 2020 , 196-214	4
431	Path Planning of Mobile Robot Based on an Improved Ant Colony Algorithm. 2020 , 132-141	1
430	Natural Heuristic Methods for Underwater Vehicle Path Planning. 2020 , 191-222	
429	Review on the Improvement and Application of Ant Colony Algorithm. 2020 , 3-14	
428	Parameter and Mixture Component Estimation in Spatial Hidden Markov Models: A Comparative Analysis of Computational Methods. 2020 , 340-355	
427	Smart Tourism. 2020 , 163-206	
426	. 2020 ,	1
425	Hybrid Ant Colony Optimization Algorithm for Multiple Knapsack Problem. 2020 ,	2
424	Continuous-domain ant colony optimization algorithm based on reinforcement learning. 2021 , 19, 2050084	1
423	. 2020 ,	
422	The One-fifth Rule with Rollbacks for Self-Adjustment of the Population Size in the $(1 + \lambda)$ Genetic Algorithm. 2020 , 27, 488-508	
421	A comprehensive review of modern trends in optimization techniques applied to hybrid microgrid systems. 2021 , 33, e6165	3
420	Scalable Partial-ACO Applied to Fleet Optimisation: Sampling and Multi-Colony Approaches. 2020 ,	1
419	A machine-learning framework for a novel 3-step approach for real-time taxi dispatching. 2020 ,	
418	Improved Ant Colony Genetic Algorithm for Solving Traveling Salesman Problem. 2020 , 1693, 012085	1
417	Path Planning of UAVs Based on Improved Ant Colony System. 2020 ,	0
416	. 2020 ,	1
415	Optimization and Control of Wireless Rechargeable Sensor Network Based on Intelligent Algorithm. 2020 ,	0

414	. 2020, 8, 227629-227641	4
413	Trends on Fitness Landscape Analysis in Evolutionary Computation and Meta-Heuristics. 2020, 78-99	1
412	Clustering via Ant Colonies: Parameter Analysis and Improvement of the Algorithm. 2020, 265-282	1
411	GEZGİN SATICI PROBLEMİNİN ÇÖZÜMÜNE YAKLAŞIM. 2019, 7, 561-571	1
410	Introduction. 2020, 1-24	
409	Optimization. 2020, 15-54	
408	A Survey on Ant Colony Optimization for Solving Some of the Selected NP-Hard Problem. 2020, 85-100	0
407	Natural Computing in Mobile Network Optimization. 2020, 1199-1225	
406	A Multi-AGV Optimal Scheduling Algorithm Based on Particle Swarm Optimization. 2020, 527-538	0
405	Solving Quadratic Assignment Problem Using Crow Search Algorithm in Accelerated Systems. 2020, 285-295	
404	Short-Term Electricity Load Forecast Using Hybrid Model Based on Neural Network and Evolutionary Algorithm. 2020, 167-176	2
403	Ant Colony Algorithm Based on Upper Bound of Nodes for Robot Path Planning Problems. 2020, 88-97	
402	Application research of ant colony cellular optimization algorithm in population evacuation path planning. 2020, 69, 080504	3
401	Optimizing the Crane's Operating Time with the Ant Colony Optimization and Pilot Method Metaheuristics. 2020, 364-389	1
400	Simulation Processes of Construction of Optimal Routes for the Delivery of Goods by Road Transport on Urban Road Network in Mountainous Cities. 2020, 112-121	
399	Partial-ACO Mutation Strategies to Scale-Up Fleet Optimisation and Improve Air Quality (Best Application Paper). 2020, 169-184	
398	A Review on Optimization Modeling of Hybrid Energy Systems. 2020, 29-62	0
397	Research on the Optimal Resource Allocation Algorithm of Power Communication Network. 2021,	0

- 396 Problem Solving Techniques Using Ant Colony Optimization in Computational Intelligence. **2022**, 739-747 0
- 395 Discovery of closed high utility itemsets using a fast nature-inspired ant colony algorithm. 1 2
- 394 Real-Time Capacity Management and Patient Flow Optimization in Hospitals Using AI Methods. **2021**, 55-69 2
- 393 Autocalibraci3n de los par3metros extr3secos de un sistema de visi3n estereosc3pico mediante optimizaci3n de colonia de hormigas. **2020**, 12, 16
- 392 Balanced Job Scheduling Based on Ant Algorithm for Grid Network. 1114-1131
- 391 Ant Clustering Algorithms. 1-15
- 390 An Ant Colony System Algorithm for the Hybrid Flow-Shop Scheduling Problem. 85-98
- 389 DIMMA-Implemented Metaheuristics for Finding Shortest Hamiltonian Path Between Iranian Cities Using Sequential DOE Approach for Parameters Tuning. 289-305
- 388 Nondestructive Analysis of Dielectric Bodies by Means of an Ant Colony Optimization Method. 308-325
- 387 Differential Operators Embedded Artificial Bee Colony Algorithm. 149-163
- 386 Wavelength and Routing Assignment in All Optical Networks Using Ant Colony Optimization. 217-234
- 385 Overview of Computational Intelligence. 18-36 8
- 384 Post-Disassembly Part-Machine Clustering Using Artificial Neural Networks and Ant Colony Systems. 135-150 9
- 383 Batch Order Picking Optimization Using Ant System. 204-222
- 382 Data Mining using Advanced Ant Colony Optimization Algorithm and Application to Bankruptcy Prediction. 1554-1576
- 381 Intelligent Computation for Manufacturing. 1748-1782
- 380 From Optimization to Clustering. 1519-1544 1
- 379 A Multi-Robot System Using Mobile Agents with Ant Colony Clustering. 174-192

