Sudip K Mazumder

List of Publications by Year
in descending order

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82 papers	1,748 citations	394421 19 h-index	302126 39 g-index
83 all docs	83 docs citations	83 times ranked	1147 citing authors

#	Article	IF	Citations
1	Masterâ€“Slave Current-Sharing Control of a Parallel DCâ€“DC Converter System Over an RF Communication Interface. IEEE Transactions on Industrial Electronics, 2008, 55, 59-66.	7.9	214
2	A Ripple-Mitigating and Energy-Efficient Fuel Cell Power-Conditioning System. IEEE Transactions on Power Electronics, 2007, 22, 1437-1452.	7.9	204
3	A Universal Grid-Connected Fuel-Cell Inverter for Residential Application. IEEE Transactions on Industrial Electronics, 2010, 57, 3431-3447.	7.9	99
4	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
5	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
6	Novel Zero-Current-Switching Current-Fed Half-Bridge Isolated DC/DC Converter for Fuel-Cell-Based Applications. IEEE Transactions on Industry Applications, 2013, 49, 1658-1668.	4.9	69
7	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
8	Railway Electrical Smart Grids: An introduction to next-generation railway power systems and their operation. IEEE Electrification Magazine, 2014, 2, 49-55.	1.8	60
9	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
10	Optically Switched-Drive-Based Unified Independent dv/dt and di/dt Control for Turn-Off Transition of Power MOSFETs. IEEE Transactions on Power Electronics, 2015, 30, 2338-2349.	7.9	56
11	A Soft Switching Scheme for Multiphase DC/Pulsating-DC Converter for Three-Phase High-Frequency-Link Pulsewidth Modulation (PWM) Inverter. IEEE Transactions on Power Electronics, 2010, 25, 1761-1774.	7.9	54
12	A Review of Current Research Trends in Power-Electronic Innovations in Cyberâ€“Physical Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 5146-5163.	5.4	48
13	Effects of Electrical Feedbacks on Planar Solid Oxide Fuel Cell. Journal of Fuel Cell Science and Technology, 2007, 4, 154-166.	0.8	39
14	A Soft-Switched Hybrid-Modulation Scheme for a Capacitor-Less Three-Phase Pulsating-DC-Link Inverter. IEEE Transactions on Power Electronics, 2014, 29, 3893-3906.	7.9	37
15	Optically Activated Gate Control for Power Electronics. IEEE Transactions on Power Electronics, 2011, 26, 2863-2886.	7.9	32
16	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
17	Hybrid Modulation Scheme for a High-Frequency AC-Link Inverter. IEEE Transactions on Power Electronics, 2016, 31, 861-870.	7.9	27
18	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

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19	An Overview of Photonic Power Electronic Devices. IEEE Transactions on Power Electronics, 2016, 31, 6562-6574.	7.9	20
20	A low-device-count single-stage direct-power-conversion solar microinverter for microgrid. , 2012, , .		19
21	Control of Isolated Differential-Mode Single- and Three-Phase Ä†uk Inverters at Module Level. IEEE Transactions on Power Electronics, 2018, 33, 8872-8886.	7.9	18
22	A High-power High-frequency and Scalable Multi-megawatt Fuel-cell Inverter for Power Quality and Distributed Generation. , 2006, , .		17
23	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
24	Sequence-Based Control of an Isolated DC/AC Matrix Converter. IEEE Transactions on Power Electronics, 2016, 31, 1757-1773.	7.9	16
25	Evaluation of first 10-kv optical ETO thyristor operating without any low-voltage control bias. , 2013, , .		15
26	Performance evaluation of a new hybrid-modulation scheme for high-frequency-ac-link inverter: Applications for PV, wind, fuel-cell, and DER/storage applications. , 2010, , .		14
27	Transient stability analysis of power system using polynomial Lyapunov function based approach. , 2014, , .		14
28	Dynamic power density, wavelength, and switching time modulation of optically triggered power transistor (OTPT) performance parameters. Microelectronics Journal, 2007, 38, 285-298.	2.0	13
29	Low ON-State Voltage Optically Triggered Power Transistor for SiC Emitter Turn-OFF Thyristor. IEEE Electron Device Letters, 2015, 36, 484-486.	3.9	13
30	Delay constrained optimal resource utilization of wireless networks for distributed control systems. IEEE Communications Letters, 2008, 12, 289-291.	4.1	12
31	Modulation scheme of the differential-mode Ćuk inverter for loss mitigation. , 2013, , .		12
32	Optically-triggered Power Transistor (OTPT) for Fly-by-light (FBL) and EMI-susceptible Power Electronics. , 0, , .		11
33	Optimal-sequence-based control of switching power converters in interactive power networks. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	11
34	Novel zero-current switching current-fed half-bridge isolated Dc/Dc converter for fuel cell based applications. , 2010, , .		11
35	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
36	Efficient and Robust Power Management of Reduced Cost Distributed Power Electronics for Fuel-Cell Power System. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	10

