Encarnacion Castillo

List of Publications by Year
in descending order

78 papers	768 citations	759233 12 h-index	642732 23 g-index
79 all docs	79 docs citations	79 times ranked	739 citing authors

#	Article	IF	Citations
1	IPP@HDL: Efficient Intellectual Property Protection Scheme for IP Cores. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2007, 15, 578-591.	3.1	110
2	Efficient wavelet-based ECG processing for single-lead FHR extraction. , 2013, 23, 1897-1909.		59
3	Cellulose nanofibers as substrate for flexible and biodegradable moisture sensors. Composites Science and Technology, 2021, 208, 108738.	7.8	44
4	Noise Suppression in ECG Signals through Efficient One-Step Wavelet Processing Techniques. Journal of Applied Mathematics, 2013, 2013, 1-13.	0.9	42
5	Ring oscillators as thermal sensors in FPGAs: Experiments in low voltage. , 2010, , .		35
6	Design guidelines of laser reduced graphene oxide conformal thermistor for IoT applications. Sensors and Actuators A: Physical, 2018, 274, 148-154.	4.1	35
7	Inexpensive and flexible nanographene-based electrodes for ubiquitous electrocardiogram monitoring. Npj Flexible Electronics, 2019, 3, .	10.7	35
8	Flexible ECG acquisition system based on analog and digital reconfigurable devices. Sensors and Actuators A: Physical, 2011, 165, 261-270.	4.1	34
9	A clustering-based method for single-channel fetal heart rate monitoring. PLoS ONE, 2018, 13, e0199308.	2.5	30
10	An application of reconfigurable technologies for non-invasive fetal heart rate extraction. Medical Engineering and Physics, 2013, 35, 1005-1014.	1.7	25
11	Evaluation of a reconfigurable portable instrument for copper determination based on luminescent carbon dots. Analytical and Bioanalytical Chemistry, 2016, 408, 3013-3020.	3.7	25
12	Unified Compact ECC-AES Co-Processor with Group-Key Support for IoT Devices in Wireless Sensor Networks. Sensors, 2018, 18, 251.	3.8	20
13	A reconstruction method for electrical capacitance tomography based on image fusion techniques. , 2012, 22, 885-893.		18
14	Automated Signature Insertion in Combinational Logic Patterns for HDL IP Core Protection. , 2008, , .		15
15	Control System in Open-Source FPGA for a Self-Balancing Robot. Electronics (Switzerland), 2019, 8, 198.	3.1	15
16	Elliptic Curve Cryptography hardware accelerator for high-performance secure servers. Journal of Supercomputing, 2019, 75, 1107-1122.	3.6	15
17	Wearable System for Biosignal Acquisition and Monitoring Based on Reconfigurable Technologies. Sensors, 2019, 19, 1590.	3.8	12
18	Cost-Effective Printed Electrodes Based on Emerging Materials Applied to Biosignal Acquisition. IEEE Access, 2020, 8, 127789-127800.	4.2	12

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19	Gesture Recognition With Ultrasounds and Edge Computing. IEEE Access, 2021, 9, 38999-39008.	4.2	11
20	A new area-efficient BCD-digit multiplier. , 2017, 62, 1-10.		10
21	Reconfigurable electronics: Addressing the uncontrolled increase of waste electrical and electronic equipment. Resources, Conservation and Recycling, 2018, 138, 47-48.	10.8	10
22	Adaptative ECT system based on reconfigurable electronics. Measurement: Journal of the International Measurement Confederation, 2015, 74, 238-245.	5.0	9
23	Highly Reliable Quadruple-Node Upset-Tolerant D-Latch. IEEE Access, 2022, 10, 31836-31850.	4.2	9
24	Intellectual property protection (IPP) using obfuscation in C, VHDL, and Verilog coding. Proceedings of SPIE, 2011, , .	0.8	8
25	Improvements for the applicability of power-watermarking to embedded IP cores protection: e-coreIPP. , 2015, 44, 110-122.		8
26	Energy optimization of Application-Specific Instruction-Set Processors by using hardware accelerators in semicustom ICs technology. Microprocessors and Microsystems, 2012, 36, 127-137.	2.8	7
27	Towards Project-Based Learning applied to the Electronic Engineering studies. , 2015, , .		7
28	Enhancing ADC resolution through Field Programmable Analog Array dynamic reconfiguration. , 2008, , .		6
29	Hardware Activation by Means of PUFs and Elliptic Curve Cryptography in Field-Programmable Devices. Electronics (Switzerland), 2016, 5, 5.	3.1	6
30	Dynamical graph theory networks techniques for the analysis of sparse connectivity networks in dementia. , 2017, , .		6
31	Air-Writing Character Recognition with Ultrasonic Transceivers. Sensors, 2021, 21, 6700.	3.8	6
32	Intellectual Property Protection for RNS Circuits on FPGAs. Lecture Notes in Computer Science, 2004, , 1139-1141.	1.3	6
33	Faster than the FFT: The chirp-z RAG-n Discrete Fast Fourier Transform. Frequenz, 2006, 60, .	0.9	5
34	Non-Intrusive Tank-Filling Sensor Based on Sound Resonance. Electronics (Switzerland), 2018, 7, 378.	3.1	5
35	Table-Free Seed Generation for Hardware Newtonâ€"Raphson Square Root and Inverse Square Root Implementations in IoT Devices. IEEE Internet of Things Journal, 2022, 9, 6985-6995.	8.7	5
36	IPP Watermarking Technique for IP Core Protection on FPL Devices. , 2006, , .		4