- 378 Marriage in Honeybee Optimization to Scheduling Problems. 158-177
- 377 QoS and Energy-Aware Routing for Wireless Sensor Networks. 497-514
- 376 Soft Computing and its Applications. 1-30 0
- 375 The Adaptive Web Server Based on Ant Behavior. **2005**, 863-870
- 374 Towards Very Fast Modular Exponentiations Using Ant Colony. **2006**, 415-424
- 373 Bi-Tour Ant Colony Optimization for Diagonal Clustering. **2005**, 927-936
- 372 A generalized version of Graph-based Ant System and its applicability and convergence. **2005**, 949-958
- 371 Competing Ants for Organization Detection Application to Dynamic Distribution. **2006**, 25-52
- 370 Using Local Information to Guide Ant Based Search. **2003**, 692-701 2
- 369 Ant Colonies using Arc Consistency Techniques for the Set Partitioning Problem. **2006**, 295-301
- 368 Fault Pattern Recognition Based on Improved Wavelet Neural Network. **2008**, 1039-1045
- 367 An Ant-Based Heuristic for the Railway Traveling Salesman Problem. **2007**, 702-711 4
- 366 A Theoretical Framework of Natural Computing IM Good Lattice Points (GLP) Method. **2007**, 452-462
- 365 Dynamic Load Balancing Using an Ant Colony Approach in Micro-cellular Mobile Communications Systems. **2007**, 137-152 3
- 364 Competitive Ant Colony Optimisation. **2007**, 974-983 1
- 363 Binary Ant Colony Algorithm for Symbol Detection in a Spatial Multiplexing System. **2007**, 115-126 3
- 362 Dancing with Swarms: Utilizing Swarm Intelligence to Build, Investigate, and Control Complex Systems. **2008**, 69-94 1
- 361 Modified ACS Algorithm-Based Nonlinear PID Controller and Its Application to CIP-I Intelligent Leg. **2007**, 522-533

- 360 New Ant Colony Optimization for Optimum Multiuser Detection Problem in DS-CDMA Systems. **2007**, 326-333
- 359 Calculating Optimal Decision Using Meta-level Agents for Multi-Agents in Networks. **2007**, 180-188 13
- 358 Two-Stage ACO to Solve the Job Shop Scheduling Problem. **2007**, 447-456 0
- 357 Concealed Contributors to Result Quality □The Search Process of Ant Colony System. **2007**, 25-35
- 356 If also Ants Are Able.... **2008**, 317-340
- 355 Automata on Multisets of Communicating Objects. **2008**, 242-257
- 354 NAS Algorithm for Semantic Query Routing Systems in Complex Networks. 284-292
- 353 An Improved ACO Based Plug-in to Enhance the Interpretability of Fuzzy Rule Bases with Exceptions. **2008**, 13-24
- 352 Network Formation Using Ant Colony Optimization. **2008**, 405-406
- 351 Generating Routes with Bio-inspired Algorithms under Uncertainty. **2008**, 306-313
- 350 A Resource Discovery Method Based on Multiple Mobile Agents in P2P Systems. **2009**, 113-135 3
- 349 Discrete Set Handling. **2009**, 163-205 1
- 348 Ant Colony Optimization for Option Pricing. **2009**, 51-73 1
- 347 A Comparative Study of Heuristics and Meta-heuristic Algorithms with Issues in WSN. **2021**, 525-532
- 346 A Survey on Energy Awareness Mechanisms in ACO-Based Routing Protocols for MANETs. **2021**, 791-800 1
- 345 Encoding scheme for data storage and retrieval on DNA computers. **2020**, 14, 635-641 1
- 344 Using Ant Colony Optimisation for map generation and improving game balance in the Terra Mystica and Settlers of Catan board games. **2020**, 0
- 343 Path Planning Algorithm Using the Hybridization of the Rapidly-Exploring Random Tree and Ant Colony Systems. **2021**, 9, 153599-153615 2

342	Age-and Correlation-Aware Information Gathering. 2021 , 1-1	2
341	A framework for modeling fault propagation paths in air turbine starter based on Bayesian network. 1748006X2110527	
340	Finding the global optimal solution in Dynamic multiple TSPTW with data-driven ACO. 2021 ,	
339	ACO Inspired GA Mutation Applied to the TSP. 2022 , 95-107	1
338	DEEPSEL: A novel feature selection for early identification of malware in mobile applications. 2021 , 129, 54-54	2
337	Graph based twin cost matrices for unbalanced assignment problem with improved ant colony algorithm. 2021 , 12, 100207	0
336	Sizing approaches for solar photovoltaic-based microgrids: A comprehensive review.	2
335	As good as it gets: A scaling comparison of DNA computing, network biocomputing, and electronic computing approaches to an NP-complete problem.	0
334	A survey, taxonomy and progress evaluation of three decades of swarm optimisation. 1	0
333	Planning optimal power dispatch schedule using constrained ant colony optimization. 2021 , 108132	0
332	An improved predator-prey particle swarm optimization algorithm for Nash equilibrium solution. 2021 , 16, e0260231	
331	An accelerated and robust algorithm for ant colony optimization in continuous functions. 2021 , 27,	
330	Fractional-Order Ant Colony Algorithm: A Fractional Long Term Memory Based Cooperative Learning Approach. 2021 , 101014	2
329	The Use of the Ant Algorithm in the Audit Planning of Multi-Branch Organizations. 2021 , 13, 187-209	0
328	A Novel Approach to Taxi-GPS-Trace-Aware Bus Network Planning. 2021 , 520-533	
327	Satellite-assisted UAV Trajectory Control in Hostile Jamming Environments. 2021 , 1-1	2
326	Enhanced ant colony algorithm with communication mechanism for mobile robot path planning. 2022 , 148, 103949	3
325	An efficient multi-objective ant colony optimization for task allocation of heterogeneous unmanned aerial vehicles. 2022 , 58, 101545	3

324	Sequencing jobs with asymmetric costs and transition constraints in a finishing line: A real case study. 2022 , 165, 107908	1
323	A fuzzy-HAZOP/ant colony system methodology to identify combined fire, explosion, and toxic release risk in the process industries. 2022 , 192, 116418	0
322	Radiation avoiding algorithm for nuclear robot path optimization. 2022 , 169, 108948	0
321	An Improved Method for Solving SPP Based on ACO Algorithm. 2011 , 13, 4615-4622	
320	An Ant Colony Optimization Approach to Connection-Aware Virtual Machine Placement for Scientific Workflows. 2020 ,	1
319	Path Planning for Nonholonomic Multiple Mobile Robot System with Applications to Robotic Autonomous Luggage Trolley Collection at Airports. 2020 ,	0
318	Forward Kinematics Solution of Inward Bending 3-RRS Parallel Mechanism Based on Ant Colony Algorithm. 2020 ,	
317	Swarm Intelligence based Load Frequency Control of Two Area Thermal System [Comparative Analysis. 2020 ,	1
316	Application of Data Driven Technology in Wastewater Treatment Process. 2020 ,	0
315	Multi-area Path Planning for Wireless Sensor Networks Based on Double Populations Ant Colony Optimization Algorithm. 2020 ,	1
314	Effects of Different Dynamics in an Ant Colony Optimization Algorithm. 2020 ,	1
313	Bayesian network based Ant Colony Optimization algorithm for USV path planning in a dynamic environment. 2020 ,	1
312	.	2
311	Applying ant algorithm to the automatic control system of freight load. 2020 ,	
310	Minimizaci3n del makespan para el problema de m3quinas paralelas no relacionadas con tiempos de setup dependientes de la secuencia mediante un algoritmo h3brido VNS/ACO. 2021 , 20, 171-184	
309	Predicting the Traffic Congestion and Optimal Route in a Smart City Exploiting IoT Devices. 2021 ,	
308	Three dimensional path planning of cross-domain robot based on improved A algorithm. 2021 ,	
307	A Coronavirus Optimization Algorithm for Solving the Container Retrieval Problem. 2022 , 49-76	1

