

Volker Staudt

List of Publications by Year in descending order

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125
papers

969
citations

1478505

6
h-index

1372567

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125
all docs

125
docs citations

125
times ranked

662
citing authors

#	ARTICLE	IF	CITATIONS
1	A theoretical investigation of original and modified instantaneous power theory applied to four-wire systems. IEEE Transactions on Industry Applications, 2003, 39, 1160-1167.	4.9	89
2	Modular Multilevel Converter for propulsion system of electric ships. , 2013, , .		54
3	Fryze - Buchholz - Depenbrock: A time-domain power theory. , 2008, , .		47
4	Concerning "Instantaneous Power Compensation in Three-Phase Systems by Using" Theory. IEEE Transactions on Power Electronics, 2004, 19, 1151-1152.	7.9	38
5	Analysis of the module-voltage fluctuations of the Modular Multilevel Converter at variable speed drive applications. , 2012, , .		32
6	Improvement of low-frequency railway power system stability using an advanced multivariable control concept. , 2009, , .		28
7	Dead-Beat Control Algorithm for Single-Phase 50-kW AC Railway Grid Representation. IEEE Transactions on Power Electronics, 2010, 25, 1184-1192.	7.9	27
8	Design of an electronic power transformer. , 0, , .		22
9	Machine emulator: Power-electronics based test equipment for testing high-power drive converters. , 2010, , .		22
10	Fault Scenarios in DC Ship Grids: The advantages and disadvantages of modular multilevel converters. IEEE Electrification Magazine, 2015, 3, 40-48.	1.8	20
11	Multivariable pole-placement control design for a single-phase 50-kW, 16.7-Hz railway traction line-side converter. , 2009, , .		19
12	Analysis of Single-Phase 50-kW 16.7-Hz PI-Controlled Four-Quadrant Line-Side Converter Under Different Grid Characteristics. IEEE Transactions on Industrial Electronics, 2010, 57, 523-531.	7.9	19
13	Single-phase 50-kW, 16.7-Hz railway-grid representation featuring variable grid parameters. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	18
14	Advanced simulation concept for the power train of an AC locomotive and its verification. , 2007, , .		17
15	Control concept including validation strategy for an AC/DC hybrid link (»Ultranet«). , 2014, , .		17
16	Advanced simulation concept for interaction of railway grid representation and model power train of AC locomotive. , 2009, , .		16
17	Speed-sensorless stator-flux-oriented control of induction motor drives in traction. , 2010, , .		16
18	Short-circuit protection in DC ship grids based on MMC with full-bridge modules. , 2015, , .		16

#	ARTICLE	IF	CITATIONS
19	Single-phase 50-kW 16.7-Hz four-quadrant line-side converter for railway traction application. , 2008, , .		15
20	Discussion on existing methodologies for the Responsibilities Assignment Problem. , 2008, , .		14
21	Dead-beat control for a single-phase 50-kW, 16.7-Hz railway-grid representation inverter featuring variable grid parameters. , 2009, , .		14
22	Advanced simulation concept for onboard ship grids featuring complex multiterminal power-electronic systems. , 2009, , .		12
23	Modelling of rotary converter in electrical railway traction power-systems for stability analysis. , 2010, , .		12
24	Short-circuit protection issues in DC ship grids. , 2013, , .		12
25	Implications of resonant circuit adjustment errors to the DC-link voltage in single-phase 16.7-Hz-railway applications. , 2009, , .		11
26	Advanced simulation concept for power electronic systems applied to the 3-level NPC inverter. , 2009, , .		11
27	Simulation of asymmetric faults of a five-phase induction machine used in naval applications. , 2009, , .		11
28	A concise assessment of original and modified instantaneous power theory applied to four-wire systems. , 0, , .		10
29	LQ-optimized multivariable control for a single-phase 50-kW, 16.7-Hz railway-grid representation featuring variable grid parameters. , 2009, , .		10
30	Single-phase 50-kW 16.7-Hz PI-controlled four-quadrant line-side converter lab model fed by rotary converter. , 2009, , .		10
31	Hybrid Fault Detection in Power Systems. , 2019, , .		10
32	Experimental investigation of existing methodologies for the Responsibilities Assignment Problem. , 2009, , .		9
33	Stator-flux-oriented control with high torque dynamics in the whole speed range for electric vehicles. , 2010, , .		9
34	Method of Disturbances Interaction: Novel approach to assess responsibilities for steady state power quality disturbances among customers. , 2010, , .		9
35	Improvement of low-frequency system stability in 50-Hz railway-power grids by multivariable line-converter control in a distance-variation scenario. , 2010, , .		9
36	Statistical analysis of power quality disturbances propagation by means of the Method of Disturbances Interaction. , 2012, , .		9

