Roque Alfredo Osornio-Rios

List of Publications by Year
in descending order

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184 papers	4,263 citations	145106 33 h-index	169272 56 g-index
186 all docs	186 docs citations	186 times ranked	3790 citing authors

#	Article	IF	Citations
1	Cutting Tool Wear Monitoring in CNC Machines Based in Spindle-Motor Stray Flux Signals. IEEE Transactions on Industrial Informatics, 2022, 18, 3267-3275.	7.2	20
2	Tracking of High-Order Stray-Flux Harmonics Under Starting for the Detection of Winding Asymmetries in Wound-Rotor Induction Motors. IEEE Transactions on Industrial Electronics, 2022, 69, 8463-8471.	5.2	6
3	Magnetic Flux Analysis for the Condition Monitoring of Electric Machines: A Review. IEEE Transactions on Industrial Informatics, 2022, 18, 2895-2908.	7.2	47
4	Smart Sensor for Fault Detection in Induction Motors Based on the Combined Analysis of Stray-Flux and Current Signals: A Flexible, Robust Approach. IEEE Industry Applications Magazine, 2022, 28, 56-66.	0.3	19
5	Virtual Reality Training Application for the Condition-Based Maintenance of Induction Motors. Applied Sciences (Switzerland), 2022, 12, 414.	1.3	13
6	Power Quality Monitoring Strategy Based on an Optimized Multi-Domain Feature Selection for the Detection and Classification of Disturbances in Wind Generators. Electronics (Switzerland), 2022, 11, 287.	1.8	7
7	Current and Stray Flux Combined Analysis for the Automatic Detection of Rotor Faults in Soft-Started Induction Motors. Energies, 2022, 15, 2511.	1.6	8
8	Spectral Kurtosis Based Methodology for the Identification of Stationary Load Signatures in Electrical Signals from a Sustainable Building. Energies, 2022, 15, 2373.	1.6	2
9	Advances in Power Quality Analysis Techniques for Electrical Machines and Drives: A Review. Energies, 2022, 15, 1909.	1.6	12
10	Detection of Uniform Gearbox Wear in Induction Motors Based on the Analysis of Stray Flux Signals Through Statistical Time-Domain Features and Dimensionality Reduction Techniques. IEEE Transactions on Industry Applications, 2022, 58, 4648-4656.	3.3	4
11	Fault detection and classification in kinematic chains by means of PCA extraction-reduction of features from thermographic images. Measurement: Journal of the International Measurement Confederation, 2022, 197, 111340.	2.5	11
12	Tuning the hygro-mechanical response of paper-based systems using glycerol. Journal of Intelligent Material Systems and Structures, 2021, 32, 1116-1127.	1.4	0
13	Methodology for Power Quality Measurement Synchronization Based on GPS Pulse-Per-Second Algorithm. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	6
14	An Approach for Shadow Detection in Aerial Images Based on Multi-Channel Statistics. IEEE Access, 2021, 9, 34240-34250.	2.6	13
15	A Novel Deep Learning-Based Diagnosis Method Applied to Power Quality Disturbances. Energies, 2021, 14, 2839.	1.6	17
16	Condition monitoring strategy based on an optimized selection of high-dimensional set of hybrid features to diagnose and detect multiple and combined faults in an induction motor. Measurement: Journal of the International Measurement Confederation, 2021, 178, 109404.	2.5	17
17	Power Quality Disturbance Tracking Based on a Proprietary FPGA Sensor with GPS Synchronization. Sensors, 2021, 21, 3910.	2.1	4
18	Gradual Wear Diagnosis of Outer-Race Rolling Bearing Faults through Artificial Intelligence Methods and Stray Flux Signals. Electronics (Switzerland), 2021, 10, 1486.	1.8	11

