

# Juan Carlos Lopez

## List of Publications by Year in descending order

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Version: 2024-02-01

124  
papers

911  
citations

686830

13  
h-index

610482

24  
g-index

127  
all docs

127  
docs citations

127  
times ranked

887  
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	1.2	3
2	Bedtime Monitoring for Fall Detection and Prevention in Older Adults. International Journal of Environmental Research and Public Health, 2022, 19, 7139.	1.2	5
3	Indoor occupancy estimation for smart utilities: A novel approach based on depth sensors. Building and Environment, 2022, 222, 109406.	3.0	8
4	Towards Test-Driven Development for FPGA-Based Modules Across Abstraction Levels. IEEE Access, 2021, 9, 31581-31594.	2.6	3
5	COVID19-Routes: A Safe Pedestrian Navigation Service. IEEE Access, 2021, 9, 93433-93449.	2.6	3
6	Leveraging commonsense reasoning towards a smarter Smart Home. Procedia Computer Science, 2021, 192, 666-675.	1.2	1
7	A Dataflow Architecture for Real-Time Full-Search Block Motion Estimation. Lecture Notes in Computer Science, 2021, , 232-241.	1.0	0
8	Collection of Data With Drones in Precision Agriculture: Analytical Model and LoRa Case Study. IEEE Internet of Things Journal, 2021, 8, 16692-16704.	5.5	42
9	Autonomous CPSoS for Cognitive Large Manufacturing Industries. , 2021, , .		0
10	The SHAPES Smart Mirror Approach for Independent Living, Healthy and Active Ageing. Sensors, 2021, 21, 7938.	2.1	9
11	FPGA-Based Solution for On-Board Verification of Hardware Modules Using HLS. Electronics (Switzerland), 2020, 9, 2024.	1.8	2
12	Robotics vs. Game-Console-Based Platforms to Learn Computer Architecture. IEEE Access, 2020, 8, 95153-95169.	2.6	4
13	A Proposal for Modeling Indoorâ€œOutdoor Spaces through IndoorGML, Open Location Code and OpenStreetMap. ISPRS International Journal of Geo-Information, 2020, 9, 169.	1.4	4
14	A Multiple-Attribute Decision Making-based approach for smart city rankings design. Technological Forecasting and Social Change, 2019, 142, 42-55.	6.2	46
15	A computer-vision-based system for at-home rheumatoid arthritis rehabilitation. International Journal of Distributed Sensor Networks, 2019, 15, 155014771987564.	1.3	6
16	Testing framework for on-board verification of HLS modules using grey-box technique and FPGA overlays. The Integration VLSI Journal, 2019, 68, 129-138.	1.3	4
17	A Testbed and an Experimental Public Dataset for Energy-Harvested IoT Solutions. , 2019, , .		3
18	Aerial-Ground Collaborative Pathfinding with HLSTL using FPGAs. , 2019, , .		1

