Thomas Strasser

List of Publications by Citations

171	2,702	24	46
papers	citations	h-index	g-index

196	3,424	4.1	5.16
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
171	. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 2424-2438	8.9	295
170	. *Proceedings of the IEEE*, **2016**, 104, 1086-1101	14.3	240
169	Real-Time Simulation Technologies for Power Systems Design, Testing, and Analysis. *IEEE Power and Energy Technology Systems Journal*, **2015**, 2, 63-73	4.3	227
168	. *IEEE Transactions on Industrial Informatics*, **2014**, 10, 1890-1903	11.9	114
167	Applications of Real-Time Simulation Technologies in Power and Energy Systems. *IEEE Power and Energy Technology Systems Journal*, **2015**, 2, 103-115	4.3	93
166	Multiagent-Based Distribution Automation Solution for Self-Healing Grids. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 2620-2628	8.9	87
165	Applying the Smart Grid Architecture Model for Designing and Validating System-of-Systems in the Power and Energy Domain: A European Perspective. *Energies*, **2019**, 12, 258	3.1	61
164	Usability and Interoperability of IEC 61499 based distributed automation systems **2006**,		53
163	**2011**,		52
162	Design and Execution Issues in IEC 61499 Distributed Automation and Control Systems. *IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews*, **2011**, 41, 41-51		47
161	Framework for Distributed Industrial Automation and Control (4DIAC) **2008**,		47
160	Design, Modeling, and Simulation of On-Demand Communication Mechanisms for Cyber-Physical Energy Systems. *IEEE Transactions on Industrial Informatics*, **2014**, 10, 2330-2339	11.9	44
159	Developments in dynamic and intelligent reconfiguration of industrial automation. *Computers in Industry*, **2008**, 59, 533-547	11.6	44
158	Lab Tests: Verifying That Smart Grid Power Converters Are Truly Smart. *IEEE Power and Energy Magazine*, **2015**, 13, 30-42	2.4	40
157	Distribution Line Parameter Estimation Under Consideration of Measurement Tolerances. *IEEE Transactions on Industrial Informatics*, **2016**, 12, 726-735	11.9	38
156	Co-Simulation Training Platform for Smart Grids. *IEEE Transactions on Power Systems*, **2014**, 29, 1989-1997	7	37
155	Open source initiatives as basis for the establishment of new technologies in industrial automation: 4DIAC a case study **2010**,		35

154	**2015**,		33
153	Online Reconfigurable Control Software for IEDs. *IEEE Transactions on Industrial Informatics*, **2013**, 9, 1455-1465	11.9	31
152	IEC 61850/61499 Control of Distributed Energy Resources: Concept, Guidelines, and Implementation. *IEEE Transactions on Energy Conversion*, **2014**, 29, 1008-1017	5.4	30
151	Towards holistic power distribution system validation and testing□n overview and discussion of different possibilities. *Elektrotechnik Und Informationstechnik*, **2017**, 134, 71-77	0.4	30
150	. *IEEE Industrial Electronics Magazine*, **2009**, 3, 49-55	6.2	27
149	Towards a Semantic Driven Framework for Smart Grid Applications: Model-Driven Development Using CIM, IEC 61850 and IEC 61499. *Informatik-Spektrum*, **2013**, 36, 58-68	0.3	26
148	Engineering Smart Grids: Applying Model-Driven Development from Use Case Design to Deployment. *Energies*, **2017**, 10, 374	3.1	24
147	Co-simulation of components, controls and power systems based on open source software **2013**,		23
146	Applying open standards and open source software for smart grid applications: Simulation of distributed intelligent control of power systems **2011**,		23
145	Artificial neural networks for fault detection in large-scale data acquisition systems. *Engineering Applications of Artificial Intelligence*, **2004**, 17, 233-248	7.2	22
144	Steady-state co-simulation with PowerFactory **2013**,		21
143	Model-driven embedded systems design environment for the industrial automation sector **2008**,		21
142	Simulation-Based Validation of Smart Grids □tatus Quo and Future Research Trends. *Lecture Notes in Computer Science*, **2017**, 171-185	0.9	20
141	Cyber-physical energy systems modeling, test specification, and co-simulation based testing **2017**,		18
140	Common practices for integrating industrial agents and low level automation functions **2017**,		17
139	Execution Models for the IEC 61499 elements Composite Function Block and Subapplication **2007**,		17
138	Modeling of Reconfiguration Control Applications based on the IEC 61499 Reference Model for Industrial Process Measurement and Control Systems		17
137	Using power-hardware-in-the-loop experiments together with co-simulation for the holistic validation of cyber-physical energy systems **2017**,		16

