

# Toshiji Kato

## List of Publications by Year in descending order

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90  
papers

369  
citations

1307594

7  
h-index

1281871

11  
g-index

90  
all docs

90  
docs citations

90  
times ranked

153  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Study on an Optimal Torque for Power Regeneration of an Induction Motor. , 2007, , .		25
2	Lyapunov-Based Digital Control of a Grid-Connected Inverter With an LCL Filter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 942-948.	5.4	24
3	An efficient induction motor drive method with a regenerative power storage system driven by an optimal torque. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	17
4	Fast current-tracking control for grid-connected inverter with an LCL filter by sinusoidal compensation. , 2011, , .		15
5	An Efficient Power Regeneration and Drive Method of an Induction Motor by Means of an Optimal Torque Derived by Variational Method. IEJ Transactions on Industry Applications, 2008, 128, 1098-1105.	0.2	15
6	Stability analysis of a grid-connected inverter system. , 2012, , .		14
7	Optimum reduction of switching losses based on the two-phase PWM modulation method for two-level inverter. , 2012, , .		12
8	A Control Method of a Regenerative Power Storage System for Electric Machinery. , 0, , .		11
9	Optimal torque trajectories minimizing loss of induction motor under given condition of rotational angle. , 2011, , .		11
10	Efficient Multi-Rate Steady-State Analysis of a Power Electronic System by the Envelope Following Method. , 2007, , .		10
11	Optimal torque and rotating speed trajectories minimizing energy loss of induction motor under both torque and speed limits. , 2013, , .		10
12	Stabilization of grid-connected inverter system with feed-forward control. , 2017, , .		9
13	An oscillation suppression method of a DC power supply system with a constant power load and a LC filter. , 2012, , .		8
14	General-Purpose Computation Method of a Power Converter for Frequency Characteristics: Application to Stability Analysis of a Grid Inverter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1466-1473.	5.4	8
15	Sinusoidal Waveform Following Method for Digital Control of PWM inverter. IEJ Transactions on Industry Applications, 2006, 126, 218-224.	0.2	8
16	Envelope Following Analysis of an Autonomous Power Electronic System. , 2006, , .		7
17	Worst-Case Tolerance Analysis for a Power Electronic System by Modified Genetic Algorithms. , 2006, , .		7
18	Diagnosis of multi-phase turn faults of induction motor stator windings. , 2009, , .		7

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19	Stability analysis for grid-connected three-phase inverter with LCL filters. , 2015, , .		7
20	Envelope Following Analysis Method of Autonomous Power Electronic Circuits. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 1826-1831.	0.2	7
21	Robust MIMO Controller Design for VSC-Based Microgrids: Sequential Loop Closing Concept and Quantitative Feedback Theory. IEEE Transactions on Smart Grid, 2022, 13, 129-138.	9.0	7
22	Optimal energy saving trajectories of induction motor with suppression of sudden acceleration and deceleration. , 2014, , .		6
23	Investigation of stabilities of Lyapunov-Based digital control for grid-connected inverter. , 2015, , .		6
24	A simple and effective time delay compensation method for grid-connected inverter with an LCL filter: Application to active damping method. , 2017, , .		6
25	Stability Analysis Methods of a Grid-Connected Inverter in Time and Frequency Domains. , 2018, , .		6
26	Sinusoidal Current-Tracking Control for Utility Interactive Inverter with an LCL Filter. IEEJ Transactions on Electronics, Information and Systems, 2011, 131, 1858-1863.	0.2	6
27	Computation system for optimum pulse-patterns in the VV sinusoidal PWM inverter under filtering effects.. IEEJ Transactions on Power and Energy, 1985, 105, 653-660.	0.2	6
28	Automatic Fault Diagnosis Method of Electrical Machinery and Apparatus by Using Kohonen's Self-Organizing Map. , 2007, , .		5
29	Parallel analysis method for a power electronic system by circuit partitioning. , 2012, , .		5
30	A Novel Control Method of Wheel Slip Phenomena in Electric Vehicles Based on the Number of Equilibrium Points. , 2007, , .		4
31	Lumped equivalent model synthesis for a passive element with frequency-dependent and/or temperature-dependent characteristics for EMC simulation. , 2009, , .		4
32	Optimal motion trajectories minimizing loss of induction motor under amplitude limits. , 2012, , .		4
33	Sinusoidal Tracking Control of a PWM Inverter with Inverse System Feedforward Compensation. IEEJ Transactions on Electronics, Information and Systems, 2006, 126, 1304-1310.	0.2	4
34	Filter Circuit Design by Parallel Genetic Programming. IEEJ Transactions on Electronics, Information and Systems, 2004, 124, 2208-2214.	0.2	4
35	Oscillation Suppression Method for a DC Power Supply System with a Constant Power Load and LC Filter. IEEJ Transactions on Industry Applications, 2016, 136, 760-767.	0.2	4
36	EMI Reduction Method for a Single-Phase PWM Inverter by Suppressing Common-Mode Currents with Complementary Switching. , 2006, , .		3

