Juan Carlos Lopez

List of Publications by Year
in descending order

124	911	687363 13	610901 24
papers	citations	h-index	g-index

127	127	127	887
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the hardware-software partitioning problem. ACM Transactions on Design Automation of Electronic Systems, 2003, 8, 269-297.	2.6	103
2	Non-linear classifiers applied to EEG analysis for epilepsy seizure detection. Expert Systems With Applications, 2017, 86, 99-112.	7.6	53
3	A Dynamic Programming Algorithm for High-Level Task Scheduling in Energy Harvesting IoT. IEEE Internet of Things Journal, 2018, 5, 2234-2248.	8.7	48
4	A Multiple-Attribute Decision Making-based approach for smart city rankings design. Technological Forecasting and Social Change, 2019, 142, 42-55.	11.6	46
5	Collection of Data With Drones in Precision Agriculture: Analytical Model and LoRa Case Study. IEEE Internet of Things Journal, 2021, 8, 16692-16704.	8.7	42
6	Civitas: The Smart City Middleware, from Sensors to Big Data. , 2013, , .		29
7	A dynamically reconfigurable architecture for smart grids. IEEE Transactions on Consumer Electronics, 2011, 57, 411-419.	3.6	25
8	Methodology for developing an advanced communications system for the Deaf in a new domain. Knowledge-Based Systems, 2014, 56, 240-252.	7.1	22
9	A semantic model for actions and events in ambient intelligence. Engineering Applications of Artificial Intelligence, 2011, 24, 1432-1445.	8.1	21
10	Translating bus information into sign language for deaf people. Engineering Applications of Artificial Intelligence, 2014, 32, 258-269.	8.1	20
11	Crowdsensing smart city parking monitoring. , 2015, , .		20
12	Increasing adaptability of a speech into sign language translation system. Expert Systems With Applications, 2013, 40, 1312-1322.	7.6	19
13	Dynamic objects: Supporting fast and easy run-time reconfiguration in FPGAs. Journal of Systems Architecture, 2013, 59, 1-15.	4.3	17
14	New topology for DC/DC bidirectional converter for hybrid systems in renewable energy. International Journal of Electronics, 2015, 102, 418-432.	1.4	16
15	OOCE: Object-Oriented Communication Engine for SoC Design. , 2007, , .		14
16	An agent-based approach towards automatic service composition in ambient intelligence. Artificial Intelligence Review, 2008, 29, 265-276.	15.7	13
17	A qualitative agent-based approach to power quality monitoring and diagnosis. Integrated Computer-Aided Engineering, 2010, 17, 305-319.	4.6	13
18	A framework for advanced home service design and management. IEEE Transactions on Consumer Electronics, 2009, 55, 1246-1253.	3.6	12

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19	Sensitivity analysis applied to slope stabilization at failure. Computers and Geotechnics, 2010, 37, 837-845.	4.7	12
20	A Scalable and Dynamically Reconfigurable FPGA-Based Embedded System for Real-Time Hyperspectral Unmixing. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 2894-2911.	4.9	12
21	Model Reuse through Hardware Design Patterns. , 0, , .		11
22	A comprehensive integration infrastructure for embedded system design. Microprocessors and Microsystems, 2012, 36, 383-392.	2.8	11
23	Statistical Energy Neutrality in IoT Hybrid Energy-Harvesting Networks. , 2018, , .		11
24	A methodology for task based partitioning and scheduling of dynamically reconfigurable systems. , 0, , .		10
25	Embedding standard distributed objectâ€oriented middlewares in wireless sensor networks. Wireless Communications and Mobile Computing, 2009, 9, 335-345.	1.2	10
26	Internet of Things Architecture for an RFID-Based Product Tracking Business Model. , 2012, , .		10
27	Transparent IP Cores Integration Based on the Distributed Object Paradigm. Lecture Notes in Electrical Engineering, 2009, , 131-144.	0.4	9
28	The SHAPES Smart Mirror Approach for Independent Living, Healthy and Active Ageing. Sensors, 2021, 21, 7938.	3.8	9
29	Unified Inter-Communication Architecture for Systems-on-Chip. Proceedings of the International Workshop on Rapid System Prototyping, 2007, , .	0.0	8
30	A framework for advanced home service design and management. , 2009, , .		8
31	A common-sense based system for Geo-IoT. Procedia Computer Science, 2018, 126, 665-674.	2.0	8
32	Enabling smart behavior through automatic service composition for Internet of Thingsâ€“based Smart Homes. International Journal of Distributed Sensor Networks, 2018, 14, 155014771879461.	2.2	8
33	The PLATINO Experience: A LoRa-based Network of Energy-Harvesting Devices for Smart Farming. , 2019, , .		8
34	Indoor occupancy estimation for smart utilities: A novel approach based on depth sensors. Building and Environment, 2022, 222, 109406.	6.9	8
35	Integration of Intelligent Agents Supporting Automatic Service Composition in Ambient Intelligence. , 2008, , .		7
36	Real-Time Algebraic Derivative Estimations Using a Novel Low-Cost Architecture Based on Reconfigurable Logic. Sensors, 2014, 14, 9349-9368.	3.8	7