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19	Deep-Compact-Clustering Based Anomaly Detection Applied to Electromechanical Industrial Systems. Sensors, 2021, 21, 5830.	2.1	9
20	Condition Monitoring Method for the Detection of Fault Graduality in Outer Race Bearing Based on Vibration-Current Fusion, Statistical Features and Neural Network. Applied Sciences (Switzerland), 2021, 11, 8033.	1.3	17
21	Diagnosis Methodology Based on Deep Feature Learning for Fault Identification in Metallic, Hybrid and Ceramic Bearings. Sensors, 2021, 21, 5832.	2.1	22
22	Novel expert system to study human stress based on thermographic images. Expert Systems With Applications, 2021, 178, 115024.	4.4	10
23	VIRTUAL REALITY OPPORTUNITIES IN THE REDUCTION OF OCCUPATIONAL HAZARDS IN INDUSTRY 4.0. Dyna (Spain), 2021, 96, 620-626.	0.1	5
24	Three-States Fault Detection in Rolling Bearings of Induction Motors through the analysis of Stray Flux signals using the DWT. , 2021, , .		3
25	Infrared thermography image processing for the electromechanical fault detection on the kinematic chain. , 2021, , .		3
26	Virtual reality-based tool applied in the teaching and training of condition-based maintenance in induction motors. , 2021, , .		0
27	Anomaly Detection in Electromechanical Systems by means of Deep-Autoencoder. , 2021, , .		2
28	Transient Stray Flux Analysis Via MUSIC Methods for the Detection of Uniform Gearbox Teeth Wear Faults. , 2021, , .		2
29	A Novel Shadow Removal Method Based upon Color Transfer and Color Tuning in UAV Imaging. Applied Sciences (Switzerland), 2021, 11, 11494.	1.3	5
30	System for Tool-Wear Condition Monitoring in CNC Machines under Variations of Cutting Parameter Based on Fusion Stray Flux-Current Processing. Sensors, 2021, 21, 8431.	2.1	15
31	Virtual reality-based tool applied in the teaching and training of condition-based maintenance in induction motors. , 2021, , .		0
32	Detection of Winding Asymmetries in Wound-Rotor Induction Motors via Transient Analysis of the External Magnetic Field. IEEE Transactions on Industrial Electronics, 2020, 67, 5050-5059.	5.2	57
33	A parametric study on the nonlinear dynamic response of paper-based mechanical systems due to liquid transport. International Journal of Non-Linear Mechanics, 2020, 118, 103280.	1.4	2
34	Physiological stressor impact on peripheral facial temperature, Il-6 and mean arterial pressure, in young people. Journal of Thermal Biology, 2020, 91, 102616.	1.1	5
35	Deep-Learning-Based Methodology for Fault Diagnosis in Electromechanical Systems. Sensors, 2020, 20, 3949.	2.1	26
36	Deep Learning based Condition Monitoring approach applied to Power Quality. , 2020, , .		2

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37	Analysis of Machine Learning based Condition Monitoring Schemes Applied to Complex Electromechanical Systems. , 2020, , .		1
38	Smart-Sensor for the Automatic Detection of Electromechanical Faults in Induction Motors Based on the Transient Stray Flux Analysis. Sensors, 2020, 20, 1477.	2.1	32
39	Fundamental Frequency Suppression for the Detection of Broken Bar in Induction Motors at Low Slip and Frequency. Applied Sciences (Switzerland), 2020, 10, 4160.	1.3	12
40	Novel Methodology for Condition Monitoring of Gear Wear Using Supervised Learning and Infrared Thermography. Applied Sciences (Switzerland), 2020, 10, 506.	1.3	27
41	Industrial Data-Driven Monitoring Based on Incremental Learning Applied to the Detection of Novel Faults. IEEE Transactions on Industrial Informatics, 2020, 16, 5985-5995.	7.2	28
42	Automatic diagnosis of electromechanical faults in induction motors based on the transient analysis of the stray flux via MUSIC methods. IEEE Transactions on Industry Applications, 2020, , 1-1.	3.3	23
43	Genetic Algorithm Methodology for the Estimation of Generated Power and Harmonic Content in Photovoltaic Generation. Applied Sciences (Switzerland), 2020, 10, 542.	1.3	13
44	Methodology based on higherâ€order statistics and genetic algorithms for the classification of power quality disturbances. IET Generation, Transmission and Distribution, 2020, 14, 4580-4592.	1.4	7
45	Triaxial Smart Sensor Based on the Advanced Analysis of Stray Flux and Currents for the Reliable Fault Detection in Induction Motors. , 2020, , .		5
46	STFT-based induction motor stray flux analysis for the monitoring of cutting tool wearing in CNC machines. , 2020, , .		4
47	A New Approach to Modeling the Ductile Cast Iron Microstructure for a Finite Element Analysis. Arabian Journal for Science and Engineering, 2019, 44, 1221-1231.	1.7	3
48	Identification of the electrical load by C-means from non-intrusive monitoring of electrical signals in non-residential buildings. International Journal of Electrical Power and Energy Systems, 2019, 104, 21-28.	3.3	20
49	Study of the harmonic and interharmonic content in electrical signals from photovoltaic generation and their relationship with environmental factors. Journal of Renewable and Sustainable Energy, 2019, 11, 043502.	0.8	6
50	Non-linear least squares methodology for suppressing the fundamental frequency in the analysis of electric signals. Electric Power Systems Research, 2019, 175, 105924.	2.1	5
51	Condition monitoring approach based on dimensionality reduction techniques for detecting power quality disturbances in cogeneration systems. , 2019, , .		2
52	Genetic Algorithm Methodology for Broken Bar Detection in Induction Motor at Low Frequency and Load Operation. , 2019, , .		2
53	Transient analysis of the external magnetic field via MUSIC methods for the diagnosis of electromechanical faults in induction motors. , 2019, , .		1
54	Smart-Sensors to Estimate Insulation Health in Induction Motors via Analysis of Stray Flux. Energies, 2019, 12, 1658.	1.6	17