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19	Experimenting Forecasting Models for Solar Energy Harvesting Devices for Large Smart Cities Deployments. , 2019, , .		4
20	The PLATINO Experience: A LoRa-based Network of Energy-Harvesting Devices for Smart Farming. , 2019, , .		8
21	HALib: Hardware Assertion Library for on-board verification of FPGA-based modules using HLS. , 2019, , .		0
22	A Dynamic Programming Algorithm for High-Level Task Scheduling in Energy Harvesting IoT. IEEE Internet of Things Journal, 2018, 5, 2234-2248.	5.5	48
23	Statistical Energy Neutrality in IoT Hybrid Energy-Harvesting Networks. , 2018, , .		11
24	A common-sense based system for Geo-IoT. Procedia Computer Science, 2018, 126, 665-674.	1.2	8
25	Testing Framework for in-Hardware Verification of the Hardware Modules Generated Using HLS. , 2018, , .		0
26	Enabling smart behavior through automatic service composition for Internet of Thingsâ€‘based Smart Homes. International Journal of Distributed Sensor Networks, 2018, 14, 155014771879461.	1.3	8
27	Heterogeneous SoC-based acceleration of MPEG-7 compliance image retrieval process. Journal of Real-Time Image Processing, 2018, 15, 161-172.	2.2	4
28	A comprehensive common-sense-based architecture for understanding voltage-sag events in electrical grids. Integrated Computer-Aided Engineering, 2018, 25, 397-416.	2.5	1
29	Rapid Prototyping and Verification of Hardware Modules Generated UsingÂHLS. Lecture Notes in Computer Science, 2018, , 446-458.	1.0	2
30	Synthesis of simulation and implementation code for OpenMAX multimedia heterogeneous systems from UML/MARTE models. Multimedia Tools and Applications, 2017, 76, 8195-8226.	2.6	2
31	Non-linear classifiers applied to EEG analysis for epilepsy seizure detection. Expert Systems With Applications, 2017, 86, 99-112.	4.4	53
32	Hierarchical Task Network planning with common-sense reasoning for multiple-people behaviour analysis. Expert Systems With Applications, 2017, 69, 118-134.	4.4	4
33	IDM: An inter-domain messaging protocol for IoT. , 2017, , .		4
34	Learning computer structure through an ARM-based Arduino platform. , 2017, , .		2
35	Early Detection of Hypoglycemia Events Based on Biometric Sensors Prototyped on FPGAs. Lecture Notes in Computer Science, 2016, , 133-145.	1.0	3
36	A semantic middleware architecture for supporting real smartness. , 2016, , .		1

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37	Off-the-Shelf Embedded Middleware Solution for UAVs HW-SW Platform Development. , 2016, , .		0
38	An adaptive emergency protocol for people evacuation in high-rise buildings. , 2016, , .		4
39	Building a Dynamically Reconfigurable System Through a High-Level Development Flow. Lecture Notes in Electrical Engineering, 2016, , 51-73.	0.3	1
40	Data stream visualization framework for smart cities. Soft Computing, 2016, 20, 1671-1681.	2.1	7
41	Kinect and Episodic Reasoning for Human Action Recognition. Advances in Intelligent Systems and Computing, 2016, , 147-154.	0.5	2
42	Reducci3n del Tiempo de Terminaci3n en la Programaci3n de la Producci3n de una L3nea de Flujo H3brida Flexible (HFS). Informacion Tecnologica (discontinued), 2015, 26, 157-172.	0.1	4
43	Integrating Reconfigurable Hardware-Based Grid for High Performance Computing. Scientific World Journal, The, 2015, 2015, 1-19.	0.8	6
44	Building a dynamically reconfigurable system through a high development flow. , 2015, , .		1
45	Crowdsensing smart city parking monitoring. , 2015, , .		20
46	FPGA acceleration of semantic tree reasoning algorithms. Journal of Systems Architecture, 2015, 61, 185-196.	2.5	4
47	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.	2.3	12
48	New topology for DC/DC bidirectional converter for hybrid systems in renewable energy. International Journal of Electronics, 2015, 102, 418-432.	0.9	16
49	Run-Time Partial Reconfiguration Simulation Framework Based on Dynamically Loadable Components. Lecture Notes in Computer Science, 2015, , 153-164.	1.0	0
50	Facilitating Preemptive Hardware System Design Using Partial Reconfiguration Techniques. Scientific World Journal, The, 2014, 2014, 1-15.	0.8	2
51	Ubiquitous Virtual Private Network: A Solution for WSN Seamless Integration. Sensors, 2014, 14, 779-794.	2.1	3
52	Real-Time Algebraic Derivative Estimations Using a Novel Low-Cost Architecture Based on Reconfigurable Logic. Sensors, 2014, 14, 9349-9368.	2.1	7
53	Smart City Data Stream Visualization Using Glyphs. , 2014, , .		5
54	More robustness and flexibility for FPGA based networked embedded systems through hardware indirect proxies. , 2014, , .		0

