Sergio Saponara

List of Publications by Year
in descending order

256 papers	3,729 citations	147801 31 h-index	223800 46 g-index
262 all docs	262 docs citations	262 times ranked	2814 citing authors

#	Article	IF	Citations
1	A Lightweight Posit Processing Unit for RISC-V Processors in Deep Neural Network Applications. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 1898-1908.	4.6	13
2	VLSI Design of Advanced-Features AES Cryptoprocessor in the Framework of the European Processor Initiative. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2022, 30, 177-186.	3.1	12
3	Design and Test of an Integrated Random Number Generator with All-Digital Entropy Source. Entropy, 2022, 24, 139.	2.2	12
4	Fine-Grained Modulation Classification Using Multi-Scale Radio Transformer With Dual-Channel Representation. IEEE Communications Letters, 2022, 26, 1298-1302.	4.1	50
5	CRFlex: A Flexible and Configurable Cryptographic Hardware Accelerator for AES Block Cipher Modes. Lecture Notes in Electrical Engineering, 2022, , 31-38.	0.4	2
6	Electro-Thermal Model-Based Design of Bidirectional On-Board Chargers in Hybrid and Full Electric Vehicles. Electronics (Switzerland), 2022, 11, 112.	3.1	27
7	Developing a real-time social distancing detection system based on YOLOv4-tiny and bird-eye view for COVID-19. Journal of Real-Time Image Processing, 2022, 19, 551-563.	3.5	18
8	Design and Characterization of 10 Gb/s and 1 Grad TID-Tolerant Optical Modulator Driver. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 3177-3189.	5.4	6
9	An Embedded System for Acoustic Data Processing and AI-Based Real-Time Classification for Road Surface Analysis. IEEE Access, 2022, 10, 63073-63084.	4.2	7
10	Design and Testing Novel One-Class Classifier Based on Polynomial Interpolation With Application to Networking Security. IEEE Access, 2022, 10, 67910-67924.	4.2	20
11	Processor-in-the-Loop Validation of a Gradient Descent-Based Model Predictive Control for Assisted Driving and Obstacles Avoidance Applications. IEEE Access, 2022, 10, 67958-67975.	4.2	29
12	Small Reals Representations for Deep Learning at the Edge: A Comparison. Lecture Notes in Computer Science, 2022, , 117-133.	1.3	1
13	SHA2 and SHA-3 accelerator design in a 7 nm technology within the European Processor Initiative. Microprocessors and Microsystems, 2021, 87, 103444.	2.8	19
14	Real-time video fire/smoke detection based on CNN in antifire surveillance systems. Journal of Real-Time Image Processing, 2021, 18, 889-900.	3.5	105
15	Implementing a real-time, AI-based, people detection and social distancing measuring system for Covid-19. Journal of Real-Time Image Processing, 2021, 18, 1937-1947.	3.5	79
16	Performance Evaluation of Attribute-Based Encryption in Automotive Embedded Platform for Secure Software Over-The-Air Update. Sensors, 2021, 21, 515.	3.8	20
17	Design and Verification of a 6.25 GHz *LC*-Tank VCO Integrated in 65 nm CMOS Technology Operating up to 1 Grad TID. IEEE Transactions on Nuclear Science, 2021, 68, 2524-2532.	2.0	11
18	Vectorizing posit operations on RISC-V for faster deep neural networks: experiments and comparison with ARM SVE. Neural Computing and Applications, 2021, 33, 10575-10585.	5.6	5

