

# Thomas G Habetler

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Semi-Supervised Bearing Fault Diagnosis and Classification Using Variational Autoencoder-Based Deep Generative Models. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 6476-6486	4	20
111	Few-Shot Bearing Fault Diagnosis Based on Model-Agnostic Meta-Learning. <i>IEEE Transactions on Industry Applications</i> , <b>2021</b> , 57, 4754-4764	4.3	10
110	Model-Based Analysis and Quantification of Bearing Faults in Induction Machines. <i>IEEE Transactions on Industry Applications</i> , <b>2020</b> , 56, 2158-2170	4.3	10
109	. <i>IEEE Access</i> , <b>2020</b> , 8, 29857-29881	3.5	142
108	High-Strength Rotor Design for Ultra-High Speed Switched Reluctance Machines. <i>IEEE Transactions on Industry Applications</i> , <b>2020</b> , 56, 1432-1442	4.3	10
107	Quantification of Rolling- Element Bearing Fault Severity of Induction Machines <b>2019</b> ,		2
106	Acoustic Modeling and Prediction of Ultra-High Speed Switched Reluctance Machines Based on Finite Element Analysis <b>2019</b> ,		5
105	Modeling, Design Optimization, and Applications of Switched Reluctance Machines – A Review. <i>IEEE Transactions on Industry Applications</i> , <b>2019</b> , 55, 2660-2681	4.3	62
104	Practical Considerations in the Design and Manufacture of Ultra-High Speed Switched Reluctance Machines Over 1 Million rpm <b>2019</b> ,		5
103	Deep Learning Algorithms for Bearing Fault Diagnostics - A Review <b>2019</b> ,		31
102	The Effect of Broken Rotor Bar on the Low Frequency Components in the Axial Stray Flux of Induction Motors <b>2019</b> ,		3
101	A Survey of Multi-Sensor Systems for Online Fault Detection of Electric Machines <b>2019</b> ,		4
100	A Multi-sensor Fusion Scheme for Broken Rotor Bar and Air-gap Eccentricity Detection of Induction Machines <b>2019</b> ,		2
99	Direct Position Control for Ultrahigh-Speed Switched-Reluctance Machines Based on Low-Cost Nonintrusive Reflective Sensors. <i>IEEE Transactions on Industry Applications</i> , <b>2019</b> , 55, 480-489	4.3	21
98	An Enhanced Analytical Calculation of the Phase Inductance of Switched Reluctance Machines. <i>IEEE Transactions on Industry Applications</i> , <b>2019</b> , 55, 1392-1407	4.3	7
97	Analytical Calculation of the Phase Inductance Profile of Switched Reluctance Machines. <i>IEEE Transactions on Energy Conversion</i> , <b>2019</b> , 34, 1149-1163	5.4	7
96	Calculating the Electromagnetic Field and Losses in the End Region of a Large Synchronous Generator Under Different Operating Conditions With 3-D Transient Finite-Element Analysis. <i>IEEE Transactions on Industry Applications</i> , <b>2018</b> , 54, 3281-3293	4.3	14

95	Parametric Study for the Design of the End Region of Large Synchronous Generators Based on Three-Dimensional Transient Finite Element Analysis <b>2018</b> ,		5
94	Analytical Calculation of the Air-gap Flux Density and Magnetizing Inductance of Synchronous Reluctance Machines <b>2018</b> ,		2
93	A fast control-integrated and multiphysics-based multi-objective design optimization of switched reluctance machines <b>2017</b> ,		4
92	A multi-objective analytical design approach of switched reluctance machines with integrated active current profile optimization <b>2017</b> ,		3
91	Performance evaluation and comparison of multi-objective optimization algorithms for the analytical design of switched reluctance machines. <i>CES Transactions on Electrical Machines and Systems</i> , <b>2017</b> , 1, 58-65	2.3	6
90	A survey of electromagnetic Thermal modeling and design optimization of switched reluctance machines <b>2017</b> ,		4
89	Direct position control for ultra-high speed switched reluctance machines based on non-contact optical sensors <b>2017</b> ,		3
88	A novel rotor design for ultra-high speed switched reluctance machines over 1 million rpm <b>2017</b> ,		13
87	Electromagnetic design of an ultra-high speed switched reluctance machine over 1 million rpm <b>2017</b> ,		8
86	Calculating the unsaturated direct and quadrature axes magnetizing inductances of synchronous reluctance machines based on Maxwell's equations and magnetic equivalent circuit <b>2017</b> ,		1
85	An Open-Switch Fault Diagnosis Method for Single-Phase PWM Rectifier Using a Model-Based Approach in High-Speed Railway Electrical Traction Drive System. <i>IEEE Transactions on Power Electronics</i> , <b>2016</b> , 31, 3816-3826	7.2	95
84	Fast and accurate analytical calculation of the unsaturated phase inductance profile of 6/4 switched reluctance machines <b>2016</b> ,		6
83	Design of a Universal Inductive Charger for Multiple Electric Vehicle Models. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 30, 6378-6390	7.2	85
82	Practical Considerations for the Design and Construction of a High-Speed SRM With a Flux-Bridge Rotor. <i>IEEE Transactions on Industry Applications</i> , <b>2015</b> , 51, 4515-4520	4.3	16
81	An improved DC-signal-injection method with active torque-ripple mitigation for thermal monitoring of field-oriented-controlled induction motors <b>2015</b> ,		8
80	A Fast and Generalized Space Vector Modulation Scheme for Multilevel Inverters. <i>IEEE Transactions on Power Electronics</i> , <b>2014</b> , 29, 5204-5217	7.2	70
79	Design of a universal inductive charger for electric vehicles <b>2014</b> ,		3
78	A random forest method for real-time price forecasting in New York electricity market <b>2014</b> ,		19

