

# Wilmar Hernandez

## List of Publications by Year in descending order

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Version: 2024-02-01

105  
papers

968  
citations

471061

17  
h-index

580395

25  
g-index

108  
all docs

108  
docs citations

108  
times ranked

552  
citing authors

#	ARTICLE	IF	CITATIONS
1	Current-to-Frequency Converter Based Photometer Circuit. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	2.4	0
2	Evaluating Erasure Codes in Dicoogle PACS. IEEE Access, 2022, 10, 71874-71885.	2.6	0
3	Robust Inferential Techniques Applied to the Analysis of the Tropospheric Ozone Concentration in an Urban Area. Sensors, 2021, 21, 277.	2.1	2
4	Knowledge Representation Model for Bodies of Knowledge Based on Design Patterns and Hierarchical Graphs. Computing in Science and Engineering, 2020, 22, 55-63.	1.2	3
5	Body of Knowledge Model and Linked Data Applied in Development of Higher Education Curriculum. Advances in Intelligent Systems and Computing, 2020, , 758-773.	0.5	2
6	Evaluation of Smart Phone Open Source Applications for Air Pollution. Advances in Intelligent Systems and Computing, 2020, , 474-484.	0.5	0
7	Heuristic Method of Evaluating Accessibility of Mobile in Selected Applications for Air Quality Monitoring. Advances in Intelligent Systems and Computing, 2020, , 485-495.	0.5	4
8	PM <sub>2.5</sub> Concentration Measurement Analysis by Using Non-Parametric Statistical Inference. IEEE Sensors Journal, 2020, 20, 1084-1094.	2.4	12
9	A comparative example between the use of PCA and MDS for image classification. , 2020, , .		0
10	Construction of a Robotic Platform of Differential Type for First-Year Students of Electronic Engineering. , 2020, , .		1
11	Fusion of knowledge bases for better navigation of wheeled mobile robotic group with 3D TVS. , 2020, , .		0
12	Robust Analysis of the Information Obtained From a Set of 12 Years of SO <sub>2</sub> Concentration Measurements. IEEE Access, 2020, 8, 144976-144992.	2.6	4
13	Algorithm for Generating Refined Frequency Estimates in Atmospheric Radio Sounding Systems. , 2020, , .		0
14	Robust Estimation of Carbon Monoxide Measurements. Sensors, 2020, 20, 4958.	2.1	5
15	Twelve-Year Analysis of NO <sub>2</sub> Concentration Measurements at Belisario Station (Quito, Ecuador) Using Statistical Inference Techniques. Sensors, 2020, 20, 5831.	2.1	4
16	Influence of data clouds fusion from 3D real-time vision system on robotic group dead reckoning in unknown terrain. IEEE/CAA Journal of Automatica Sinica, 2020, 7, 368-385.	8.5	47
17	Robust Confidence Intervals for PM <sub>2.5</sub> Concentration Measurements in the Ecuadorian Park La Carolina. Sensors, 2020, 20, 654.	2.1	9
18	Analysis of the Information Obtained From PM <sub>2.5</sub> Concentration Measurements in an Urban Park. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6296-6311.	2.4	15

#	ARTICLE	IF	CITATIONS
19	Image Compression Technique Based on Some Principal Components Periodicity. Advances in Computational Intelligence and Robotics Book Series, 2020, , 309-327.	0.4	1
20	Architecture Proposal of Help Desk based on the framework ITIL 3.0. , 2019, , .		1
21	A method to classify digital images by means of statistics of a wavelet decomposition. , 2019, , .		3
22	Robust Analysis of PM2.5 Concentration Measurements in the Ecuadorian Park La Carolina. Sensors, 2019, 19, 4648.	2.1	13
23	New approach for pixelization of big astronomical data for machine vision purpose. , 2019, , .		13
24	Azimuth estimation of landmarks by mobile autonomous robots using one scanning antenna. , 2019, , .		3
25	GPON as a contribution to the construction of Smart Cities. , 2019, , .		0
26	Accessibility Evaluation of Mobile Applications for Monitoring Air Quality. Advances in Intelligent Systems and Computing, 2019, , 638-648.	0.5	13
27	Research of the Uncertainty of Measurement Frequencies and Definitions of the Frequency Signal in the Waveguide with Respect to Power. , 2019, , .		0
28	A method of image classification by using multidimensional scaling. , 2019, , .		2
29	Effective informational entropy reduction in multi-robot systems based on real-time TVS. , 2019, , .		10
30	Image compression based on periodic principal components. , 2019, , .		2
31	Image Noise Cancellation by Taking Advantage of the Principal Component Analysis Technique. , 2018, , .		6
32	Individual Scans Fusion in Virtual Knowledge Base for Navigation of Mobile Robotic Group with 3D TVS. , 2018, , .		9
33	Implementation and comparative analysis of fractional order PID Embedded Controllers, applied to speed control of a robotic prosthesis. , 2018, , .		3
34	A Neural Network embedded system for real-time identification of EMG signals. , 2018, , .		1
35	Promoting innovation and entrepreneurship skills in professionals in software engineering training: An approach to the academy and bodies of knowledge context. , 2018, , .		3
36	Integration of cloud computing tools and knowledge bodies for the management of programming projects. , 2018, , .		0

