

Sudip Kumar Mazumder

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5342829/publications.pdf>

Version: 2024-02-01

127
papers

2,137
citations

331670

21
h-index

276875

41
g-index

127
all docs

127
docs citations

127
times ranked

1474
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Cyber-Physical Security for Photovoltaic Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 4879-4901.	5.4	47
2	Multiresonant-Frequency Filter for an Electrosurgery Inverter. IEEE Transactions on Power Electronics, 2022, 37, 6242-6246.	7.9	10
3	High-Power Design Challenges for Differential-Mode EV Universal Battery Supercharger. IEEE Transactions on Industry Applications, 2022, 58, 5568-5581.	4.9	5
4	Impact and Mitigation of High-Frequency Side-Channel Noise Intrusion on the Low-Frequency Performance of an Inverter. IEEE Transactions on Power Electronics, 2022, 37, 11481-11485.	7.9	9
5	Reduced Collateral Tissue Damage Using Thermal-Feedback-Based Power Adaptation of an Electrosurgery Inverter. IEEE Transactions on Power Electronics, 2022, 37, 11540-11545.	7.9	7
6	A Novel Modulation Scheme for Isolated PWM Active-Clamp Ąuk DC/DC Converter. IEEE Transactions on Power Electronics, 2022, 37, 14966-14980.	7.9	9
7	Switching Transition Control to Improve Efficiency of a DC/DC Power Electronic System. IEEE Access, 2021, 9, 91104-91118.	4.2	5
8	Hysteresis based Triangular Current Mode Control for Bridgeless Totem Pole Converter. , 2021, , .		6
9	Airgap-less Integrated Magnetic Array Using High Performance Magnetic Material in the EV Chargers. , 2021, , .		1
10	Inductor and Transformer-Coupled Magnetic Structure for Zero-Ripple dc-dc Ąuk Converter. , 2021, , .		4
11	Novel control solutions for DoS attack delay mitigation in grid-connected and standalone inverters. , 2021, , .		5
12	High Performance Off-Board DC Fast Charger. , 2021, , .		3
13	Impact of Blockchain Delay on Grid-Tied Solar Inverter Performance. , 2021, , .		2
14	GaN-HEMT Based Very-High-Frequency AC Power Supply for Electrosurgery. , 2021, , .		9
15	Integrated Magnetics Design for a Three-Phase Differential-Mode Rectifier. IEEE Transactions on Power Electronics, 2021, 36, 10561-10570.	7.9	11
16	EMI Mitigation of a Ąuk-Based Power-Electronic System Using Switching-Sequence-Based Control. IEEE Transactions on Power Electronics, 2021, 36, 10627-10644.	7.9	8
17	Guest Editorial: Special Issue on Sustainable Energy Through Power-Electronic Innovations in Cyber-Physical Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 5142-5145.	5.4	3
18	A Review of Current Research Trends in Power-Electronic Innovations in Cyber-Physical Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 5146-5163.	5.4	48

#	ARTICLE	IF	CITATIONS
19	Switching-Sequence Control of a Higher Order Power-Electronic System Driving a Pulsating Load. IEEE Transactions on Power Electronics, 2020, 35, 1096-1110.	7.9	14
20	Distributed Control and Power Management of Islanded DC Nanogrids with Applications to Rural Electrification. , 2020, , .		1
21	Passive Damping Optimization of the Integrated-Magnetics-Based Differential-Mode Ąuk Rectifier. IEEE Transactions on Power Electronics, 2020, 35, 10008-10012.	7.9	14
22	Distributed Control and Dynamic Optimization of a Microgrid. , 2020, , .		0
23	Holistic Multi-timescale Attack Resilient Control Framework for Power Electronics Dominated Grid. , 2020, , .		9
24	Deadtime Elimination in a GaN-Based Grid-Connected Differential-Mode Ąuk Inverter. IEEE Transactions on Industrial Electronics, 2019, 66, 3296-3302.	7.9	5
25	Active Optical Modulation for Series-Connected Emitter Turn-Off Thyristors. IEEE Transactions on Industrial Electronics, 2019, 66, 5576-5580.	7.9	3
26	Cost-Reducing Optimization Strategies of Electrical Trains. , 2019, , .		3
27	Dynamic Economic Dispatch and Transient Control of Distributed Generators in a Microgrid. IEEE Systems Journal, 2019, 13, 802-812.	4.6	22
28	Transactive Control Approach to Trip Optimization in Electric Railways. , 2019, , .		2
29	Experimental Validation of Single-Stage Three-Phase Non-Isolated Cuk Rectifier. , 2019, , .		4
30	Predictive Switching Sequence-based Control for Constant Power Load. , 2019, , .		0
31	Improved Dynamic Performance and Hierarchical Energy Management of Microgrids With Energy Routing. IEEE Transactions on Industrial Informatics, 2019, 15, 3218-3229.	11.3	34
32	Control of Isolated Differential-Mode Single- and Three-Phase Ąuk Inverters at Module Level. IEEE Transactions on Power Electronics, 2018, 33, 8872-8886.	7.9	18
33	Generalized Input Impedance Modeling of TL-Network-Based HFDPS for Validating Frequency-Dependent Criteria for Power-Signal Integrity. IEEE Transactions on Industrial Electronics, 2018, 65, 4114-4124.	7.9	4
34	Resolving Practical Design Issues in a Single-Phase Grid-Connected GaN-FET-Based Differential-Mode Inverter. IEEE Transactions on Power Electronics, 2018, 33, 3734-3751.	7.9	41
35	Grid-Connected GaN Solar Microinverter. , 2018, , .		2
36	SiC DC Fast Charger Control for Electric Vehicles. , 2018, , .		10

