

Kamalesh Hatua

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Solid-State Transformer and MV Grid Tie Applications Enabled by 15 kV SiC IGBTs and 10 kV SiC MOSFETs Based Multilevel Converters. IEEE Transactions on Industry Applications, 2015, 51, 3343-3360.	3.3	295
2	Active Damping of Output LC Filter Resonance for Vector-Controlled VSI-Fed AC Motor Drives. IEEE Transactions on Industrial Electronics, 2012, 59, 334-342.	5.2	117
3	A Transformerless Intelligent Power Substation: A three-phase SST enabled by a 15-kV SiC IGBT. IEEE Power Electronics Magazine, 2015, 2, 31-43.	0.6	102
4	Parasitic Inductance and Capacitance-Assisted Active Gate Driving Technique to Minimize Switching Loss of SiC MOSFET. IEEE Transactions on Industrial Electronics, 2017, 64, 8288-8298.	5.2	86
5	Design Considerations and Performance Evaluation of 1200-V 100-A SiC MOSFET-Based Two-Level Voltage Source Converter. IEEE Transactions on Industry Applications, 2016, 52, 4257-4268.	3.3	81
6	Design Considerations of a 15-kV SiC IGBT-Based Medium-Voltage High-Frequency Isolated DC-DC Converter. IEEE Transactions on Industry Applications, 2015, 51, 3284-3294.	3.3	72
7	Active Gate Driving Technique for a 1200 V SiC MOSFET to Minimize Detrimental Effects of Parasitic Inductance in the Converter Layout. IEEE Transactions on Industry Applications, 2018, 54, 1622-1633.	3.3	68
8	Transformer less Intelligent Power Substation design with 15kV SiC IGBT for grid interconnection. , 2011, , .		58
9	Design considerations and performance evaluation of 1200 V, 100 a SiC MOSFET based converter for high power density application. , 2013, , .		53
10	Comparison study of 12kV n-type SiC IGBT with 10kV SiC MOSFET and 6.5kV Si IGBT based on 3L-NPC VSC applications. , 2012, , .		46
11	Study of the effects of parasitic inductances and device capacitances on 1200 V, 35 A SiC MOSFET based voltage source inverter design. , 2014, , .		38
12	Harmonic Analysis and Controller Design of 15 kV SiC IGBT-Based Medium-Voltage Grid-Connected Three-Phase Three-Level NPC Converter. IEEE Transactions on Power Electronics, 2017, 32, 3355-3369.	5.4	36
13	A Novel VSI- and CSI-Fed Dual Stator Induction Motor Drive Topology for Medium-Voltage Drive Applications. IEEE Transactions on Industrial Electronics, 2011, 58, 3373-3382.	5.2	34
14	Digitally Controlled Gate Current Source-Based Active Gate Driver for Silicon Carbide MOSFETs. IEEE Transactions on Industrial Electronics, 2020, 67, 10121-10133.	5.2	32
15	Understanding dv/dt of 15 kV SiC N-IGBT and its control using active gate driver. , 2014, , .		29
16	Modeling of switching behavior of 1200 V SiC MOSFET in presence of layout parasitic inductance. , 2016, , .		29
17	A Novel VSI- and CSI-Fed Active-â€œReactive Induction Motor Drive with Sinusoidal Voltages and Currents. IEEE Transactions on Power Electronics, 2011, 26, 3936-3947.	5.4	28
18	Medium voltage power converter design and demonstration using 15 kV SiC N-IGBTs. , 2015, , .		27