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37	Body of Knowledge on IoT Education. , 2018, , .		2
38	Bootstrap-based frequency estimation method. Measurement: Journal of the International Measurement Confederation, 2017, 95, 193-200.	2.5	13
39	Power Performance Verification of a Wind Turbine by using the Wilcoxon Signed-Rank Test. IEEE Transactions on Energy Conversion, 2017, 32, 394-396.	3.7	16
40	Power Performance Verification of a Wind Farm Using the Friedman's Test. Sensors, 2016, 16, 816.	2.1	13
41	Modeling of a Robust Confidence Band for the Power Curve of a Wind Turbine. Sensors, 2016, 16, 2080.	2.1	8
42	High resolution measurement of physical variables change for INS. , 2016, , .		3
43	Online SHM Optical Scanning Data Exchange. , 2016, , .		2
44	Trajectory Tracking Control of an Excavator Arm Using Guaranteed Cost Control. Lecture Notes in Electrical Engineering, 2016, , 177-196.	0.3	2
45	Data transferring model determination in robotic group. Robotics and Autonomous Systems, 2016, 83, 251-260.	3.0	59
46	A method of verifying the statistical performance of electronic circuits designed to analyze the power quality. Measurement: Journal of the International Measurement Confederation, 2016, 93, 21-28.	2.5	17
47	Frequency-domain analysis of performance of a wind turbine. Electronics Letters, 2016, 52, 221-223.	0.5	5
48	Low-Cost Measurement for a Secondary Mode S Radar Transmitter. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 3217-3225.	2.4	6
49	ORIENTATION OF A TRIAXIAL ACCELEROMETER USING A HOMOGENEOUS TRANSFORMATION MATRIX AND KALMAN FILTERS. International Journal on Smart Sensing and Intelligent Systems, 2014, 7, 1631-1646.	0.4	7
50	On the convergence of LMS filters under periodic signals. , 2013, 23, 808-816.		3
51	Automotive FDS Resolution Improvement by Using the Principle of Rational Approximation. IEEE Sensors Journal, 2012, 12, 1112-1121.	2.4	28
52	Leadership and performance in higher education: a comparative analysis in Portugal and Spain. European Journal of Engineering Education, 2012, 37, 592-599.	1.5	6
53	Robust Control of Excavation Mobile Robot with Dynamic Triangulation Vision. , 2012, , .		2
54	Analysis of jitter influence in fast frequency measurements. Measurement: Journal of the International Measurement Confederation, 2011, 44, 1229-1242.	2.5	33

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55	Non-linear control of an autonomous ground vehicle. , 2011, , .		1
56	Frequency domain automotive sensors: Resolution improvement by novel principle of rational approximation. , 2010, , .		5
57	Estimation of the acceleration of a car under performance tests by using an optimal observer. , 2010, , .		0
58	Resolution improvement of dynamic triangulation method for 3D vision system in robot navigation task. , 2010, , .		23
59	H $\hat{a}$ z loop-shaping control of a buck-boost converter. , 2010, , .		6
60	3D laser scanning vision system for autonomous robot navigation. , 2010, , .		19
61	Analysis of the results of four years of research and application of a student-centered system based on the ECTS to first-year students in order to improve their performance in the subject AC-I. , 2010, , .		3
62	Improving the Response of Accelerometers for Automotive Applications by Using LMS Adaptive Filters: Part II. Sensors, 2010, 10, 952-962.	2.1	5
63	Improving the Response of Accelerometers for Automotive Applications by Using LMS Adaptive Filters. Sensors, 2010, 10, 313-329.	2.1	17
64	On estimating the uncertainty of measurement of a photometer circuit. , 2010, , .		1
65	Optoelectronic Method for Structural Health Monitoring. Structural Health Monitoring, 2010, 9, 105-120.	4.3	32
66	Air pollution analysis with a PFCM clustering algorithm applied in a real database of Salamanca (Mexico). , 2010, , .		2
67	Improving the Performance of an Accelerometer by Using a BLMS Adaptive Filter. , 2010, , .		0
68	Analysis of the Error Signal of the LMS Algorithm. IEEE Signal Processing Letters, 2010, 17, 229-232.	2.1	9
69	Modeling Motion Prediction Techniques: Linear and Quadratic Splines vs Circular-Queue Vector Approach. , 2010, , .		0
70	General block lms algorithm. , 2009, , .		2
71	Precise optical scanning for multiuse. , 2009, , .		5
72	Remote Sensor for Spatial Measurements by Using Optical Scanning. Sensors, 2009, 9, 5477-5492.	2.1	32

