Thomas G Habetler

List of Publications by Citations

112 papers	3,273 citations	33 h-index	54 g-index
143 ext. papers	4,113 ext. citations	5.5 avg, IF	5.57 L-index

#	Paper	IF	Citations
112	A Survey on Testing and Monitoring Methods for Stator Insulation Systems of Low-Voltage Induction Machines Focusing on Turn Insulation Problems. *IEEE Transactions on Industrial Electronics* , **2008**, 55, 4127-4136	8.9	267
111	A Survey of Methods for Detection of Stator-Related Faults in Induction Machines. *IEEE Transactions on Industry Applications*, **2007**, 43, 920-933	4.3	185
110	. *IEEE Access*, **2020**, 8, 29857-29881	3.5	142
109	Incipient Bearing Fault Detection via Motor Stator Current Noise Cancellation Using Wiener Filter. *IEEE Transactions on Industry Applications*, **2009**, 45, 1309-1317	4.3	111
108	Bearing Fault Detection Via Stator Current Noise Cancellation and Statistical Control. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 4260-4269	8.9	110
107	Dynamic Eccentricity and Demagnetized Rotor Magnet Detection in Trapezoidal Flux (Brushless DC) Motors Operating Under Different Load Conditions. *IEEE Transactions on Power Electronics*, **2007**, 22, 2061-2069	7.2	104
106	An Impedance Identification Approach to Sensitive Detection and Location of Stator Turn-to-Turn Faults in a Closed-Loop Multiple-Motor Drive. *IEEE Transactions on Industrial Electronics*, **2011**, 58, 1545-1554	8.9	98
105	Analytic-Wavelet-Ridge-Based Detection of Dynamic Eccentricity in Brushless Direct Current (BLDC) Motors Functioning Under Dynamic Operating Conditions. *IEEE Industrial Electronics Magazine*, **2007**, 54, 1410-1419	6.2	96
104	Detection of Rotor Faults in Brushless DC Motors Operating Under Nonstationary Conditions. *IEEE Transactions on Industry Applications*, **2006**, 42, 1464-1477	4.3	96
103	An Open-Switch Fault Diagnosis Method for Single-Phase PWM Rectifier Using a Model-Based Approach in High-Speed Railway Electrical Traction Drive System. *IEEE Transactions on Power Electronics*, **2016**, 31, 3816-3826	7.2	95
102	Nonstationary Motor Fault Detection Using Recent Quadratic Time-Frequency Representations. *IEEE Transactions on Industry Applications*, **2008**, 44, 735-744	4.3	94
101	Design of a Universal Inductive Charger for Multiple Electric Vehicle Models. *IEEE Transactions on Power Electronics*, **2015**, 30, 6378-6390	7.2	85
100	Bearing Condition Monitoring Methods for Electric Machines: A General Review **2007**,		79
99	A Fast and Generalized Space Vector Modulation Scheme for Multilevel Inverters. *IEEE Transactions on Power Electronics*, **2014**, 29, 5204-5217	7.2	70
98	A Nonintrusive and In-Service Motor-Efficiency Estimation Method Using Air-Gap Torque With Considerations of Condition Monitoring. *IEEE Transactions on Industry Applications*, **2008**, 44, 1666-1674	4.3	69
97	Incorporating Non-Intrusive Load Monitoring Into Building Level Demand Response. *IEEE Transactions on Smart Grid*, **2013**, 4, 1870-1877	10.7	68
96	Modeling, Design Optimization, and Applications of Switched Reluctance Machines A Review. *IEEE Transactions on Industry Applications*, **2019**, 55, 2660-2681	4.3	62