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37	Efficient steady-state simulation of a power electronic circuit by parallel processing. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	3
38	Lumped equivalent circuit model synthesis for a passive element with frequency-dependent and/or temperature-dependent characteristics for EMC simulation. , 2009, , .		3
39	Efficient steady-state computation of a power electronic converter system by the envelope following method. , 2010, , .		3
40	Simple and Effective Time Delay Compensation Method for Active Damping Control of Grid-Connected Inverter with an LCL Filter. IEEJ Journal of Industry Applications, 2018, 7, 454-461.	1.1	3
41	GA Based Optimized Trajectories of Rotating Speed and d-q Axis Currents for an IPMSM. , 2018, , .		3
42	Optimum On-line Reduction of Switching Losses with a New Two-Phase PWM Method. IEEJ Journal of Industry Applications, 2014, 3, 288-295.	1.1	3
43	Multirate Analysis Method of a Power Electronic Converter by Circuit Partitioning. , 0, , .		2
44	Optimum reduction of switching losses based on the two-phase PWM modulation method. , 2012, , .		2
45	The power performance and fuel economy estimation for vehicle concept planning and design using VHDL-AMS HV full vehicle simulation. , 2012, , .		2
46	Sinusoidal compensator with active damping effects in grid-connected inverter with an LCL filter. , 2013, , .		2
47	Lyapunov-based digital control of grid-connected inverter with an LCL filter. , 2013, , .		2
48	Common-mode voltage reduction with two-phase modulation in three-level PWM inverter. , 2013, , .		2
49	Generalization of parallel analysis for a power electronic system by circuit partitioning. , 2013, , .		2
50	Numerical design methodology of optimal trajectories for efficient induction motor drive based on a loss map. , 2013, , .		2
51	An energy saving drive method of an induction motor with the suppression of sudden acceleration and deceleration. , 2014, , .		2
52	Optimum and adjustable damping control of grid-connected inverter with an LCL filter. , 2015, , .		2
53	On-line switching loss reduction scheme by general space vector PWM for multilevel NPC inverter. , 2017, , .		2
54	Optimal Digital Controller Design for Passive Stabilization of a Grid-Connected Three-Phase Inverter with LCL filter. , 2019, , .		2

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55	Application of the stabilized inverse-convolution method of frequency domain for the error correction of the impulse potential divider.. IEEJ Transactions on Power and Energy, 1985, 105, 195-202.	0.2	2
56	Stability Analysis for Grid-Connected LCL-Type Inverter with Digital Control. IEEJ Transactions on Industry Applications, 2016, 136, 615-621.	0.2	2
57	General-Purpose Computation of Frequency Characteristics of Power Conversion System for Stability Analysis by the Impedance Method. IEEJ Transactions on Industry Applications, 2020, 140, 685-693.	0.2	2
58	Energy-based digital control of a ripple correction circuit of an unity-power-factor AC/DC converter. , 2010, , .		1
59	Design methodology of optimal trajectories minimizing loss of induction motor under torque amplitude limit. , 2012, , .		1
60	Synthesis and control of a circuit with an arbitrary characteristic. , 2012, , .		1
61	Diagnosis of multi-turn faults of induction motor by direct detection of asymmetry admittance component. , 2013, , .		1
62	On-line reduction of switching losses and common-mode voltages of multi-level PWM inverter by a new space vector modulation. , 2015, , .		1
63	Computation of Frequency Characteristics of Grid Inverters by General Small-Signal Analysis Method. , 2019, , .		1
64	Passivity-based stabilization of converter in DC power supply system using feedforward control. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2021, 214, e23361.	0.4	1
65	Automatic Circuit Partitioning for Parallel Processing of Power Electric System Simulation. IEEJ Transactions on Industry Applications, 2015, 135, 1025-1032.	0.2	1
66	Design of Passivity-Based Stabilized Control of Grid-Connected Inverter System with LCL Filter. IEEJ Transactions on Industry Applications, 2019, 139, 93-101.	0.2	1
67	Multirate analysis method for a power electronic system by multi-domain partitioning. , 2010, , .		0
68	Diagnosis of multi-phase turn faults of induction motor stator-windings. , 2011, , .		0
69	Efficient computation of frequency characteristics of a power conversion system by periodic steady-state analysis using the envelope-following method. , 2012, , .		0
70	Synthesis of control circuit with designed frequency characteristics. , 2014, , .		0
71	Numerically designed optimal trajectories of induction motor for energy-saving and jerk suppression based on 3-dimensional loss map. , 2015, , .		0
72	General-purpose computation method of a power converter for frequency characteristics "Application to stability analysis of a grid inverter. , 2016, , .		0