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37	Data stream visualization framework for smart cities. Soft Computing, 2016, 20, 1671-1681.	3.6	7
38	Evaluation of design space exploration strategies. , 1999, , .		6
39	A multi-objective extension of the net flow rule for exploiting a valued outranking relation. International Journal of Multicriteria Decision Making, 2013, 3, 36.	0.2	6
40	Integrating Reconfigurable Hardware-Based Grid for High Performance Computing. Scientific World Journal, The, 2015, 2015, 1-19.	2.1	6
41	A computer-vision-based system for at-home rheumatoid arthritis rehabilitation. International Journal of Distributed Sensor Networks, 2019, 15, 155014771987564.	2.2	6
42	A knowledge-based system for hardware-software partitioning. , 0, , .		5
43	ASDF: an object oriented service discovery framework for wireless sensor networks. International Journal of Pervasive Computing and Communications, 2008, 4, 371-389.	1.3	5
44	A Resource Manager for Dynamically Reconfigurable FPGA-Based Embedded Systems. , 2013, , .		5
45	Smart City Data Stream Visualization Using Glyphs. , 2014, , .		5
46	Distributed FPGA-based architecture to support indoor localisation and orientation services. Journal of Network and Computer Applications, 2014, 45, 181-190.	9.1	5
47	Towards a Unified Middleware for Ubiquitous and Pervasive Computing. International Journal of Ambient Computing and Intelligence, 2009, 1, 53-63.	1.1	5
48	Bedtime Monitoring for Fall Detection and Prevention in Older Adults. International Journal of Environmental Research and Public Health, 2022, 19, 7139.	2.6	5
49	Constraint-driven system partitioning. , 0, , .		4
50	Leightweight Middleware for Seamless HW-SW Interoperability, with Application to Wireless Sensor Networks. , 2007, , .		4
51	Object oriented multi-layer router with application on wireless sensor-actuator networks. , 2008, , .		4
52	Persistence Management Model for Dynamically Reconfigurable Hardware. , 2010, , .		4
53	Distributed architecture for efficient indoor localization and orientation. , 2013, , .		4
54	A multiobjective genetic algorithm based on NSGA II for deriving final ranking from a medium-sized fuzzy outranking relation. , 2014, , .		4