#	ARTICLE	IF	CITATIONS
37	Smart LED Lighting using GaN-based "Discrete" Power and Data Sequential Co-Transfer Network. , 2018, , .		1
38	Sequential Co-transmission of High-Frequency Power and Data Signals. IEEE Transactions on Industrial Informatics, 2018, 14, 4440-4445.	11.3	10
39	State observer design for a high frequency distributed power system. , 2017, , .		1
40	Design and Characterization of High-Current Optical Darlington Transistor for Pulsed-Power Applications. IEEE Transactions on Electron Devices, 2017, 64, 769-778.	3.0	7
41	Autonomous control of a high-frequency distributed power system. , 2017, , .		0
42	Saturability Algorithm of a Sub-Bandgap Laser for Triggering a Photoconductive Switch. IEEE Journal of the Electron Devices Society, 2017, 5, 395-399.	2.1	1
43	Experimental optical transistor for all-optical SiC ETO thyristor. , 2017, , .		0
44	GaN-FET based grid-connected solar microinverter: Some design insights. , 2017, , .		3
45	Event- and Priority-Driven Coordination in Next-Generation Grid. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 1186-1194.	5.4	10
46	Soft-switched discontinuous pulse-width pulse-density modulation scheme. , 2016, , .		3
47	Optimal switching sequence based control of a differential-mode inverter. , 2016, , .		4
48	Stability Analysis of Micropower Network. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 1299-1309.	5.4	8
49	Modulation Scheme for Three-Phase Differential-Mode "uk Inverter. IEEE Transactions on Power Electronics, 2016, 31, 2654-2668.	7.9	52
50	Sequence-Based Control of an Isolated DC/AC Matrix Converter. IEEE Transactions on Power Electronics, 2016, 31, 1757-1773.	7.9	16
51	Closed-loop control of switching transition of SiC MOSFETs. , 2015, , .		38
52	New single-bias all-optical ETO configuration for a 15 kV-100A SiC thyristor eliminating the turn-on leakage current. , 2015, , .		2
53	Self-triggered Communication Enabled Control of Distributed Generation in Microgrids. IEEE Transactions on Industrial Informatics, 2015, , 1-1.	11.3	62
54	A photoconductive semiconductor switch vertically embedded with MISFETs for high-power high-repetition-rate application. , 2015, , .		1

#	ARTICLE	IF	CITATIONS
55	Analysis of Input Current Ripple and Optimum Filter Capacitor for Fuel-Cell-Based Single-Phase Inverter. <i>Journal of Fuel Cell Science and Technology</i> , 2015, 12, .	0.8	2
56	Photonic power electronics: Past, present, and future. , 2015, , .		4
57	Low-leakage drive for optically-triggered high-power SiC emitter turn-off thyristors. , 2015, , .		0
58	Low ON-State Voltage Optically Triggered Power Transistor for SiC Emitter Turn-OFF Thyristor. <i>IEEE Electron Device Letters</i> , 2015, 36, 484-486.	3.9	13
59	Modular control of a differential-mode inverter. , 2015, , .		3
60	Dynamic stability analysis of power network. , 2015, , .		9
61	Discontinuous Modulation Scheme for a Differential-Mode Ąuk Inverter. <i>IEEE Transactions on Power Electronics</i> , 2015, 30, 1242-1254.	7.9	47
62	Optically Switched-Drive-Based Unified Independent $\frac{dv}{dt}$ and $\frac{di}{dt}$ Control for Turn-Off Transition of Power MOSFETs. <i>IEEE Transactions on Power Electronics</i> , 2015, 30, 2338-2349.	7.9	56
63	Improving Dynamic Response of Active Harmonic Compensator Using Digital Comb Filter. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2014, 2, 994-1002.	5.4	20
64	Transient stability analysis of power system using polynomial Lyapunov function based approach. , 2014, , .		14
65	Editorial: Special Issue on High-Frequency-Link Power-Conversion Systems, 2014. <i>IEEE Transactions on Power Electronics</i> , 2014, 29, 3849-3851.	7.9	3
66	Self-contained control for turn-on transition of an optically driven IGBT. , 2014, , .		5
67	Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. <i>IEEE Electrification Magazine</i> , 2014, 2, 49-55.	1.8	60
68	Modular and compact design for an isolated high-frequency-link inverter using hybrid-modulation scheme. , 2014, , .		0
69	Smart Electrical Infrastructure for AC-Fed Railways With Neutral Zones. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2014, , 1-11.	8.0	17
70	Novel Zero-Current-Switching Current-Fed Half-Bridge Isolated DC/DC Converter for Fuel-Cell-Based Applications. <i>IEEE Transactions on Industry Applications</i> , 2013, 49, 1658-1668.	4.9	69
71	Modulation scheme of the differential-mode Ąuk inverter for loss mitigation. , 2013, , .		12
72	An Optimal Sequence-Based-Controller (OSBC) for a grid-connected three-phase photovoltaic HFL inverter. , 2013, , .		2