136	Comparison of Power Hardware-in-the-Loop Approaches for the Testing of Smart Grid Controls. *Energies*, **2018**, 11, 3381	3.1	16
135	Provisioning, deployment, and operation of smart grid applications on substation level. *Computer Science - Research and Development*, **2017**, 32, 117-130		15
134	Real-Time Simulation-Based Testing of Modern Energy Systems: A Review and Discussion. *IEEE Industrial Electronics Magazine*, **2020**, 14, 28-39	6.2	14
133	Grid of the future and the need for a decentralised control architecture: the web-of-cells concept. *CIRED - Open Access Proceedings Journal*, **2017**, 2017, 1162-1166	0.1	14
132	Autonomous Application Recovery in Distributed Intelligent Automation and Control Systems. *IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews*, **2012**, 42, 1054-1070		14
131	Review of Trends and Challenges in Smart Grids: An Automation Point of View. *Lecture Notes in Computer Science*, **2013**, 1-12	0.9	14
130	European Guide to Power System Testing **2020**,		13
129	ERIGrid Holistic Test Description for Validating Cyber-Physical Energy Systems. *Energies*, **2019**, 12, 2722	3.1	13
128	Multi-Agent system for self-optimizing power distribution grids **2011**,		13
127	A reconfigurable communication gateway for distributed embedded control systems **2012**,		13
126	**2012**,		13
125	Requirements for Smart Grid simulation tools **2014**,		12
124	Multi-agent systems as automation platform for intelligent energy systems **2013**,		12
123	Multi-domain model-driven design of Industrial Automation and Control Systems **2008**,		12
122	Integration Patterns for Interfacing Software Agents with Industrial Automation Systems **2018**,		12
121	Developing modular reusable IEC 61499 control applications with 4DIAC **2013**,		11
120	Framework for co-ordinated simulation of power networks and components in Smart Grids using common communication protocols **2011**,		11
119	A research roadmap for model-driven design of embedded systems for automation components **2009**,		11

118	A survey of distributed intelligence in automation in European industry, research and market **2008**,		11
117	The Past, Present, and Future of IEC 61499. *Lecture Notes in Computer Science*, **2007**, 1-14	0.9	11
116	Multi-Task Logistic Low-Ranked Dirty Model for Fault Detection in Power Distribution System. *IEEE Transactions on Smart Grid*, **2020**, 11, 786-796	10.7	11
115	Assessing the Integration of Software Agents and Industrial Automation Systems with ISO/IEC 25010 **2018**,		11
114	Robustness of cooperative forward collision warning systems to communication uncertainty **2016**,		10
113	Implementation of a multi-rating interface for Power-Hardware-in-the-Loop simulations **2012**,		10
112	Towards Engineering Methods for Reconfiguration of Distributed Real-Time Control Systems Based on the Reference Model of IEC 61499. *Lecture Notes in Computer Science*, **2005**, 165-175	0.9	10
111	Development, implementation and use of an IEC 61499 function block library for embedded closed loop control		10
110	Usability of Multi-agent Based Control Systems in Industrial Automation. *Lecture Notes in Computer Science*, **2009**, 25-36	0.9	10
109	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. *Energies*, **2019**, 12, 2899	3.1	9
108	Towards a foundation for holistic power system validation and testing **2016**,		9
107	Co-simulation of power systems, communication and controls **2014**,		8
106	. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 2420-2423	8.9	8
105	Towards an increased reusability of distributed control applications modeled in IEC 61499 **2012**,		8
104	Model-driven engineering of networked industrial automation systems **2010**,		8
103	Hybrid grids: ICT-based integration of electric power and gas grids - A standards perspective **2012**,		8
102	Intuitive control engineering for mechatronic components in distributed automation systems based on the reference model of IEC 61499		8
101	Towards Reconfiguration Applications as basis for Control System Evolution in Zero-downtime Automation Systems **2006**, 523-528		8