306	Kohonen Self-Organizing Map based Route Planning: A Revisit. 2021 ,	1
305	Time-Dependent Ant Colony Optimization Algorithm for Solving The Fastest Traffic Path Finding Problem in a Dynamic Environment. 2021 ,	1
304	Real Traffic Distance-Aware Logistics Scheduling. 2021 ,	1
303	A Co-Evolutionary Hybrid ACO for Solving Traveling Salesman Problem. 2021 ,	
302	Ant Colony Optimization Algorithm for Electrical Power Systems Applications. 2022 , 37-59	1
301	A hybrid ant colony algorithm for the winner determination problem.. 2022 , 19, 3202-3222	4
300	A survey on soft computing-based high-utility itemsets mining. 1	
299	Towards Fully Automated Inspection of Large Components with UAVs: Offline Path Planning and View Angle Dependent Optimization Strategies. 2022 , 105-123	
298	Computational intelligence in software defects rules discovery. 1	
297	Learning how to search: generating effective test cases through adaptive fitness function selection. 2022 , 27, 1	0
296	Confidence-based Ant Colony Optimization for Capacitated Electric Vehicle Routing Problem with Comparison of Different Encoding Schemes. <i>IEEE Transactions on Evolutionary Computation</i> , 2022 , 1-1	15.6 0
295	Research and Implementation of Robot Path Planning Based on Ant Colony Algorithm. 2022 , 2171, 012074	
294	Performance of Artificial Electric Field Algorithm on 100 Digit Challenge Benchmark Problems (CEC-2019). 2022 , 387-396	
293	Global Optimization: A Hybrid Social Spider-Prey and Kestrel-Based Search Strategy in Multi-dimensional Search Space. 2022 , 240-255	
292	OUP accepted manuscript.	4
291	Solving the vehicle routing problem with drone for delivery services using an ant colony optimization algorithm. 2022 , 51, 101536	4
290	Sky luminance distribution model based on the information method and ant colony system. 1477153521103821	
289	Adaptive gradient descent enabled ant colony optimization for routing problems. 2022 , 70, 101046	0

288	Multiple strategies grey wolf optimizer for constrained portfolio optimization. 2022 , 1-25	
287	Multi-objective optimization of data deployment and scheduling based on the minimum cost in geo-distributed cloud. 2022 , 185, 142-158	0
286	Register-Pressure-Aware Instruction Scheduling Using Ant Colony Optimization. 2022 , 19, 1-23	1
285	Short-term PV power forecasting using variational mode decomposition integrated with Ant colony optimization and neural network. 2022 , 8, 2022-2035	0
284	Fuzzy-based multi-layered clustering and ACO-based multiple mobile sinks path planning for optimal coverage in WSNs. 2022 , 1-1	3
283	Multi-agent coverage path planning via proximity interaction and cooperation. 2022 , 1-1	1
282	Knowledge Discovery and Data Mining for Intelligent Business Solutions. 2022 , 205-214	0
281	Modified continuous Ant Colony Optimisation for multiple Unmanned Ground Vehicle path planning. 2022 , 116605	3
280	A spiral laser scanning routine for powder bed fusion inspired by natural predator-prey behaviour. 1-17	2
279	A special 0-1 Knapsack problem for a small vegetable retailing system under fuzziness: a swarm optimization based approach. 1	0
278	A proposal of edge detection in images with multiplicative noise using the Ant Colony System algorithm. 2022 , 110, 104715	0
277	Evolutionary deep learning: A survey. 2022 , 483, 42-58	7
276	Multi-Threaded Ant Colony Optimization with Asynchronous Communications for the Vehicle Routing Problem. 2009 , 11, 5-8	3
275	A Novel Modified Ant Colony Optimization Algorithm by Resetting and Updating Pheromone for Vehicle Routing Problem with Time Windows. 2021 ,	
274	Real-Time Multiple-Workflow Scheduling in Cloud Environments. 2021 , 18, 4002-4018	16
273	Circular Jaccard distance based multi-solution optimization for traveling salesman problems.. 2022 , 19, 4458-4480	
272	A Comparative Study of Two Nature-Inspired Algorithms for Routing Optimization. 2022 , 215-228	3
271	Cooperative Task Allocation for Multirobot Systems Based on Multi-objective Ant Colony System. 2022 , 1-1	

- 270 Material Supply Network Optimization in the Energy and Utility Industry. **2022**, 1-19
- 269 Hybrid Firefly-Ontology based Clustering Algorithm for Analyzing Tweets to Extract Causal Factors. **2022**, 18, 0-0 1
- 268 Comparison of Ant Colony Optimization Algorithms for Small-Sized Travelling Salesman Problems. **2022**, 15-23
- 267 Memory-Based Ant Colony System Approach for Multi-Source Data Associated Dynamic Electric Vehicle Dispatch Optimization. **2022**, 1-15 3
- 266 Load frequency controller based on ant colony and firefly algorithm optimization - A review. **2022**,
- 265 Heterogeneous ant colony optimization based on adaptive interactive learning and non-zero-sum game. **2022**, 26, 3903-3920 0
- 264 Multiple Ant Colony Algorithm Combining Community Relationship Network.. **2022**, 1-16 1
- 263 A Multistrategy-Integrated Learning Sparrow Search Algorithm and Optimization of Engineering Problems.. **2022**, 2022, 2475460 3
- 262 A two-stage scheduling method for deadline-constrained task in cloud computing. 1 1
- 261 Model Specification Searches in Structural Equation Modeling with a Hybrid Ant Colony Optimization Algorithm. 1-12 2
- 260 Bidirectional ACO intelligent fire evacuation route optimization. **2022**, 14, 79-97
- 259 Enhancing the Route Optimization Using Hybrid MAF Optimization Algorithm for the Internet of Vehicle. 1 3
- 258 Flexural vibration of multistep rotating Timoshenko shafts using hybrid modeling and optimization techniques. 107754632110724 1
- 257 Temperature Field of Artificially Frozen Gravel Formation and Optimization of Freezing Pipe Layout Parameters under Seepage Flow. **2022**, 2022, 1-11
- 256 Comparative performance evaluation of island particle swarm algorithm applied to solve constrained and unconstrained optimization problems. **2022**, 1-17
- 255 Application of the ant colony algorithm for solving the job shop problem. **2022**, 2, 18-29
- 254 Multi-group discrete symbiotic organisms search applied in traveling salesman problems. **2022**, 26, 4363-4373
- 253 An adaptive coverage aware data gathering scheme using KD-tree and ACO for WSNs with mobile sink. 1 0