95	Real-Time Condition Monitoring of the Electrolytic Capacitors for Power Electronics Applications. *IEEE Applied Power Electronics Conference and Exposition*, **2007**,		57
94	A Remote and Sensorless Stator Winding Resistance Estimation Method for Thermal Protection of Soft-Starter-Connected Induction Machines. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 3611-3618	8.9	55
93	Using PWM-Induced Transient Excitation and Advanced Signal Processing for Zero-Speed Sensorless Control of AC Machines. *IEEE Transactions on Industrial Electronics*, **2010**, 57, 365-374	8.9	54
92	A Voltage Sag Supporter Utilizing a PWM-Switched Autotransformer. *IEEE Transactions on Power Electronics*, **2007**, 22, 626-635	7.2	53
91	Front-End Electronic Circuit Topology Analysis for Model-Driven Classification and Monitoring of Appliance Loads in Smart Buildings. *IEEE Transactions on Smart Grid*, **2012**, 3, 2286-2293	10.7	52
90	Harmonic and Unbalance Compensation Based on Direct Power Control for Electric Railway Systems. *IEEE Transactions on Power Electronics*, **2013**, 28, 5823-5831	7.2	52
89	A Sensorless Rotor Temperature Estimator for Induction Machines Based on a Current Harmonic Spectral Estimation Scheme. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 407-416	8.9	52
88	Optimum Space Vector Computation Technique for Direct Power Control. *IEEE Transactions on Power Electronics*, **2009**, 24, 1637-1645	7.2	51
87	Eliminating Load Oscillation Effects for Rotor Eccentricity Detection in Closed-Loop Drive-Connected Induction Motors. *IEEE Transactions on Power Electronics*, **2007**, 22, 1543-1551	7.2	45
86	Condition Monitoring of Power Electronic Circuits Using Artificial Neural Networks. *IEEE Transactions on Power Electronics*, **2009**, 24, 2363-2367	7.2	43
85	A review of identification and monitoring methods for electric loads in commercial and residential buildings **2010**,		42
84	A Model Reduction Perspective on Thermal Models for Induction Machine Overload Relays. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 3525-3534	8.9	41
83	Switching Strategies for Fault Tolerant Operation of Single DC-link Dual Converters. *IEEE Transactions on Power Electronics*, **2012**, 27, 509-518	7.2	38
82	Current/Voltage-Based Detection of Faults in Gears Coupled to Electric Motors. *IEEE Transactions on Industry Applications*, **2006**, 42, 1412-1420	4.3	38
81	Nonintrusive, Self-Organizing, and Probabilistic Classification and Identification of Plugged-In Electric Loads. *IEEE Transactions on Smart Grid*, **2013**, 4, 1371-1380	10.7	37
80	Magnetic Effects of DC Signal Injection on Induction Motors for Thermal Evaluation of Stator Windings. *IEEE Transactions on Industrial Electronics*, **2011**, 58, 1479-1489	8.9	34
79	Optimal Electromagnetic-Thermo-Mechanical Integrated Design Candidate Search and Selection for Surface-Mount Permanent-Magnet Machines Considering Load Profiles. *IEEE Transactions on Industry Applications*, **2011**, 47, 2460-2468	4.3	33
78	Deep Learning Algorithms for Bearing Fault Diagnostics - A Review **2019**,		31

59	A new concept for online surge testing for the detection of winding insulation deterioration **2010**,		12
58	Simplified Control Structure for Current Control of Single Phase Rectifiers Using COT-ANN-PWM. *Neural Networks (IJCNN), International Joint Conference on*, **2007**,		11
57	Model-Based Analysis and Quantification of Bearing Faults in Induction Machines. *IEEE Transactions on Industry Applications*, **2020**, 56, 2158-2170	4.3	10
56	High-Strength Rotor Design for Ultra-High Speed Switched Reluctance Machines. *IEEE Transactions on Industry Applications*, **2020**, 56, 1432-1442	4.3	10
55	Overhead conductor thermal dynamics identification by using Echo State Networks **2009**,		10
54	Few-Shot Bearing Fault Diagnosis Based on Model-Agnostic Meta-Learning. *IEEE Transactions on Industry Applications*, **2021**, 57, 4754-4764	4.3	10
53	Autonomous Self-Commissioning Method for Speed-Sensorless-Controlled Induction Machines. *IEEE Transactions on Industry Applications*, **2010**, 46, 946-954	4.3	9
52	Electromagnetic design of an ultra-high speed switched reluctance machine over 1 million rpm **2017**,		8
51	An improved DC-signal-injection method with active torque-ripple mitigation for thermal monitoring of field-oriented-controlled induction motors **2015**,		8
50	A Remote and Sensorless Thermal Protection Scheme for Soft-Starter-Connected Induction Motors **2008**,		8
49	An analysis and discussion of the voltage and current spectrum of claw-pole alternators for fault detection purposes **2011**,		7
48	MLPN based Parameter Estimation to Evaluate Overhead Power Line Dynamic Thermal Rating **2009** ,		7
47	Current-based condition monitoring of electrical machines in safety critical applications **2008**,		7
46	Incipient Bearing Fault Detection via Stator Current Noise Cancellation using Wiener Filter **2007**,		7
45	An Enhanced Analytical Calculation of the Phase Inductance of Switched Reluctance Machines. *IEEE Transactions on Industry Applications*, **2019**, 55, 1392-1407	4.3	7
44	Analytical Calculation of the Phase Inductance Profile of Switched Reluctance Machines. *IEEE Transactions on Energy Conversion*, **2019**, 34, 1149-1163	5.4	7
43	Performance evaluation and comparison of multi-objective optimization algorithms for the analytical design of switched reluctance machines. *CES Transactions on Electrical Machines and Systems*, **2017**, 1, 58-65	2.3	6
42	Interpolated FFT for real-time detection of belt slip in automotive electric power generation and storage system **2011**,		6