#	ARTICLE	IF	CITATIONS
37	Optimized feed forward control of a STATCOM with limited energy storage capability for flicker compensation. , 0, , .		8
38	Single-phase 50-kW, 16.7-Hz railway-grid Lab Representation using a DC-excited slip-ring induction generator. , 2009, , .		8
39	PLL and DFT feed-forward control for railway single-phase line-converter synchronisation. , 2009, , .		8
40	Correction of inverter voltage errors for model-based induction machine control. , 2010, , .		8
41	Indirect Stator-Quantities Control as benchmark for highly dynamic induction machine control in the full operating range. , 2010, , .		8
42	Enhancement of low-frequency system stability of 60-Hz railway power grids. , 2010, , .		8
43	Improvement of low-frequency system stability in 16.7-Hz railway-power grids by multivariable line-converter control in a multiple traction-vehicle scenario. , 2010, , .		8
44	Multivariable control of MMC-based Static converters for railway applications. , 2012, , .		8
45	Test-bench set-up for high-power PMSM test drive for validating novel control schemes. , 2012, , .		8
46	Dynamic wireless EV charging fed from railway grid: Magnetic topology comparison. , 2015, , .		8
47	Permanent-Magnet Synchronous Machine model for urban transport applications. , 2010, , .		7
48	Approximation of transient torque response of a traction drive controlled by Indirect Stator-Quantities Control (ISC). , 2009, , .		6
49	Modelling method for complex induction machines used in naval applications using an advanced simulation concept. , 2009, , .		6
50	Stator-flux-oriented control of PMSM in traction - Experimental results. , 2012, , .		6
51	Modeling of Doubly-Fed Induction Generator with strong slot harmonic. , 2013, , .		6
52	Dynamic wireless EV charging fed from railway grid: Grid connection concept. , 2015, , .		6
53	On the compensation of non-active current components of three-phase loads with quickly changing unsymmetry. European Transactions on Electrical Power, 2001, 11, 301-307.	1.0	5
54	Power Quality and Active Filters as web-controlled experiment in the frame of PEMC WebLab. , 2008, , .		5

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55	Stator-flux-oriented control of PMSM with highly-dynamic field-weakening operation. , 2010, , .		5
56	Pole-restraining observer — A novel observer approach for power-electronic systems. , 2010, , .		5
57	Pole-restraining control for Modular Multilevel Converters in electric-ship applications. , 2013, , .		5
58	State control of MMC-fed ship propulsion induction machine. , 2013, , .		5
59	Stator-flux-oriented control for traction drives. , 2015, , .		5
60	Realization of AHIL concept on a SoC based FPGA-ARM9 platform for power electronic applications. , 2017, , .		5
61	Flux-based multivariable control of a static converter feeding a 16.7-Hz single-phase load. , 2009, , .		4
62	PC-based real-time control system for power-electronic test benches with high I/O requirements. , 2011, , .		4
63	Dynamic four-quadrant converter control for grid connection of renewable energy sources. , 2015, , .		4
64	Pre-charging of MMC and power-up of a MMC-based multiterminal HVDC transmission system. , 2015, , .		4
65	Hybrid Condition Monitoring for Power Electronic Systems. , 2019, , .		4
66	Remote-Controlled Experiment with Integrated Verification of Learning Outcome. Journal of Power Electronics, 2010, 10, 604-610.	1.5	4
67	Web-based experiment introducing Power Quality and Active Filters. , 2009, , .		3
68	Active infeed converter with integrated power-quality improvement applying pole-restraining control. , 2010, , .		3
69	Modelling of anisotropic synchronous machine in stator reference frame. , 2010, , .		3
70	Modelling and simulation of multiphase IM with sinusoidal flux distribution used in naval applications including torque calculation. , 2010, , .		3
71	Multivariable pole-restraining control for a single-phase 16.7-Hz railway traction line-side converter. , 2010, , .		3
72	Dynamic grid-flux-based control for grid connected voltage-source converters. , 2010, , .		3

