Jose J Rangel-Magdaleno

List of Publications by Year
in descending order

101 papers	2,207 citations	257357 24 h-index	254106 43 g-index
101 all docs	101 docs citations	101 times ranked	1751 citing authors

#	Article	IF	Citations
1	Diagnostic of Combined Mechanical and Electrical Faults in ASD-Powered Induction Motor Using MODWT and a Lightweight 1-D CNN. IEEE Transactions on Industrial Informatics, 2022, 18, 4688-4697.	7.2	28
2	Noise Reduction in Electrical Signal Using OMP Algorithm Based on DCT and DSC Dictionaries. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	2.4	1
3	Bearing Fault Detection in ASD-Powered Induction Machine Using MODWT and Image Edge Detection. IEEE Access, 2022, 10, 24181-24193.	2.6	7
4	Induction Machine Bearing Fault Detection Using Empirical Wavelet Transform. Shock and Vibration, 2022, 2022, 1-12.	0.3	3
5	Single-Pixel Near-Infrared 3D Image Reconstruction in Outdoor Conditions. Micromachines, 2022, 13, 795.	1.4	6
6	Cataract Detection and Classification Systems Using Computational Intelligence: A Survey. Archives of Computational Methods in Engineering, 2021, 28, 1761-1774.	6.0	5
7	Localization of blood vessels in in-vitro LSCI images with K-means. , 2021, , .		4
8	Visualization of blood vessels in in vitro raw speckle images using an energy-based on DWT coefficients. Biomedical Signal Processing and Control, 2021, 69, 102892.	3.5	1
9	Induction Machines Fault Detection: An Overview. IEEE Instrumentation and Measurement Magazine, 2021, 24, 63-71.	1.2	12
10	Bearing Fault Detection in Adjustable Speed Drive-Powered Induction Machine by Using Motor Current Signature Analysis and Goodness-of-Fit Tests. IEEE Transactions on Industrial Informatics, 2021, 17, 8265-8274.	7.2	24
11	Multiclass Incremental Learning for Fault Diagnosis in Induction Motors Using Fine-Tuning with a Memory of Exemplars and Nearest Centroid Classifier. Shock and Vibration, 2021, 2021, 1-12.	0.3	1
12	Single-pixel imaging: An overview of different methods to be used for 3D space reconstruction in harsh environments. Review of Scientific Instruments, 2021, 92, 111501.	0.6	19
13	ECG-Based Identification of Sudden Cardiac Death through Sparse Representations. Sensors, 2021, 21, 7666.	2.1	3
14	Fabrication of Microbolometer Arrays Based on Polymorphous Silicon–Germanium. Sensors, 2020, 20, 2716.	2.1	15
15	Deep Learning Classification for Diabetic Foot Thermograms. Sensors, 2020, 20, 1762.	2.1	73
16	Hardware parallel architecture proposed to accelerate the orthogonal matching pursuit compressive sensing reconstruction. , 2020, , .		4
17	Towards a 3D Vision System based on Single-Pixel imaging and indirect Time-of-Flight for drone applications. , 2020, , .		2
18	Plantar Thermogram Database for the Study of Diabetic Foot Complications. IEEE Access, 2019, 7, 161296-161307.	2.6	41

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19	On maximizing the positive Lyapunov exponent of chaotic oscillators applying DE and PSO. International Journal of Dynamics and Control, 2019, 7, 1157-1172.	1.5	6
20	Modified model predictive torque control for a PMSMâ€drive with torque ripple minimisation. IET Power Electronics, 2019, 12, 1033-1042.	1.5	26
21	Statistical Approximation of Plantar Temperature Distribution on Diabetic Subjects Based on Beta Mixture Model. IEEE Access, 2019, 7, 28383-28391.	2.6	9
22	An Approach on MCSA-Based Fault Detection Using Independent Component Analysis and Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 1353-1361.	2.4	91
23	FPGA Implementation of Chaotic Oscillators, Their Synchronization, and Application to Secure Communications. , 2019, , 301-328.		6
24	On the synchronization techniques of chaotic oscillators and their FPGA-based implementation for secure image transmission. PLoS ONE, 2019, 14, e0209618.	1.1	34
25	Comparison of Induction Machine Bearing Fault Detection Methods using MCSA, SA and GoFT. , 2019, , .		2
26	First performance evaluation of MexSiC - a readout ASIC for analog SiPM based Cherenkov detectors. , 2019, , .		0
27	Bearing Fault Detection Technique by using Thermal Images: A case of Study. , 2019, , .		7
28	Surrogate modeling based on granular models and fuzzy aptitude functions. Applied Soft Computing Journal, 2018, 65, 21-32.	4.1	2
29	Incipient Broken Rotor Bar Detection in Induction Motors Using Vibration Signals and the Orthogonal Matching Pursuit Algorithm. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2058-2068.	2.4	59
30	FPGA-in-the-loop simulation of a grid-connected photovoltaic system by using a predictive control. Electrical Engineering, 2018, 100, 1327-1337.	1.2	14
31	HIL simulation of the DTC for a three-level inverter fed a PMSM with neutral-point balancing control based on FPGA. Electrical Engineering, 2018, 100, 1441-1454.	1.2	8
32	A Comparison on Finite-Set Model Predictive Torque Control Schemes for PMSMs. IEEE Transactions on Power Electronics, 2018, 33, 8838-8847.	5.4	66
33	Detection of unbalanced blade on UAV by means of audio signal. , 2018, , .		14
34	Technique for Signal Noise Reduction based on Sparse Representation. , 2018, , .		4
35	Similarity Measures to identify changes in Plantar Temperature Distribution in Diabetic Subjects. , 2018, , .		3
36	Homogeneity-PMU-Based Method for Detection and Classification of Power Quality Disturbances. Electronics (Switzerland), 2018, 7, 433.	1.8	7