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73	Effective Time Delay Compensation for Control of Grid-Connected Inverter with LCL Filter. , 2018, , .		0
74	A Mapping-Based SVM Method for Balancing DC Input Voltage of a NPC Five-Level Inverter. , 2018, , .		0
75	Design of passivity-based stabilized control of grid-connected inverter system with LCL filter. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2019, 207, 49-58.	0.4	0
76	Passivity-Based Stabilization of Converter in DC Power Supply System using Feedforward Control. IEEJ Transactions on Industry Applications, 2021, 141, 738-746.	0.2	0
77	Asymptotic Stabilization and Synchronization of Parametric LCR Resonant Circuit using Characteristics of its Coefficients. IEEJ Transactions on Electronics, Information and Systems, 2004, 124, 1141-1147.	0.2	0
78	Synthesis of Multiple Equivalent One-Port Circuits by GP with Metric Measures. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 1480-1488.	0.2	0
79	Worst-Case Tolerance Analysis for a Power Electronic System by a Modified Relay-Search Genetic Algorithm. IEEJ Transactions on Industry Applications, 2008, 128, 117-124.	0.2	0
80	Method for Multirate Analysis of Power Electronic System by Multidomain Partitioning. IEEJ Transactions on Industry Applications, 2011, 131, 110-117.	0.2	0
81	Diagnosis of Stator-Winding-Turn Faults of Induction Motor by Direct Detection of Negative-Sequence Currents. IEEJ Transactions on Industry Applications, 2011, 131, 1346-1353.	0.2	0
82	Load-side Sensor-less Speed Regulation of a Two-Inertia System with an Eccentricity. IEEJ Transactions on Electronics, Information and Systems, 2013, 133, 2029-2036.	0.2	0
83	Generalized Parallel Processing of Circuit Simulation for a Power Electric System by Circuit Partitioning. IEEJ Transactions on Industry Applications, 2014, 134, 1-9.	0.2	0
84	Parallel Simulation of a Power Electric System by Circuit Partitioning. Journal of the Japan Institute of Power Electronics, 2015, 41, 120-126.	0.0	0
85	Double-Mapping-Based SVM Method for Balancing DC-Link Input Voltages of a Five-Level Inverter. IEEJ Transactions on Electronics, Information and Systems, 2018, 138, 1319-1326.	0.2	0
86	General-Purpose Computation of Two-Axis Frequency Characteristics of Power Converter Circuit for Stability Analysis Controlled in $\hat{i}^2$ Frame. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 1129-1137.	0.2	0
87	Title is missing!. IEEJ Transactions on Power and Energy, 1983, 103, 443-450.	0.2	0
88	Passivity-Based Stabilization of a Grid-Connected Three-Phase Inverter System with Feedforward Control. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 1189-1197.	0.2	0
89	General-purpose computation of two-axis frequency characteristics of power converter circuit for stability analysis controlled in $\hat{i}^2$ frame. Electronics and Communications in Japan, 2022, 105, .	0.5	0
90	Fitting Method of Experimentally Measured 3D Loss and Torque Maps to design Optimal Trajectories for IPMSM. , 2022, , .		0