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73	Flux-based control of PMSM. , 2010, , .		3
74	Scenario-based stability-assessment of converter-fed DC-ship grids loaded with pulsed power. , 2011, , .		3
75	Simulation of large-scale electric-ship DC-grids using the simulation tool VIAvento. , 2013, , .		3
76	Combined-Hardware-in-the-Loop system and its test-bench verification. , 2017, , .		3
77	Contribution to the classification of power electronic assets in converter-dominated grids. , 2020, , .		3
78	Interactions between a halfâ€bridge MMC and a hybrid DC breaker during fault current interruption compared to a fullâ€bridge MMC. IET Power Electronics, 2020, 13, 4168-4175.	2.1	3
79	Improved dynamic operation for direct flux control of active front ends with low switching frequency. , 0, , .		2
80	Realtime simulation of control algorithms including the dedicated control hardware. , 2010, , .		2
81	Pole-restraining control of three-phase Active Front End. , 2010, , .		2
82	Modelling of anisotropic synchronous machine in stator-reference frame including torque calculation. , 2010, , .		2
83	Optimized energy-efficient drive system for ship propulsion. , 2011, , .		2
84	Improving the control-design process in naval applications using CHIL. , 2011, , .		2
85	Simulation of large-scale electric-ship AC grids using the simulation tool VIAvento. , 2013, , .		2
86	Blanking-time effects in the context of modular multilevel converters. , 2015, , .		2
87	Asymmetric multiprocessing: A promising option for SoC-based real-time control in power electronics. , 2017, , .		2
88	Detailed analysis of converter-output-voltage errors under light-load conditions. , 2017, , .		2
89	Fault mitigation of arc-caused short-circuits in a MMC-based multiterminal HVDC system. , 2017, , .		2
90	Comparison of switching behaviour and losses of high-power Si and SiC power module. , 2020, , .		2

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91	Condition Monitoring for Power Converters via Deep One-Class Classification. , 2021, , .		2
92	Doubly-fed induction generator model for analysis of fault-ride through and asymmetrical generator-side faults. , 2010, , .		1
93	Comparison of 50-Hz railway line-side converter input-admittance for different substation distances and control concepts. , 2010, , .		1
94	Flux-based control of 3-phase Active Front End. , 2010, , .		1
95	Pole-restraining controlled active infeed converter with integrated power-quality improvement for AC-ship grids. , 2011, , .		1
96	Highly dynamical rotor-flux-based torque and power control methods for DFIG wind turbine applications. , 2012, , .		1
97	State control of induction machines in converter-fixed reference frame. , 2012, , .		1
98	State control of DFIG in converter-fixed reference frame for wind-energy plants. , 2013, , .		1
99	Mechanisms of driver integrated blanking time compensation. , 2015, , .		1
100	Analysis of the properties of damped LCL filters including measurement-based assessment. , 2015, , .		1
101	Estimation of lumped equivalent circuit elements of a SiC power module. , 2019, , .		1
102	Blanking-time effects in the context of modular multilevel converters. Przegląd Elektrotechniczny, 2015, 1, 131-134.	0.2	1
103	Active Current Balancing for Paralleled SiC Semiconductors in Time-Staggered Switching Mode. , 2021, , .		1
104	DC-excited slip-ring induction generator supported by an H-bridge inverter emulating a single-phase, 16.7-Hz railway grid. , 2009, , .		0
105	Dead-beat inverter control of filter-output voltage for feeding islanding grids. , 2010, , .		0
106	Flux-based control concept for grid-side and machine-side converter of synchronous machine wind-power generator. , 2010, , .		0
107	Simulation of decentralised multi-terminal power-electronic systems adequate for solar farms. , 2010, , .		0
108	Pole-restraining control of active front end for shore-side power supply of ships. , 2010, , .		0

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109	Advanced control concept for shoreside power supply of ships. , 2010, , .		0
110	Laboratory set-up for high-power cable-car applications. , 2010, , .		0
111	Software-interface structure for grid-stability assessment in complex naval converter applications using DLL. , 2011, , .		0
112	Flux-based control approach for anisotrop PMSM for naval applications. , 2011, , .		0
113	Modelling of IM with double-star stator windings for assessing machine controls in case of faults. , 2011, , .		0
114	Pole-restraining observer for single-phase 16.7-Hz traction line-side converter application. , 2012, , .		0
115	Design and realization of a back-to-back IGBT converter for research issues. , 2012, , .		0
116	Pole-restraining control for npc three-level inverter. , 2012, , .		0
117	State control of DFIG in converter-fixed reference frame for wind-energy plants with focus on parameter uncertainties. , 2012, , .		0
118	Modeling and implementing of energy efficient pump drives based on hardware-in-the-loop. , 2013, , .		0
119	Assessment-based flux trajectory optimization for offshore line-side and machine-side converters. , 2013, , .		0
120	State control of modular multilevel converters utilizing pole restraining. , 2013, , .		0
121	Dynamic stator-flux-oriented induction machine control for electric vehicle application. , 2015, , .		0
122	Reaction of grid-connected converters to unbalanced grid voltages with focus on modular multilevel converters. , 2015, , .		0
123	Pole Restraining Control of a Vienna Rectifier. , 2019, , .		0
124	In Memoriam Manfred Depenbrock. , 2019, , .		0
125	Reaction of grid-connected converters to unsymmetrical grid voltages with focus on modular multilevel converters. Przegląd Elektrotechniczny, 2015, 1, 126-130.	0.2	0