77	Practical considerations for the design and construction of a high speed SRM with a flux-bridge rotor <b>2014</b> ,		5
76	Random forest based adaptive non-intrusive load identification <b>2014</b> ,		2
75	Nonintrusive, Self-Organizing, and Probabilistic Classification and Identification of Plugged-In Electric Loads. <i>IEEE Transactions on Smart Grid</i> , <b>2013</b> , 4, 1371-1380	10.7	37
74	Incorporating Non-Intrusive Load Monitoring Into Building Level Demand Response. <i>IEEE Transactions on Smart Grid</i> , <b>2013</b> , 4, 1870-1877	10.7	68
73	Online Surge Testing Applied to an Induction Machine With Emulated Insulation Breakdown. <i>IEEE Transactions on Industry Applications</i> , <b>2013</b> , 49, 1358-1366	4.3	14
72	Harmonic and Unbalance Compensation Based on Direct Power Control for Electric Railway Systems. <i>IEEE Transactions on Power Electronics</i> , <b>2013</b> , 28, 5823-5831	7.2	52
71	A study of designing a universal inductive charger for Electric Vehicles <b>2013</b> ,		5
70	Experimental study on the short-circuit contribution of induction machines <b>2013</b> ,		3
69	Improved Sequence Network Model of Wind Turbine Generators for Short-Circuit Studies. <i>IEEE Transactions on Energy Conversion</i> , <b>2012</b> , 27, 968-977	5.4	20
68	Front-End Electronic Circuit Topology Analysis for Model-Driven Classification and Monitoring of Appliance Loads in Smart Buildings. <i>IEEE Transactions on Smart Grid</i> , <b>2012</b> , 3, 2286-2293	10.7	52
67	Switching Strategies for Fault Tolerant Operation of Single DC-link Dual Converters. <i>IEEE Transactions on Power Electronics</i> , <b>2012</b> , 27, 509-518	7.2	38
66	Electronic circuit survey for office load monitoring and identification <b>2012</b> ,		4
65	Support vector machine based methods for non-intrusive identification of miscellaneous electric loads <b>2012</b> ,		13
64	A nonintrusive thermal monitoring method for closed-loop drive-fed induction machines <b>2011</b> ,		5
63	Direct Power Control of a Dual Converter Operating as a Synchronous Rectifier. <i>IEEE Transactions on Power Electronics</i> , <b>2011</b> , 26, 1410-1417	7.2	15
62	A New Concept for Online Surge Testing for the Detection of Winding Insulation Deterioration in Low-Voltage Induction Machines. <i>IEEE Transactions on Industry Applications</i> , <b>2011</b> , 47, 2051-2058	4.3	18
61	Optimal Electromagnetic-Thermo-Mechanical Integrated Design Candidate Search and Selection for Surface-Mount Permanent-Magnet Machines Considering Load Profiles. <i>IEEE Transactions on Industry Applications</i> , <b>2011</b> , 47, 2460-2468	4.3	33
60	An Impedance Identification Approach to Sensitive Detection and Location of Stator Turn-to-Turn Faults in a Closed-Loop Multiple-Motor Drive. <i>IEEE Transactions on Industrial Electronics</i> , <b>2011</b> , 58, 1545-1554	8.9	98

