

# Thomas Strasser

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

171  
papers

2,702  
citations

24  
h-index

46  
g-index

196  
ext. papers

3,424  
ext. citations

4.1  
avg. IF

5.16  
L-index

#	Paper	IF	Citations
171	On the Value of Proactive Microgrid Scheduling. <i>IEEE Access</i> , <b>2022</b> , 1-1	3.5	
170	Enhanced Control of Three-Phase Grid-Connected Renewables with Fault Ride-Through Capability under Voltage Sags. <i>Electronics (Switzerland)</i> , <b>2022</b> , 11, 1404	2.6	
169	Recommendation of Best Practices for Industrial Agent Systems based on the IEEE 2660.1 Standard <b>2021</b> ,		3
168	The IEEE IES Technical Committee Cluster of Energy: Promoting Innovative Research Activities in the Energy Field. <i>IEEE Industrial Electronics Magazine</i> , <b>2021</b> , 15, 89-103	6.2	
167	. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2021</b> , 51, 2036-2040	7.3	0
166	Frequency- adaptive control of a three-phase single-stage grid-connected photovoltaic system under grid voltage sags. <i>International Journal of Electrical Power and Energy Systems</i> , <b>2021</b> , 125, 106416	5.1	4
165	Knowledge-Driven Manufacturability Analysis for Additive Manufacturing. <i>IEEE Open Journal of the Industrial Electronics Society</i> , <b>2021</b> , 2, 207-223	3.6	3
164	Hybrid Optimization Toward Proactive Resilient Microgrid Scheduling. <i>IEEE Access</i> , <b>2021</b> , 9, 124741-124756	3.5	2
163	Open Information Architecture for Seamless Integration of Renewable Energy Sources. <i>Electronics (Switzerland)</i> , <b>2021</b> , 10, 496	2.6	2
162	Fault classification in power distribution systems based on limited labeled data using multi-task latent structure learning. <i>Sustainable Cities and Society</i> , <b>2021</b> , 73, 103094	10.1	6
161	. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 1-1	11.9	3
160	Engineering and validation support framework for power system automation and control applications. <i>Elektrotechnik Und Informationstechnik</i> , <b>2020</b> , 137, 470-475	0.4	0
159	European Guide to Power System Testing <b>2020</b> ,		13
158	Real-Time Simulation-Based Testing of Modern Energy Systems: A Review and Discussion. <i>IEEE Industrial Electronics Magazine</i> , <b>2020</b> , 14, 28-39	6.2	14
157	Towards System-Level Validation <b>2020</b> , 1-11		0
156	Education and Training Needs, Methods, and Tools <b>2020</b> , 113-128		
155	Test Procedure and Description for System Testing <b>2020</b> , 13-33		

154	Hardware-in-the-Loop Assessment Methods <b>2020</b> , 51-66		4
153	Multi-Task Logistic Low-Ranked Dirty Model for Fault Detection in Power Distribution System. <i>IEEE Transactions on Smart Grid</i> , <b>2020</b> , 11, 786-796	10.7	11
152	The Spectrum of Proactive, Resilient Multi-Microgrid Scheduling: A Systematic Literature Review. <i>Energies</i> , <b>2020</b> , 13, 4543	3.1	3
151	Achievements, experiences, and lessons learned from the European research infrastructure ERIGrid related to the validation of power and energy systems. <i>Elektrotechnik Und Informationstechnik</i> , <b>2020</b> , 137, 502-508	0.4	
150	Engineering and Validating Cyber-Physical Energy Systems: Needs, Status Quo, and Research Trends. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 13-26	0.9	1
149	ERIGrid Holistic Test Description for Validating Cyber-Physical Energy Systems. <i>Energies</i> , <b>2019</b> , 12, 2722	3.1	13
148	Modeling and Design of the Vector Control for a Three-Phase Single-Stage Grid-Connected PV System with LVRT Capability according to the Spanish Grid Code. <i>Energies</i> , <b>2019</b> , 12, 2899	3.1	9
147	Improved Control of Grid-connected DFIG-based Wind Turbine using Proportional-Resonant Regulators during Unbalanced Grid. <i>Energies</i> , <b>2019</b> , 12, 4041	3.1	6
146	Towards automated engineering and validation of cyber-physical energy systems. <i>Energy Informatics</i> , <b>2019</b> , 2,	2.8	1
145	Standardized Dynamic Reconfiguration of Control Applications in Industrial Systems <b>2019</b> , 776-793		1
144	Asynchronous Integration of Real-Time Simulators for HIL-based Validation of Smart Grids <b>2019</b> ,		1
143	Validating Coordination Schemes between Transmission and Distribution System Operators using a Laboratory-Based Approach <b>2019</b> ,		1
142	<b>2019</b> ,		2
141	Applying the Smart Grid Architecture Model for Designing and Validating System-of-Systems in the Power and Energy Domain: A European Perspective. <i>Energies</i> , <b>2019</b> , 12, 258	3.1	61
140	Methods and Systems for a Smart Energy City. <i>IEEE Transactions on Industrial Electronics</i> , <b>2019</b> , 66, 1363-1367	3.6	8
139	Analyzing standardization needs for CHIL-based testing of power systems and components <b>2018</b> ,		4
138	Design of experiments aided holistic testing of cyber-physical energy systems <b>2018</b> ,		6
137	An Adaptable Engineering Support Framework for Multi-Functional Energy Storage System Applications. <i>Sustainability</i> , <b>2018</b> , 10, 4164	3.6	5