#	ARTICLE	IF	CITATIONS
73	Evaluation of first 10-kv optical ETO thyristor operating without any low-voltage control bias. , 2013, , .		15
74	Harmonic-compensation based control of a nonlinear differential-mode Ćuk inverter. , 2013, , .		3
75	Dynamic optical turn-off control of a high-voltage SiC MOSFET. , 2013, , .		15
76	Sequence-based Lyapunov stability of power-electronic converters. , 2012, , .		0
77	A fault-tolerant switching scheme for a high-power high-frequency-link inverter. , 2012, , .		2
78	A fault-tolerant switching scheme for a photovoltaic high-frequency-link inverter. , 2012, , .		7
79	A low-device-count single-stage direct-power-conversion solar microinverter for microgrid. , 2012, , .		19
80	Soft-switched hybrid modulation scheme for pulsating-Dc-link converters. , 2012, , .		2
81	A Loss-Mitigating Scheme for DC/Pulsating-DC Converter of a High-Frequency-Link System. IEEE Transactions on Industrial Electronics, 2012, 59, 4537-4544.	7.9	23
82	Optical control of 1200-V and 20-A SiC MOSFET. , 2012, , .		14
83	Control of high-frequency-link inverter using optimal switching sequence. , 2012, , .		3
84	A high-frequency-link photovoltaic inverter. , 2012, , .		7
85	Modeling and Control of Systems with Active Singularities Under Energy Constraints: Single- and Multi-Impact Sequences. IEEE Transactions on Automatic Control, 2012, 57, 1854-1859.	5.7	5
86	Hybrid-modulation scheme for dc-link-capacitor-less high-frequency-link inverters. , 2012, , .		1
87	Optically Activated Gate Control for Power Electronics. IEEE Transactions on Power Electronics, 2011, 26, 2863-2886.	7.9	32
88	A transformer-flux-balance controller for a high-frequency-link inverter with applications for solid-state transformer, renewable/alternative energy sources, energy storage, and electric vehicles. , 2011, , .		4
89	A novel primary-side-assisted soft-switching and fault-tolerance of a high-frequency-link inverter for renewable-energy systems. , 2011, , .		5
90	Primary-Side-Converter-Assisted Soft-Switching Scheme for an AC/AC Converter in a Cycloconverter-Type High-Frequency-Link Inverter. IEEE Transactions on Industrial Electronics, 2011, 58, 4161-4166.	7.9	61