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37	Sequential Co-transmission of High-Frequency Power and Data Signals. IEEE Transactions on Industrial Informatics, 2018, 14, 4440-4445.	11.3	10
38	Multiresonant-Frequency Filter for an Electrosurgery Inverter. IEEE Transactions on Power Electronics, 2022, 37, 6242-6246.	7.9	10
39	Epitaxial Design of a Direct Optically Controlled GaAs/AlGaAs-Based Heterostructure Lateral Superjunction Power Device for Fast Repetitive Switching. IEEE Transactions on Electron Devices, 2007, 54, 589-600.	3.0	9
40	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
41	Towards Realization of a Control-Commnunication Framework for Interactive Power Networks. , 2008, , .		9
42	An Integrated Modeling Framework for Exploring Network Reconfiguration of Distributed Controlled Homogenous Power Inverter Network using Composite Lyapunov Function Based Reachability Bound. Simulation, 2010, 86, 75-92.	1.8	9
43	A Fault-Tolerant Switching Scheme for an Isolated DC/AC Matrix Converter. IEEE Transactions on Power Electronics, 2015, 30, 2798-2813.	7.9	9
44	Dynamic stability analysis of power network. , 2015, , .		9
45	Stability Analysis of Micropower Network. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 1299-1309.	5.4	8
46	EMI Mitigation of a Ä†uk-Based Power-Electronic System Using Switching-Sequence-Based Control. IEEE Transactions on Power Electronics, 2021, 36, 10627-10644.	7.9	8
47	Optical Modulation for High Power Systems: Potential for Electromagnetic-Emission, Loss, and Stress Control by Switching Dynamics Variation of Power Semiconductor Devices. , 2008, , .		7
48	Optically-activated gate control of power semiconductor device switching dynamics. , 2009, , .		7
49	A differential-mode current-sourced high-frequency-link photovoltaic inverter. , 2012, , .		7
50	A high-frequency-link photovoltaic inverter. , 2012, , .		7
51	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
52	Device Technologies for Photonically-Switched Power-Electronic Systems. , 2005, , .		6
53	Fuel Cell Power Conditioner for Stationary Power System: Towards Optimal Design From Reliability, Efficiency, and Cost Standpoint. , 2005, , 483.		5
54	Soft switching schemes for multiphase dc/dc converter with six-pulse modulated pulsating output. , 2009, , .		5

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55	Sequence-based control for standalone and networked switching power converters. , 2009, , .		5
56	Impact of DC link pulse coding on the harmonic distortion of the high-frequency-link inverter. , 2010, , .		5
57	A novel primary-side-assisted soft-switching and fault-tolerance of a high-frequency-link inverter for renewable-energy systems. , 2011, , .		5
58	Self-contained control for turn-on transition of an optically driven IGBT. , 2014, , .		5
59	Transformation based tracking controller for a GaN microinverter. , 2016, , .		5
60	Optically-modulated active-gate control (OMAG) for switching electrical power-conversion systems. , 2009, , .		4
61	A control mechanism to compensate nonlinearity of discontinuous modulation based grid-connected differential-mode Ćuk inverter. , 2014, , .		4
62	Optimal switching sequence based control of a differential-mode inverter. , 2016, , .		4
63	Inductor and Transformer-Coupled Magnetic Structure for Zero-Ripple dc-dc Ätuk Converter. , 2021, , .		4
64	Control of high-frequency-link inverter using optimal switching sequence. , 2012, , .		3
65	A modular approach for current-source multi-phase inverter. , 2012, , .		3
66	Harmonic-compensation based control of a nonlinear differential-mode Ćuk inverter. , 2013, , .		3
67	Harmonics analysis for a high-frequency-link (HFL) inverter. , 2014, , .		3
68	Editorial: Special Issue on High-Frequency-Link Power-Conversion Systems, 2014. IEEE Transactions on Power Electronics, 2014, 29, 3849-3851.	7.9	3
69	Soft-switched discontinuous pulse-width pulse-density modulation scheme. , 2016, , .		3
70	Cost-Reducing Optimization Strategies of Electrical Trains. , 2019, , .		3
71	Optically-activated gate control (OAGC) for the next-generation SiC-based power electronics devices and applications. , 2009, , .		2
72	Soft-switched hybrid modulation scheme for pulsating-Dc-link converters. , 2012, , .		2

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73	An Optimal Sequence-Based-Controller (OSBC) for a grid-connected three-phase photovoltaic HFL inverter. , 2013, , .		2
74	Analysis of Input Current Ripple and Optimum Filter Capacitor for Fuel-Cell-Based Single-Phase Inverter. Journal of Fuel Cell Science and Technology, 2015, 12, .	0.8	2
75	Control design for efficient and cost-effective distributed fuel cell power electronics system. , 2008, , .		1
76	Advanced stability analysis and nonlinear control of power electronics systems and networks. , 2010, , .		1
77	Hybrid-modulation scheme for dc-link-capacitor-less high-frequency-link inverters. , 2012, , .		1
78	Electrical Properties of Optically Triggered SiC JFET for Power Electronic Application. , 2021, , .		1
79	Switching-sequence based global stability and control of standalone and interactive power converters. , 2011, , .		0
80	Sequence-based Lyapunov stability of power-electronic converters. , 2012, , .		0
81	Towards A Universal Power Manager for Multi-Source Energy Scavenging and Storage. , 2018, , .		0
82	Distributed Optimal Delay Robustness and Network Throughput Tradeoff in Control-Communication Networks. , 2011, , 57-84.		0