

# Volker Pickert

## List of Publications by Year in descending order

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78  
papers

2,036  
citations

394390

19  
h-index

254170

43  
g-index

78  
all docs

78  
docs citations

78  
times ranked

1684  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wheel Hub Active Power Collection Unit for Dynamic Conductive Road Charging. IEEE Transactions on Transportation Electrification, 2023, 9, 1927-1936.	7.8	2
2	Efficiency-Cost Parametric-Analysis of a Three-Phase Wireless Dynamic Charging System for Electric Vehicles. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 482-491.	3.9	1
3	An improved sliding mode control (SMC) approach for enhancement of communication delay in vehicle platoon system. IET Intelligent Transport Systems, 2022, 16, 958-970.	3.0	4
4	Thermal and Mechanical Analyses of Clamping Area on the Performance of Press-Pack IGBT in Series-Connection Stack Application. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 200-211.	2.5	10
5	Combining electric vehicle battery charging and battery cell equalisation in one circuit. IET Electrical Systems in Transportation, 2021, 11, 377-390.	2.4	9
6	Optimized Localization for the inverting substation to maximize the braking efficiency of the DC railways. , 2021, , .		0
7	Temperature Estimation of SiC Power Devices Using High Frequency Chirp Signals. Energies, 2021, 14, 4912.	3.1	4
8	Improved Voltage Boundary With Model-Based Control Algorithm for Increased Torque in the Field Weakening Region of Induction Machines. IEEE Transactions on Transportation Electrification, 2021, 7, 1600-1614.	7.8	5
9	Comparison of TSEP Performances Operating at Homogeneous and Inhomogeneous Temperature Distribution in Multichip IGBT Power Modules. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6282-6292.	5.4	14
10	A Hybrid Charger of Conductive and Inductive Modes for Electric Vehicles. IEEE Transactions on Industrial Electronics, 2021, 68, 12021-12033.	7.9	15
11	Phenomenon of Short-Time Threshold Voltage Shift and Its Application in Junction Temperature Estimation. , 2021, , .		0
12	Comparison of PSO and SA Optimization Algorithms on the Tuning of a PI Speed Regulator for Electric Drives. , 2021, , .		2
13	A Phase Shedding Control Technique for Ripple Minimisation for EV Fast DC Charging Applications. , 2021, , .		1
14	Determination of Stray Inductance of Low-Inductive Laminated Planar Multiport Busbars Using Vector Synthesis Method. IEEE Transactions on Industrial Electronics, 2020, 67, 1337-1347.	7.9	10
15	A High-Power Multiphase Wireless Dynamic Charging System With Low Output Power Pulsation for Electric Vehicles. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 3592-3608.	5.4	39
16	A Hierarchical Energy Balance Control Method for $M^3C$ Based on Injecting Output Frequency Circulating Currents. IEEE Transactions on Power Electronics, 2020, 35, 2424-2435.	7.9	14
17	Convex programming improved online power management in a range extended fuel cell electric truck. Journal of Power Sources, 2020, 476, 228642.	7.8	24
18	Thermal Management System for Press-Pack IGBT Based on Liquid Metal Coolant. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 1849-1860.	2.5	14