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37	Real Time Monitoring of 3 Axis Accelerometer using an FPGA Zynq®-7000 and Embedded Linux through Ethernet. , 2018, , .		1
38	Bearing fault detection in induction motors using MCSA and statistical analysis. , 2018, , .		13
39	Induction motors fault detection using independent component analysis on phase current signals. , 2018, , .		4
40	SOM-Like Neural Network and Differential Evolution for Multi-level Image Segmentation and Classification in Slit-Lamp Images. Communications in Computer and Information Science, 2018, , 26-37.	0.4	2
41	A quantitative index for classification of plantar thermal changes in the diabetic foot. Infrared Physics and Technology, 2017, 81, 242-249.	1.3	37
42	Hilbert spectrum analysis of induction motors for the detection of incipient broken rotor bars. Measurement: Journal of the International Measurement Confederation, 2017, 109, 247-255.	2.5	57
43	Use of kurtosis for locating deep blood vessels in raw speckle imaging using a homogeneity representation. Journal of Biomedical Optics, 2017, 22, 066004.	1.4	15
44	Prediction of chaotic time-series with different MLE values using FPGA-based ANNs. , 2017, , .		2
45	Measuring changes in the plantar temperature distribution in diabetic patients. , 2017, , .		9
46	FPGA-based broken bar detection on IM using OMP algorithm. , 2017, , .		7
47	Automatic progressive damage detection of rotor bar in induction motor using vibration analysis and multiple classifiers. Journal of Mechanical Science and Technology, 2017, 31, 2651-2662.	0.7	16
48	Arduino-based chaotic secure communication system using multi-directional multi-scroll chaotic oscillators. Nonlinear Dynamics, 2017, 87, 2203-2217.	2.7	83
49	Automatic stellar spectral classification with multiple intelligent classifiers. , 2017, , .		1
50	EEG motor imagery signals classification using maximum overlap wavelet transform and support vector machine. , 2017, , .		2
51	Improved grid-photovoltaic system based on variable-step MPPT, predictive control, and active/reactive control. IEEE Latin America Transactions, 2017, 15, 2064-2070.	1.2	10
52	Keeping a moving target within the field of view of a Drone's onboard camera via stochastic estimation. , 2017, , .		3
53	Half-broken rotor bar detection on IM by using sparse representation under different load conditions. , 2017, , .		4
54	Half-broken bar detection using MCSA and statistical analysis. , 2017, , .		3

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55	Robust laser speckle contrast images suitable for blood vessel visualization. , 2017, , .		0
56	Spectral Characterization of Content Level Based on Acoustic Resonance: Neural Network and Feedforward Fuzzy Net Approaches. Studies in Computational Intelligence, 2017, , 207-224.	0.7	0
57	VHDL Descriptions for the FPGA Implementation of PWL-Function-Based Multi-Scroll Chaotic Oscillators. PLoS ONE, 2016, 11, e0168300.	1.1	24
58	Vibration Analysis of Partially Damaged Rotor Bar in Induction Motor under Different Load Condition Using DWT. Shock and Vibration, 2016, 2016, 1-11.	0.3	30
59	Genetic algorithms based on a granular surrogate model and fuzzy aptitude functions. , 2016, , .		7
60	FPGA implementation of Orthogonal Matching Pursuit algorithm. , 2016, , .		3
61	Engineering Applications of FPGAs. , 2016, , .		31
62	Generating a 50-scroll chaotic attractor at 66ÂMHz by using FPGAs. Nonlinear Dynamics, 2016, 85, 2143-2157.	2.7	89
63	Narrative review: Diabetic foot and infrared thermography. Infrared Physics and Technology, 2016, 78, 105-117.	1.3	62
64	Simulink/PSim/Active-HDL co-simulation of passivity-based speed control of PMSM. , 2016, , .		2
65	Digital simulation of a predictive current control for photovoltaic system based on the MPPT strategy. , 2016, , .		11
66	Intelligent identification of induction motor conditions at several mechanical loads. , 2016, , .		7
67	Implementation of direct torque control for a PM synchronous machine based on FPGA. , 2016, , .		3
68	A Smart Switch to Connect and Disconnect Electrical Devices at Home by Using Internet. IEEE Latin America Transactions, 2016, 14, 1575-1581.	1.2	8
69	MATLAB and FPGAâ€based interactive tool for exploring concepts on compressed sensing. Computer Applications in Engineering Education, 2015, 23, 921-930.	2.2	3
70	Simulation of the predictive direct torque control for a PM synchronous machine. , 2015, , .		0
71	FPGA-based delay compensation on model predictive control for a PM synchronous machine. , 2015, , .		0
72	Control algorithm using trajectory-based MPC for MPPT application. , 2015, , .		1