59	Magnetic Effects of DC Signal Injection on Induction Motors for Thermal Evaluation of Stator Windings. <i>IEEE Transactions on Industrial Electronics</i> , <b>2011</b> , 58, 1479-1489	8.9	34
58	Interpolated FFT for real-time detection of belt slip in automotive electric power generation and storage system <b>2011</b> ,		6
57	Experimental emulation of stator turn insulation breakdown during a surge test <b>2011</b> ,		1
56	An analysis and discussion of the voltage and current spectrum of claw-pole alternators for fault detection purposes <b>2011</b> ,		7
55	Sensitivity analysis of the surge test applied to AC machines <b>2011</b> ,		2
54	A new concept for online surge testing for the detection of winding insulation deterioration <b>2010</b> ,		12
53	A review of identification and monitoring methods for electric loads in commercial and residential buildings <b>2010</b> ,		42
52	Autonomous Self-Commissioning Method for Speed-Sensorless-Controlled Induction Machines. <i>IEEE Transactions on Industry Applications</i> , <b>2010</b> , 46, 946-954	4.3	9
51	An Active Stator Temperature Estimation Technique for Thermal Protection of Inverter-Fed Induction Motors With Considerations of Impaired Cooling Detection. <i>IEEE Transactions on Industry Applications</i> , <b>2010</b> , 46, 1873-1881	4.3	24
50	Using PWM-Induced Transient Excitation and Advanced Signal Processing for Zero-Speed Sensorless Control of AC Machines. <i>IEEE Transactions on Industrial Electronics</i> , <b>2010</b> , 57, 365-374	8.9	54
49	A novel gate driving scheme for high power PWM and bypass switches. <i>IEICE Electronics Express</i> , <b>2010</b> , 7, 704-710	0.5	
48	Overhead conductor thermal dynamics identification by using Echo State Networks <b>2009</b> ,		10
47	Design and implementation of power line sensor net for overhead transmission lines <b>2009</b> ,		22
46	A novel cooling condition monitoring method for induction motors based on particle swarm optimization <b>2009</b> ,		1
45	A DC Signal Injection-Based Thermal Protection Scheme for Soft-Starter-Connected Induction Motors. <i>IEEE Transactions on Industry Applications</i> , <b>2009</b> , 45, 1351-1358	4.3	26
44	Assessment of available methods for estimating rotor temperatures of induction motor <b>2009</b> ,		2
43	MLPN based Parameter Estimation to Evaluate Overhead Power Line Dynamic Thermal Rating <b>2009</b> ,		7
42	Condition Monitoring of Power Electronic Circuits Using Artificial Neural Networks. <i>IEEE Transactions on Power Electronics</i> , <b>2009</b> , 24, 2363-2367	7.2	43

41	Incipient Bearing Fault Detection via Motor Stator Current Noise Cancellation Using Wiener Filter. <i>IEEE Transactions on Industry Applications</i> , <b>2009</b> , 45, 1309-1317	4.3	111
40	A new method to detect stator turn-to-turn faults in a closed-loop multiple-motor drive system <b>2009</b> ,		1
39	Optimum Space Vector Computation Technique for Direct Power Control. <i>IEEE Transactions on Power Electronics</i> , <b>2009</b> , 24, 1637-1645	7.2	51
38	An adaptive noise-cancellation method for detecting generalized roughness bearing faults under dynamic load conditions <b>2009</b> ,		1
37	A Remote and Sensorless Thermal Protection Scheme for Soft-Starter-Connected Induction Motors <b>2008</b> ,		8
36	A Sensorless Adaptive Stator Winding Temperature Estimator for Mains-Fed Induction Machines With Continuous-Operation Periodic Duty Cycles. <i>IEEE Transactions on Industry Applications</i> , <b>2008</b> , 44, 1533-1542	4.3	20
35	A Nonintrusive and In-Service Motor-Efficiency Estimation Method Using Air-Gap Torque With Considerations of Condition Monitoring. <i>IEEE Transactions on Industry Applications</i> , <b>2008</b> , 44, 1666-1674	4.3	69
34	Nonstationary Motor Fault Detection Using Recent Quadratic Time-Frequency Representations. <i>IEEE Transactions on Industry Applications</i> , <b>2008</b> , 44, 735-744	4.3	94
33	A Sensorless Rotor Temperature Estimator for Induction Machines Based on a Current Harmonic Spectral Estimation Scheme. <i>IEEE Transactions on Industrial Electronics</i> , <b>2008</b> , 55, 407-416	8.9	52
32	A Survey on Testing and Monitoring Methods for Stator Insulation Systems of Low-Voltage Induction Machines Focusing on Turn Insulation Problems. <i>IEEE Transactions on Industrial Electronics</i> , <b>2008</b> , 55, 4127-4136	8.9	267
31	Bearing Fault Detection Via Stator Current Noise Cancellation and Statistical Control. <i>IEEE Transactions on Industrial Electronics</i> , <b>2008</b> , 55, 4260-4269	8.9	110
30	A Model Reduction Perspective on Thermal Models for Induction Machine Overload Relays. <i>IEEE Transactions on Industrial Electronics</i> , <b>2008</b> , 55, 3525-3534	8.9	41
29	A Remote and Sensorless Stator Winding Resistance Estimation Method for Thermal Protection of Soft-Starter-Connected Induction Machines. <i>IEEE Transactions on Industrial Electronics</i> , <b>2008</b> , 55, 3611-3618	8.9	55
28	Practical implementation of a remote and sensorless stator resistance-based thermal protection method <b>2008</b> ,		4
27	Methods for thermal protection of medium voltage induction motors [A review] <b>2008</b> ,		4
26	Current-based condition monitoring of electrical machines in safety critical applications <b>2008</b> ,		7
25	A Review of Separating Mechanical Load Effects from Rotor Faults Detection in Induction Motors <b>2007</b> ,		15
24	Non-Intrusive Efficiency Determination of In-Service Induction Motors using Genetic Algorithm and Air-Gap Torque Methods. <i>Conference Record - IAS Annual Meeting (IEEE Industry Applications Society)</i> , <b>2007</b> ,		3