#	ARTICLE	IF	CITATIONS
91	Novel zero-current switching current-fed half-bridge isolated Dc/Dc converter for fuel cell based applications. , 2010, , .		11
92	Impact of DC link pulse coding on the harmonic distortion of the high-frequency-link inverter. , 2010, , .		5
93	A Universal Grid-Connected Fuel-Cell Inverter for Residential Application. IEEE Transactions on Industrial Electronics, 2010, 57, 3431-3447.	7.9	99
94	Rotor Position Feedback Over an RF Link for Motor Speed Control. IEEE Transactions on Power Electronics, 2010, 25, 907-913.	7.9	11
95	Molecular dynamics and electrical simulation of a novel GaN/4H-SiC hetero-structure optically triggered vertical NPN device. , 2010, , .		0
96	Optically-activated gate control (OAGC) for the next-generation SiC-based power electronics devices and applications. , 2009, , .		2
97	Optimal control of dynamical systems with active singularities under single- and multi-impact sequences: A ball/racket system example. , 2009, , .		4
98	Soft switching schemes for multiphase dc/dc converter with six-pulse modulated pulsating output. , 2009, , .		5
99	A Soft-Switching Scheme for an Isolated DC/DC Converter With Pulsating DC Output for a Three-Phase High-Frequency-Link PWM Converter. IEEE Transactions on Power Electronics, 2009, 24, 2276-2288.	7.9	92
100	A compact bi-directional power-conversion system scheme with extended soft-switching range. , 2009, , .		0
101	Design of a Hybrid Controller ASIC for a VRM Using a 90-nm CMOS Process. IEEE Transactions on Power Electronics, 2009, 24, 2219-2230.	7.9	5
102	Optically-modulated active-gate control (OMAG) for switching electrical power-conversion systems. , 2009, , .		4
103	Optically-activated gate control of power semiconductor device switching dynamics. , 2009, , .		7
104	Joint Optimization of Control Performance and Network Resource Utilization in Homogeneous Power Networks. IEEE Transactions on Industrial Electronics, 2009, 56, 1736-1745.	7.9	56
105	A Novel zero-voltage-switching scheme for renewable/alternative energy based high-frequency-AC-link inverter. , 2009, , .		1
106	Sequence-based control for standalone and networked switching power converters. , 2009, , .		5
107	Markov chain model for performance analysis of transmitter power control in contention based wireless MAC protocol. Telecommunication Systems, 2008, 38, 99-110.	2.5	7
108	Master-Slave Current-Sharing Control of a Parallel DC-DC Converter System Over an RF Communication Interface. IEEE Transactions on Industrial Electronics, 2008, 55, 59-66.	7.9	214

#	ARTICLE	IF	CITATIONS
109	A Novel Soft-Switching Scheme for an Isolated DC/DC Converter with Pulsating DC Output for a Three-Phase High-Frequency-Link PWM Converter. , 2008, , .		9
110	Reaching Criterion of a Three-Phase Voltage-Source Inverter Operating With Passive and Nonlinear Loads and Its Impact on Global Stability. IEEE Transactions on Industrial Electronics, 2008, 55, 1795-1812.	7.9	29
111	Delay constrained optimal resource utilization of wireless networks for distributed control systems. IEEE Communications Letters, 2008, 12, 289-291.	4.1	12
112	Control design for efficient and cost-effective distributed fuel cell power electronics system. , 2008, , .		1
113	Design of a hybrid controller ASIC for a VRM using 90 nm CMOS process. , 2008, , .		2
114	Optical Modulation for High Power Systems: Potential for Electromagnetic-Emission, Loss, and Stress Control by Switching Dynamics Variation of Power Semiconductor Devices. , 2008, , .		7
115	Multiple Lyapunov Function Based Reaching Condition for Orbital Existence of Switching Power Converters. IEEE Transactions on Power Electronics, 2008, 23, 1449-1471.	7.9	70
116	Design of an All-SiC Parallel DC/DC Weinberg Converter Unit Using RF Control. IEEE Transactions on Power Electronics, 2008, 23, 2893-2904.	7.9	10
117	Optimal-sequence-based control of switching power converters in interactive power networks. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	11
118	Input/state/output modeling and control of dynamical systems with active singularities: Single- and multi-impact sequences. , 2008, , .		5
119	Improving Throughput-delay Performance by Merged Packet Routing in Wirelessly Controlled Interactive Power Networks. International Conference on Advanced Networking and Applications, 2007, , .	0.0	5
120	Markov Chain Model for Performance Analysis of Transmitter Power Control in Wireless MAC Protocol: Towards Delay Minimization in Power-network Control. International Conference on Advanced Networking and Applications, 2007, , .	0.0	5
121	Effects of Battery Buffering on the Post-Load-Transient Performance of a PSOFC. IEEE Transactions on Energy Conversion, 2007, 22, 457-466.	5.2	16
122	Design of an All-SiC Radio-frequency Controlled Parallel DC-DC Converter Unit. , 2007, , .		6
123	A Ripple-Mitigating and Energy-Efficient Fuel Cell Power-Conditioning System. IEEE Transactions on Power Electronics, 2007, 22, 1437-1452.	7.9	204
124	A High-power High-frequency and Scalable Multi-megawatt Fuel-cell Inverter for Power Quality and Distributed Generation. , 2006, , .		17
125	Optically-triggered Power Transistor (OTPT) for Fly-by-light (FBL) and EMI-susceptible Power Electronics. , 0, , .		11
126	Multiple Lyapunov Function Based Reaching Condition Analyses of Switching Power Converters. , 0, , .		11

#	ARTICLE	IF	CITATIONS
127	Communication Fault-tolerant Wireless Network Control of a Load-sharing Multiphase Interactive Power Network. , 0, , .		27