136	An Overview of Trends and Developments of Internet of Things Applied to Industrial Systems <b>2018</b> ,		3
135	Integration Patterns for Interfacing Software Agents with Industrial Automation Systems <b>2018</b> ,		12
134	The Applicability of ISO/IEC 25023 Measures to the Integration of Agents and Automation Systems <b>2018</b> ,		8
133	Comparing Specification and Design Approaches for Power Systems Applications <b>2018</b> ,		4
132	Advanced Testing Chain Supporting the Validation of Smart Grid Systems and Technologies <b>2018</b> ,		3
131	An integrated pan-European research infrastructure for validating smart grid systems. <i>Elektrotechnik Und Informationstechnik</i> , <b>2018</b> , 135, 616-622	0.4	7
130	Comparison of Power Hardware-in-the-Loop Approaches for the Testing of Smart Grid Controls. <i>Energies</i> , <b>2018</b> , 11, 3381	3.1	16
129	Rapid Prototyping of Multi-Functional Battery Energy Storage System Applications. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 1326	2.6	4
128	Assessing the Integration of Software Agents and Industrial Automation Systems with ISO/IEC 25010 <b>2018</b> ,		11
127	Innovative Frequency Controls for Intelligent Power Systems <b>2018</b> ,		4
126	Hardware-in-the-Loop Co-Simulation Based Validation of Power System Control Applications <b>2018</b> ,		2
125	Approach for handling controller conflicts within multi-functional energy storage systems. <i>CIREN - Open Access Proceedings Journal</i> , <b>2017</b> , 2017, 1575-1578	0.1	3
124	Validating Intelligent Power and Energy Systems I A Discussion of Educational Needs. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 200-212	0.9	2
123	Simulation-Based Validation of Smart Grids I Status Quo and Future Research Trends. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 171-185	0.9	20
122	Towards holistic power distribution system validation and testing II An overview and discussion of different possibilities. <i>Elektrotechnik Und Informationstechnik</i> , <b>2017</b> , 134, 71-77	0.4	30
121	Provisioning, deployment, and operation of smart grid applications on substation level. <i>Computer Science - Research and Development</i> , <b>2017</b> , 32, 117-130		15
120	Common practices for integrating industrial agents and low level automation functions <b>2017</b> ,		17
119	Using power-hardware-in-the-loop experiments together with co-simulation for the holistic validation of cyber-physical energy systems <b>2017</b> ,		16