252	Path planning of mobile robot based on genetic-ant colony algorithm. 2022 , 2216, 012011	
251	Rule-Based Classification Based on Ant Colony Optimization: A Comprehensive Review. 2022 , 2022, 1-17	0
250	An improved spider optimization algorithm coordinated by pheromones.. 2022 , 12, 5962	0
249	An improved evaporation rate water cycle algorithm for energy-efficient routing protocol in WSNs. 2022 , ahead-of-print,	
248	Adaptive Ant Colony Optimization with node clustering applied to the Travelling Salesman Problem. 2022 , 70, 101056	3
247	Improving Ant Colony Optimization efficiency for solving large TSP instances. 2022 , 120, 108653	6
246	Requirement-driven engineering change management in product design. 2022 , 168, 108053	1
245	Global path planning based on a bidirectional alternating search A* algorithm for mobile robots. 2022 , 168, 108123	2
244	The electric vehicle routing problem with drones: An energy minimization approach for aerial deliveries. 2022 , 4, 100041	5
243	Boosting ant colony optimization via solution prediction and machine learning. 2022 , 143, 105769	0
242	Big Data Guided Vehicle Routing with Urgence Constraint. 2021 ,	
241	An Automatic Heterogenous-Based MAX-MIN Ant System with Pheromone Reconstruction Mechanism. 2021 ,	1
240	Research on Trajectory Planning of Numerical Control Drilling for Panel Furniture Based on Elite Ant Colony Algorithm. 2021 ,	
239	A Comparative Study on Population-Based Evolutionary Algorithms for Multiple Traveling Salesmen Problem with Visiting Constraints. 2021 ,	0
238	A new optimal model for evaluating liquefaction-induced lateral spreading based on the advanced ant colony optimization (ACO). 2021 , 14, 1	
237	A Review of Recent Advances in Machine Learning Approaches for Cyber Defense. 2021 ,	
236	An Efficient Ant Colony System for Multi-Robot Task Allocation with Large-scale Cooperative Tasks and Precedence Constraints. 2021 ,	
235	Nature Inspired Routing in Mobile Ad Hoc Network. 2021 ,	

234	The One-Fifth Rule with Rollbacks for Self-Adjustment of the Population Size in the (1 + λ) Genetic Algorithm. 2021 , 55, 885-902	0
233	Emerging Applications of Bio-Inspired Algorithms in Image Segmentation. 2021 , 10, 3116	0
232	A Greedy Approach to Ant Colony Optimisation Inspired Mutation for Permutation Type Problems. 2021 ,	2
231	Penetration Planning and Design Method of Unmanned Aerial Vehicle Inspired by Biological Swarm Intelligence Algorithm. 2021 , 2021, 1-13	0
230	An Early Breast Cancer Detection System Using Stacked Auto Encoder Deep Neural Network with Particle Swarm Optimization Based Classification Method. 2021 , 11, 2897-2906	0
229	An Early Breast Cancer Detection System Using Recurrent Neural Network (RNN) with Animal Migration Optimization (AMO) Based Classification Method. 2021 , 11, 2950-2965	1
228	An Enhanced Sparrow Search based Adaptive and Robust Data Gathering Scheme for WSNs. 2022 , 1-1	1
227	Multi-Objective Virtual Machine Placement using Order Exchange and Migration Ant Colony System algorithm. 2022 ,	
226	An Improved Wild Horse Optimizer for Solving Optimization Problems. 2022 , 10, 1311	8
225	A Survey of Efficient Demand-Side Management Techniques for the Residential Appliance Scheduling Problem in Smart Homes. 2022 , 15, 2863	4
224	Evolutionary Algorithms in Combinatorial Optimization. 2001 , 584-593	
223	Evolutionary Algorithms in Combinatorial Optimization. 2008 , 950-959	1
222	Data_Sheet_1.PDF. 2019 ,	
221	Improved Ant Colony Algorithm for Solving Multi-modal Resource Constrained Project Scheduling Problem. 2022 ,	
220	OUP accepted manuscript.	3
219	Multi-Objective Optimization for Multimodal Transportation Routing Problem with Stochastic Transportation Time Based on Data-Driven Approaches.	
218	Improved Grasshopper Optimization Algorithm Using Crazy Factor. 2022 , 187-197	
217	An Improved Ant Colony Algorithm for Solving a Virtual Machine Placement Problem in a Cloud Computing Environment. 2022 , 10, 44869-44880	0