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55	Methodology for developing an advanced communications system for the Deaf in a new domain. Knowledge-Based Systems, 2014, 56, 240-252.	4.0	22
56	Distributed FPGA-based architecture to support indoor localisation and orientation services. Journal of Network and Computer Applications, 2014, 45, 181-190.	5.8	5
57	Translating bus information into sign language for deaf people. Engineering Applications of Artificial Intelligence, 2014, 32, 258-269.	4.3	20
58	A multiobjective genetic algorithm based on NSGA II for deriving final ranking from a medium-sized fuzzy outranking relation. , 2014, , .		4
59	Sensing, Perceiving, and Understanding Actions. International Journal of Distributed Sensor Networks, 2014, 10, 790210.	1.3	0
60	Distributed architecture for efficient indoor localization and orientation. , 2013, , .		4
61	Dynamic objects: Supporting fast and easy run-time reconfiguration in FPGAs. Journal of Systems Architecture, 2013, 59, 1-15.	2.5	17
62	Increasing adaptability of a speech into sign language translation system. Expert Systems With Applications, 2013, 40, 1312-1322.	4.4	19
63	UML/MARTE Methodology for Automatic SystemC Code Generation of Openmax Multimedia Applications. , 2013, , .		1
64	Civitas: The Smart City Middleware, from Sensors to Big Data. , 2013, , .		29
65	Development Flow for FPGA-Based Scalable Reconfigurable Systems. , 2013, , .		0
66	A hierarchical scheduling and management solution for dynamic reconfiguration in FPGA-based embedded systems. , 2013, , .		1
67	Architecture for Smart Highway Real Time Monitoring. , 2013, , .		3
68	A Resource Manager for Dynamically Reconfigurable FPGA-Based Embedded Systems. , 2013, , .		5
69	Efficient and decentralized data transfer architecture for component based embedded systems. , 2013, , .		0
70	A multi-objective extension of the net flow rule for exploiting a valued outranking relation. International Journal of Multicriteria Decision Making, 2013, 3, 36.	0.1	6
71	Wide-Input Intelligent Environments for Industrial Facilities. Lecture Notes in Computer Science, 2013, , 62-69.	1.0	0
72	Process-in-Network: A Comprehensive Network Processing Approach. Sensors, 2012, 12, 8112-8134.	2.1	2

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73	A Reasoning Hardware Platform for Real-Time Common-Sense Inference. <i>Sensors</i> , 2012, 12, 9210-9233.	2.1	1
74	Web-based platform for the Information and communications technology (ICT) research in engineering education. , 2012, , .		1
75	A comprehensive integration infrastructure for embedded system design. <i>Microprocessors and Microsystems</i> , 2012, 36, 383-392.	1.8	11
76	Internet of Things Architecture for an RFID-Based Product Tracking Business Model. , 2012, , .		10
77	A Rule-Based Approach to Automatic Service Composition. <i>International Journal of Ambient Computing and Intelligence</i> , 2012, 4, 16-28.	0.8	3
78	A System for Epileptic Seizure Focus Detection Based on EEG Analysis. <i>Lecture Notes in Computer Science</i> , 2012, , 407-414.	1.0	0
79	Sensor Network Integration by Means of a Virtual Private Network Protocol. <i>Lecture Notes in Computer Science</i> , 2012, , 85-92.	1.0	1
80	A dynamically reconfigurable architecture for smart grids. <i>IEEE Transactions on Consumer Electronics</i> , 2011, 57, 411-419.	3.0	25
81	A semantic model for actions and events in ambient intelligence. <i>Engineering Applications of Artificial Intelligence</i> , 2011, 24, 1432-1445.	4.3	21
82	Distributed Reconfigurable Hardware for Image Processing Acceleration. , 2011, , .		1
83	Middleware-based management for smart grids. , 2011, , .		2
84	Deployment-aware energy model for operator placement in sensor networks. , 2011, , .		1
85	Process-in-Network for Image Providing Services. , 2011, , .		0
86	Elcano: Multimodal indoor navigation infrastructure for disabled people. , 2011, , .		2
87	Leveraging Common-Sense in Human Activity Recognition. , 2011, , .		0
88	Sensitivity analysis applied to slope stabilization at failure. <i>Computers and Geotechnics</i> , 2010, 37, 837-845.	2.3	12
89	A qualitative agent-based approach to power quality monitoring and diagnosis. <i>Integrated Computer-Aided Engineering</i> , 2010, 17, 305-319.	2.5	13
90	OpenMax hardware native support for efficient multimedia embedded systems. , 2010, , .		2