#	ARTICLE	IF	CITATIONS
19	A three-phase three winding topology for Dual Active Bridge and its D-Q mode control. , 2012, , .		24
20	Control technique for 15 kV SiC IGBT based active front end converter of a 13.8 kV grid tied 100 kVA transformerless intelligent power substation. , 2013, , .		24
21	Closed loop D-Q control of high-voltage high-power three-phase dual active bridge converter in presence of real transformer parasitic parameters. , 2013, , .		20
22	A Novel ZVS Range Enhancement Technique of a High-Voltage Dual Active Bridge Converter Using Series Injection. IEEE Transactions on Power Electronics, 2017, 32, 4231-4245.	5.4	18
23	Three-phase 4.16 kV medium voltage grid tied AC-DC converter based on 15 kV/40 a SiC IGBTs. , 2015, , .		16
24	Active gate driving technique for a 1200 V SiC MOSFET to minimize detrimental effects of parasitic inductance in the converter layout. , 2016, , .		16
25	A comparative study of three-phase dual active bridge topologies and their suitability for D-Q mode control. , 2012, , .		15
26	Six-Step Operation of a Symmetric Dual Three-Phase PMSM With Minimal Circulating Currents for Extended Speed Range in Electric Vehicles. IEEE Transactions on Industrial Electronics, 2022, 69, 7651-7662.	5.2	15
27	A Quick Starting of PMSM Drive With Pole Slipping Prevention and Reduced Speed Oscillations. IEEE Transactions on Industrial Electronics, 2021, 68, 6650-6661.	5.2	14
28	Grid connected CM noise considerations of a three-phase multi-stage SST. , 2015, , .		13
29	Closed loop analog active gate driver for fast switching and active damping of SiC MOSFET. , 2018, , .		13
30	Modeling with Beat Frequency Dynamics and Phase-Frequency Control Design for a Dual-Bridge Series Resonant Converter. IEEE Transactions on Industrial Electronics, 2022, 69, 7952-7962.	5.2	13
31	Gate driver design considerations for silicon carbide MOSFETs including series connected devices. , 2017, , .		12
32	An Unequal Split Dual Three-Phase PMSM With Extended Torque-Speed Characteristics for Automotive Application. IEEE Transactions on Power Electronics, 2022, 37, 12437-12449.	5.4	12
33	Overloading and overvoltage evaluation of a Transformerless Intelligent Power Substation. , 2013, , .		11
34	Solid State Transformer and MV grid tie applications enabled by 15 kV SiC IGBTs and 10 kV SiC MOSFETs based multilevel converters. , 2014, , .		11
35	A unified control scheme for harmonic elimination in the front end converter of a 13.8 kV, 100 kVA transformerless intelligent power substation grid tied with LCL filter. , 2014, , .		11
36	An Improved Scheme for Extended Power Loss Ride-through in a Voltage Source Inverter fed Vector Controlled Induction Motor Drive using a Loss Minimisation Technique. IEEE Transactions on Industry Applications, 2015, , 1-1.	3.3	10

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37	MVDC microgrids enabled by 15kV SiC IGBT based flexible three phase dual active bridge isolated DC-DC converter. , 2015, , .		10
38	A new Rotor Excitation Topology for Hybrid Excitation Machine. , 2016, , .		10
39	Design considerations of a 15kV SiC IGBT enabled high-frequency isolated DC-DC converter. , 2014, , .		9
40	Performance evaluation of 15 kV SiC IGBT based medium voltage grid connected three-phase three-level NPC converter. , 2015, , .		9
41	Current controlled active gate driver for 1200V SiC MOSFET. , 2016, , .		9
42	An Asymmetric Nine-Phase Induction Motor for LCI-Fed Medium Voltage Drive Applications. IEEE Transactions on Power Electronics, 2020, 35, 5047-5056.	5.4	9
43	Thermal design considerations for 12kV SiC n-IGBT based 3L NPC converter. , 2012, , .		8
44	Black start control of a solid state transformer for emergency power restoration. , 2012, , .		8
45	An Induction Machine With Tapped Stator Windings for LCI-Fed Medium Voltage Drive Applications. IEEE Transactions on Industrial Electronics, 2020, 67, 7217-7227.	5.2	8
46	An SCR-Based CSI-Fed Induction Motor Drive for High Power Medium Voltage Applications. IEEE Transactions on Industrial Electronics, 2021, 68, 4657-4666.	5.2	8
47	Low-cost analogue active gate driver for SiC MOSFET to enable operation in higher parasitic environment. IET Power Electronics, 2020, 13, 463-474.	1.5	7
48	15 kV SiC IGBT based three-phase three-level modular-leg power converter. , 2013, , .		6
49	A quantitative evaluation of the efficiency and economic benefits of the Active-Reactive Induction Machine drive in high power applications. , 2016, , .		6
50	A Smooth and Stable Open-Loop I-F Control for a Surface Mount PMSM Drive by Ensuring Controlled Starting Torque. , 2018, , .		6
51	Experimental validation of the steady state and transient behavior of a transformerless intelligent power substation. , 2014, , .		5
52	Control and performance of a single-phase dual active half bridge converter based on 15kV SiC IGBT and 1200V SiC MOSFET. , 2014, , .		5
53	Pulse turn-off method for starting of PMSM drive using back-emf position estimation technique. , 2017, , .		5
54	Passive damping of device current and motor terminal voltage in a SiC MOSFET based inverter fed induction motor drive. , 2016, , .		4