216	Application of fuzzy probability factor superposition algorithm in nuclide identification. 1	2
215	Identifying Minor Faults on Top of Coalfield Ordovician Limestone Stratum Using Seismic Attributes Derived From Azimuthally Stacked Data. 1-80	0
214	Multi-Class Classification of Breast Cancer Using 6B-Net with Deep Feature Fusion and Selection Method. 2022 , 12, 683	2
213	Intelligent and Optimized Microgrids for Future Supply Power from Renewable Energy Resources: A Review. 2022 , 15, 3359	5
212	A two-phase ant colony optimization based approach for single depot multiple travelling salesman problem in Type-2 fuzzy environment. 1	
211	Optimal charging plan for electric bus considering time-of-day electricity tariff. 2022 , 5, 123	6
210	Application of machine learning, deep learning and optimization algorithms in geoengineering and geoscience: Comprehensive review and future challenge. 2022 , 109, 1-17	8
209	Multi-agent and ant colony optimization for ship integrated power system network reconfiguration. 2022 , 33, 489-496	1
208	A Multi-objective ACS Algorithm to Optimize Cost, Performance, and Reliability in the Cloud. 2015 ,	1
207	Multi-colony ant optimization with dynamic collaborative mechanism and cooperative game.	0
206	A Buffer-Based Ant Colony System Approach for Dynamic Cold Chain Logistics Scheduling. 2022 , 1-15	1
205	An Adaptive Ant Colony System Based on Variable Range Receding Horizon Control for Berth Allocation Problem. 2022 , 1-12	0
204	Estimation of acoustic transfer function by using genetic algorithm. 2022 ,	
203	Zaman Pencereli Evde Bakım/Beslenme Hizmeti Yönlendirme Problemi İçin Karınca Koloni Algoritması	
202	A Simulation-Based Approach for the Productivity Improvement of Automated Storage and Retrieval Systems in the Steel Industry.	
201	Trajectory Planning Algorithms in Two-Dimensional Environment with Obstacles. 2022 , 21, 459-492	1
200	Planning bus networks by exploiting GPS trajectories collected by IoT-enabled vehicles.	
199	Modelling and solving the split-delivery vehicle routing problem, considering loading constraints and spoilage of commodities. 1-19	

- 198 Heuristic Routing Algorithms for Time-Sensitive Networks in Smart Factories. **2022**, 22, 4153 0
- 197 Effective Route Generation Framework using Quantum Mechanism-based Multi-directional and Parallel Ant Colony Optimization. **2022**, 108308 1
- 196 A Path-Planning Approach Based on Potential and Dynamic Q-Learning for Mobile Robots in Unknown Environment. **2022**, 2022, 1-12
- 195 3-D path planning system for autonomous vehicle considering the rollover and path length. **2022**, 359, 5272-5272 0
- 194 Past, Present and Future of Path-Planning Algorithms for Mobile Robot Navigation in Dynamic Environments. **2022**, 3, 353-365 4
- 193 A Self-Healing Routing Strategy based on Ant Colony Optimization for Vehicular Ad Hoc Networks. **2022**, 1-1 0
- 192 Multi-Agent Reinforcement Learning. **2022**, 219-262
- 191 Feature Selection and Detection Method of Weak Arc Faults in Photovoltaic Systems With Strong Noises Based on Stochastic Resonance. **2022**, 71, 1-13 0
- 190 Introduction. **2022**, 1-24
- 189 A Multipopulation Multiobjective Ant Colony System Considering Travel and Prevention Costs for Vehicle Routing in COVID-19-Like Epidemics. **2022**, 1-15 2
- 188 Swarm Robotics: Moving from Concept to Application. **2022**, 179-189
- 187 Route Scheduling System for Multiple Self-driving Cars Using K-means and Bio-inspired Algorithms. **2022**, 27-39 1
- 186 Meta-heuristics meet sports: a systematic review from the viewpoint of nature inspired algorithms. **2022**, 21, 49-92 0
- 185 Hybrid based Optimization with Unequal Clustering and Mobile Sink for Wireless Sensor Networks. **2022**, 1 1
- 184 Scalable, Opportunistic, Energy Efficient Routing (SOEER) - A Novel Clustering Approach for Wireless Sensor Networks. **2022**,
- 183 Design and Implementation of Path Planning for Wheel-Track Hybrid Mobile Robot. **2022**, 2022, 1-11 1
- 182 Mobile robots path planning and mobile multirobots control: A review. 1-14 0
- 181 Variable neighborhood search based multiobjective ACO-list scheduling for cloud workflows.

- 180 A review of artificial fish swarm algorithms: recent advances and applications. 1
- 179 A Variant Genetic Algorithm for a Specific Examination Timetabling Problem in a Japanese University. **2022**, 01, 0
- 178 Research of Multipath Routing Processes in Software Defined Networks Based on Ant Colony Optimization. **2022**, 0
- 177 A modified Ant Colony System for the asset protection problem. **2022**, 73, 101109
- 176 Differential evolution with modified initialization scheme using chaotic oppositional based learning strategy. **2022**, 61, 11835-11858 4
- 175 Two-Stage Genetic Algorithm for Scheduling Stochastic Unrelated Parallel Machines in a Just-in-Time Manufacturing Context. **2022**, 1-14 1
- 174 An Overview of Heuristics and Metaheuristics. **2022**, 353-403 1
- 173 Efficient Adaptive Surface Measurement Based on Multi-level Gaussian Process Modeling and Scanning Path Optimization. **2022**, 1-1
- 172 Research on the Application of Ant Colony Clustering in Commodity Classification. **2022**, 321-332
- 171 An Adaptive QoS and Trust-based Lightweight Secure Routing Algorithm for WSNs. **2022**, 1-1 1
- 170 The New Era of Hybridisation and Learning in Heuristic Search Design. **2022**, 501-538
- 169 Proximity-Based MAENS for Capacitated Multiple Traveling Salesmen Problem. **2022**, 22-33 0
- 168 Ant Colony Optimization-Based Segmentation of Retinal Blood Vessels from Retinal Images Using Maximum Principal Curvatures. **2022**, 471-480
- 167 Porcellio scaber Algorithm with t-Distributed Elite Mutation for Global Optimization. **2022**, 2022, 1-17
- 166 An effective parallel evolutionary metaheuristic with its application to three optimization problems. 1
- 165 GTOC11: Methods and results from the team of Harbin Institute of Technology. **2022**,
- 164 Distributed Multi-Mobile Robot Path Planning and Obstacle Avoidance Based on ACODWA in Unknown Complex Terrain. **2022**, 11, 2144 1
- 163 Visibility Adaptation in Ant Colony Optimization for Solving Traveling Salesman Problem. **2022**, 10, 2448 0