118	Detection and location of faults in wide area systems utilizing event-based communication scheduling <b>2017</b> ,		1
117	Grid of the future and the need for a decentralised control architecture: the web-of-cells concept. <i>CIREC - Open Access Proceedings Journal</i> , <b>2017</b> , 2017, 1162-1166	0.1	14
116	Laboratory infrastructure driven key performance indicator development using the smart grid architecture model. <i>CIREC - Open Access Proceedings Journal</i> , <b>2017</b> , 2017, 1866-1870	0.1	2
115	Cyber-physical energy systems modeling, test specification, and co-simulation based testing <b>2017</b> ,		18
114	Coupling of Real-Time and Co-Simulation for the Evaluation of the Large Scale Integration of Electric Vehicles into Intelligent Power Systems <b>2017</b> ,		3
113	A community analysis of the IEEE IES industrial agents technical committee <b>2017</b> ,		7
112	Past, present and future trends in industrial electronics standardization <b>2017</b> ,		6
111	Engineering Smart Grids: Applying Model-Driven Development from Use Case Design to Deployment. <i>Energies</i> , <b>2017</b> , 10, 374	3.1	24
110	Engineering Support for Handling Controller Conflicts in Energy Storage Systems Applications. <i>Energies</i> , <b>2017</b> , 10, 1595	3.1	6
109	Smart Grid Laboratory Automation Approach Using IEC 61499 <b>2017</b> , 463-482		
108	An Integrated Research Infrastructure for Validating Cyber-Physical Energy Systems. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 157-170	0.9	5
107	Evaluating XMPP communication in IEC 61499-based distributed energy applications <b>2016</b> ,		4
106	Towards an integrated development of control applications for multi-functional energy storages <b>2016</b> ,		2
105	Robustness of cooperative forward collision warning systems to communication uncertainty <b>2016</b> ,		10
104	Distribution Line Parameter Estimation Under Consideration of Measurement Tolerances. <i>IEEE Transactions on Industrial Informatics</i> , <b>2016</b> , 12, 726-735	11.9	38
103	Smart Grid Laboratory Automation Approach Using IEC 61499. <i>Industrial Information Technology Series</i> , <b>2016</b> , 463-482		
102	Recursive estimation of n-line parameters for electric power distribution grids <b>2016</b> ,		1
101	Applying the SGAM methodology for rapid prototyping of smart Grid applications <b>2016</b> ,		6

100	Analyzing standardization needs for applying agent technology in industrial environments <b>2016</b> ,		1
99	Towards a foundation for holistic power system validation and testing <b>2016</b> ,		9
98	Towards applied Security-by-Design for DER units <b>2016</b> ,		2
97	Integrated rapid prototyping of distributed energy resources in a real-time validation environment <b>2016</b> ,		3
96	. <i>Proceedings of the IEEE</i> , <b>2016</b> , 104, 1086-1101	14.3	240
95	Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. <i>IEEE Power and Energy Magazine</i> , <b>2015</b> , 13, 30-42	2.4	40
94	Real-Time Simulation Technologies for Power Systems Design, Testing, and Analysis. <i>IEEE Power and Energy Technology Systems Journal</i> , <b>2015</b> , 2, 63-73	4.3	227
93	Applications of Real-Time Simulation Technologies in Power and Energy Systems. <i>IEEE Power and Energy Technology Systems Journal</i> , <b>2015</b> , 2, 103-115	4.3	93
92	Towards Smart Grid system validation: Integrating the SmartEST and the SESA laboratories <b>2015</b> ,		4
91	A low cost open source-based IEC 61850/61499 automation platform for distributed energy resources <b>2015</b> ,		4
90	. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 2424-2438	8.9	295
89	Distributed Real-Time Automation and Control - Reactive Control Layer for Industrial Agents <b>2015</b> , 89-107		1
88	Low-cost integration of hardware components into co-simulation for future power and energy systems <b>2015</b> ,		4
87	From textual programming to IEC 61499 artifacts: Towards a model-driven engineering approach for smart grid applications <b>2015</b> ,		4
86	<b>2015</b> ,		33
85	Smart grid research infrastructures in Austria: Examples of available laboratories and their possibilities <b>2015</b> ,		3
84	Multiagent-Based Distribution Automation Solution for Self-Healing Grids. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 2620-2628	8.9	87
83	. <i>IEEE Transactions on Industrial Informatics</i> , <b>2015</b> , 11, 207-209	11.9	6