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19	An Investigation of Gate Voltage Oscillation and its Suppression for SiC MOSFET. IEEE Access, 2020, 8, 127781-127788.	4.2	18
20	Stability Study and Nonlinear Analysis of DC-DC Power Converters With Constant Power Loads at the Fast Timescale. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 3225-3236.	5.4	17
21	Localization and Detection of Bond Wire Faults in Multichip IGBT Power Modules. IEEE Transactions on Power Electronics, 2020, 35, 7804-7815.	7.9	25
22	A cost-efficient Current-Source Gate Driver for SiC MOSFET Module and its Comparison with Voltage-Source Gate Driver. , 2020, , .		2
23	Polynomial Curve Slope Compensation for Peak-Current-Mode-Controlled Power Converters. IEEE Transactions on Industrial Electronics, 2019, 66, 470-481.	7.9	18
24	Power-take-off topology comparison for a wave energy converter. Journal of Engineering, 2019, 2019, 5012-5017.	1.1	10
25	TC48: A low-cost 48V integrated drive for mild hybrid electric vehicles. Journal of Engineering, 2019, 2019, 4590-4594.	1.1	3
26	Design and control of a bidirectional wireless charging system using GaN devices. , 2019, , .		3
27	Design of an Advanced Programmable Current-Source Gate Driver for Dynamic Control of SiC Device. , 2019, , .		13
28	Resonance Frequency Detection Technique in Gridconnected Inverter Systems Based on Double-order Digitalized Filter. , 2019, , .		0
29	High-frequency current source converter for a direct drive powertrain in a wave energy converter. Journal of Engineering, 2019, 2019, 3629-3633.	1.1	5
30	Selecting appropriate fuzzy PID control structure for power electronic applications. Journal of Engineering, 2019, 2019, 4457-4460.	1.1	6
31	Online Condition Monitoring of Sub-module Capacitors in MMC Enabled by Reduced Switching Frequency Sorting Scheme. , 2019, , .		7
32	Comparative Evaluation of Field Oriented Control and Direct Torque Control Methodologies in Field Weakening Regions for Interior Permanent Magnet Machines. , 2019, , .		6
33	Convex programming energy management and components sizing of a plug-in fuel cell urban logistics vehicle. Journal of Power Sources, 2019, 423, 358-366.	7.8	85
34	Investigation of a GaN-based Bidirectional Wireless Power Converter using resonant inductive coupling. , 2019, , .		2
35	Current Ripple Minimisation Based on Phase-Shedding of DC-DC Interleaved Converters for EV Charging System. , 2019, , .		9
36	A Concept of Multiphase Dynamic Charging System with Constant Output Power for Electric Vehicles. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
37	Comparison of Single and Three phase Dynamic Charging Systems for Electric Vehicles. , 2019, , .		2
38	A Case Study of Real Time Implementation of Extended Kalman Filter in Dual Core DSP for The On-line Estimation of Induction Machine Parameters. , 2019, , .		1
39	On Investigating EMC Filter Solutions in Soft Open Points Under Large Unbalanced Current. , 2019, , .		1
40	V-dP/dI droop control technique with $d^{2}/P/dI^{2}$ to improve steady state performance for multiple PV modules in a dc microgrid. , 2019, , .		1
41	Performance Analysis of Forced Commutated Controlled Series Capacitor Rectifier for More Electric Aircraft. IEEE Transactions on Industrial Electronics, 2019, 66, 5759-5768.	7.9	1
42	Multiple Output Inductive Charger for Electric Vehicles. IEEE Transactions on Power Electronics, 2019, 34, 7350-7368.	7.9	43
43	Gateâ€“Emitter Pre-threshold Voltage as a Health-Sensitive Parameter for IGBT Chip Failure Monitoring in High-Voltage Multichip IGBT Power Modules. IEEE Transactions on Power Electronics, 2019, 34, 9158-9169.	7.9	49
44	Forced Commutated Controlled Series Capacitor Rectifier for More Electric Aircraft. IEEE Transactions on Power Electronics, 2019, 34, 225-235.	7.9	5
45	Prethreshold Voltage as a Low-Component Count Temperature Sensitive Electrical Parameter Without Self-Heating. IEEE Transactions on Power Electronics, 2018, 33, 2787-2791.	7.9	37
46	Questionnaire-Based Discussion of Finite Element Multiphysics Simulation Software in Power Electronics. IEEE Transactions on Power Electronics, 2018, 33, 7010-7020.	7.9	17
47	Liquid Metal Magnetohydrodynamic Pump for Junction Temperature Control of Power Modules. IEEE Transactions on Power Electronics, 2018, 33, 10583-10593.	7.9	38
48	Grid demand reduction for high-speed dynamic road charging by narrowing inter-vehicle distance. , 2018, , .		2
49	Fuzzy Control for Platooning Systems Based on V2V Communication. , 2018, , .		2
50	Junction Temperature Estimation for IGBT Modules Applied to EVs Based on High-Frequency Signal Sweeping Technique. , 2018, , .		0
51	On-Line Estimation of Magnetizing Inductance and Rotor Resistance in Extended Kalman-Filter for Induction Machines. , 2018, , .		0
52	Signal processing technique for detecting chip temperature of SiC MOSFET devices using high frequency signal injection method. , 2017, , .		0
53	A multi-output capacitive charger for electric vehicles. , 2017, , .		18
54	Nonlinear Analysis and Control of Interleaved Boost Converter Using Real-Time Cycle to Cycle Variable Slope Compensation. IEEE Transactions on Power Electronics, 2017, 32, 7256-7270.	7.9	41