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55	ReducciÃ³n del Tiempo de TerminaciÃ³n en la ProgramaciÃ³n de la ProducciÃ³n de una LÃ¬nea de Flujo HÃbrida Flexible (HFS). Informacion Tecnologica (discontinued), 2015, 26, 157-172.	0.3	4
56	FPGA acceleration of semantic tree reasoning algorithms. Journal of Systems Architecture, 2015, 61, 185-196.	4.3	4
57	An adaptive emergency protocol for people evacuation in high-rise buildings. , 2016, , .		4
58	Hierarchical Task Network planning with common-sense reasoning for multiple-people behaviour analysis. Expert Systems With Applications, 2017, 69, 118-134.	7.6	4
59	IDM: An inter-domain messaging protocol for IoT. , 2017, , .		4
60	Heterogeneous SoC-based acceleration of MPEG-7 compliance image retrieval process. Journal of Real-Time Image Processing, 2018, 15, 161-172.	3.5	4
61	Testing framework for on-board verification of HLS modules using grey-box technique and FPGA overlays. The Integration VLSI Journal, 2019, 68, 129-138.	2.1	4
62	Experimenting Forecasting Models for Solar Energy Harvesting Devices for Large Smart Cities Deployments. , 2019, , .		4
63	Robotics vs. Game-Console-Based Platforms to Learn Computer Architecture. IEEE Access, 2020, 8, 95153-95169.	4.2	4
64	A Proposal for Modeling Indoorâ€“Outdoor Spaces through IndoorGML, Open Location Code and OpenStreetMap. ISPRS International Journal of Geo-Information, 2020, 9, 169.	2.9	4
65	How Intelligent Are Ambient Intelligence Systems?. International Journal of Ambient Computing and Intelligence, 2010, 2, 66-72.	1.1	4
66	Embedding a Middleware for Networked Hardware and Software Objects. Lecture Notes in Computer Science, 2006, , 567-576.	1.3	4
67	Dynamic Reconfiguration Management Based on a Distributed Object Model. , 2007, , .		3
68	A Rule-Based Approach to Automatic Service Composition. International Journal of Ambient Computing and Intelligence, 2012, 4, 16-28.	1.1	3
69	Architecture for Smart Highway Real Time Monitoring. , 2013, , .		3
70	Ubiquitous Virtual Private Network: A Solution for WSN Seamless Integration. Sensors, 2014, 14, 779-794.	3.8	3
71	Early Detection of Hypoglycemia Events Based on Biometric Sensors Prototyped on FPGAs. Lecture Notes in Computer Science, 2016, , 133-145.	1.3	3
72	A Testbed and an Experimental Public Dataset for Energy-Harvested IoT Solutions. , 2019, , .		3

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73	Towards Test-Driven Development for FPGA-Based Modules Across Abstraction Levels. IEEE Access, 2021, 9, 31581-31594.	4.2	3
74	COVID19-Routes: A Safe Pedestrian Navigation Service. IEEE Access, 2021, 9, 93433-93449.	4.2	3
75	Transparent Dynamic Reconfiguration as a Service of a System-Level Middleware. Lecture Notes in Computer Science, 2009, , 281-286.	1.3	3
76	Phyx.io: Expert-Based Decision Making for the Selection of At-Home Rehabilitation Solutions for Active and Healthy Aging. International Journal of Environmental Research and Public Health, 2022, 19, 5490.	2.6	3
77	Heterogeneous systems design: a UML-based approach. , 1999, , .		2
78	OpenMax hardware native support for efficient multimedia embedded systems. , 2010, , .		2
79	Middleware-based management for smart grids. , 2011, , .		2
80	Elcano: Multimodal indoor navigation infrastructure for disabled people. , 2011, , .		2
81	Process-in-Network: A Comprehensive Network Processing Approach. Sensors, 2012, 12, 8112-8134.	3.8	2
82	Facilitating Preemptive Hardware System Design Using Partial Reconfiguration Techniques. Scientific World Journal, The, 2014, 2014, 1-15.	2.1	2
83	Synthesis of simulation and implementation code for OpenMAX multimedia heterogeneous systems from UML/MARTE models. Multimedia Tools and Applications, 2017, 76, 8195-8226.	3.9	2
84	Learning computer structure through an ARM-based Arduino platform. , 2017, , .		2
85	FPGA-Based Solution for On-Board Verification of Hardware Modules Using HLS. Electronics (Switzerland), 2020, 9, 2024.	3.1	2
86	Kinect and Episodic Reasoning for Human Action Recognition. Advances in Intelligent Systems and Computing, 2016, , 147-154.	0.6	2
87	Rapid Prototyping and Verification of Hardware Modules Generated UsingÂHLS. Lecture Notes in Computer Science, 2018, , 446-458.	1.3	2
88	Web Services for Deeply Embedded Extra Low-Cost Devices. Lecture Notes in Computer Science, 2009, , 400-409.	1.3	2
89	The design space layer: supporting early design space exploration for core-based designs. , 0, , .		1
90	System-Level Middleware for Embedded Hardware and Software Communication. , 2007, , .		1