82	. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 2420-2423	8.9	8
81	An Open Source-Based and Standard-Compliant Smart Grid Laboratory Automation System: The AIT SmartEST Approach. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 195-205	0.9	1
80	IEC 61850/61499 Control of Distributed Energy Resources: Concept, Guidelines, and Implementation. <i>IEEE Transactions on Energy Conversion</i> , <b>2014</b> , 29, 1008-1017	5.4	30
79	. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2014</b> , 44, 261-262	7.3	1
78	Co-simulation of power systems, communication and controls <b>2014</b> ,		8
77	Design, Modeling, and Simulation of On-Demand Communication Mechanisms for Cyber-Physical Energy Systems. <i>IEEE Transactions on Industrial Informatics</i> , <b>2014</b> , 10, 2330-2339	11.9	44
76	. <i>IEEE Transactions on Industrial Informatics</i> , <b>2014</b> , 10, 1890-1903	11.9	114
75	Requirements for Smart Grid simulation tools <b>2014</b> ,		12
74	Co-Simulation Training Platform for Smart Grids. <i>IEEE Transactions on Power Systems</i> , <b>2014</b> , 29, 1989-1997		37
73	Standardized Dynamic Reconfiguration of Control Applications in Industrial Systems. <i>International Journal of Applied Industrial Engineering</i> , <b>2014</b> , 2, 57-73	0.2	1
72	DERri Common Reference Model for Distributed Energy Resources modeling scheme, reference implementations and validation of results. <i>Elektrotechnik Und Informationstechnik</i> , <b>2014</b> , 131, 378-385	0.4	6
71	Model-driven engineering applied to Smart Grid automation using IEC 61850 and IEC 61499 <b>2014</b> ,		7
70	Improving the portability and exchangeability of model data for smart grids focusing on real-time simulations definition of a common reference model. <i>Elektrotechnik Und Informationstechnik</i> , <b>2013</b> , 1	0.4	1
69	Towards a Semantic Driven Framework for Smart Grid Applications: Model-Driven Development Using CIM, IEC 61850 and IEC 61499. <i>Informatik-Spektrum</i> , <b>2013</b> , 36, 58-68	0.3	26
68	Towards a common modeling approach for Smart Grid automation <b>2013</b> ,		7
67	An environment for the coordinated simulation of power grids together with automation systems <b>2013</b> ,		4
66	Developing modular reusable IEC 61499 control applications with 4DIAC <b>2013</b> ,		11
65	Steady-state co-simulation with PowerFactory <b>2013</b> ,		21

64	Multi-agent systems as automation platform for intelligent energy systems <b>2013</b> ,		12
63	Online Reconfigurable Control Software for IEDs. <i>IEEE Transactions on Industrial Informatics</i> , <b>2013</b> , 9, 1455-1465	11.9	31
62	Analyzing the need for a common modeling language for Smart Grid applications <b>2013</b> ,		7
61	Introduction of advanced testing procedures including PHIL for DG providing ancillary services <b>2013</b> ,		7
60	Modeling communication and estimation processes of automated crash avoidance systems <b>2013</b> ,		3
59	Co-simulation of components, controls and power systems based on open source software <b>2013</b> ,		23
58	Power Distribution Control Using Multi-Agent Systems. <i>Studies in Computational Intelligence</i> , <b>2013</b> , 323-333		4
57	Review of Trends and Challenges in Smart Grids: An Automation Point of View. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 1-12	0.9	14
56	Autonomous service-restoration in smart distribution grids using Multi-Agent Systems <b>2012</b> ,		5
55	Towards an increased reusability of distributed control applications modeled in IEC 61499 <b>2012</b> ,		8
54	Autonomous Application Recovery in Distributed Intelligent Automation and Control Systems. <i>IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews</i> , <b>2012</b> , 42, 1054-1070		14
53	Examination of LV grid phenomena by means of PHIL testing <b>2012</b> ,		6
52	Implementation of a multi-rating interface for Power-Hardware-in-the-Loop simulations <b>2012</b> ,		10
51	A reconfigurable communication gateway for distributed embedded control systems <b>2012</b> ,		13
50	Hybrid grids: ICT-based integration of electric power and gas grids - A standards perspective <b>2012</b> ,		8
49	<b>2012</b> ,		13
48	Design and Execution Issues in IEC 61499 Distributed Automation and Control Systems. <i>IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews</i> , <b>2011</b> , 41, 41-51		47
47	Multi-Agent system for self-optimizing power distribution grids <b>2011</b> ,		13