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73	Algorithmic Error Correction of Impedance Measuring Sensors. Sensors, 2009, 9, 10341-10355.	2.1	5
74	Measurement Uncertainty Estimation of a Robust Photometer Circuit. Sensors, 2009, 9, 3149-3160.	2.1	3
75	Optimal estimation of the relevant information coming from a rollover sensor placed in a car under performance tests. Measurement: Journal of the International Measurement Confederation, 2008, 41, 20-31.	2.5	8
76	Linear robust photometer circuit. Sensors and Actuators A: Physical, 2008, 141, 447-453.	2.0	9
77	Robust photometer circuit. , 2008, , .		0
78	Performance Analysis of a Robust Photometer Circuit. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 106-110.	2.2	8
79	H&lt;inf&gt;&#x221E;&lt;/inf&gt; integral control of a buck-boost dc-dc converter. , 2008, , .		2
80	Input-output Transfer Function Analysis of a Photometer Circuit Based on an Operational Amplifier. Sensors, 2008, 8, 35-50.	2.1	11
81	Improving the Real-Time Response of an ADXL202 Accelerometer Placed in a Car Under Performance Tests by using Adaptive Filtering. , 2007, , .		2
82	Optimal Estimation of the Acceleration of a Car Under Performance Tests. IEEE Sensors Journal, 2007, 7, 392-400.	2.4	8
83	Robustness and Noise Voltage Analysis in Two Photometer Circuits. IEEE Sensors Journal, 2007, 7, 1668-1674.	2.4	8
84	A Survey on Optimal Signal Processing Techniques Applied to Improve the Performance of Mechanical Sensors in Automotive Applications. Sensors, 2007, 7, 84-102.	2.1	23
85	Optimal estimation of the relevant information coming from a variable reluctance proximity sensor placed in a car undergoing performance tests. Mechanical Systems and Signal Processing, 2007, 21, 2732-2739.	4.4	7
86	Photometer Circuit Based on Positive and Negative Feedback Compensations. Sensor Letters, 2007, 5, 612-614.	0.4	8
87	Improving the Response of a Rollover Sensor Placed in a Car under Performance Tests by Using Optimal Signal Processing Techniques. , 2006, , .		1
88	Improving the Response of a Wheel Speed Sensor by Using a RLS Lattice Algorithm. Sensors, 2006, 6, 64-79.	2.1	18
89	Improving the Response of a Load Cell by Using Optimal Filtering. Sensors, 2006, 6, 697-711.	2.1	35
90	Improving the Response of a Rollover Sensor Placed in a Car under Performance Tests by Using a RLS Lattice Algorithm. Sensors, 2005, 5, 613-632.	2.1	19

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91	Robust Multivariable Estimation of the Relevant Information Coming from a Wheel Speed Sensor and an Accelerometer Embedded in a Car under Performance Tests. <i>Sensors</i> , 2005, 5, 488-508.	2.1	24
92	Robust control of a buck-boost DC-DC switching regulator for the electronic systems of next-generation cars. , 2005, , .		1
93	Improving the response of wheel speed sensors by using robust and optimal signal processing techniques. , 2005, , .		4
94	Improving the response of a wheel speed sensor using an adaptive line enhancer. <i>Measurement: Journal of the International Measurement Confederation</i> , 2003, 33, 229-240.	2.5	27
95	Improving the response of a wheel speed sensor by using frequency-domain adaptive filtering. <i>IEEE Sensors Journal</i> , 2003, 3, 404-413.	2.4	29
96	Improving the Responses of Several Accelerometers Used in a Car Under Performance Tests by Using Kalman Filtering. <i>Sensors</i> , 2001, 1, 38-52.	2.1	28
97	Improving the response of an accelerometer by using optimal filtering. <i>Sensors and Actuators A: Physical</i> , 2001, 88, 198-208.	2.0	35
98	A simple $\hat{\omega}$ -bandgap <sup>TM</sup> -type magnetoamplifier. <i>Sensors and Actuators A: Physical</i> , 1996, 55, 133-137.	2.0	10
99	Magnetic-field sensor based on a relaxation oscillator. <i>Sensors and Actuators A: Physical</i> , 1996, 55, 163-166.	2.0	10
100	Fluxgate magnetometer for magnetic fields in the range $1 \hat{\omega} 100 \hat{\omega} \mu\text{T}$ . <i>Electronics Letters</i> , 1995, 31, 2110-2111.	0.5	9
101	A low-cost real-time FPGA solution for driver drowsiness detection. , 0, , .		17
102	H//sub $\hat{\omega}$ control of a step-down DC-DC switching regulator for 14/42V hybrid architectures of next-generation cars. , 0, , .		1
103	Application of Principal Component Analysis to Image Compression. , 0, , .		16
104	MANIFESTACIONES REUMÁTICAS Y DERMATOLÓGICAS EN PACIENTES PAUCISINTOMÁTICOS DE COVID-19. <i>Global Rheumatology</i> , 0, , .	0.0	0
105	MANIFESTACIONES REUMÁTICAS Y DERMATOLÓGICAS EN PACIENTES PAUCISINTOMÁTICOS DE COVID-19. <i>Global Rheumatology</i> , 0, , .	0.0	0