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19	A real-time video smoke detection algorithm based on Kalman filter and CNN. Journal of Real-Time Image Processing, 2021, 18, 2085-2095.	3.5	13
20	Faster deep neural network image processing by using vectorized posit operations on a RISC-V processor. , 2021, , .		3
21	True Random Number Generator Based on Fibonacci-Galois Ring Oscillators for FPGA. Applied Sciences (Switzerland), 2021, 11, 3330.	2.5	22
22	Optimized Energy and Air Quality Management of Shared Smart Buildings in the COVID-19 Scenario. Energies, 2021, 14, 2124.	3.1	15
23	Power Converters, Electric Drives and Energy Storage Systems for Electrified Transportation and Smart Grid Applications. Energies, 2021, 14, 4142.	3.1	5
24	An Instrument for the Characterization and Calibration of Optical Sensors. Sensors, 2021, 21, 5141.	3.8	4
25	Exploiting Biomedical Sensors for a Home Monitoring System for Paediatric Patients with Congenital Heart Disease. Technologies, 2021, 9, 56.	5.1	1
26	Secure Elliptic Curve Crypto-Processor for Real-Time IoT Applications. Energies, 2021, 14, 4676.	3.1	26
27	Guest Editorial: Special issue on parallel, distributed, and network-based processing in next-generation embedded systems. Journal of Systems Architecture, 2021, 117, 102159.	4.3	1
28	Time-Sensitive Networking in automotive embedded systems: State of the art and research opportunities. Journal of Systems Architecture, 2021, 117, 102137.	4.3	65
29	Diagnosis of Faults Induced by Radiation and Circuit-Level Design Mitigation Techniques: Experience from VCO and High-Speed Driver CMOS ICs Case Studies. Electronics (Switzerland), 2021, 10, 2144.	3.1	2
30	Novel Arithmetics in Deep Neural Networks Signal Processing for Autonomous Driving: Challenges and Opportunities. IEEE Signal Processing Magazine, 2021, 38, 97-110.	5.6	19
31	Model-Based Design of an Improved Electric Drive Controller for High-Precision Applications Based on Feedback Linearization Technique. Electronics (Switzerland), 2021, 10, 2954.	3.1	21
32	Recreating Fingerprint Images by Convolutional Neural Network Autoencoder Architecture. IEEE Access, 2021, 9, 147888-147899.	4.2	14
33	A RISC-V Post Quantum Cryptography Instruction Set Extension for Number Theoretic Transform to Speed-Up CRYSTALS Algorithms. IEEE Access, 2021, 9, 150798-150808.	4.2	25
34	The beneficial health effects of flavonoids on the cardiovascular system: Focus on K+ channels. Pharmacological Research, 2020, 152, 104625.	7.1	55
35	Design and Performance Evaluation of Multi-Gb/s Silicon Photonics Transmitters for High Energy Physics. Energies, 2020, 13, 3569.	3.1	4
36	Improving care model for congenital heart diseases in paediatric patients using home telemonitoring of vital signs via biomedical sensors. , 2020, , .		4

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37	Inductorless DC/DC Converter for Aerospace Applications With Insulation Features. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 1659-1663.	3.0	7
38	Analysis and Comparison of Rad-Hard Ring and LC-Tank Controlled Oscillators in 65 nm for SpaceFibre Applications. Sensors, 2020, 20, 4612.	3.8	7
39	Formal Verification and Co-Simulation in the Design of a Synchronous Motor Control Algorithm. Energies, 2020, 13, 4057.	3.1	27
40	Analysis and Design of Integrated Blocks for a 6.25 GHz Spacefibre PLL. Sensors, 2020, 20, 4013.	3.8	7
41	Fast deep neural networks for image processing using posits and ARM scalable vector extension. Journal of Real-Time Image Processing, 2020, 17, 759-771.	3.5	15
42	Design of an Observer-Based Architecture and Non-Linear Control Algorithm for Cogging Torque Reduction in Synchronous Motors. Energies, 2020, 13, 2077.	3.1	24
43	AdViSED: Advanced Video SmokE Detection for Real-Time Measurements in Antifire Indoor and Outdoor Systems. Energies, 2020, 13, 2098.	3.1	16
44	Design of Adaptive Controller Exploiting Learning Concepts Applied to a BLDC-Based Drive System. Energies, 2020, 13, 2512.	3.1	28
45	Fast Approximations of Activation Functions in Deep Neural Networks when using Posit Arithmetic. Sensors, 2020, 20, 1515.	3.8	18
46	Recent Trends in DC and Hybrid Microgrids: Opportunities from Renewables Sources, Battery Energy Storages and Bi-Directional Converters. Applied Sciences (Switzerland), 2020, 10, 4388.	2.5	6
47	Electric Drives and Power Chargers: Recent Solutions to Improve Performance and Energy Efficiency for Hybrid and Fully Electric Vehicles. IEEE Vehicular Technology Magazine, 2020, 15, 73-83.	3.4	31
48	Design, Implementation, and Experimental Verification of 5 Gbps, 800 Mrad TID and SEU-Tolerant Optical Modulators Drivers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 829-838.	5.4	12
49	Cryptographically Secure Pseudo-Random Number Generator IP-Core Based on SHA2 Algorithm. Sensors, 2020, 20, 1869.	3.8	21
50	A Fast Approximation of the Hyperbolic Tangent When Using Posit Numbers and Its Application to Deep Neural Networks. Lecture Notes in Electrical Engineering, 2020, , 213-221.	0.4	13
51	Integrated Passive Devices and Switching Circuit Design for a 3D DC/DC Converter up to 60ÂV. Journal of Circuits, Systems and Computers, 2020, 29, 2050039.	1.5	1
52	Control System Design for Cogging Torque Reduction Based on Sensor-Less Architecture. Lecture Notes in Electrical Engineering, 2020, , 309-321.	0.4	5
53	Co-simulation and Verification of a Non-linear Control System for Cogging Torque Reduction in Brushless Motors. Lecture Notes in Computer Science, 2020, , 3-19.	1.3	8
54	Digital Random Number Generator Hardware Accelerator IP-Core for Security Applications. Lecture Notes in Electrical Engineering, 2020, , 117-123.	0.4	8

