Hartmut K Schmeck

List of Publications by Year
in descending order

152	3,546	304602	206029
papers	citations	22 h-index	48 g-index

170	170	170	2430
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	BEMCom. , 2022, 2, 20-25.		1
2	Energy informatics. Communications of the ACM, 2022, 65, 58-63.	3.3	6
3	Strategies for an Adaptive Control System to Improve Power Grid Resilience with Smart Buildings. Energies, 2021, 14, 4472.	1.6	7
4	Automated generation of models for demand side flexibility using machine learning. , 2021, 1, 107-120.		4
5	State-of-the-Art Integration of Decentralized Energy Management Systems into the German Smart Meter Gateway Infrastructure. Applied Sciences (Switzerland), 2020, 10, 3665.	1.3	12
6	Test Beds for Component Integration in Energy Systems. , 2019, , .		2
7	Smart Meter Gateways: Options for a BSI-Compliant Integration of Energy Management Systems. Applied Sciences (Switzerland), 2019, 9, 1634.	1.3	16
8	State-based load profile generation for modeling energetic flexibility. Energy Informatics, 2019, 2, .	1.4	3
9	Demo abstract: a building energy management system in the context of the smart grid traffic light concept. Computer Science - Research and Development, 2018, 33, 269-270.	2.7	2
10	Provision of frequency containment reserve with an aggregate of air handling units. Computer Science - Research and Development, 2018, 33, 215-221.	2.7	6
11	A threat analysis of the vehicle-to-grid charging protocol ISO 15118. Computer Science - Research and Development, 2018, 33, 3-12.	2.7	34
12	A generic user interface for energy management in smart homes. Energy Informatics, 2018, 1, .	1.4	10
13	Modeling flexibility using artificial neural networks. Energy Informatics, 2018, 1, .	1.4	9
14	Requirements for Power Hardware-in-the-Loop Emulation of Distribution Grid Challenges. , 2018, , .		13
15	Utilization of Local Flexibility for Charge Management of a Battery Energy Storage System Providing Frequency Containment Reserve. Energy Procedia, 2018, 155, 443-453.	1.8	3
16	Towards the Modeling of Flexibility Using Artificial Neural Networks in Energy Management and Smart Grids. , 2018, , .		11
17	Hardware-in-the-Loop Co-simulation of a Smart Building in a Low-voltage Distribution Grid. , 2018, , .		8
18	The influence of differential privacy on short term electric load forecasting. Energy Informatics, 2018, 1, .	1.4	10

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19	Generation of Time-of-Use Tariffs for Demand Side Management using Artificial Neural Networks. , 2018, , .		0
20	Modeling and Valuation of Residential Demand Flexibility for Renewable Energy Integration. IEEE Transactions on Smart Grid, 2017, 8, 2565-2574.	6.2	96
21	Angle-Based Preference Models in Multi-objective Optimization. Lecture Notes in Computer Science, 2017, , 88-102.	1.0	13
22	Detecting Occupancy in Smart Buildings by Data Fusion from Low-cost Sensors. , 2017, , .		5
23	Multimodal scalarized preferences in multi-objective optimization. , 2017, , .		5
24	Reference Scenarios for Low Voltage Power Systems. , 2017, , .		1
25	Outlining Ensemble K-Nearest Neighbors Approach for Low-Voltage Power Demand Forecasting. , 2017, , .		0
26	Designing K-nearest neighbors model for low voltage load forecasting. , 2017, , .		2
27	Building power demand forecasting using K-nearest neighbours model â€“ practical application in Smart City Demo Aspern project. CIRED - Open Access Proceedings Journal, 2017, 2017, 1601-1604.	0.1	15
28	State-of-the-art user interfaces for building operating systems. , 2017, , .		1
29	Establishing a hardware-in-the-loop research environment with a hybrid energy storage system. , 2016, , .		13
30	A Microservice Architecture for the Intranet of Things and Energy in Smart Buildings. , 2016, , .		18
31	Comparison of Multi-objective Evolutionary Optimization in Smart Building Scenarios. Lecture Notes in Computer Science, 2016, , 443-458.	1.0	6
32	Stigmergy-Based Scheduling of Flexible Loads. Lecture Notes in Computer Science, 2016, , 475-490.	1.0	0
33	Optimization of Operation and Control Strategies for Battery Energy Storage Systems by Evolutionary Algorithms. Lecture Notes in Computer Science, 2016, , 507-522.	1.0	7
34	A neuro-genetic approach for modeling and optimizing a complex cogeneration process. Applied Soft Computing Journal, 2016, 48, 347-358.	4.1	10
35	Adaptive building energy management with multiple commodities and flexible evolutionary optimization. Renewable Energy, 2016, 87, 911-921.	4.3	50
36	Response of smart residential buildings with energy management systems to price deviations. , 2015, , .		5