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91	Mechanisms of quality of service and mobility in 4G networks. , 2009, , .		1
92	Openmax hardware native support for efficient multimedia embedded systems. IEEE Transactions on Consumer Electronics, 2010, 56, 1722-1729.	3.6	1
93	Distributed Reconfigurable Hardware for Image Processing Acceleration. , 2011, , .		1
94	Deployment-aware energy model for operator placement in sensor networks. , 2011, , .		1
95	A Reasoning Hardware Platform for Real-Time Common-Sense Inference. Sensors, 2012, 12, 9210-9233.	3.8	1
96	Web-based platform for the Information and communications technology (ICT) research in engineering education. , 2012, , .		1
97	UML/MARTE Methodology for Automatic SystemC Code Generation of Openmax Multimedia Applications. , 2013, , .		1
98	A hierarchical scheduling and management solution for dynamic reconfiguration in FPGA-based embedded systems. , 2013, , .		1
99	Building a dynamically reconfigurable system through a high development flow. , 2015, , .		1
100	A semantic middleware architecture for supporting real smartness. , 2016, , .		1
101	Building a Dynamically Reconfigurable System Through a High-Level Development Flow. Lecture Notes in Electrical Engineering, 2016, , 51-73.	0.4	1
102	A comprehensive common-sense-based architecture for understanding voltage-sag events in electrical grids. Integrated Computer-Aided Engineering, 2018, 25, 397-416.	4.6	1
103	Aerial-Ground Collaborative Pathfinding with HLSTL using FPGAs. , 2019, , .		1
104	Leveraging commonsense reasoning towards a smarter Smart Home. Procedia Computer Science, 2021, 192, 666-675.	2.0	1
105	Sensor Network Integration by Means of a Virtual Private Network Protocol. Lecture Notes in Computer Science, 2012, , 85-92.	1.3	1
106	Influence of manufacturing variations in I/sub DDQ/ measurements: a new test criterion. , 0, , .		0
107	A flexible approach to the design of complex embedded systems. , 0, , .		0
108	A hardware-software operating system for heterogeneous designs. , 0, , .		0

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109	Mobile Ad-hoc Networks for Large In-Building Environments. , 0, , .		0
110	Process-in-Network for Image Providing Services. , 2011, , .		0
111	Leveraging Common-Sense in Human Activity Recognition. , 2011, , .		0
112	Development Flow for FPGA-Based Scalable Reconfigurable Systems. , 2013, , .		0
113	Efficient and decentralized data transfer architecture for component based embedded systems. , 2013, , .		0
114	More robustness and flexibility for FPGA based networked embedded systems through hardware indirect proxies. , 2014, , .		0
115	Off-the-Shelf Embedded Middleware Solution for UAVs HW-SW Platform Development. , 2016, , .		0
116	Testing Framework for in-Hardware Verification of the Hardware Modules Generated Using HLS. , 2018, , .		0
117	HALib: Hardware Assertion Library for on-board verification of FPGA-based modules using HLS. , 2019, , .		0
118	A Dataflow Architecture for Real-Time Full-Search Block Motion Estimation. Lecture Notes in Computer Science, 2021, , 232-241.	1.3	0
119	A System for Epileptic Seizure Focus Detection Based on EEG Analysis. Lecture Notes in Computer Science, 2012, , 407-414.	1.3	0
120	Wide-Input Intelligent Environments for Industrial Facilities. Lecture Notes in Computer Science, 2013, , 62-69.	1.3	0
121	Sensing, Perceiving, and Understanding Actions. International Journal of Distributed Sensor Networks, 2014, 10, 790210.	2.2	0
122	Run-Time Partial Reconfiguration Simulation Framework Based on Dynamically Loadable Components. Lecture Notes in Computer Science, 2015, , 153-164.	1.3	0
123	How Intelligent are Ambient Intelligence Systems?. , 0, , 65-70.		0
124	Autonomous CPSoS for Cognitive Large Manufacturing Industries. , 2021, , .		0