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37	Intellectual property protection of IP cores through high-level watermarking. , 2007, , .		4
38	The driving regulators of the connectivity protein network of brain malignancies. , 2017, , .		4
39	Efficient Implementation on Low-Cost SoC-FPGAs of TLSv1.2 Protocol with ECC_AES Support for Secure IoT Coordinators. Electronics (Switzerland), 2019, 8, 1238.	3.1	4
40	Dracon: An Open-Hardware Based Platform for Single-Chip Low-Cost Reconfigurable IoT Devices. Electronics (Switzerland), 2022, 11, 2080.	3.1	4
41	Digital Signature Embedding Technique for IP Core Protection. , 2007, , .		3
42	Watermarking strategies for IP protection of micro-processor cores. , 2010, , .		3
43	Classification Algorithms for Fetal QRS Extraction in Abdominal ECG Signals. Lecture Notes in Computer Science, 2017, , 524-535.	1.3	3
44	Why Use RF Energy Harvesting in Smart Grids. , 2018, , .		3
45	Low-Cost Soft Error Robust Hardened D-Latch for CMOS Technology Circuit. Electronics (Switzerland), 2021, 10, 1256.	3.1	3
46	Image processing methods to evaluate tomato and zucchini damage in post-harvest stages. International Journal of Agricultural and Biological Engineering, 2017, 10, 126-133.	0.6	3
47	Watermarking strategies for RNS-based system intellectual property protection. , 0, , .		2
48	Custom instruction set NIOS-based OFDM processor for FPGAs. , 2006, , .		2
49	Nios II hardware acceleration of the epsilon quadratic sieve algorithm. Proceedings of SPIE, 2010, , .	0.8	2
50	An Imaging Method for Electrical Capacitance Tomography Based on Projections Multiplication. Journal of Physics: Conference Series, 2011, 307, 012032.	0.4	2
51	Design Time Optimization for Hardware Watermarking Protection of HDL Designs. Scientific World Journal, The, 2015, 2015, 1-14.	2.1	2
52	Object Positioning Algorithm Based on Multidimensional Scaling and Optimization for Synthetic Gesture Data Generation. Sensors, 2021, 21, 5923.	3.8	2
53	Algebraic Circuits. Intelligent Systems Reference Library, 2014, , .	1.2	2
54	RESEKRA: Remote Enrollment Using SEaled Keys for Remote Attestation. Sensors, 2022, 22, 5060.	3.8	2

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55	Exploiting Analog and Digital Reconfiguration for Smart Sensor Interfacing. , 2007, , .		1
56	Protection of microprocessor-based cores for FPL devices. , 2010, , .		1
57	Parametrized ECT processing over FPGA for a reconfigurable application. , 2015, , .		1
58	Comments on "Fast architecture for decimal digit multiplication" Microprocessors and Microsystems, 2016, 47, 441-444.	2.8	1
59	An Optimized Measurement Algorithm for Gas Sensors Based on Carbon Nanotubes: Optimizing Sensor Performance and Hardware Resources. IEEE Internet of Things Journal, 2019, 6, 9140-9146.	8.7	1
60	Privacy-enabled system based on Elliptic Curve Cryptography to reduce risks of contagion in pandemics. , 2020, , .		1
61	Properties of silver chloride and carbon screen printed patterns on different textiles. Textile Reseach Journal, 2022, 92, 2711-2718.	2.2	1
62	Wearable biosignal acquisition system for decision aid. , 2018, , .		1
63	Power-Efficient Implementation of Ternary Neural Networks in Edge Devices. IEEE Internet of Things Journal, 2022, 9, 20111-20121.	8.7	1
64	Intellectual Property Protection of HDL IP Cores Through Automated Signature Hosting. , 2007, , .		0
65	FPGA based Architecture for Robust Optical Flow Computation. , 2008, , .		0
66	HDL-level automated watermarking of IP cores. , 2008, , .		0
67	Wavelets for full reconfigurable ECG acquisition system. , 2011, , .		0
68	Reconfigurable wearable to monitor physiological variables and movement. , 2017, , .		0
69	Efficient Elliptic Curve Cryptoprocessor for enabling TLS protocol in low-cost reconfigurable SoCs. , 2019, , .		0
70	Efficient Clock Distribution Scheme for VLSI RNS-Enabled Controllers. Lecture Notes in Computer Science, 2005, , 657-665.	1.3	0
71	Number Systems. Intelligent Systems Reference Library, 2014, , 1-70.	1.2	0
72	Galois Fields GF(p n). Intelligent Systems Reference Library, 2014, , 271-302.	1.2	0

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73	COST-EFFECTIVE TEACHING IN THE NANOTECHNOLOGY: MULTIPLE-LANGUAGES APPLIED TO VIRTUAL LESSONS AT THE NANOSCALE. , 2017, , .		0
74	USING LEARNING OBJECTS TO CREATE SEMANTICALLY ENRICHED CONTENT TO SHARE KNOWLEDGE AND CREATE COMMUNITIES IN E-LEARNING SYSTEMS. , 2017, , .		0
75	PROJECT-BASED LEARNING IN FPGA. , 2017, , .		0
76	SIGN-LANGUAGE INCORPORATION TO NANOTECHNOLOGY VIRTUAL LABORATORIES. , 2017, , .		0
77	Reconfigurable instrument for measuring variations of capacitor's dielectric: an application to olive oil quality monitoring. , 2018, , .		0
78	Window Polarization in PCA-based Analysis of Non-Invasive Fetal ECG recordings. , 2021, , .		0