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37	Smart grid services provided by building energy management systems. , 2015, , .		4
38	Obtaining Optimal Pareto Front Approximations using Scalarized Preference Information. , 2015, , .		9
39	Evolutionary Optimization of Smart Buildings with Interdependent Devices. Lecture Notes in Computer Science, 2015, , 239-251.	1.0	9
40	Organic Architecture for Energy Management and Smart Grids. , 2015, , .		6
41	Encodings for Evolutionary Algorithms in smart buildings with energy management systems. , 2014, , .		10
42	Improving Electric Vehicle Charging Coordination Through Area Pricing. Transportation Science, 2014, 48, 619-634.	2.6	69
43	Self-organised swarm display. International Journal of Swarm Intelligence, 2014, 1, 246.	0.2	0
44	A Privacy-Aware Architecture for Energy Management Systems in Smart Grids. , 2014, , .		3
45	On homogenization of coal in longitudinal blending beds. , 2014, , .		2
46	A theoretical analysis of volume based Pareto front approximations. , 2014, , .		11
47	On the interrelationships between knees and aggregate objective functions. , 2014, , .		1
48	Plug-and-Charge and E-Roaming â€“ Capabilities of the ISO/IEC 15118 for the E-Mobility Scenario. Automatisierungstechnik, 2014, 62, 241-248.	0.4	5
49	Energy Informatics. Business and Information Systems Engineering, 2014, 6, 25-31.	4.0	55
50	Demand side management in smart buildings by intelligent scheduling of heat pumps. , 2014, , .		12
51	Hop count based distance estimation in mobile ad hoc networks â€“ Challenges and consequences. Ad Hoc Networks, 2014, 15, 39-52.	3.4	15
52	Evolutionary algorithm for optimal anchor node placement to localize devices in a mobile ad hoc network during building evacuation. , 2013, , .		0
53	Assessing load flexibility in smart grids: Electric vehicles for renewable energy integration. , 2013, , .		13
54	Distributed swarm evacuation planning. , 2013, , .		2

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55	Smart Energy Systems. IT - Information Technology, 2013, 55, 43-44.	0.6	0
56	Theory and Algorithms for Finding Knees. Lecture Notes in Computer Science, 2013, , 156-170.	1.0	11
57	Stay real!. , 2012, , .		4
58	A Study of Mobility in Ad Hoc Networks and Its Effects on a Hop Count Based Distance Estimation. , 2012, , .		6
59	Welcome to the 1st international workshop on Software Engineering for the Smart Grid (SE4SG 2012). , 2012, , .		1
60	Firefly-inspired synchronization for energy-efficient distance estimation in mobile ad-hoc networks. , 2012, , .		8
61	Introducing the Simulation Plugin Interface and the EAS Framework with comparison to two state-of-the-art agent simulation frameworks. , 2012, , .		0
62	Integration of electric vehicles in smart homes - an ICT-based solution for V2G scenarios. , 2012, , .		18
63	User interaction interface for Energy Management in Smart Homes. , 2012, , .		17
64	Towards a Deeper Understanding of Trade-offs Using Multi-objective Evolutionary Algorithms. Lecture Notes in Computer Science, 2012, , 396-405.	1.0	5
65	Distributed Geometric Distance Estimation in Ad Hoc Networks. Lecture Notes in Computer Science, 2012, , 28-41.	1.0	8
66	An Evolutionary Optimization Approach for Bulk Material Blending Systems. Lecture Notes in Computer Science, 2012, , 478-488.	1.0	2
67	Organic smart home. , 2011, , .		29
68	Self-organized invasive parallel optimization. , 2011, , .		2
69	Decentralised Route Guidance in Organic Traffic Control. , 2011, , .		7
70	User behavior prediction for energy management in smart homes. , 2011, , .		17
71	Efficient barycenter algorithm for drawing hierarchical graphs with minimum edge crossings. , 2011, , .		1
72	Adaptivity and Self-organisation in Organic Computing Systems. , 2011, , 5-37.		6