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55	Multiple-fault detection and identification scheme based on hierarchical self-organizing maps applied to an electric machine. Applied Soft Computing Journal, 2019, 81, 105497.	4.1	21
56	Short-time transient tracking algorithm for a non-residential facility based on characteristic indices. Electric Power Systems Research, 2019, 171, 185-193.	2.1	0
57	Extraction of nonlinear elastic parameters of paper from the amplitude-dependent frequency response of cantilever beams. International Journal of Non-Linear Mechanics, 2019, 111, 42-48.	1.4	3
58	Accurate identification and characterisation of transient phenomena using wavelet transform and mathematical morphology. IET Generation, Transmission and Distribution, 2019, 13, 4021-4028.	1.4	5
59	Stray Flux Analysis for the Detection of Rotor Failures in Wound Rotor Induction Motors. , 2019, , .		7
60	Wavelet entropy to estimate the winding insulation healthiness in induction motors. , 2019, , .		6
61	Novel condition monitoring approach based on hybrid feature extraction and neural network for assessing multiple faults in electromechanical systems. , 2019, , .		0
62	Methodology for filtering of depth maps based on the MCbR algorithm supported by color, shape and neighboring features. Signal Processing: Image Communication, 2019, 70, 220-232.	1.8	0
63	A new approach to obtain a colour palette in thermographic images. Quantitative InfraRed Thermography Journal, 2019, 16, 35-54.	2.1	4
64	Sensor Fault Diagnosis Based on a Sliding Mode and Unknown Input Observer for Takagiâ€Sugeno Systems with Uncertain Premise Variables. Asian Journal of Control, 2019, 21, 339-353.	1.9	34
65	Recent Industrial Applications of Infrared Thermography: A Review. IEEE Transactions on Industrial Informatics, 2019, 15, 615-625.	7.2	112
66	Differential Evolution Implementation for Power Quality Disturbances Monitoring using OpenCL. Advances in Electrical and Computer Engineering, 2019, 19, 13-22.	0.5	4
67	Hybrid Approach Based on GA and PSO for Parameter Estimation of a Full Power Quality Disturbance Parameterized Model. IEEE Transactions on Industrial Informatics, 2018, 14, 1016-1028.	7.2	44
68	Smart-sensor for tool-breakage detection in milling process under dry and wet conditions based on infrared thermography. International Journal of Advanced Manufacturing Technology, 2018, 97, 1753-1765.	1.5	17
69	Methodology for Flicker Estimation and Its Correlation to Environmental Factors in Photovoltaic Generation. IEEE Access, 2018, 6, 24035-24047.	2.6	24
70	Thermography-Based Methodology for Multifault Diagnosis on Kinematic Chain. IEEE Transactions on Industrial Informatics, 2018, 14, 5553-5562.	7.2	15
71	Diagnosis methodology for identifying gearbox wear based on statistical time feature reduction. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 2711-2722.	1.1	15
72	Efficiency monitoring of photovoltaic inverters considering weather conditions. , 2018, , .		0