23	Real-Time Condition Monitoring of the Electrolytic Capacitors for Power Electronics Applications. <i>IEEE Applied Power Electronics Conference and Exposition, 2007,</i>		57
22	Error Analysis of Motor-Efficiency Estimation and Measurement <b>2007,</b>		14
21	Incipient Bearing Fault Detection via Stator Current Noise Cancellation using Wiener Filter <b>2007,</b>		7
20	Analytic-Wavelet-Ridge-Based Detection of Dynamic Eccentricity in Brushless Direct Current (BLDC) Motors Functioning Under Dynamic Operating Conditions. <i>IEEE Industrial Electronics Magazine, 2007, 54, 1410-1419</i>	6.2	96
19	Bearing Condition Monitoring Methods for Electric Machines: A General Review <b>2007,</b>		79
18	Current-based motor condition monitoring: Complete protection of induction and PM machines <b>2007,</b>		5
17	A Voltage Sag Supporter Utilizing a PWM-Switched Autotransformer. <i>IEEE Transactions on Power Electronics, 2007, 22, 626-635</i>	7.2	53
16	Electrolytic Capacitor Failure Mechanism Due to Inrush Current. <i>Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007,</i>		3
15	Design of a Portable Hand Crank Generating System to Power Remote Off-Grid Communities <b>2007,</b>		4
14	A Survey of Methods for Detection of Stator-Related Faults in Induction Machines. <i>IEEE Transactions on Industry Applications, 2007, 43, 920-933</i>	4.3	185
13	Stator Current-Based Bearing Fault Detection Techniques: A General Review <b>2007,</b>		31
12	Dynamic Eccentricity and Demagnetized Rotor Magnet Detection in Trapezoidal Flux (Brushless DC) Motors Operating Under Different Load Conditions. <i>IEEE Transactions on Power Electronics, 2007, 22, 2061-2069</i>	7.2	104
11	A Nonintrusive Induction Motor Stator Resistance Estimation Method using a Soft-Starter <b>2007,</b>		5
10	A Reliable Rotor Eccentricity Detection Scheme for Induction Machines in the Presence of a Position Dependent Load Torque Oscillation <b>2007,</b>		4
9	Simplified Control Structure for Current Control of Single Phase Rectifiers Using COT-ANN-PWM. <i>Neural Networks (IJCNN), International Joint Conference on, 2007,</i>		11
8	Eliminating Load Oscillation Effects for Rotor Eccentricity Detection in Closed-Loop Drive-Connected Induction Motors. <i>IEEE Transactions on Power Electronics, 2007, 22, 1543-1551</i>	7.2	45
7	Current-Based Condition Monitoring and Fault Tolerant Operation for Electric Machines in Automotive Applications <b>2007,</b>		3
6	Detection of Rotor Faults in Brushless DC Motors Operating Under Nonstationary Conditions. <i>IEEE Transactions on Industry Applications, 2006, 42, 1464-1477</i>	4.3	96

5	Current/Voltage-Based Detection of Faults in Gears Coupled to Electric Motors. <i>IEEE Transactions on Industry Applications</i> , <b>2006</b> , 42, 1412-1420	4-3	38
4	Analysis, simulation, and experiments of rotor eccentricity in closed-loop drive-connected induction motors <b>2005</b> ,		2
3	A novel online rotor temperature estimator for induction machines based on a cascading motor parameter estimation scheme <b>2005</b> ,		3
2	A stator turn fault tolerant strategy for induction motor drives in safety critical applications		2
1	Modeling, Implementing and Evaluating of an Advanced Dual Axis Heliostat Drive System. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> ,1-20	2-3	2