- 162 Feature selection using PRACO method for IDS in cloud environment. **2022**, 1-14
- 161 Landslide Susceptibility Mapping along the Anninghe Fault Zone in China using SVM and ACO-PSO-SVM Models. **2022**, 2022, 2
- 160 Double Hybridized artificial network for the prediction of HPC concrete compressive strength. **2022**, 1-12
- 159 A new Ant colony optimization metaheuristic based on pheromone guided local search instead of constructive approach. **2022**,
- 158 Minimizing Total Tardiness in a Two-Machine Flowshop Scheduling Problem with Availability Constraints. **2023**, 35, 1119-1134 0
- 157 Solving the Container Relocation Problem by Using a Metaheuristic Genetic Algorithm. **2022**, 12, 7397 0
- 156 An edge quality aware crossover operator for application to the capacitated vehicle routing problem. **2022**,
- 155 Toward Holistic Design of Spatial Packaging of Interconnected Systems with Physical Interactions (SPI2). 1-26 0
- 154 Ant colony optimization for software engineers. **2022**,
- 153 Ant Colony Algorithm with n - α -Measure and Migration Learning.
- 152 Accelerating genetic algorithm evolution via ant-based mutation and crossover for application to large-scale TSPs. **2022**,
- 151 Application of Ant Colony Algorithm in the Field of Urban Intelligent Transportation. **2022**,
- 150 Research on UAV Cluster Track Planning in Communication Relay Mode. **2023**, 1442-1454
- 149 A state of art review on applications of multi-objective evolutionary algorithms in chemicals production reactors. 0
- 148 A hybrid ant colony optimization with fireworks algorithm to solve capacitated vehicle routing problem.
- 147 Transient stability constrained optimal power flow solution using ant colony optimization for continuous domains (ACO R). **2022**, 16, 3734-3747 1
- 146 Fire and manoeuvrer optimizer for flow shop scheduling problems.
- 145 Stylization of a Seismic Image Profile Based on a Convolutional Neural Network. **2022**, 15, 6039

- 144 Grid-Based coverage path planning with NFZ avoidance for UAV using parallel self-adaptive ant colony optimization algorithm in cloud IoT. **2022**, 11, 1
- 143 Algorithm metadata vocabulary: A representational model and metadata vocabulary for describing and maintaining algorithms. 016555152211165
- 142 Free-form surface inspection path planning using improved ant colony optimisation algorithm. **2022**, 4, 035039 1
- 141 Estimation of Soil Organic Carbon Using Vis-NIR Spectral Data and Spectral Feature Bands Selection in Southern Xinjiang, China. **2022**, 22, 6124 1
- 140 Mixed Production Line Optimization of Industrialized Building Based on Ant Colony Optimization Algorithm. **2022**, 2022, 1-12
- 139 Random forest-based algorithms for accurate evaluation of ultimate bending capacity of steel tubes. **2022**, 44, 261-273 1
- 138 Structural damage identification in thin-shell structures using a new technique combining finite element model updating and improved Cuckoo search algorithm. **2022**, 173, 103206 0
- 137 A hybrid deep learning approach with genetic and coral reefs metaheuristics for enhanced defect detection in software. **2022**, 2, 100105 0
- 136 Efficient procedure planning for comprehensive lymph node staging bronchoscopy. **2022**, 9, 0
- 135 Directional overcurrent relay coordination optimization. **2023**, 121-146 0
- 134 An exploration of the key determinants for the application of AI-enabled higher education based on a hybrid Soft-computing technique and a DEMATEL approach. **2023**, 212, 118762 0
- 133 Hybrid Ant Colony Optimization Algorithms Behaviour Investigation Based on Intuitionistic Fuzzy Logic. **2022**, 39-60 0
- 132 An Adaptive Genetic Algorithm-Based Load Balancing-Aware Task Scheduling Technique for Cloud Computing. **2022**, 73, 6103-6119 0
- 131 Digital Risk Twin Driven Simheuristic Framework for Maintenance Optimization. **2022**, 0
- 130 A Dual-Robot Cooperative Welding Path Planning Algorithm Based on Improved Ant Colony Optimization. **2022**, 55, 7-12 0
- 129 A Hyperheuristic Algorithm Based on Evolutionary Strategy for Complex Mission Planning of AUVs in Marine Environment. **2022**, 1-14 0
- 128 Study on Path Planning of Multi-storey Parking Lot Based on Combined Loss Function. **2022**, 234-241 1
- 127 Cost-Effective Flight Strategy for Aerial Thermography Inspection of Photovoltaic Power Plants. **2022**, 1-7 0

126	Design and application of improved sparrow search algorithm based on sine cosine and firefly perturbation. 2022 , 19, 11422-11452	1
125	Real Environment-Aware Multisource Data-Associated Cold Chain Logistics Scheduling: A Multiple Population-Based Multiobjective Ant Colony System Approach. 2022 , 1-15	0
124	Research on Cultural Ant Colony Algorithm in Robots Path Planning. 2022 ,	0
123	Solving the Electric Capacitated Vehicle Routing Problem with Cargo Weight. 2022 ,	0
122	Heterogeneous Pointer Network for Travelling Officer Problem. 2022 ,	0
121	Negative Learning Ant Colony Optimization for MaxSAT. 2022 , 15,	2
120	An Application of Surrogate and Resampling for the Optimization of Success Probability from Binary-Response Type Simulation. 2022 , 25, 412-424	0
119	Optimization of Shearer Drum Based on Multi-Objective Bat Algorithm with Grid (MOBA/G). 2022 , 10, 733	2
118	MSSPP: modified sparrow search algorithm based mobile sink path planning for WSNs.	0
117	A review of the literature on fuzzy-logic approaches for collision-free path planning of manipulator robots.	2
116	Combining Edge Recombination Crossover with Ant Colony Optimisation for Improved Routing. 2023 , 215-235	0
115	An Improved Grey Wolf Optimization with Multi-Strategy Ensemble for Robot Path Planning. 2022 , 22, 6843	0
114	An Analytical Study of Multiprocessor Scheduling Using Metaheuristic Approach. 2022 , 3,	0
113	Design of proton beam collimation system for HIAF-BRing.	0
112	Hybrid Arithmetic-Rider Optimization Algorithm as New Intelligent Model for Travelling Salesman Problem.	0
111	Intelligent Water Drops Algorithm-Based Aggregation in Heterogeneous Wireless Sensor Network. 2022 , 2022, 1-12	0
110	Optimizing the shade coverage of trees on a block of residential buildings using GIS and ACO (case study: Semnan, Iran).	0
109	Applying the Population-Based Ant Colony Optimization to the Dynamic Vehicle Routing Problem. 2023 , 369-384	0