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73	Incremental Learning Framework-based Condition Monitoring for Novelty Fault Identification Applied to Electromechanical Systems. , 2018, , .		2
74	Novelty Detection based Condition Monitoring Scheme Applied to Electromechanical Systems. , 2018, , .		3
75	Guest Editorial Special Section on Thermographic Analysis Technique for Monitoring and Diagnosis in Industrial Machines and Industrial Facilities. IEEE Transactions on Industrial Informatics, 2018, 14, 5539-5543.	7.2	3
76	Induction Motor Failure Analysis: An Automatic Methodology Based on Infrared Imaging. IEEE Access, 2018, 6, 76993-77003.	2.6	30
77	Thermal-Impact-Based Protection of Induction Motors Under Voltage Unbalance Conditions. IEEE Transactions on Energy Conversion, 2018, 33, 1748-1756.	3.7	18
78	Statistical data fusion as diagnosis scheme applied to a kinematic chain. , 2018, , .		2
79	Sensor Fault Diagnosis Observer for an Electric Vehicle Modeled as a Takagi-Sugeno System. Journal of Sensors, 2018, 2018, 1-9.	0.6	16
80	Hybrid algorithmic approach oriented to incipient rotor fault diagnosis on induction motors. ISA Transactions, 2018, 80, 427-438.	3.1	19
81	A methodology based on infrared thermography for the study of stress in hands of young people during the Trier Social Stress Test. Infrared Physics and Technology, 2018, 93, 116-123.	1.3	11
82	Evaluation of the Detectability of Electromechanical Faults in Induction Motors Via Transient Analysis of the Stray Flux. IEEE Transactions on Industry Applications, 2018, 54, 4324-4332.	3.3	75
83	Power quality monitoring system under different environmental and electric conditions. , 2018, , .		6
84	Methodology for fault detection in induction motors via sound and vibration signals. Mechanical Systems and Signal Processing, 2017, 83, 568-589.	4.4	189
85	Human emotions detection based on a smart-thermal system of thermographic images. Infrared Physics and Technology, 2017, 81, 250-261.	1.3	84
86	Smart sensor network for power quality monitoring in electrical installations. Measurement: Journal of the International Measurement Confederation, 2017, 103, 133-142.	2.5	71
87	A new method for inpainting of depth maps from time-of-flight sensors based on a modified closing by reconstruction algorithm. Journal of Visual Communication and Image Representation, 2017, 47, 36-47.	1.7	10
88	Correlation Model Between Voltage Unbalance and Mechanical Overload Based on Thermal Effect at the Induction Motor Stator. IEEE Transactions on Energy Conversion, 2017, 32, 1602-1610.	3.7	18
89	Multifault Diagnosis Method Applied to an Electric Machine Based on High-Dimensional Feature Reduction. IEEE Transactions on Industry Applications, 2017, 53, 3086-3097.	3.3	70
90	Segmentation in thermography images for bearing defect analysis in induction motors. , 2017, , .		17

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91	A novel methodology for modeling waveforms for power quality disturbance analysis. Electric Power Systems Research, 2017, 143, 14-24.	2.1	35
92	Micro-genetic algorithms for detecting and classifying electric power disturbances. Neural Computing and Applications, 2017, 28, 379-392.	3.2	10
93	Diagnosis methodology based on statistical-time features and linear discriminant analysis applied to induction motors. , 2017, , .		4
94	Broken rotor bar detection in inverter-fed induction motors by time-corrected instantaneous frequency spectrogram. , 2017, , .		8
95	Wavelet-based vibration data compression technique for natural frequencies identification of civil infrastructure. , 2017, , .		3
96	Supportive Noninvasive Tool for the Diagnosis of Breast Cancer Using a Thermographic Camera as Sensor. Sensors, 2017, 17, 497.	2.1	43
97	Genetic Algorithm-Based Optimization Methodology of BÃ©zier Curves to Generate a DCI Microscale-Model. Applied Sciences (Switzerland), 2017, 7, 1222.	1.3	2
98	Power Consumption Analysis of Electrical Installations at Healthcare Facility. Energies, 2017, 10, 64.	1.6	10
99	A Two-Step Strategy for System Identification of Civil Structures for Structural Health Monitoring Using Wavelet Transform and Genetic Algorithms. Applied Sciences (Switzerland), 2017, 7, 111.	1.3	19
100	An Approach Based on the Exploratory Data Analysis to Relate the Wear Behavior with the Microstructure of Ductile Cast Irons. Advances in Materials Science and Engineering, 2016, 2016, 1-11.	1.0	3
101	Vibration Signal Forecasting on Rotating Machinery by means of Signal Decomposition and Neurofuzzy Modeling. Shock and Vibration, 2016, 2016, 1-13.	0.3	10
102	Multiple-Fault Detection Methodology Based on Vibration and Current Analysis Applied to Bearings in Induction Motors and Gearboxes on the Kinematic Chain. Shock and Vibration, 2016, 2016, 1-13.	0.3	55
103	Vibration Suppression for Improving the Estimation of Kinematic Parameters on Industrial Robots. Shock and Vibration, 2016, 2016, 1-15.	0.3	6
104	Vibration-Based Adaptive Novelty Detection Method for Monitoring Faults in a Kinematic Chain. Shock and Vibration, 2016, 2016, 1-12.	0.3	4
105	Methodology for thermal analysis of induction motors with infrared thermography considering camera location. , 2016, , .		12
106	Self-adjustment methodology of a thermal camera for detecting faults in industrial machinery. , 2016, , .		11
107	Fuzzy c-means clustering for steady state events classification of electrical signals. , 2016, , .		0
108	Triangulation intersection approach from Poissonâ€™s equation applied to automatic tool selection in computer numerical control mill-lathe. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2016, 230, 722-731.	1.5	1

