Guillermo R Bossio

List of Publications by Year
in descending order

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109 papers	1,765 citations	394421 19 h-index	315739 38 g-index
109 all docs	109 docs citations	109 times ranked	1334 citing authors

#	Article	IF	Citations
1	Optimization of power management in an hybrid electric vehicle using dynamic programming. Mathematics and Computers in Simulation, 2006, 73, 244-254.	4.4	280
2	A Model-Based Strategy for Interturn Short-Circuit Fault Diagnosis in PMSM. IEEE Transactions on Industrial Electronics, 2017, 64, 7218-7228.	7.9	133
3	Online Model-Based Stator-Fault Detection and Identification in Induction Motors. IEEE Transactions on Industrial Electronics, 2009, 56, 4671-4680.	7.9	131
4	A 2-D Model of the Induction Machine: An Extension of the Modified Winding Function Approach. IEEE Transactions on Energy Conversion, 2004, 19, 144-150.	5.2	85
5	Separating Broken Rotor Bars and Load Oscillations on IM Fault Diagnosis Through the Instantaneous Active and Reactive Currents. IEEE Transactions on Industrial Electronics, 2009, 56, 4571-4580.	7.9	81
6	Misalignment detection in induction motors with flexible coupling by means of estimated torque analysis and MCSA. Mechanical Systems and Signal Processing, 2016, 80, 570-581.	8.0	70
7	Fault diagnosis scheme for openâ€circuit faults in fieldâ€oriented control induction motor drives. IET Power Electronics, 2013, 6, 869-877.	2.1	68
8	Rotor demagnetization effects on permanent magnet synchronous machines. Energy Conversion and Management, 2013, 74, 1-8.	9.2	46
9	Voltage unbalance and harmonic distortion effects on induction motor power, torque and vibrations. Electric Power Systems Research, 2016, 140, 866-873.	3.6	46
10	Mechanical sensorless speed control of permanent-magnet AC motors driving an unknown load. IEEE Transactions on Industrial Electronics, 2006, 53, 406-414.	7.9	44
11	Effects of Rotor Bar and End-Ring Faults Over the Signals of a Position Estimation Strategy for Induction Motors. IEEE Transactions on Industry Applications, 2005, 41, 1005-1012.	4.9	42
12	Discriminating broken rotor bar from oscillating load effects using the instantaneous active and reactive powers. IET Electric Power Applications, 2010, 4, 281.	1.8	37
13	Analysis of voltage unbalance effects on induction motors with open and closed slots. Energy Conversion and Management, 2011, 52, 2024-2030.	9.2	35
14	Detecting Broken Rotor Bars With Zero-Setting Protection. IEEE Transactions on Industry Applications, 2014, 50, 1373-1384.	4.9	35
15	High-Resistance Connection Detection in Induction Motor Drives Using Signal Injection. IEEE Transactions on Industrial Electronics, 2014, 61, 3563-3573.	7.9	33
16	Application of an Additional Excitation in Inverter-Fed Induction Motors for Air-Gap Eccentricity Diagnosis. IEEE Transactions on Energy Conversion, 2006, 21, 839-847.	5.2	31
17	Angular misalignment in induction motors with flexible coupling. , 2009, , .		30
18	A Rotor Position and Speed Observer for Permanent-Magnet Motors With Nonsinusoidal EMF Waveform. IEEE Transactions on Industrial Electronics, 2005, 52, 807-813.	7.9	24

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19	Online Voltage Sensorless High-Resistance Connection Diagnosis in Induction Motor Drives. IEEE Transactions on Industrial Electronics, 2015, 62, 4374-4384.	7.9	23
20	Open- and Short-Circuit Fault Identification for a Boost dc/dc Converter in PV MPPT Systems. Energies, 2018, 11, 616.	3.1	23
21	Efficiency optimization in small induction motors using magnetic slot wedges. Electric Power Systems Research, 2017, 152, 1-8.	3.6	18
22	Broken bar detection in single-phase reciprocating compressors. , 2008, , .		16
23	Self-organizing map approach for classification of mechanical and rotor faults on induction motors. Neural Computing and Applications, 2013, 23, 41-51.	5.6	16
24	Stator winding fault detection in induction motor drives using signal injection. , 2011, , .		15
25	Model Based Stator Fault Detection in Induction Motors. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	14
26	Effects of voltage unbalance on IM power, torque and vibrations. , 2009, , .		14
27	A PLL-based resampling technique for vibration analysis in variable-speed wind turbines with PMSG: A bearing fault case. Mechanical Systems and Signal Processing, 2017, 85, 354-366.	8.0	14
28	Derating of Induction Motors Due to Power Quality Issues Considering the Motor Efficiency Class. IEEE Transactions on Industry Applications, 2020, 56, 961-969.	4.9	14
29	Evaluation of harmonic current sidebands for broken bar diagnosis in induction motors. , 2009, , .		13
30	Effects of partial rotor demagnetization on permanent magnet synchronous machines. , 2010, , .		13
31	Model for three-phase induction motors with stator core faults. IET Electric Power Applications, 2010, 4, 591.	1.8	12
32	Active Broken Rotor Bar Diagnosis in Induction Motor Drives. IEEE Transactions on Industrial Electronics, 2021, 68, 7556-7566.	7.9	12
33	A new approach to the Park's vector for broken bars and load oscillation diagnosis on IM. , 2010, , .		11
34	Fault detection in gear box with induction motors: an experimental study. IEEE Latin America Transactions, 2016, 14, 2726-2731.	1.6	11
35	Experimental generation and quantification of stator core faults on induction motors. , 2009, , .		10
36	Induction motor saliencies analysis using zero-sequence signal injection. , 2015, , .		10