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55	Wide regulated series hybrid excitation alternator. IET Electric Power Applications, 2018, 12, 439-446.	1.1	4
56	Design Considerations for an Activeâ€“Reactive Induction Motor for Medium-Voltage Applications. IEEE Transactions on Industry Applications, 2020, 56, 2531-2540.	3.3	4
57	Quick and seamless transition method for lâ€f to sensorless vector control changeover and onâ€theâ€fly start of PMSM drives. IET Electric Power Applications, 2020, 14, 2231-2242.	1.1	4
58	FPGA based control board development for medium-voltage high-power three-phase dual active bridge converter. , 2014, , .		3
59	High power density multiple output permanent magnet alternator. IET Electric Power Applications, 2018, 12, 494-501.	1.1	3
60	An Easily Implementable Gate Charge Controlled Active Gate Driver for SiC MOSFET. , 2018, , .		3
61	A drain current based short circuit protection technique for SiC MOSFET. , 2018, , .		3
62	Full-Torque Starting and Low-Speed Operation of an LCI-Fed Active-Reactive Induction Motor Drive. IEEE Transactions on Power Electronics, 2022, 37, 738-748.	5.4	3
63	Layout Inductance Assisted Novel Turn-on Switching Loss Recovery Technique for SiC MOSFETs. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2021, 2, 513-525.	3.0	2
64	Vector control adopted for single phase Dual Active Bridge. , 2016, , .		1
65	Development and testing of 1MW variable frequency drive. , 2016, , .		1
66	Effect of stator leakage inductance in field weakening region of a vector controlled induction machine drive for traction application. , 2017, , .		1
67	A simple reduced order model for switching dynamics of Silicon Carbide MOSFET power module. , 2018, , .		1
68	A Si IGBT and SiC MOSFET Hybrid Shunt Active Filter. , 2018, , .		1
69	Effect of Leakage Flux on the Design of a LCI fed Active-Reactive Induction Motor Drive. , 2018, , .		1
70	Non-Saliency of Interior Permanent Magnet Hybrid Excitation Machine. , 2018, , .		1
71	A Quick Dynamic Torque Control for an Induction-Machine-Based Traction Drive During Square-Wave Mode of Operation. IEEE Transactions on Industrial Electronics, 2022, 69, 6519-6529.	5.2	1
72	Adaptive Digital Technique Assisted Hard Switching Fault Detection for SiC MOSFETs. , 2021, , .		1

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73	Minimization of Low Frequency Current Oscillation in Resonant Link of a Solid State Transformer by Passive Filters. , 2022, , .		1
74	Power-Loss Ride-Through in a Cascaded H-Bridge Inverter Fed Vector Controlled Induction Motor Drive. , 2022, , .		1
75	An improved scheme for extended power loss ride-through in a voltage source inverter fed vector controlled induction motor drive using a loss minimisation technique. , 2014, , .		0
76	Improved rotor structure of hybrid excitation alternator. , 2017, , .		0
77	A non uniform air gap hybrid excitation alternator. , 2017, , .		0
78	Sensorless Vector Control for a Load Commutated Inverter fed Active-Reactive Induction Motor Drive. , 2019, , .		0