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109	Rotor unbalance and broken rotor bar detection in inverter-fed induction motors at start-up and steady-state regimes by high-resolution spectral analysis. Electric Power Systems Research, 2016, 133, 142-148.	2.1	55
110	Time-frequency techniques for modal parameters identification of civil structures from acquired dynamic signals. Journal of Vibroengineering, 2016, 18, 3164-3185.	0.5	48
111	Comparative Study of Time-Frequency Decomposition Techniques for Fault Detection in Induction Motors Using Vibration Analysis during Startup Transient. Shock and Vibration, 2015, 2015, 1-14.	0.3	26
112	Sensor Fusion for Joint Kinematic Estimation in Serial Robots Using Encoder, Accelerometer and Gyroscope. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 78, 529-540.	2.0	16
113	FPGA-Based Embedded System Architecture for Micro-Genetic Algorithms Applied to Parameters Optimization in Motion Control. Advances in Electrical and Computer Engineering, 2015, 15, 23-32.	0.5	3
114	EEMD-MUSIC-Based Analysis for Natural Frequencies Identification of Structures Using Artificial and Natural Excitations. Scientific World Journal, The, 2014, 2014, 1-12.	0.8	15
115	Empirical Mode Decomposition and Neural Networks on FPGA for Fault Diagnosis in Induction Motors. Scientific World Journal, The, 2014, 2014, 1-17.	0.8	43
116	Torque reduction and workpiece finishing effects due to voltage sags in turning processes. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2014, 228, 140-148.	1.5	0
117	Thermographic technique as a complement for MCSA in induction motor fault detection. , 2014, , .		18
118	Dynamic Behavior Modeling of Civil Structures Using Wavenets and Neural Networks: A Comparative Study. , 2014, , .		0
119	Adaptive Methodology to Daytime and Night Environments for Eye and Mouth Detection Based on Artificial Vision. , 2014, , .		0
120	Broken rotor bar detection in VSD-fed induction motors at startup by high-resolution spectral analysis. , 2014, , .		12
121	Reliable methodology for gearbox wear monitoring based on vibration analysis. , 2014, , .		3
122	Experimental system for teaching induction motor faults during the startup transient and steady state. Computer Applications in Engineering Education, 2014, 22, 33-38.	2.2	6
123	Vibration Control on Smart Civil Structures: A Review. Mechanics of Advanced Materials and Structures, 2014, 21, 23-38.	1.5	51
124	Detection and Classification of Single and Combined Power Quality Disturbances Using Neural Networks. IEEE Transactions on Industrial Electronics, 2014, 61, 2473-2482.	5.2	248
125	Fault detection in induction motors and the impact on the kinematic chain through thermographic analysis. Electric Power Systems Research, 2014, 114, 1-9.	2.1	76
126	FPGAâ€Matlabâ€based open core for threeâ€time controllers in automatic control applications. Computer Applications in Engineering Education, 2013, 21, E132.	2.2	13