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55	Integrated Simulation Environment for Co-design/Verification of Mechanic, Electronic and Control of Automotive E-Drives: The Smart-Latch Case Study. Lecture Notes in Electrical Engineering, 2020, , 413-424.	0.4	0
56	Design of a high radiation-hard driver for Machâ€"Zehnder Modulators based high-speed links for hadron collider applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 936, 303-304.	1.6	6
57	Cogging Torque Reduction in Brushless Motors by a Nonlinear Control Technique. Energies, 2019, 12, 2224.	3.1	44
58	Radar-on-Chip/in-Package in Autonomous Driving Vehicles and Intelligent Transport Systems: Opportunities and Challenges. IEEE Signal Processing Magazine, 2019, 36, 71-84.	5.6	44
59	Guest Editorial Embedded and Networked Systems for Intelligent Vehicles and Robots. IEEE Transactions on Industrial Informatics, 2019, 15, 1035-1037.	11.3	3
60	A Telemedicine Service System Exploiting BT/BLE Wireless Sensors for Remote Management of Chronic Patients. Technologies, 2019, 7, 13.	5.1	25
61	Energy Storage Systems and Power Conversion Electronics for E-Transportation and Smart Grid. Energies, 2019, 12, 663.	3.1	4
62	Hybrid Micro-Grids Exploiting Renewables Sources, Battery Energy Storages, and Bi-Directional Converters. Applied Sciences (Switzerland), 2019, 9, 4973.	2.5	21
63	Crypto Accelerators for Power-Efficient and Real-Time on-Chip Implementation of Secure Algorithms. , 2019, , .		12
64	Novel Arithmetics to Accelerate Machine Learning Classifiers in Autonomous Driving Applications. , 2019, , .		9
65	Recent Advances and Trends in On-Board Embedded and Networked Automotive Systems. IEEE Transactions on Industrial Informatics, 2019, 15, 1038-1051.	11.3	109
66	Hardware accelerator IP cores for real time Radar and camera-based ADAS. Journal of Real-Time Image Processing, 2019, 16, 1493-1510.	3.5	7
67	Analysis and Simulations of mmW Transceiver for System-in-Package Communications. Lecture Notes in Electrical Engineering, 2019, , 99-106.	0.4	0
68	Radar real-time image processing for machine perception. , 2019, , .		1
69	Electrical, Electromagnetic, and Thermal Measurements of 2-D and 3-D Integrated DC/DC Converters. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 1078-1090.	4.7	10
70	IC Design and Measurement of an Inductorless 48 V DC/DC Converter in Low-Cost CMOS Technology Facing Harsh Environments. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 380-393.	5.4	10
71	Design of a radiation-tolerant high-speed driver for Mach Zender Modulators in High Energy Physics. , 2018, , .		5
72	Toward Green Vehicles Digitalization for the Next Generation of Connected and Electrified Transport Systems. Energies, 2018, 11, 3124.	3.1	29

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73	Exploiting Posit Arithmetic for Deep Neural Networks in Autonomous Driving Applications. , 2018, , .		25
74	Sensing and Connection Systems for Assisted and Autonomous Driving and Unmanned Vehicles. Sensors, 2018, 18, 1999.	3.8	10
75	Is Consumer Electronics Redesigning Our Cars?: Challenges of Integrated Technologies for Sensing, Computing, and Storage. IEEE Consumer Electronics Magazine, 2018, 7, 8-17.	2.3	27
76	A telemedicine service platform exploiting BT/BLE wearable sensors for remote monitoring of chronic patients. , 2018, , .		10
77	Real-time kinematics for accurate geolocalization of images in telerobotic applications. , 2018, , .		1
78	Wideband mmWave Antenna for Wireless Network-On-Chip/Network-On-Board Communications. Lecture Notes in Electrical Engineering, 2018, , 132-137.	0.4	0
79	Testing of DC/DC Converters for $$48,$$ 48 V Electric Vehicles. Lecture Notes in Electrical Engineering, 2018, , 86-92.	0.4	0
80	Failure Analysis of Plastic Packages for Low-Power ICs. Lecture Notes in Electrical Engineering, 2018, , 160-166.	0.4	1
81	Real-time image and video processing for advanced services on-board vehicles for passenger transport. , 2018, , .		1
82	A high-speed driver for silicon photonics Mach-Zehnder modulator for high data-rate transfer of particle collision images in high-energy physics and in medical physics. , 2018, , .		0
83	Wearable Biometric Performance Measurement System for Combat Sports. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 2545-2555.	4.7	33
84	Design and Measurement of Integrated Converters for Belt-Driven Starter-Generator in 48 V Micro/Mild Hybrid Vehicles. IEEE Transactions on Industry Applications, 2017, 53, 3936-3949.	4.9	22
85	Exploiting mm-Wave Communications to Boost the Performance of Industrial Wireless Networks. IEEE Transactions on Industrial Informatics, 2017, 13, 1460-1470.	11.3	31
86	Radar Sensor Signal Acquisition and Multidimensional FFT Processing for Surveillance Applications in Transport Systems. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 604-615.	4.7	63
87	Design Exploration of mm-Wave Integrated Transceivers for Short-Range Mobile Communications Towards 5G. Journal of Circuits, Systems and Computers, 2017, 26, 1750069.	1.5	9
88	Hard macrocells for DC/DC converter in automotive embedded mechatronic systems. Eurasip Journal on Embedded Systems, 2017, 2017, .	1.2	1
89	Real-Time and High-Accuracy Arctangent Computation Using CORDIC and Fast Magnitude Estimation. Electronics (Switzerland), 2017, 6, 22.	3.1	13
90	System-Level Analysis for Integrated Power Amplifier Design in mmWave Consumer Wireless Communications. Lecture Notes in Electrical Engineering, 2017, , 167-174.	0.4	2