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37	A strategy for broken bars diagnosis in induction motors drives. IEEE Latin America Transactions, 2018, 16, 322-328.	1.6	10
38	Fault diagnosis on induction motors using Self-Organizing Maps. , 2010, , .		9
39	A Model For Permanent Magnet Synchronous Machines With Demagnetization Faults. IEEE Latin America Transactions, 2013, 11, 414-420.	1.6	9
40	Winding distribution effects on induction motor rotor fault diagnosis. Mechatronics, 2014, 24, 1050-1058.	3.3	9
41	SVM-Based System for Broken Rotor Bar Detection in Induction Motors. , 2018, , .		9
42	Rotor fault diagnosis in permanent magnet synchronous machine using the midpoint voltage of windings. IET Electric Power Applications, 2020, 14, 256-261.	1.8	9
43	Interturn shortâ€circuit fault diagnosis in PMSM with partitioned stator windings. IET Electric Power Applications, 2020, 14, 2301-2311.	1.8	9
44	A 2D-model of the induction motor: an extension of the modified winding function approach. , 0, , .		8
45	Speed control of PMSMs with Interconnection and Damping Assignment or Feedback Linearization. Comments about their performance. , 2006, , .		8
46	Stator core faults detection on induction motor drives using signal injection. , 2011, , .		8
47	Fault detection in magnetic wedges of induction motor. , 2015, , .		8
48	Speed Estimation During the Starting Transient of Induction Motors. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	8
49	Sensorless speed control of permanent magnet motors with torque ripple minimization. , 0, , .		7
50	Bearing Fault Detection in Wind Turbines with Permanent Magnet Synchronous Machines. IEEE Latin America Transactions, 2014, 12, 1199-1205.	1.6	7
51	Broken rotor bars detection in induction motor by using zero-sequence signal injection. , 2016, , .		7
52	Analysis of a position estimation strategy using a multiple-coupled circuits model of the induction motor. , 0, , .		6
53	Efectos del cortocircuito entre espiras en máquinas síncronas de imanes permanentes. , 2014, , .		6
54	Model-based Fault Detection and Isolation in a MPPT BOOST converter for photovoltaic systems. , 2016, , .		6

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55	Alternative Approach to Improving Efficiency Level in Small Induction Motors. IEEE Latin America Transactions, 2018, 16, 2138-2144.	1.6	6
56	Effects of rotor bar and end-ring faults over the signals of a position estimation strategy for induction motors. , 0, , .		5
57	On-line iron loss resistance identification by a state observer for rotor-flux-oriented control of induction motor. Energy Conversion and Management, 2008, 49, 2742-2747.	9.2	5
58	On-Line Diagnosis of High-Resistance Connection for Inverter Fed Induction Motors. , 2014, , .		5
59	Detección y diagnóstico de problemas de desmagnetización y desbalance mecánico en máquinas síncronas de imanes permanentes. , 2014, , .		5
60	Impact of Voltage Waveform on the Losses and Performance of Energy Efficiency Induction Motors. , 2018, , .		5
61	Derating of Induction Motors due to Power Quality Issues Considering the Motor Efficiency Class. , 2019, , .		5
62	A rotor position and speed observer for permanent magnet motors with nonsinusoidal EMF waveform. , 0, , .		4
63	Sensorless speed control of permanent-magnet motors with nonsinusoidal EMF waveform. IET Electric Power Applications, 2005, 152, 1119.	1.4	4
64	Multi-domain modeling of electric traction drives using Bond Graphs: Application to fault diagnosis. , 2009, , .		4
65	WAVELET ANALYSIS FOR STATOR FAULT DETECTION IN INDUCTION MACHINES. International Journal of Wavelets, Multiresolution and Information Processing, 2011, 09, 361-374.	1.3	4
66	Detecting broken rotor bars with zero-setting protection. , 2012, , .		4
67	A strategy for interturn short-circuit fault detection in PMSM with partitioned stator windings. , 2017, , .		4
68	Stator interâ€turn faults diagnosis in induction motors using zeroâ€sequence signal injection. IET Electric Power Applications, 2020, 14, 2731-2738.	1.8	4
69	Loss minimization in DC motor drives. , 0, , .		3
70	Stator core fault diagnosis for induction motors based on parameters adaptation. , 2009, , .		3
71	Analysis and validation of a dynamic model for PMSM with stator fault. , 2015, , .		3
72	Fault diagnosis in induction motors using self-organizing neural networks and quantization error. , 2017, , .		3