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127	FPGA-based neural network harmonic estimation for continuous monitoring of the power line in industrial applications. Electric Power Systems Research, 2013, 98, 51-57.	2.1	23
128	FPGA-based smart-sensor for fault detection in VSD-fed induction motors. , 2013, , .		4
129	A Hilbert Transform-Based Smart Sensor for Detection, Classification, and Quantification of Power Quality Disturbances. Sensors, 2013, 13, 5507-5527.	2.1	39
130	Fused empirical mode decomposition and wavelets for locating combined damage in a truss-type structure through vibration analysis. Journal of Zhejiang University: Science A, 2013, 14, 615-630.	1.3	36
131	Reconfigurable Monitoring System for Time-Frequency Analysis on Industrial Equipment Through STFT and DWT. IEEE Transactions on Industrial Informatics, 2013, 9, 760-771.	7.2	144
132	Early broken rotor bar detection techniques in VSD-fed induction motors at steady-state. , 2013, , .		11
133	FPGA-based hardware CNC interpolator of Bezier, splines, B-splines and NURBS curves for industrial applications. Computers and Industrial Engineering, 2013, 66, 925-932.	3.4	13
134	Directional morphological approaches from image processing applied to automatic tool selection in computer numerical control milling machine. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 1607-1619.	1.5	11
135	High-resolution spectral-analysis for identifying the natural modes of a truss-type structure by means of vibrations. JVC/Journal of Vibration and Control, 2013, 19, 2347-2356.	1.5	21
136	FPGA-based instantaneous estimation of unbalance/symmetrical components through the Hilbert transform. , 2013, , .		4
137	Reconfigurable instrument for neuralâ€networkâ€based powerâ€quality monitoring in 3â€phase power systems. IET Generation, Transmission and Distribution, 2013, 7, 1498-1507.	1.4	14
138	PID-Controller Tuning Optimization with Genetic Algorithms in Servo Systems. International Journal of Advanced Robotic Systems, 2013, 10, 324.	1.3	75
139	Smart Sensor for Real-Time Quantification of Common Symptoms Present in Unhealthy Plants. Sensors, 2012, 12, 784-805.	2.1	39
140	Smart Sensor for Online Detection of Multiple-Combined Faults in VSD-Fed Induction Motors. Sensors, 2012, 12, 11989-12005.	2.1	24
141	FPGA-Based Multiprocessor System for Injection Molding Control. Sensors, 2012, 12, 14068-14083.	2.1	4
142	Reconfigurable SoC-Based Smart Sensor for Wavelet and Wavelet Packet Analysis. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 2458-2468.	2.4	11
143	Application of high-resolution spectral analysis for identifying faults in induction motors by means of sound. JVC/Journal of Vibration and Control, 2012, 18, 1585-1594.	1.5	31
144	A hardwareâ€“software system for coordinated multi-axis control based on a non uniform rational B-splines interpolator applied to industrial computer numerically controlled machines. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2012, 226, 831-840.	0.7	3

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145	MUSICâ€ANN Analysis for Locating Structural Damages in a Trussâ€Type Structure by Means of Vibrations. Computer-Aided Civil and Infrastructure Engineering, 2012, 27, 687-698.	6.3	69
146	Novel methodology for improving performance of sensorless speed observers in induction motors at variable load conditions. , 2012, , .		2
147	Smart sensor for electrical machine monitoring through statistical analysis. , 2012, , .		1
148	FPGA embedded single-cycle 16-bit microprocessor and tools. , 2012, , .		3
149	Real-time emulator of an induction motor: FPGA-based implementation. , 2012, , .		5
150	Hardware-software system for simulating and analyzing earthquakes applied to civil structures. Natural Hazards and Earth System Sciences, 2012, 12, 61-73.	1.5	20
151	Single-parameter fault identification through information entropy analysis at the startup-transient current in induction motors. Electric Power Systems Research, 2012, 89, 64-69.	2.1	25
152	Optimization of Q-factor of AFM cantilevers using genetic algorithms. Ultramicroscopy, 2012, 115, 61-67.	0.8	12
153	FPGA-based entropy neural processor for online detection of multiple combined faults on induction motors. Mechanical Systems and Signal Processing, 2012, 30, 123-130.	4.4	43
154	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
155	Reconfigurable FPGA-Based Unit for Singular Value Decomposition of Large m x n Matrices. , 2011, , .		19
156	Startup current analysis of incipient broken rotor bar in induction motors using high-resolution spectral analysis. , 2011, , .		33
157	Multiple fault detection through information entropy analysis in ASD-fed induction motors. , 2011, , .		8
158	FPGA-Based Online Detection of Multiple Combined Faults in Induction Motors Through Information Entropy and Fuzzy Inference. IEEE Transactions on Industrial Electronics, 2011, 58, 5263-5270.	5.2	124
159	Techniques and methodologies for power quality analysis and disturbances classification in power systems: a review. IET Generation, Transmission and Distribution, 2011, 5, 519.	1.4	185
160	The Application of High-Resolution Spectral Analysis for Identifying Multiple Combined Faults in Induction Motors. IEEE Transactions on Industrial Electronics, 2011, 58, 2002-2010.	5.2	190
161	Wavelet-based Methodology for Broken Bar Detection in Induction Motors with Variable-speed Drive. Electric Power Components and Systems, 2011, 39, 271-287.	1.0	12
162	Reconfigurable instrument for power quality monitoring in 3-phase power systems. , 2011, , .		4