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91	Design and Experimental Measurement of EMI Reduction Techniques for Integrated Switching DC/DC Converters. Canadian Journal of Electrical and Computer Engineering, 2017, 40, 116-127.	2.0	12
92	Distributed Measuring System for Predictive Diagnosis of Uninterruptible Power Supplies in Safety-Critical Applications. Energies, 2016, 9, 327.	3.1	15
93	Recent progress of RD53 Collaboration towards next generation Pixel Read-Out Chip for HL-LHC. Journal of Instrumentation, 2016, 11, C12058-C12058.	1.2	17
94	An Embedded Sensing and Communication Platform, and a Healthcare Model for Remote Monitoring of Chronic Diseases. Electronics (Switzerland), 2016, 5, 47.	3.1	20
95	An Actuator Control Unit for Safety-Critical Mechatronic Applications with Embedded Energy Storage Backup. Energies, 2016, 9, 213.	3.1	3
96	Real-time multi-camera video acquisition and processing platform for ADAS. , 2016, , .		0
97	Design exploration for millimeter-wave short-range industrial wireless communications. , 2016, , .		3
98	Design of a multi-channel LED lighting system on flexible supports for high-end 2-wheel vehicles. , 2016, , .		2
99	Real-time FPGA-based radar imaging for smart mobility systems. Proceedings of SPIE, 2016, , .	0.8	2
100	Predictive Diagnosis of High-Power Transformer Faults by Networking Vibration Measuring Nodes With Integrated Signal Processing. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1749-1760.	4.7	59
101	Performance of digital adder architectures in 180nm CMOS standard-cell technology. , 2016, , .		8
102	Exploiting CCTV camera system for advanced passenger services on-board trains. , 2016, , .		9
103	DC/DC converter integrated architecture for 48V supplies in micro/mild hybrid vehicle electrical engine control module. , 2016, , .		5
104	Application specific instruction set processor for sensor conditioning in automotive applications. Microprocessors and Microsystems, 2016, 47, 375-384.	2.8	3
105	High-level feasibility analysis of an electronic distributed control architecture for oil & gas turbomachinery. , 2016, , .		0
106	Fully integrated multi-channel inductive load driver for harsh automotive applications. Analog Integrated Circuits and Signal Processing, 2016, 88, 485-494.	1.4	1
107	Biometric performance measurements in combat sports. , 2016, , .		1
108	Design of compact and low-power X-band Radar for mobility surveillance applications. Computers and Electrical Engineering, 2016, 56, 46-63.	4.8	9

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109	Real-time and low-cost embedded platform for car's surrounding vision system. Proceedings of SPIE, 2016, , .	0.8	2
110	Configurable network-on-chip router macrocells. Microprocessors and Microsystems, 2016, 45, 141-150.	2.8	2
111	Radar sensor signal acquisition and 3D FFT processing for smart mobility surveillance systems. , 2016, , .		10
112	mm-wave integrated wireless transceiver: enabling technology for high bandwidth short-range networking in cyber physical systems. Microsystem Technologies, 2016, 22, 1893-1903.	2.0	8
113	Low Cost FMCW Radar Design and Implementation for Harbour Surveillance Applications. Lecture Notes in Electrical Engineering, 2016, , 139-144.	0.4	2
114	ATHENIS_3D: Automotive Tested High-voltage and Embedded Non-volatile Integrated SoC Platform with 3D Technology. , 2016, , .		7
115	Integrated Bandgap Voltage Reference for High Voltage Vehicle Applications. Journal of Circuits, Systems and Computers, 2015, 24, 1550125.	1.5	2
116	mm-wave integrated wireless transceivers: Enabling technology for high bandwidth connections in IoT. , 2015, , .		3
117	Gbps wireless transceivers for high bandwidth interconnections in distributed cyber physical systems. , 2015, , .		1
118	Slew-rate Boosted Amplifier Integrated in a Digital Input Driver for Automotive Actuator Control Units. Analog Integrated Circuits and Signal Processing, 2015, 84, 325-331.	1.4	2
119	A Multichannel and Compact Time to Digital Converter for Time of Flight Positron Emission Tomography. IEEE Transactions on Nuclear Science, 2015, 62, 814-823.	2.0	19
120	A network of vibration measuring nodes with integrated signal processing for predictive maintenance of high power transformers. , 2015, , .		3
121	An actuator control unit for robotized prosthetic arm with embedded energy storage. , 2015, , .		1
122	Real-time imaging acquisition and processing system to improve fire protection in indoor scenarios. , 2015, , .		3
123	Electronic actuation control unit with embedded energy storage for safety-critical mechatronic applications. , 2015, , .		0
124	Uninterruptible power supply systems for railway with predictive diagnostic against power transformer failure. , 2015, , .		3
125	DESIGN, IMPLEMENTATION AND TESTING OF A FLEXIBLE FULLY-DIGITAL TRANSPONDER FOR LOW-EARTH ORBIT SATELLITE COMMUNICATIONS. Journal of Circuits, Systems and Computers, 2014, 23, 1450148.	1.5	4
126	Design of a 2 Gb/s transceiver at 60 GHz with integrated antenna in bulk CMOS technology. , 2014, , .		3