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73	A Speed Estimation Strategy for Wound Rotor Induction Motor. , 2018, , .		3
74	A speed self-sensing method in starting of induction motors. , 2019, , .		3
75	Stator Faults Detection on Induction Motors Using Harmonic Sequence Current Components Analysis. IEEE Latin America Transactions, 2021, 19, 726-734.	1.6	3
76	Sensorless speed control of permanent magnet motors driving an unknown load. , 0, , .		2
77	Relaxed Fault Conditions for Stator Short-Circuit Fault Isolation in Induction Motors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1400-1405.	0.4	2
78	A new strategy for detection and isolation of stator faults in PMSM. , 2015, , .		2
79	Steady-State Induction Machine Model with Turn Faults and Voltage Harmonics. , 2018, , .		2
80	Inter-turn faults detection in Induction Motor drives using zero-sequence signal injection. , 2018, , .		2
81	Design of a wind turbine generator for rural applications. IET Electric Power Applications, 2019, 13, 379-384.	1.8	2
82	A Fault Detection Technique For Variable-speed Wind Turbines Using Vibrations And Electrical Measurements. EletrÃ´nica De PotÃªncia, 2014, 19, 386-396.	0.1	2
83	Application of an additional excitation in inverter-fed induction motors for air-gap eccentricity diagnosis. , 0, , .		1
84	Una estrategia basada en modelos para el diagnÃ³stico de fallas en el estator del motor de inducciÃ³n. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2007, 4, 107-115.	1.0	1
85	Modeling of electromagnetic devices using bond graph: An application to faults in AC machines. , 2010, , .		1
86	Multi-domain model of stator core faults using Bond Graph. , 2011, , .		1
87	Multi-Domain Modeling of Induction Motor with Stator Winding Turn-Faults. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1382-1387.	0.4	1
88	Multi-domain model of induction motor with stator core faults. , 2012, , .		1
89	Fault detection for variable-speed wind turbines using vibrations and electrical measurements. , 2013, , .		1
90	Effects of negative sequence voltage on the core losses of induction motors. , 2016, , .		1

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91	Effects of Stator Winding Interturn Short-Circuit Faults of the IM by Using Intantaneous Power Theory. , 2018, , .		1
92	Fault Detection in Starter Resistor of Large Wound Rotor Induction Motor: a Case Study. , 2019, , .		1
93	Comparison of Online Techniques for the Detection of Inter-Turn Short-Circuits in Transformers. , 2021, , .		1
94	Diagnosis of induction motor faults using the full spectrum of direct and quadrature currents. , 2021, , .		1
95	Vibration Magnitude Analysis on Induction Motors of Different Efficiency Classes Due to Voltage Unbalance. , 2022, , .		1
96	Winding Distribution Effects on Induction Motor Rotor Fault Diagnosis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1376-1381.	0.4	0
97	A Model for Single-Point Bearings Defects in Electric Motors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1370-1375.	0.4	0
98	Stator Winding Fault Detection Using High Frequency Signal Injection for Induction Motors with Closed Rotor Slots. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1388-1393.	0.4	0
99	Calculation of electric machine inductances based on its magnetic equivalent circuit. , 2015, , .		0
100	Inductance calculation for electric machines with semi-closed slots. , 2015, , .		0
101	Calculation of electric machine inductances using a geometric approach. , 2015, , .		0
102	OptimizaciÃ³n de la eficiencia en motores de inducciÃ³n de ranuras semiabiertas mediante empleo de cuÃ±as magnÃ©ticas. , 2016, , .		0
103	Una estrategia basada en modelo de seÃ±al para el diagnÃ³stico de cortocircuitos entre espiras en MSIP. , 2016, , .		0
104	Modelo de rÃ©gimen permanente del MI para el anÃ¡lisis de asimetrÃas en el rotor. , 2016, , .		0
105	DetecciÃ³n de fallas en barras de un motor de inducciÃ³n utilizando inyecciÃ³n de seÃ±ales de secuencia cero. , 2016, , .		0
106	Multi-Domain Model of Faulty Stator Core for Thermal Effects and Losses Evaluation. Electric Power Components and Systems, 2018, 46, 187-196.	1.8	0
107	Faults detection in stator windings of induction motors based on signal injection. , 2018, , .		0
108	SynRM saliencies evaluation for rotor position estimation. , 2020, , .		0

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109	Detection of broken rotor bars and eccentricity during the starting transient of three-phase induction motors. , 2021, , .		0