46	Applying open standards and open source software for smart grid applications: Simulation of distributed intelligent control of power systems <b>2011</b> ,		23
45	Distributed open source control with Industrial Ethernet I/O devices <b>2011</b> ,		6
44	Framework for co-ordinated simulation of power networks and components in Smart Grids using common communication protocols <b>2011</b> ,		11
43	Evaluation and test environment for automation concepts in Smart Grids applications <b>2011</b> ,		7
42	A Test and Validation Approach for the Standard-Based Implementation of Intelligent Electronic Devices in Smart Grids. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 50-61	0.9	4
41	An IEC 61499 distributed control concept for reconfigurable robots. <i>International Journal of Computer Aided Engineering and Technology</i> , <b>2011</b> , 3, 344	0.5	4
40	<b>2011</b> ,		52
39	Zero-Downtime Reconfiguration of Distributed Control Logic in Industrial Automation and Control <b>2011</b> , 55-81		2
38	Open source initiatives as basis for the establishment of new technologies in industrial automation: 4DIAC a case study <b>2010</b> ,		35
37	Model-driven engineering of networked industrial automation systems <b>2010</b> ,		8
36	Domain-Specific Design of Industrial Automation and Control Systems: The MEDEIA Approach. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2010</b> , 43, 18-23		3
35	. <i>IEEE Industrial Electronics Magazine</i> , <b>2009</b> , 3, 49-55	6.2	27
34	A research roadmap for model-driven design of embedded systems for automation components <b>2009</b> ,		11
33	Usability of Multi-agent Based Control Systems in Industrial Automation. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 25-36	0.9	10
32	A survey of distributed intelligence in automation in European industry, research and market <b>2008</b> ,		11
31	Framework for Distributed Industrial Automation and Control (4DIAC) <b>2008</b> ,		47
30	Structuring of large scale distributed control programs with IEC 61499 subapplications and a hierarchical plant structure model <b>2008</b> ,		6
29	Modeling flexible mechatronical based assembly systems through simulation support <b>2008</b> ,		2

28	Model-driven embedded systems design environment for the industrial automation sector <b>2008</b> ,		21
27	Multi-domain model-driven design of Industrial Automation and Control Systems <b>2008</b> ,		12
26	Developments in dynamic and intelligent reconfiguration of industrial automation. <i>Computers in Industry</i> , <b>2008</b> , 59, 533-547	11.6	44
25	Benchmarking of IEC 61499 runtime environments <b>2007</b> ,		5
24	Execution Models for the IEC 61499 elements Composite Function Block and Subapplication <b>2007</b> ,		17
23	Future scenarios for application of downtimeless reconfiguration in industrial practice <b>2007</b> ,		1
22	EVOLUTION CONTROL ENVIRONMENT FOR DISTRIBUTED AUTOMATION COMPONENTS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2007</b> , 40, 241-246		
21	Enhanced IEC 61499 Device Management Execution and Usage for Downtimeless Reconfiguration <b>2007</b> ,		5
20	Modelling Real-time Constraints Regarding Reconfiguration Aspects for IEC 61499 Control Applications <b>2007</b> ,		3
19	Downtimeless System Evolution: Current State and Future Trends <b>2007</b> ,		3
18	A Device and Resource Execution Model for IEC 61499 Control Devices <b>2007</b> ,		4
17	An Execution Environment for Real-Time Constrained Control Software based on IEC 61499 <b>2007</b> ,		1
16	The Past, Present, and Future of IEC 61499. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 1-14	0.9	11
15	Towards Zero-downtime Evolution of Distributed Control Applications via Evolution Control based on IEC 61499 <b>2006</b> ,		6
14	Usability and Interoperability of IEC 61499 based distributed automation systems <b>2006</b> ,		53
13	An Advanced Engineering Environment for Distributed & Reconfigurable Industrial Automation & Control Systems based on IEC 61499 <b>2006</b> , 493-498		4
12	FUZZY CONTROLLER OF THE AIR SYSTEM OF A DIESEL ENGINE. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2006</b> , 39, 511-516		1
11	Towards Reconfiguration Applications as basis for Control System Evolution in Zero-downtime Automation Systems <b>2006</b> , 523-528		8

10	Towards Engineering Methods for Reconfiguration of Distributed Real-Time Control Systems Based on the Reference Model of IEC 61499. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 165-175	0.9	10
9	RAPID RECONFIGURATION OF MACHINE-TOOLS FOR HOLONIC MANUFACTURING SYSTEMS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2005</b> , 38, 205-210		3
8	Artificial neural networks for fault detection in large-scale data acquisition systems. <i>Engineering Applications of Artificial Intelligence</i> , <b>2004</b> , 17, 233-248	7.2	22
7	Intuitive control engineering for mechatronic components in distributed automation systems based on the reference model of IEC 61499		8
6	Modelling Execution Order and Real-time Constraints in IEC 61499 Control Applications		3
5	Modeling of Reconfiguration Control Applications based on the IEC 61499 Reference Model for Industrial Process Measurement and Control Systems		17
4	Automatic control application recovery in distributed IEC 61499 based automation and control systems		2
3	Development, implementation and use of an IEC 61499 function block library for embedded closed loop control		10
2	Neural networks applied to automatic fault detection		2
1	Zero-Downtime Reconfiguration of Distributed Control Logic in Industrial Automation and Control 2024-2051		