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127	Hardware accelerator for fast image/video thinning. , 2014, , .		3
128	Early video smoke detection system to improve fire protection in rolling stocks. , 2014, , .		5
129	L–type <scp>C</scp>a²⁺ channel current characteristics are preserved in rat tail artery myocytes after one–day storage. Acta Physiologica, 2014, 211, 334-345.	3.8	30
130	A low-cost embedded platform for car's surrounding vision system. Proceedings of SPIE, 2014, , .	0.8	0
131	Low-power DSP system for real-time correction of fish-eye cameras in automotive driver assistance applications. Journal of Real-Time Image Processing, 2014, 9, 463-478.	3.5	16
132	Special issue on algorithms and architectures for real-time multi-dimensional image processing. Journal of Real-Time Image Processing, 2014, 9, 393-396.	3.5	0
133	Design of an NoC Interface Macrocell with Hardware Support of Advanced Networking Functionalities. IEEE Transactions on Computers, 2014, 63, 609-621.	3.4	16
134	A New Space Digital Signal Processor Design. Lecture Notes in Electrical Engineering, 2014, , 51-60.	0.4	1
135	Integrated Front-end Electronics for Silicon PhotoMultiplier Readout in Medical Imaging Applications. Lecture Notes in Electrical Engineering, 2014, , 27-37.	0.4	0
136	SuperCap-Based Energy Back-up System for Automotive Electronic Control Units. Lecture Notes in Electrical Engineering, 2014, , 1-11.	0.4	1
137	Guest editorial: special issue on algorithms and architectures for real-time image and video enhancement. Journal of Real-Time Image Processing, 2013, 8, 1-3.	3.5	3
138	A multi-processor NoC-based architecture for real-time image/video enhancement. Journal of Real-Time Image Processing, 2013, 8, 111-125.	3.5	21
139	Development, Design and Characterization of a Novel Protocol and Interfaces for the Control and Readout of Front-End Electronics in High Energy Physics Experiments. IEEE Transactions on Nuclear Science, 2013, 60, 352-364.	2.0	7
140	A novel time to digital converter architecture for time of flight positron emission tomography. , 2013, , .		5
141	Design and Characterization of a Robotized Gearbox System Based on Voice Coil Actuators for a Formula SAE Race Car. IEEE/ASME Transactions on Mechatronics, 2013, 18, 53-61.	5.8	24
142	DSPACE hardware architecture for on-board real-time image/video processing in European space missions. , 2013, , .		2
143	Sensing Devices and Sensor Signal Processing for Remote Monitoring of Vital Signs in CHF Patients. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 553-569.	4.7	125
144	STAR: FPGA-based software defined satellite transponder. Proceedings of SPIE, 2013, , .	0.8	0