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91	Openmax hardware native support for efficient multimedia embedded systems. IEEE Transactions on Consumer Electronics, 2010, 56, 1722-1729.	3.0	1
92	Persistence Management Model for Dynamically Reconfigurable Hardware. , 2010, , .		4
93	How Intelligent Are Ambient Intelligence Systems?. International Journal of Ambient Computing and Intelligence, 2010, 2, 66-72.	0.8	4
94	Embedding standard distributed object-oriented middlewares in wireless sensor networks. Wireless Communications and Mobile Computing, 2009, 9, 335-345.	0.8	10
95	A framework for advanced home service design and management. , 2009, , .		8
96	Mechanisms of quality of service and mobility in 4G networks. , 2009, , .		1
97	A framework for advanced home service design and management. IEEE Transactions on Consumer Electronics, 2009, 55, 1246-1253.	3.0	12
98	Transparent IP Cores Integration Based on the Distributed Object Paradigm. Lecture Notes in Electrical Engineering, 2009, , 131-144.	0.3	9
99	Web Services for Deeply Embedded Extra Low-Cost Devices. Lecture Notes in Computer Science, 2009, , 400-409.	1.0	2
100	Towards a Unified Middleware for Ubiquitous and Pervasive Computing. International Journal of Ambient Computing and Intelligence, 2009, 1, 53-63.	0.8	5
101	Transparent Dynamic Reconfiguration as a Service of a System-Level Middleware. Lecture Notes in Computer Science, 2009, , 281-286.	1.0	3
102	An agent-based approach towards automatic service composition in ambient intelligence. Artificial Intelligence Review, 2008, 29, 265-276.	9.7	13
103	Object oriented multi-layer router with application on wireless sensor-actuator networks. , 2008, , .		4
104	Integration of Intelligent Agents Supporting Automatic Service Composition in Ambient Intelligence. , 2008, , .		7
105	ASDF: an object oriented service discovery framework for wireless sensor networks. International Journal of Pervasive Computing and Communications, 2008, 4, 371-389.	1.1	5
106	Leightweight Middleware for Seamless HW-SW Interoperability, with Application to Wireless Sensor Networks. , 2007, , .		4
107	Dynamic Reconfiguration Management Based on a Distributed Object Model. , 2007, , .		3
108	System-Level Middleware for Embedded Hardware and Software Communication. , 2007, , .		1

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109	Unified Inter-Communication Architecture for Systems-on-Chip. Proceedings of the International Workshop on Rapid System Prototyping, 2007, , .	0.0	8
110	OOCE: Object-Oriented Communication Engine for SoC Design. , 2007, , .		14
111	Embedding a Middleware for Networked Hardware and Software Objects. Lecture Notes in Computer Science, 2006, , 567-576.	1.0	4
112	On the hardware-software partitioning problem. ACM Transactions on Design Automation of Electronic Systems, 2003, 8, 269-297.	1.9	103
113	Evaluation of design space exploration strategies. , 1999, , .		6
114	Heterogeneous systems design: a UML-based approach. , 1999, , .		2
115	A methodology for task based partitioning and scheduling of dynamically reconfigurable systems. , 0, , .		10
116	A knowledge-based system for hardware-software partitioning. , 0, , .		5
117	The design space layer: supporting early design space exploration for core-based designs. , 0, , .		1
118	Influence of manufacturing variations in I/sub DDQ/ measurements: a new test criterion. , 0, , .		0
119	Constraint-driven system partitioning. , 0, , .		4
120	A flexible approach to the design of complex embedded systems. , 0, , .		0
121	A hardware-software operating system for heterogeneous designs. , 0, , .		0
122	Mobile Ad-hoc Networks for Large In-Building Environments. , 0, , .		0
123	Model Reuse through Hardware Design Patterns. , 0, , .		11
124	How Intelligent are Ambient Intelligence Systems?. , 0, , 65-70.		0