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73	Observation and Control of Organic Systems. , 2011, , 325-338.		61
74	Organic Traffic Control. , 2011, , 431-446.		30
75	Organic Computing: Quo vadis?. , 2011, , 615-627.		8
76	Variable Preference Modeling Using Multi-Objective Evolutionary Algorithms. Lecture Notes in Computer Science, 2011, , 91-105.	1.0	20
77	Decentralised Energy Management for Smart Homes. , 2011, , 605-607.		2
78	Self-organized Invasive Parallel Optimization with Self-repairing Mechanism. PARS Parallel-Algorithmen -Rechnerstrukturen Und -Systemsoftware, 2011, 28, 90-99.	0.2	0
79	Enabling Self-Organising Service Level Management with Automated Negotiation. , 2010, , .		5
80	Age based controller stabilization in Evolutionary Robotics. , 2010, , .		0
81	Organic Computing: A Grand Challenge for Mastering Complex Systems. IT - Information Technology, 2010, 52, 135-141.	0.6	5
82	Organic computing in off-highway machines. , 2010, , .		3
83	E-Energy â€" Paving the Way for an Internet of EnergyAuf dem Weg zum Internet der Energie. IT - Information Technology, 2010, 52, 55-57.	0.6	4
84	Adaption of XCS to multi-learner predator/prey scenarios. , 2010, , .		2
85	In Search of Equitable Solutions Using Multi-objective Evolutionary Algorithms. , 2010, , 687-696.		17
86	Adaptivity and self-organization in organic computing systems. ACM Transactions on Autonomous and Adaptive Systems, 2010, 5, 1-32.	0.4	128
87	Service Discovery in Self-Organizing Service-Oriented Environments. , 2010, , .		9
88	Possibilities and limitations of decentralised traffic control systems. , 2010, , .		8
89	Evolvability in Evolutionary Robotics: Evolving the Genotype-Phenotype Mapping. , 2010, , .		0
90	Decentralized Energy-Management to Control Smart-Home Architectures. Lecture Notes in Computer Science, 2010, , 150-161.	1.0	20

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91	A Framework for Incorporating Trade-Off Information Using Multi-Objective Evolutionary Algorithms. , 2010, , 131-140.		9
92	XCS Revisited: A Novel Discovery Component for the eXtended Classifier System. Lecture Notes in Computer Science, 2010, , 289-298.	1.0	9
93	Collaborating and Learning Predators on a Pursuit Scenario. International Federation for Information Processing, 2010, , 290-301.	0.4	0
94	The JoSchKa System: Organic Job Distribution in Heterogeneous and Unreliable Environments. Lecture Notes in Computer Science, 2010, , 73-86.	1.0	0
95	A Completely Evolvable Genotype-Phenotype Mapping for Evolutionary Robotics. , 2009, , .		5
96	SimSOA. , 2009, , .		1
97	Assessing complexity of service-oriented computing using learning classifier systems. , 2009, , .		2
98	Portfolio optimization with an envelope-based multi-objective evolutionary algorithm. European Journal of Operational Research, 2009, 199, 684-693.	3.5	147
99	Assessing the Impact of Inherent SOA System Properties on Complexity. , 2009, , .		0
100	Decentralized evolution of robotic behavior using finite state machines. International Journal of Intelligent Computing and Cybernetics, 2009, 2, 695-723.	1.6	35
101	Organic traffic light control for urban road networks. International Journal of Autonomous and Adaptive Communications Systems, 2009, 2, 203.	0.2	39
102	Evolutionary Design of Emergent Behavior. Understanding Complex Systems, 2009, , 123-140.	0.3	3
103	Self-organized Parallel Cooperation for Solving Optimization Problems. Lecture Notes in Computer Science, 2009, , 135-145.	1.0	1
104	Efficient implementation of an active set algorithm for large-scale portfolio selection. Computers and Operations Research, 2008, 35, 3945-3961.	2.4	40
105	Parallel multi-objective optimization using Master-Slave model on heterogeneous resources. , 2008, , .		22
106	A Reference Architecture for Self-organizing Service-Oriented Computing. Lecture Notes in Computer Science, 2008, , 205-219.	1.0	13
107	Decentralised Progressive Signal Systems for Organic Traffic Control. , 2008, , .		23
108	Organic Control of Traffic Lights. Lecture Notes in Computer Science, 2008, , 219-233.	1.0	37