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145	HV-CMOS Design and Characterization of a Smart Rotor Coil Driver for Automotive Alternators. IEEE Transactions on Industrial Electronics, 2013, 60, 2309-2317.	7.9	22
146	TDC-based readout electronics for real-time acquisition of high resolution PET bio-images. Proceedings of SPIE, 2013, , .	0.8	1
147	Real-time color/shape-based traffic signs acquisition and recognition system. , 2013, , .		2
148	Quercetin relaxes rat tail main artery partly *via* a PKG–mediated stimulation of $K_{Ca}1.1$ channels. Acta Physiologica, 2013, 208, 329-339.	3.8	26
149	Thermal, electric and durability characterization of supercaps for energy back-up of automotive ECU. , 2013, , .		7
150	BANDGAP VOLTAGE REFERENCE IC FOR HV AUTOMOTIVE APPLICATIONS WITH PSEUDO-REGULATED BIAS AND SERVICE REGULATOR. Journal of Circuits, Systems and Computers, 2013, 22, 1250069.	1.5	6
151	Design exploration and verification platform, based on high-level modeling and FPGA prototyping, for fast and flexible digital communication in physics experiments. Journal of Instrumentation, 2013, 8, P02021-P02021.	1.2	5
152	Wireless Sensing Based on RFID and Capacitive Technologies for Safety in Marble Industry Process Control. Journal of Computer Networks and Communications, 2013, 2013, 1-19.	1.6	0
153	Privacy and Security in Wireless Sensor Networks: Protocols, Algorithms, and Efficient Architectures. Journal of Computer Networks and Communications, 2013, 2013, 1-3.	1.6	1
154	Operating Protocol and Networking Issues of a Telemedicine Platform Integrating from Wireless Home Sensors to the Hospital Information System. Journal of Computer Networks and Communications, 2013, 2013, 1-12.	1.6	7
155	INTEGRATED 60 GHZ ANTENNA, LNA AND FAST ADC ARCHITECTURE FOR EMBEDDED SYSTEMS WITH WIRELESS GBIT CONNECTIVITY. Journal of Circuits, Systems and Computers, 2012, 21, 1250047.	1.5	7
156	An integrated smart driver for inductive loads with self-monitoring/diagnostic capability. , 2012, , .		3
157	An innovative detection module concept for PET. Journal of Instrumentation, 2012, 7, C08003-C08003.	1.2	11
158	A Flexible LED Driver for Automotive Lighting Applications: IC Design and Experimental Characterization. IEEE Transactions on Power Electronics, 2012, 27, 1071-1075.	7.9	53
159	Remote monitoring of vital signs in patients with Chronic Heart Failure: Sensor devices and data analysis perspective. , 2012, , .		14
160	Compact Triple-Frequency Antenna for Sub-GHz Wireless Communications. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 14-17.	4.0	13
161	Low-power embedded system for real-time correction of fish-eye automotive cameras. , 2012, , .		2
162	Advances in technologies, architectures, and applications of highly-integrated low-power radars. IEEE Aerospace and Electronic Systems Magazine, 2012, 27, 25-36.	1.3	16

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163	Batteries and battery management systems for electric vehicles. , 2012, , .		117
164	Network Architecture, Security Issues, and Hardware Implementation of a Home Area Network for Smart Grid. Journal of Computer Networks and Communications, 2012, 2012, 1-19.	1.6	43
165	Homogeneous and Heterogeneous MPSoC Architectures with Network-On-Chip Connectivity for Low-Power and Real-Time Multimedia Signal Processing. VLSI Design, 2012, 2012, 1-17.	0.5	10
166	Design and Comparison of FFT VLSI Architectures for SoC Telecom Applications with Different Flexibility, Speed and Complexity Trade-Offs. Circuits, Systems, and Signal Processing, 2012, 31, 627-649.	2.0	9
167	Real-time and low-power processing of 3D direct/inverse discrete cosine transform for low-complexity video codec. Journal of Real-Time Image Processing, 2012, 7, 43-53.	3.5	16
168	Radiation tolerant IP Cores for the control and readout of Front-End electronics in High Energy Physics experiments. , 2011, , .		3
169	Feasibility study and on-chip antenna for fully integrated μRFID tag at 60 GHz in 65 nm CMOS SOI. , 2011, , .		10
170	Parametric Design of Compact Dual-Frequency Antennas for Wireless Sensor Networks. IEEE Transactions on Antennas and Propagation, 2011, 59, 2619-2627.	5.1	18
171	Characterization of an Intelligent Power Switch for LED driving with control of wiring parasitics effects. , 2011, , .		1
172	Coverage-Driven Verification of HDL IP Cores. Lecture Notes in Electrical Engineering, 2011, , 105-119.	0.4	3
173	Design of a Low Noise Amplifier with integrated antenna for 60 GHz wireless communications. , 2011, , .		3
174	Design and Verification of Hardware Building Blocks for High-Speed and Fault-Tolerant In-Vehicle Networks. IEEE Transactions on Industrial Electronics, 2011, 58, 792-801.	7.9	59
175	A flexible home monitoring platform for patients affected by chronic heart failure directly integrated with the remote Hospital Information System. Proceedings of SPIE, 2011, , .	0.8	0
176	The flavonoid scaffold as a template for the design of modulators of the vascular $Ca_v1.2$ channels. British Journal of Pharmacology, 2011, 164, 1684-1697.	5.4	40
177	Design and coverage-driven verification of a novel network-interface IP macrocell for network-on-chip interconnects. Microprocessors and Microsystems, 2011, 35, 579-592.	2.8	20
178	Sensor Modeling, Low-Complexity Fusion Algorithms, and Mixed-Signal IC Prototyping for Gas Measures in Low-Emission Vehicles. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 372-384.	4.7	42
179	Modeling, Sensitivity Analysis, and Prototyping of Low-g Acceleration Acquisition Systems for Spacecraft Testing and Environmental-Noise Measurements. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 385-397.	4.7	12
180	Design and Test of an HV-CMOS Intelligent Power Switch With Integrated Protections and Self-Diagnostic for Harsh Automotive Applications. IEEE Transactions on Industrial Electronics, 2011, 58, 2715-2727.	7.9	54