#	ARTICLE	IF	CITATIONS
55	A ripple reduction method for a two stages battery charger with multi-winding transformer using notch filter. , 2017, , .		7
56	Modular multilevel matrix converter for offshore low frequency AC transmission system. , 2017, , .		14
57	Transformer-Based Equalization Circuit Applied to <i>n</i> -Number of High Capacitance Cells. IEEE Transactions on Power Electronics, 2016, 31, 1334-1343.	7.9	22
58	Single-phase rectifier circuit with output voltage enhancement for automotive generators. IET Electrical Systems in Transportation, 2015, 5, 120-128.	2.4	3
59	Multiobjective Design Optimization of IGBT Power Modules Considering Power Cycling and Thermal Cycling. IEEE Transactions on Power Electronics, 2015, 30, 2493-2504.	7.9	97
60	<i>In Situ</i> Diagnostics and Prognostics of Solder Fatigue in IGBT Modules for Electric Vehicle Drives. IEEE Transactions on Power Electronics, 2015, 30, 1535-1543.	7.9	148
61	Nonlinear analysis for interleaved boost converters based on Monodromy matrix. , 2014, , .		7
62	Electrified hydraulic power steering system in hybrid electric heavy trucks. IET Electrical Systems in Transportation, 2014, 4, 70-77.	2.4	20
63	Symmetrical duty cycle control for FCSC converter for wave energy applications. , 2014, , .		2
64	Foldings and grazings of tori in current controlled interleaved boost converters. International Journal of Circuit Theory and Applications, 2014, 42, 1080-1091.	2.0	17
65	Self-Alignment Torque as a Source of Energy Recovery for Hybrid Electric Trucks. IEEE Transactions on Vehicular Technology, 2014, 63, 62-71.	6.3	11
66	Real-Time Temperature Estimation for Power MOSFETs Considering Thermal Aging Effects. IEEE Transactions on Device and Materials Reliability, 2014, 14, 220-228.	2.0	152
67	Stability analysis and control of nonlinear phenomena in bidirectional boost converter based on the Monodromy matrix. , 2014, , .		5
68	In Situ Diagnostics and Prognostics of Wire Bonding Faults in IGBT Modules for Electric Vehicle Drives. IEEE Transactions on Power Electronics, 2013, 28, 5568-5577.	7.9	366
69	Dual Voltage Supply Converter for High-Speed Doubly Salient Reluctance Motors. IEEE Transactions on Power Electronics, 2013, 28, 1016-1024.	7.9	15
70	Complex Interaction Between Tori and Onset of Three-Frequency Quasi-Periodicity in a Current Mode Controlled Boost Converter. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 207-214.	5.4	53
71	Nonsmooth dynamics of electrical systems. , 2011, , .		1
72	Overview of supercapacitor voltage equalisation circuits for an electric vehicle charging application. , 2010, , .		16

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73	New Circuit Topology for Fault Tolerant H-Bridge DC-DC Converter. IEEE Transactions on Power Electronics, 2010, 25, 1509-1516.	7.9	69
74	Application of Filippov method for the analysis of subharmonic instability in dc-dc converters. International Journal of Circuit Theory and Applications, 2009, 37, 899-919.	2.0	94
75	Stability Analysis of the Continuous-Conduction-Mode Buck Converter Via Filippov's Method. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1084-1096.	5.4	186
76	Control of Fast Scale Bifurcations in Power-Factor Correction Converters. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 805-809.	2.2	62
77	Stability of switching circuits using complete-cycle solution matrices. , 2006, , .		5
78	Control of switching circuits using complete-cycle solution matrices. , 2006, , .		6