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109	Using Organic Computing to Control Bunching Effects. , 2008, , 232-244.		5
110	Distance Based Ranking in Many-Objective Particle Swarm Optimization. Lecture Notes in Computer Science, 2008, , 753-762.	1.0	26
111	Improving XCS Performance by Distribution. Lecture Notes in Computer Science, 2008, , 111-120.	1.0	5
112	Evolving Collision Avoidance on Autonomous Robots. International Federation for Information Processing, 2008, , 85-94.	0.4	3
113	Design of Gate Array Circuits Using Evolutionary Algorithms. , 2008, , 38-50.		0
114	Towards a Quantitative Notion of Self-organisation. , 2007, , .		12
115	Multi-objective particle swarm optimization on computer grids. , 2007, , .		51
116	A Characterization of Key Properties of Environment-Mediated Multiagent Systems. Lecture Notes in Computer Science, 2007, , 17-38.	1.0	5
117	Measurement and Control of Self-organised Behaviour in Robot Swarms. , 2007, , 209-223.		5
118	Remarks on Self-organization and Trust in Organic Computing Systems. Lecture Notes in Computer Science, 2007, , 2-2.	1.0	0
119	Organic Computing – Addressing Complexity by Controlled Self-Organization. , 2006, , .		68
120	Organic computing - a new vision for distributed embedded systems. , 2005, , .		120
121	FPGA implementation of population-based ant colony optimization. Applied Soft Computing Journal, 2004, 4, 303-322.	4.1	55
122	Distribution of Evolutionary Algorithms in Heterogeneous Networks. Lecture Notes in Computer Science, 2004, , 923-934.	1.0	16
123	Time-Scattered Heuristic for the Hardware Implementation of Population-Based ACO. Lecture Notes in Computer Science, 2004, , 250-261.	1.0	1
124	Title is missing!. Journal of Supercomputing, 2003, 26, 221-238.	2.4	6
125	Designing Evolutionary Algorithms for Dynamic Optimization Problems. Natural Computing Series, 2003, , 239-262.	2.2	109
126	A Unified Framework for Metaheuristics. Lecture Notes in Computer Science, 2003, , 1568-1569.	1.0	1

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127	Ant colony optimization for resource-constrained project scheduling. IEEE Transactions on Evolutionary Computation, 2002, 6, 333-346.	7.5	530
128	An Evolutionary Approach to Dynamic Task Scheduling on FPGAs with Restricted Buffer. Journal of Parallel and Distributed Computing, 2002, 62, 1407-1420.	2.7	3
129	Multi Colony Ant Algorithms. Journal of Heuristics, 2002, 8, 305-320.	1.1	138
130	Guidance in evolutionary multi-objective optimization. Advances in Engineering Software, 2001, 32, 499-507.	1.8	257
131	Dynamic scheduling of tasks on partially reconfigurable FPGAs. IEE Proceedings: Computers and Digital Techniques, 2000, 147, 181.	1.6	98
132	Formal Asynchronous Systems Modelling. Fundamenta Informaticae, 2000, 42, 335-389.	0.3	0
133	A Multi-population Approach to Dynamic Optimization Problems. , 2000, , 299-307.		201
134	Information Exchange in Multi Colony Ant Algorithms. Lecture Notes in Computer Science, 2000, , 645-652.	1.0	46
135	Multiplication of Matrices With Different Sparseness Properties on Dynamically Reconfigurable Meshes. VLSI Design, 1999, 9, 69-81.	0.5	7
136	Experiences with fineâ€grainedparallel genetic algorithms. Annals of Operations Research, 1999, 90, 203-219.	2.6	61
137	A simulator for the reconfigurable mesh architecture. Lecture Notes in Computer Science, 1998, , 99-104.	1.0	7
138	A distributed genetic algorithm improving the generalization behavior of neural networks. Lecture Notes in Computer Science, 1995, , 107-121.	1.0	3
139	Systolic s/sup 2/-way merge sort is optimal. IEEE Transactions on Computers, 1989, 38, 1052-1056.	2.4	2
140	Given's rotation on an instruction systolic array. Lecture Notes in Computer Science, 1989, , 340-346.	1.0	2
141	The instruction systolic array and its relation to other models of parallel computers. Parallel Computing, 1988, 7, 25-39.	1.3	27
142	A closer look at VLSI multiplication. The Integration VLSI Journal, 1988, 6, 345-359.	1.3	6
143	Systolic sorting in a sequential input/output environment. Parallel Computing, 1986, 3, 11-23.	1.3	9
144	On the maximum edge length in VLSI layouts of complete binary trees. Information Processing Letters, 1986, 23, 19-23.	0.4	1

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145	Dictionary Machines for Different Models of VLSI. IEEE Transactions on Computers, 1985, C-34, 472-475.	2.4	18
146	Systolic Sorting on a Mesh-Connected Network. IEEE Transactions on Computers, 1985, C-34, 652-658.	2.4	55
147	Algebraic semantics of recursive flowchart schemes. Information and Control, 1983, 59, 108-126.	1.3	1
148	Algebraic characterization of reducible flowcharts. Journal of Computer and System Sciences, 1983, 27, 165-199.	0.9	8
149	A fast sorting algorithm for VLSI. , 1983, , 408-419.		5
150	Algebraic semantics of recursive flowchart schemes. Lecture Notes in Computer Science, 1982, , 489-501.	1.0	1
151	Pheromone evaluation in Ant Colony Optimization. , 0, , .		12
152	Population based ant colony optimization on FPGA. , 0, , .		7