100	Methods and Systems for a Smart Energy City. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 1363-1367	8.3	8
99	The Applicability of ISO/IEC 25023 Measures to the Integration of Agents and Automation Systems **2018**,		8
98	Towards a common modeling approach for Smart Grid automation **2013**,		7
97	A community analysis of the IEEE IES industrial agents technical committee **2017**,		7
96	Model-driven engineering applied to Smart Grid automation using IEC 61850 and IEC 61499 **2014**,		7
95	Analyzing the need for a common modeling language for Smart Grid applications **2013**,		7
94	Introduction of advanced testing procedures including PHIL for DG providing ancillary services **2013**,		7
93	Evaluation and test environment for automation concepts in Smart Grids applications **2011**,		7
92	An integrated pan-European research infrastructure for validating smart grid systems. *Elektrotechnik Und Informationstechnik*, **2018**, 135, 616-622	0.4	7
91	Design of experiments aided holistic testing of cyber-physical energy systems **2018**,		6
90	Improved Control of Grid-connected DFIG-based Wind Turbine using Proportional-Resonant Regulators during Unbalanced Grid. *Energies*, **2019**, 12, 4041	3.1	6
89	Past, present and future trends in industrial electronics standardization **2017**,		6
88	Engineering Support for Handling Controller Conflicts in Energy Storage Systems Applications. *Energies*, **2017**, 10, 1595	3.1	6
87	. *IEEE Transactions on Industrial Informatics*, **2015**, 11, 207-209	11.9	6
86	DERri Common Reference Model for Distributed Energy Resources modeling scheme, reference implementations and validation of results. *Elektrotechnik Und Informationstechnik*, **2014**, 131, 378-385	0.4	6
85	Distributed open source control with Industrial Ethernet I/O devices **2011**,		6
84	Examination of LV grid phenomena by means of PHIL testing **2012**,		6
83	Structuring of large scale distributed control programs with IEC 61499 subapplications and a hierarchical plant structure model **2008**,		6

82	Towards Zero-downtime Evolution of Distributed Control Applications via Evolution Control based on IEC 61499 **2006**,		6
81	Applying the SGAM methodology for rapid prototyping of smart Grid applications **2016**,		6
80	Fault classification in power distribution systems based on limited labeled data using multi-task latent structure learning. *Sustainable Cities and Society*, **2021**, 73, 103094	10.1	6
79	Autonomous service-restoration in smart distribution grids using Multi-Agent Systems **2012**,		5
78	Benchmarking of IEC 61499 runtime environments **2007**,		5
77	Enhanced IEC 61499 Device Management Execution and Usage for Downtimeless Reconfiguration **2007**,		5
76	An Integrated Research Infrastructure for Validating Cyber-Physical Energy Systems. *Lecture Notes in Computer Science*, **2017**, 157-170	0.9	5
75	An Adaptable Engineering Support Framework for Multi-Functional Energy Storage System Applications. *Sustainability*, **2018**, 10, 4164	3.6	5
74	Towards Smart Grid system validation: Integrating the SmartEST and the SESA laboratories **2015**,		4
73	A low cost open source-based IEC 61850/61499 automation platform for distributed energy resources **2015**,		4
72	Analyzing standardization needs for CHIL-based testing of power systems and components **2018**,		4
71	Evaluating XMPP communication in IEC 61499-based distributed energy applications **2016**,		4
70	An environment for the coordinated simulation of power grids together with automation systems **2013**,		4
69	Low-cost integration of hardware components into co-simulation for future power and energy systems **2015**,		4
68	From textual programming to IEC 61499 artifacts: Towards a model-driven engineering approach for smart grid applications **2015**,		4
67	A Test and Validation Approach for the Standard-Based Implementation of Intelligent Electronic Devices in Smart Grids. *Lecture Notes in Computer Science*, **2011**, 50-61	0.9	4
66	An IEC 61499 distributed control concept for reconfigurable robots. *International Journal of Computer Aided Engineering and Technology*, **2011**, 3, 344	0.5	4
65	A Device and Resource Execution Model for IEC 61499 Control Devices **2007**,		4