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181	High-level modeling of resistor string based digital-to-analog converters. Analog Integrated Circuits and Signal Processing, 2011, 66, 407-416.	1.4	5
182	Configurable array of low-complex SAR ADCs. Analog Integrated Circuits and Signal Processing, 2011, 67, 103-107.	1.4	3
183	DESIGN OF AN INTEGRATED SCANNING MICROMIRROR DRIVER IN BCD TECHNOLOGY. Journal of Circuits, Systems and Computers, 2011, 20, 781-799.	1.5	5
184	A flexible home gateway system for telecare of patients affected by chronic heart failure. , 2011, , .		5
185	IEEE 1451 Sensor Interfacing and Data Fusion in Embedded Systems. Lecture Notes in Electrical Engineering, 2011, , 59-73.	0.4	0
186	Mixed-Signal Architectures for High-Efficiency and Low-Distortion Digital Audio Processing and Power Amplification. Eurasip Journal on Embedded Systems, 2010, 2010, 1-11.	1.2	1
187	Design Methodologies and Innovative Architectures for Mixed-Signal Embedded Systems. Eurasip Journal on Embedded Systems, 2010, 2010, 1-2.	1.2	4
188	FF-LYNX: protocol and interfaces for the control and readout of future Silicon detectors. Journal of Instrumentation, 2010, 5, C06001-C06001.	1.2	2
189	Integrated video motion estimator with Retinex-like pre-processing for robust motion analysis in automotive scenarios: algorithmic and real-time architecture design. Journal of Real-Time Image Processing, 2010, 5, 275-289.	3.5	28
190	Motion estimation and CABAC VLSI co-processors for real-time high-quality H.264/AVC video coding. Microprocessors and Microsystems, 2010, 34, 316-328.	2.8	37
191	FF-LYNX: Fast and flexible electrical links for data acquisition and distribution of Timing, Trigger and Control signals in future High Energy Physics experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 617, 289-290.	1.6	4
192	A Cost-Effective 10-Bit D/A Converter for Digital-Input MOEMS Micromirror Actuation. VLSI Design, 2010, 2010, 1-7.	0.5	1
193	Fast and accurate modeling and sensitivity analysis of an acquisition system for very low-g accelerations to be used in spacecraft testing and environmental noise measurements. , 2009, , .		1
194	Sensor modeling and fusion algorithms for NOx measures towards zero emissions vehicles. , 2009, , .		2
195	FF-LYNX: Integrated control, trigger, and readout in future high energy physics experiments. , 2009, , .		2
196	Low-complexity FFT/IFFT IP hardware macrocells for OFDM and MIMO–OFDM CMOS transceivers. Microprocessors and Microsystems, 2009, 33, 191-200.	2.8	6
197	Sensor modeling and data fusion for a safety warning system in hydrogen-based vehicles. , 2009, , .		1
198	Voice coil actuators: From model and simulation to automotive application. , 2009, , .		12

#	ARTICLE	IF	CITATIONS
199	Capacitive sensors for process control in industrial marble machines. , 2009, , .		2
200	Pin-limited frequency converter IP bridge for efficient communication of automotive IC sensors with off-chip ECUs. , 2009, , .		1
201	A reusable pseudo-random verification environment for complex digital designs: The SpaceWire interface case study. , 2009, , .		0
202	Experimental analysis towards the application of RFID technologies in industrial marble machines. , 2009, , .		3
203	The FF-LYNX project: Design of fast and flexible protocols and HW interfaces for Data Acquisition and TTC distribution in High Energy Physics experiments. , 2009, , .		1
204	Architectural Exploration and Design of Time-Interleaved SAR Arrays for Low-Power and High Speed A/D Converters. IEICE Transactions on Electronics, 2009, E92-C, 843-851.	0.6	25
205	ASIP-based reconfigurable architectures for power-efficient and real-time image/video processing. Journal of Real-Time Image Processing, 2008, 3, 201-216.	3.5	6
206	Current-feedback architecture for high-slew-rate and low-THD high-end audio amplifier. Electronics Letters, 2008, 44, 1433.	1.0	2
207	Double-loop antenna for wireless tyre pressure monitoring. Electronics Letters, 2008, 44, 1385.	1.0	11
208	Low-Complexity Link Microarchitecture for Mesochronous Communication in Networks-on-Chip. IEEE Transactions on Computers, 2008, 57, 1196-1201.	3.4	40
209	Analysis of FPGA Solutions for Baseband Processing in Multi Carrier Communication Standards for Consumer Applications. , 2008, , .		1
210	Hardware/Software FPGA-based Network Emulator for High-speed On-board Communications. , 2008, , .		3
211	LIME: A Low-latency and Low-complexity On-chip Mesochronous Link with Integrated Flow Control. , 2008, , .		8
212	Mixed-Signal Design Space Exploration of Time-Interleaved A/D Converters for Ultra-Wide Band Applications. , 2008, , .		2
213	Automatic Synthesis of Cost Effective FFT/IFFT Cores for VLSI OFDM Systems. IEICE Transactions on Electronics, 2008, E91-C, 487-496.	0.6	20
214	Hardware Building Blocks for High Data-Rate Fault-Tolerant In-vehicle Networking. , 2007, , .		7
215	Improving Power Efficiency and Reliability in RF Tire Pressure Monitoring Modules. , 2007, , .		2
216	FPGA-based Networking Systems for High Data-rate and Reliable In-vehicle Communications. , 2007, , .		3