108	Papers and Algorithms. 2022 , 19-120	0
107	Optimisation of flow paths of air-cooled heat exchangers. 2022 ,	0
106	Construction Learning. 2023 , 171-183	0
105	Self-organizing nest migration dynamics synthesis for ant colony systems.	0
104	SemiACO: A semi-supervised feature selection based on ant colony optimization. 2022 , 119130	0
103	A hybrid combined algorithm based on intelligent water drops and electromagnetism-like algorithms for Fuzzy TSP1. 2022 , 1-12	0
102	Cellular reaction gene regulation network for swarm robots with pattern formation maneuvering control. 16,	0
101	Vibration and buckling optimization of functionally graded porous microplates using BCMO-ANN algorithm. 2023 , 182, 110267	0
100	Robotics in Industry 4.0. 2022 , 2021-2055	0
99	An Improved Magnetic Tracking Approach Based on ResNet-LM Fusion Algorithm. 2022 , 71, 1-10	0
98	A Heuristic Solution to the Closest String Problem Using Wave Function Collapse Techniques. 2022 , 10, 115869-115883	0
97	An Agent-Based Model to Investigate Different Behaviours in a Crowd Simulation. 2022 , 1-14	0
96	Swarm intelligence: problem-solving societies (a review). 2008 , 28, 119-130	2
95	Comparing the effectiveness of the genetic algorithm and ant colony optimization algorithms for the traveling salesman problem. 2019 , 48,	0
94	Is Ant Colony System better than FFD for VM placement in a heterogeneous cluster?. 2022 ,	0
93	PI Controller Parameter Setting of PMSM Speed Control System based on Pigeon-inspired Optimization Algorithm. 2022 ,	0
92	Research on Grinding Parameters Optimization Method of CNC Grinding Machine Based on Black Hole-Continuous Ant Colony Algorithm. 2022 ,	0
91	Assignment problem solved by two metaheuristic algorithms ACO and HHO. 2022 ,	0

- 90 Improving online education through automatic learning style identification using a multi-step architecture with ant colony system and Artificial Neural Networks. **2022**, 109779 ○
- 89 OADC: An Obstacle-Avoidance Data Collection Scheme Using Multiple Unmanned Aerial Vehicles. **2022**, 12, 11509 ○
- 88 Bacterial Memetic Algorithm for Asymmetric Capacitated Vehicle-Routing Problem. **2022**, 11, 3758 ○
- 87 Simulation-Based Comparison of PID with Sliding Mode Controller for Matrix-Converter-Based Dynamic Voltage Restorer under Variation of System Parameters to Alleviate the Voltage Sag in Distribution System. **2022**, 14, 14661 ○
- 86 AntNetAlign: Ant colony optimization for Network Alignment. **2022**, 109832 ○
- 85 Rank-Based Ant System with Originality Reinforcement and Pheromone Smoothing. **2022**, 12, 11219 ○
- 84 Research and implementation of ETL algorithm based on kettle cluster. **2022**, ○
- 83 Ant Colony optimization for Electric Vehicle Routing Problem with Capacity and Charging Time Constraints. **2022**, ○
- 82 Bees Traplining Metaphors for the Vehicle Routing Problem Using a Decomposition Approach. **2023**, 261-287 ○
- 81 Modified Ant Colony Optimization with Route Elimination and Pheromone Reset for Multiple Pickup and Multiple Delivery Vehicle Routing Problem with Time Window. **2022**, 26, 959-964 ○
- 80 An Improved ACS Algorithm by CA for Task Scheduling in Heterogeneous Multiprocessing Environments. **2022**, 216-235 ○
- 79 Heuristic smoothing ant colony optimization with differential information for the traveling salesman problem. **2023**, 133, 109943 ○
- 78 Modified adaptive ant colony optimization algorithm and its application for solving path planning of mobile robot. **2023**, 215, 119410 5
- 77 Optimized UAV Trajectory and Transceiver Design for Over-the-Air Computation Systems. **2022**, 1-9 ○
- 76 Multi-Objective Trip Planning Based on Ant Colony Optimization Utilizing Trip Records. **2022**, 10, 127825-127844 ○
- 75 Path Planning for Mobile Robots Based on Improved RRT Algorithm. **2022**, ○
- 74 Ship energy-saving route planning based on dynamic fuel consumption model. **2022**, ○
- 73 Initialization of metaheuristics: comprehensive review, critical analysis, and research directions. ○

72	Identification of Environmental Pollutants in Construction Site Monitoring Using Association Rule Mining and Ontology-Based Reasoning. 2022 , 12, 2111	0
71	Robot Path Planning of Improved Adaptive Ant Colony System Algorithm Based on Dijkstra. 2022 , 2022, 1-11	0
70	Integrating express package delivery service with offline mobile sales: a new potential solution to sustainable last-mile logistics in rural China. 1-29	0
69	Remaining Useful Life Prediction of Rolling Bearings Based on PCA and GSACO-SVR Model. 2022 , 2405, 012018	0
68	A multi-objective optimization strategy for timber forwarding in cut-to-length harvesting operations. 1-17	1
67	A Survey and Tutorial on Network Optimization for Intelligent Transport System Using the Internet of Vehicles. 2023 , 23, 555	2
66	Enhancing coordinated multi-point joint reception with dynamic bandwidth allocation. 2023 , 75, 103207	0
65	Multi-Robot Task Scheduling with Ant Colony Optimization in Antarctic Environments. 2023 , 23, 751	1
64	Optimization as a Tool for Seismic Protection of Structures*. 2023 , 100-113	0
63	Slope Stability Prediction Method Based on Intelligent Optimization and Machine Learning Algorithms. 2023 , 15, 1169	1
62	DAACO: adaptive dynamic quantity of ant ACO algorithm to solve the traveling salesman problem.	0
61	FLACORM: fuzzy logic and ant colony optimization for rumor mitigation through stance prediction in online social networks. 2023 , 13,	0
60	Flexible Task Splitting Strategy in Aircraft Maintenance Technician Scheduling Based on Swarm Intelligence. 2023 , 15-26	0
59	Memory, evolutionary operator, and local search based improved Grey Wolf Optimizer with linear population size reduction technique. 2023 , 110297	0
58	Path planning optimization for unmanned sailboat in complex marine environment. 2023 , 269, 113475	0
57	Energy Optimization and Optimal Routing Protocol in Wireless Sensor Networks. 2022 ,	0
56	A novel comprehensive learning Rao algorithm for engineering optimization problems. 2023 , 45,	0
55	Bio-inspired robot swarm path formation with local sensor scope.	0