64	An Advanced Engineering Environment for Distributed & Reconfigurable Industrial Automation & Control Systems based on IEC 61499 **2006**, 493-498		4
63	Hardware-in-the-Loop Assessment Methods **2020**, 51-66		4
62	Power Distribution Control Using Multi-Agent Systems. *Studies in Computational Intelligence*, **2013**, 323-338		4
61	Frequency- adaptive control of a three-phase single-stage grid-connected photovoltaic system under grid voltage sags. *International Journal of Electrical Power and Energy Systems*, **2021**, 125, 106416	5.1	4
60	Comparing Specification and Design Approaches for Power Systems Applications **2018**,		4
59	Rapid Prototyping of Multi-Functional Battery Energy Storage System Applications. *Applied Sciences (Switzerland)*, **2018**, 8, 1326	2.6	4
58	Innovative Frequency Controls for Intelligent Power Systems **2018**,		4
57	Approach for handling controller conflicts within multi-functional energy storage systems. *CIRED - Open Access Proceedings Journal*, **2017**, 2017, 1575-1578	0.1	3
56	Coupling of Real-Time and Co-Simulation for the Evaluation of the Large Scale Integration of Electric Vehicles into Intelligent Power Systems **2017**,		3
55	Smart grid research infrastructures in Austria: Examples of available laboratories and their possibilities **2015**,		3
54	Modeling communication and estimation processes of automated crash avoidance systems **2013**,		3
53	Domain-Specific Design of Industrial Automation and Control Systems: The MEDEIA Approach. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 18-23		3
52	Modelling Real-time Constraints Regarding Reconfiguration Aspects for IEC 61499 Control Applications **2007**,		3
51	Downtimeless System Evolution: Current State and Future Trends **2007**,		3
50	Modelling Execution Order and Real-time Constraints in IEC 61499 Control Applications		3
49	RAPID RECONFIGURATION OF MACHINE-TOOLS FOR HOLONIC MANUFACTURING SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 205-210		3
48	The Spectrum of Proactive, Resilient Multi-Microgrid Scheduling: A Systematic Literature Review. *Energies*, **2020**, 13, 4543	3.1	3
47	Recommendation of Best Practices for Industrial Agent Systems based on the IEEE 2660.1 Standard **2021**,		3

46	Integrated rapid prototyping of distributed energy resources in a real-time validation environment **2016**,		3
45	Knowledge-Driven Manufacturability Analysis for Additive Manufacturing. *IEEE Open Journal of the Industrial Electronics Society*, **2021**, 2, 207-223	3.6	3
44	An Overview of Trends and Developments of Internet of Things Applied to Industrial Systems **2018**,		3
43	Advanced Testing Chain Supporting the Validation of Smart Grid Systems and Technologies **2018**,		3
42	. *IEEE Transactions on Industrial Informatics*, **2021**, 1-1	11.9	3
41	Towards an integrated development of control applications for multi-functional energy storages **2016**,		2
40	Validating Intelligent Power and Energy Systems A Discussion of Educational Needs. *Lecture Notes in Computer Science*, **2017**, 200-212	0.9	2
39	Laboratory infrastructure driven key performance indicator development using the smart grid architecture model. *CIRED - Open Access Proceedings Journal*, **2017**, 2017, 1866-1870	0.1	2
38	Modeling flexible mechatronical based assembly systems through simulation support **2008**,		2
37	Automatic control application recovery in distributed IEC 61499 based automation and control systems		2
36	Neural networks applied to automatic fault detection		2
35	Zero-Downtime Reconfiguration of Distributed Control Logic in Industrial Automation and Control **2011**, 55-81		2
34	Towards applied Security-by-Design for DER units **2016**,		2
33	**2019**,		2
32	Hybrid Optimization Toward Proactive Resilient Microgrid Scheduling. *IEEE Access*, **2021**, 9, 124741-124756	3.9	2
31	Open Information Architecture for Seamless Integration of Renewable Energy Sources. *Electronics (Switzerland)*, **2021**, 10, 496	2.6	2
30	Hardware-in-the-Loop Co-Simulation Based Validation of Power System Control Applications **2018**,		2
29	Engineering and Validating Cyber-Physical Energy Systems: Needs, Status Quo, and Research Trends. *Lecture Notes in Computer Science*, **2019**, 13-26	0.9	1