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163	Methodology for obtaining C3 continuity on tool trajectory featuring acceleration and jerk constraint on computer numerical control machine. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2011, 225, 2206-2215.	1.1	4
164	FPGA-Based Smart Sensor for Online Displacement Measurements Using a Heterodyne Interferometer. Sensors, 2011, 11, 7710-7723.	2.1	13
165	Fused Smart Sensor Network for Multi-Axis Forward Kinematics Estimation in Industrial Robots. Sensors, 2011, 11, 4335-4357.	2.1	26
166	Design methodology for fully dynamic-controlled polynomial profiles and reduced tracking error in CNC machines. International Journal of Advanced Manufacturing Technology, 2010, 51, 723-737.	1.5	8
167	Special purpose processor for parameter identification of CNC second order servo systems on a low-cost FPGA platform. Mechatronics, 2010, 20, 265-272.	2.0	11
168	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
169	Open-architecture system based on a reconfigurable hardwareâ€“software multi-agent platform for CNC machines. Journal of Systems Architecture, 2010, 56, 407-418.	2.5	38
170	FPGA-Based Fused Smart-Sensor for Tool-Wear Area Quantitative Estimation in CNC Machine Inserts. Sensors, 2010, 10, 3373-3388.	2.1	33
171	A Field Programmable Gate Array-Based Reconfigurable Smart-Sensor Network for Wireless Monitoring of New Generation Computer Numerically Controlled Machines. Sensors, 2010, 10, 7263-7286.	2.1	11
172	FPGA-Based Fused Smart Sensor for Dynamic and Vibration Parameter Extraction in Industrial Robot Links. Sensors, 2010, 10, 4114-4129.	2.1	25
173	FPGA-based Fused Smart Sensor for Real-Time Plant-Transpiration Dynamic Estimation. Sensors, 2010, 10, 8316-8331.	2.1	24
174	Reconfigurable Node Processing Unit for a Low-Power Wireless Sensor Network. , 2010, , .		10
175	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
176	Novel Methodology for Online Half-Broken-Bar Detection on Induction Motors. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 1690-1698.	2.4	85
177	FPGA implementation of higher degree polynomial acceleration profiles for peak jerk reduction in servomotors. Robotics and Computer-Integrated Manufacturing, 2009, 25, 379-392.	6.1	52
178	Sensorless jerk monitoring using an adaptive antisymmetric high-order FIR filter. Mechanical Systems and Signal Processing, 2009, 23, 2383-2394.	4.4	21
179	A Real-Time Smart Sensor for High-Resolution Frequency Estimation in Power Systems. Sensors, 2009, 9, 7412-7429.	2.1	39
180	FPGA-Based Online Induction Motor Multiple-Fault Detection with Fused FFT and Wavelet Analysis. , 2009, , .		7

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181	DSP algorithm for the extraction of dynamics parameters in CNC machine tool servomechanisms from an optical incremental encoder. International Journal of Machine Tools and Manufacture, 2008, 48, 1318-1334.	6.2	19
182	The application of reconfigurable logic to high speed CNC milling machines controllers. Control Engineering Practice, 2008, 16, 674-684.	3.2	41
183	A Real-Time FPGA Based Platform for Applications in Mechatronics. , 2008, , .		5
184	Computationally efficient parametric analysis of discrete-time polynomial based accelerationâ€“deceleration profile generation for industrial robotics and CNC machinery. Mechatronics, 2007, 17, 511-523.	2.0	15