- 54 Distributed Bio-inspired Configuration of Virtualized Mission-critical Networks. **2022**, ○
- 53 A Multiple Ant Colony System for the Electric Vehicle Routing Problem with Time Windows. **2022**, ○
- 52 A deep feature fusion and selection-based retinal eye disease detection from OCT images. ○
- 51 Proposal of a Firefly Algorithm with Three Types of Functionally Differentiated Fireflies. **2023**, 399-407 ○
- 50 A Method for Planning the Supply of Petroleum Products to Filling Stations Based on Multi-agent Resource Conversion Processes. **2023**, 176-185 ○
- 49 Medical Image Processing by Swarm-Based Methods. **2023**, 265-293 ○
- 48 Intelligent Path Planning Technologies of Underwater Vehicles: a Review. **2023**, 107, ○
- 47 A Method for Ship Route Planning Fusing the Ant Colony Algorithm and the A* Search Algorithm. **2023**, 1-1 ○
- 46 Research on Global Ship Path Planning Method Based on Improved Ant Colony Algorithm. **2023**, 4, 143-152 ○
- 45 An Improved Ant Colony Optimization for Solving Task Scheduling Problem in Radar Signal Processing System. **2023**, 95, 333-350 ○
- 44 A Modified Ant Colony Optimization Algorithm with Pheromone Mutations for Dynamic Travelling Salesman Problem. 1-16 ○
- 43 An improved many-objective artificial bee colony algorithm for cascade reservoir operation. ○
- 42 Study of a chassis path planning algorithm for a forest harvester. 1-13 ○
- 41 Ant Colony optimization application in bottleneck station scheduling. **2023**, 56, 101969 ○
- 40 Structure damage identification in dams using sparse polynomial chaos expansion combined with hybrid K-means clustering optimizer and genetic algorithm. **2023**, 283, 115891 ○
- 39 Multi-ant colony optimization algorithm based on finite history archiving and boxed pigs game. **2023**, 138, 110193 ○
- 38 Multi-objective path planning for mobile robot in nuclear accident environment based on improved ant colony optimization with modified A*. **2023**, 55, 1838-1854 ○
- 37 Wastewater reuse and energy saving require a more decentralized urban wastewater system? Evidence from multi-objective optimal design at the city scale. **2023**, 235, 119923 ○

- 36 A review on the Representative Volume Element-based multi-scale simulation of 3D woven high performance thermoset composites manufactured using resin transfer molding process. **2023**, 169, 107499 ○
- 35 Cooperative Artificial Intelligence for underwater robotic swarm. **2023**, 164, 104410 ○
- 34 Ant Colony System with Sparse Pheromone. **2022**, ○
- 33 A Two-stage Stochastic Programming for AGV scheduling with random tasks and battery swapping in automated container terminals. **2023**, 174, 103110 ○
- 32 An efficient ACO-based algorithm for task scheduling in heterogeneous multiprocessing environments. **2023**, 17, 100280 ○
- 31 Multitarget Search Algorithm Using Swarm Robots in an Unknown 3D Mountain Environment. **2023**, 13, 1969 ○
- 30 Using Chua's Chaotic Oscillator in Encryption Communication by ACO Identifications. **2023**, 474-482 ○
- 29 MTrajPlanner: A Multiple-Trajectory Planning Algorithm for Autonomous Underwater Vehicles. **2023**, 24, 3714-3727 ○
- 28 References. **2023**, 223-229 ○
- 27 ATS-RRT*: an improved RRT* algorithm based on alternative paths and triangular area sampling. 1-16 ○
- 26 Study of Meta-heuristic Optimization Methodologies for Design of Hybrid Renewable Energy Systems. **2023**, 39, 101711 ○
- 25 Low Impedance Fault Location of Submarine Cable in Seafloor Observation Network Based on Transient Current Travelling Wave. **2022**, ○
- 24 A systematic review on search-based test suite reduction: State-of-the-art, taxonomy, and future directions. **2023**, 17, 93-136 ○
- 23 Transportprobleme. **2023**, 47-77 ○
- 22 A Study of Fractional-Order Memristive Ant Colony Algorithm: Take Fracmemristor into Swarm Intelligent Algorithm. **2023**, 7, 211 ○
- 21 A systematic review on recent advances in autonomous mobile robot navigation. **2023**, 40, 101343 ○
- 20 Three-dimensional continuous picking path planning based on ant colony optimization algorithm. **2023**, 18, e0282334 ○
- 19 A Swarm Intelligence and Nearest Neighborhood Approach to Solve an Excess Capacity Vehicle Routing Problem in a FDCG Company. **2023**, 635-643 ○

- 18 Selecting embedding delays: An overview of embedding techniques and a new method using persistent homology. **2023**, 33, 032101
- 17 Association Rule Mining through Combining Hybrid Water Wave Optimization Algorithm with Levy Flight. **2023**, 11, 1195
- 16 A Quantum-Based Beetle Swarm Optimization Algorithm for Numerical Optimization. **2023**, 13, 3179
- 15 A shared parking optimization framework based on dynamic resource allocation and path planning. **2023**, 616, 128649
- 14 A review of feature selection methods based on meta-heuristic algorithms. 1-51
- 13 Generalized relational tensors for chaotic time series. 9, e1254
- 12 A Novel Clustering-Based Hybrid Feature Selection Approach Using Ant Colony Optimization.
- 11 Modified Ant Colony Optimization with an Application in Sustainable Last-Mile Delivery Routing Problem. **2022**,
- 10 The Ensemble of Ant Colony Optimization and Gradient Descent Technique for Efficient Feature Selection and Data Classification. **2022**, 65-78
- 9 Multi-Agent Inspection Path Planning with Large-Scale Vehicle Routing Problem. 1-9
- 8 Investigation of the impact of different versions of GCC on various metaheuristic-based solvers for traveling salesman problem.
- 7 Imbalanced Data Classification Method Based on LSSASMOTE. **2023**, 11, 32252-32260
- 6 Path Planning Algorithm of Mobile Robot Based on Improved Q-learning Algorithm. **2023**,
- 5 An Adaptive Layered Clustering Framework with Improved Genetic Algorithm for Solving Large-Scale Traveling Salesman Problems. **2023**, 12, 1681
- 4 Nature-inspired Path Planning for Robot Swarms. **2023**,
- 3 A metaheuristic approach to optimal morphology in reconfigurable tiling robots.
- 2 A Hybrid Feature Selection Approach for Data Clustering Based on Ant Colony Optimization. **2023**, 659-670
- 1 Dynamic Path Optimization Based on Improved Ant Colony Algorithm. **2023**, 2023, 1-11