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73	FPGA realization of multi-scroll chaotic oscillators. Communications in Nonlinear Science and Numerical Simulation, 2015, 27, 66-80.	1.7	180
74	Parameter Identification of PMSMs Using Experimental Measurements and a PSO Algorithm. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2146-2154.	2.4	68
75	Automatic classification of thermal patterns in diabetic foot based on morphological pattern spectrum. Infrared Physics and Technology, 2015, 73, 149-157.	1.3	36
76	Evaluation of thermal patterns and distribution applied to the study of diabetic foot. , 2015, , .		11
77	FPGA realization of a chaotic communication system applied to image processing. Nonlinear Dynamics, 2015, 82, 1879-1892.	2.7	111
78	Empirical Mode Decomposition Analysis for Broken-Bar Detection on Squirrel Cage Induction Motors. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 1118-1128.	2.4	93
79	Simulink-HDL cosimulation of direct torque control of a PM synchronous machine based FPGA. , 2014, , .		5
80	Quantitative Estimation of Temperature Variations in Plantar Angiosomes: A Study Case for Diabetic Foot. Computational and Mathematical Methods in Medicine, 2014, 2014, 1-10.	0.7	55
81	FPGA-based matrix inversion using an iterative Chebyshev-type method in the context of compressed sensing. , 2014, , .		5
82	Broken bar detection on squirrel cage induction motors with MCSA and EMD. , 2014, , .		9
83	FPGA-Based Broken Bars Detection on Induction Motors Under Different Load Using Motor Current Signature Analysis and Mathematical Morphology. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 1032-1040.	2.4	70
84	Identification of Epilepsy Seizures Using Multi-resolution Analysis and Artificial Neural Networks. Studies in Computational Intelligence, 2014, , 337-351.	0.7	4
85	Step Length Estimation and Activity Detection in a PDR System Based on a Fuzzy Model with Inertial Sensors. Studies in Computational Intelligence, 2014, , 631-645.	0.7	1
86	FPGAâ€Matlabâ€based open core for threeâ€time controllers in automatic control applications. Computer Applications in Engineering Education, 2013, 21, E132.	2.2	13
87	Broken bars detection on induction motor using MCSA and mathematical morphology: An experimental study. , 2013, , .		20
88	Thermal image processing for quantitative determination of temperature variations in plantar angiosomes. , 2013, , .		13
89	Modeling a biped robot on Matlab/SimMechanics. , 2013, , .		3
90	Automatic grain size determination in microstructures using image processing. Measurement: Journal of the International Measurement Confederation, 2013, 46, 249-258.	2.5	59

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91	Parameter Identification of a Permanent Magnet Synchronous Machine based on Current Decay Test and Particle Swarm Optimization. IEEE Latin America Transactions, 2013, 11, 1176-1181.	1.2	17
92	Gyroscope-Driven Mouse Pointer with an EMOTIVÂ® EEG Headset and Data Analysis Based on Empirical Mode Decomposition. Sensors, 2013, 13, 10561-10583.	2.1	20
93	FPGA Open Architecture Design for a VGA Driver. Procedia Technology, 2012, 3, 324-333.	1.1	4
94	An Open-Access Educational Tool for Teaching Motion Dynamics in Multi-Axis Servomotor Control. IEEE Transactions on Education, 2012, 55, 218-225.	2.0	3
95	Startup current analysis of incipient broken rotor bar in induction motors using high-resolution spectral analysis. , 2011, , .		33
96	FPGA-Based Multiple-Channel Vibration Analyzer for Industrial Applications in Induction Motor Failure Detection. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 63-72.	2.4	64
97	FPGA-Based Vibration Analyzer for Continuous CNC Machinery Monitoring With Fused FFT-DWT Signal Processing. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 3184-3194.	2.4	34
98	Novel Oversampling Technique for Improving Signal-to-Quantization Noise Ratio on Accelerometer-Based Smart Jerk Sensors in CNC Applications. Sensors, 2009, 9, 3767-3789.	2.1	22
99	Novel Methodology for Online Half-Broken-Bar Detection on Induction Motors. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 1690-1698.	2.4	85
100	A Real-Time FPGA Based Platform for Applications in Mechatronics. , 2008, , .		5
101	FPGA Implementation of a Novel Algorithm for on-line Bar Breakage Detection on Induction Motors. , 2008, , .		7