28	. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2014**, 44, 261-262	7.3	1
27	Improving the portability and exchangeability of model data for smart grids focusing on real-time simulations definition of a common reference model. *Elektrotechnik Und Informationstechnik*, **2013**, 1	0.4	1
26	Detection and location of faults in wide area systems utilizing event-based communication scheduling **2017**,		1
25	Distributed Real-Time Automation and Control - Reactive Control Layer for Industrial Agents **2015**, 89-107		1
24	Standardized Dynamic Reconfiguration of Control Applications in Industrial Systems. *International Journal of Applied Industrial Engineering*, **2014**, 2, 57-73	0.2	1
23	Future scenarios for application of downtimeless reconfiguration in industrial practice **2007**,		1
22	An Execution Environment for Real-Time Constrained Control Software based on IEC 61499 **2007**,		1
21	FUZZY CONTROLLER OF THE AIR SYSTEM OF A DIESEL ENGINE. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 511-516		1
20	Towards automated engineering and validation of cyber-physical energy systems. *Energy Informatics*, **2019**, 2,	2.8	1
19	Standardized Dynamic Reconfiguration of Control Applications in Industrial Systems **2019**, 776-793		1
18	An Open Source-Based and Standard-Compliant Smart Grid Laboratory Automation System: The AIT SmartEST Approach. *Lecture Notes in Computer Science*, **2015**, 195-205	0.9	1
17	Recursive estimation of n-line parameters for electric power distribution grids **2016**,		1
16	Analyzing standardization needs for applying agent technology in industrial environments **2016**,		1
15	Asynchronous Integration of Real-Time Simulators for HIL-based Validation of Smart Grids **2019**,		1
14	Validating Coordination Schemes between Transmission and Distribution System Operators using a Laboratory-Based Approach **2019**,		1
13	Engineering and validation support framework for power system automation and control applications. *Elektrotechnik Und Informationstechnik*, **2020**, 137, 470-475	0.4	0
12	Towards System-Level Validation **2020**, 1-11		0
11	. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 51, 2036-2040	7.3	0

List of Publications

10	EVOLUTION CONTROL ENVIRONMENT FOR DISTRIBUTED AUTOMATION COMPONENTS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2007**, 40, 241-246	
9	Zero-Downtime Reconfiguration of Distributed Control Logic in Industrial Automation and Control2024-2051	
8	Smart Grid Laboratory Automation Approach Using IEC 61499 **2017**, 463-482	
7	Education and Training Needs, Methods, and Tools **2020**, 113-128	
6	Test Procedure and Description for System Testing **2020**, 13-33	
5	Smart Grid Laboratory Automation Approach Using IEC 61499. *Industrial Information Technology Series*, **2016**, 463-482	
4	Achievements, experiences, and lessons learned from the European research infrastructure ERIGrid related to the validation of power and energy systems. *Elektrotechnik Und Informationstechnik*, **2020**, 137, 502-508	0.4
3	The IEEE IES Technical Committee Cluster of Energy: Promoting Innovative Research Activities in the Energy Field. *IEEE Industrial Electronics Magazine*, **2021**, 15, 89-103	6.2
2	On the Value of Proactive Microgrid Scheduling. *IEEE Access*, **2022**, 1-1	3.5
1	Enhanced Control of Three-Phase Grid-Connected Renewables with Fault Ride-Through Capability under Voltage Sags. *Electronics (Switzerland)*, **2022**, 11, 1404	2.6