41	Fast and accurate analytical calculation of the unsaturated phase inductance profile of 6/4 switched reluctance machines **2016**,	6
40	Acoustic Modeling and Prediction of Ultra-High Speed Switched Reluctance Machines Based on Finite Element Analysis **2019**,	5
39	Practical Considerations in the Design and Manufacture of Ultra-High Speed Switched Reluctance Machines Over 1 Million rpm **2019**,	5
38	Practical considerations for the design and construction of a high speed SRM with a flux-bridge rotor **2014**,	5
37	A study of designing a universal inductive charger for Electric Vehicles **2013**,	5
36	A nonintrusive thermal monitoring method for closed-loop drive-fed induction machines **2011**,	5
35	Current-based motor condition monitoring: Complete protection of induction and PM machines **2007**,	5
34	A Nonintrusive Induction Motor Stator Resistance Estimation Method using a Soft-Starter **2007**,	5
33	Parametric Study for the Design of the End Region of Large Synchronous Generators Based on Three-Dimensional Transient Finite Element Analysis **2018**,	5
32	A fast control-integrated and multiphysics-based multi-objective design optimization of switched reluctance machines **2017**,	4
31	A survey of electromagnetic Thermal modeling and design optimization of switched reluctance machines **2017**,	4
30	Electronic circuit survey for office load monitoring and identification **2012**,	4
29	Practical implementation of a remote and sensorless stator resistance-based thermal protection method **2008**,	4
28	Methods for thermal protection of medium voltage induction motors A review **2008**,	4
27	Design of a Portable Hand Crank Generating System to Power Remote Off-Grid Communities **2007**,	4
26	A Reliable Rotor Eccentricity Detection Scheme for Induction Machines in the Presence of a Position Dependent Load Torque Oscillation **2007**,	4
25	A Survey of Multi-Sensor Systems for Online Fault Detection of Electric Machines **2019**,	4
24	A multi-objective analytical design approach of switched reluctance machines with integrated active current profile optimization **2017**,	3

23	The Effect of Broken Rotor Bar on the Low Frequency Components in the Axial Stray Flux of Induction Motors **2019**,		3
22	Design of a universal inductive charger for electric vehicles **2014**,		3
21	Direct position control for ultra-high speed switched reluctance machines based on non-contact optical sensors **2017**,		3
20	Experimental study on the short-circuit contribution of induction machines **2013**,		3
19	Non-Intrusive Efficiency Determination of In-Service Induction Motors using Genetic Algorithm and Air-Gap Torque Methods. *Conference Record - IAS Annual Meeting (IEEE Industry Applications Society)* , **2007**,		3
18	Electrolytic Capacitor Failure Mechanism Due to Inrush Current. *Conference Record - IAS Annual Meeting (IEEE Industry Applications Society)*, **2007**,		3
17	A novel online rotor temperature estimator for induction machines based on a cascading motor parameter estimation scheme **2005**,		3
16	Current-Based Condition Monitoring and Fault Tolerant Operation for Electric Machines in Automotive Applications **2007**,		3
15	Quantification of Rolling- Element Bearing Fault Severity of Induction Machines **2019**,		2
14	Random forest based adaptive non-intrusive load identification **2014**,		2
13	Sensitivity analysis of the surge test applied to AC machines **2011**,		2
12	Assessment of available methods for estimating rotor temperatures of induction motor **2009**,		2
11	A stator turn fault tolerant strategy for induction motor drives in safety critical applications		2
10	Analysis, simulation, and experiments of rotor eccentricity in closed-loop drive-connected induction motors **2005**,		2
9	Modeling, Implementing and Evaluating of an Advanced Dual Axis Heliostat Drive System. *Journal of Solar Energy Engineering, Transactions of the ASME*,1-20	2.3	2
8	A Multi-sensor Fusion Scheme for Broken Rotor Bar and Air-gap Eccentricity Detection of Induction Machines **2019**,		2
7	Analytical Calculation of the Air-gap Flux Density and Magnetizing Inductance of Synchronous Reluctance Machines **2018**,		2
6	Calculating the unsaturated direct and quadrature axes magnetizing inductances of synchronous reluctance machines based on Maxwell's equations and magnetic equivalent circuit **2017**,		1

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5	Experimental emulation of stator turn insulation breakdown during a surge test **2011**,	1
4	A novel cooling condition monitoring method for induction motors based on particle swarm optimization **2009**,	1
3	A new method to detect stator turn-to-turn faults in a closed-loop multiple-motor drive system **2009**,	1
2	An adaptive noise-cancellation method for detecting generalized roughness bearing faults under dynamic load conditions **2009**,	1
1	A novel gate driving scheme for high power PWM and bypass switches. *IEICE Electronics Express*, **2010**, 7, 704-710	0.5