#	ARTICLE	IF	CITATIONS
217	A mesochronous physical link architecture for network-on-chip interconnects. , 2007, , .		3
218	Mitigating Radiation Effects on ICs at Device and Architectural Levels: the SpaceWire Router Case Study. , 2007, , .		3
219	Automatic Generation of Low-Complexity FFT/IFFT Cores for Multi-Band OFDM Systems. , 2007, , .		4
220	Radiation Tolerant SpaceWire Router for Satellite On-Board Networking. IEEE Aerospace and Electronic Systems Magazine, 2007, 22, 3-12.	1.3	35
221	Architectural-Level Power Optimization of Microcontroller Cores in Embedded Systems. IEEE Transactions on Industrial Electronics, 2007, 54, 680-683.	7.9	33
222	Application-Specific Instruction-Set Processor for Retinex-Like Image and Video Processing. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 596-600.	2.2	46
223	Algorithmic and architectural design for real-time and power-efficient Retinex image/video processing. Journal of Real-Time Image Processing, 2007, 1, 267-283.	3.5	41
224	Mixed-Signal Design of a Digital Input Power Amplifier for Automotive Audio Applications. , 2006, , .		0
225	ASIP Design and Synthesis for Non Linear Filtering in Image Processing. , 2006, , .		3
226	Dynamic control of motion estimation search parameters for low complex h.264 video coding. IEEE Transactions on Consumer Electronics, 2006, 52, 83-90.	3.6	45
227	Oversampled and Noise-Shaped Pulse-Width Modulator for High-Fidelity Digital Audio Amplifier. , 2006, , .		3
228	(+/â˜)â€Naringenin as large conductance Ca 2+ â€activated K + (BK Ca) channel opener in vascular smooth muscle cells. British Journal of Pharmacology, 2006, 149, 1013-1021.	5.4	109
229	Power Optimization of an 8051-Compliant IP Microcontroller. IEICE Transactions on Electronics, 2005, E88-C, 597-600.	0.6	26
230	Self-Adaptive Algorithmic/Architectural Design for Real-Time, Low-Power Video Systems. IEICE Transactions on Information and Systems, 2005, E88-D, 1538-1545.	0.7	1
231	Data-adaptive motion estimation algorithm and VLSI architecture design for low-power video systems. IEE Proceedings: Computers and Digital Techniques, 2004, 151, 51.	1.6	47
232	Design of a Low-Power VLSI Macrocell for Nonlinear Adaptive Video Noise Reduction. Eurasip Journal on Advances in Signal Processing, 2004, 2004, 1.	1.7	6
233	Performance and Complexity Co-evaluation of the Advanced Video Coding Standard for Cost-Effective Multimedia Communications. Eurasip Journal on Advances in Signal Processing, 2004, 2004, 1.	1.7	46
234	VLSI design investigation for low-cost, low-power FFT/IFFT processing in advanced VDSL transceivers. Microelectronics Journal, 2003, 34, 133-148.	2.0	21

#	Article	IF	Citations
235	VLSI architecture for a low-power video codec system. Microelectronics Journal, 2002, 33, 417-427.	2.0	27
236	A parametric VLSI architecture for video motion estimation. The Integration VLSI Journal, 2001, 31, 79-100.	2.1	25
237	Characterization of voltage-gated calcium currents in freshly isolated smooth muscle cells from rat tail main artery. Acta Physiologica Scandinavica, 2001, 173, 257-265.	2.2	48
238	Parametrized and reusable VLSI macro cells for the low-power realization of 2-D discrete-cosine-transform. Microelectronics Journal, 2001, 32, 1035-1045.	2.0	24
239	2,5â€Diâ€<i>t</i>â€butylâ€1,4â€benzohydroquinone (BHQ) inhibits vascular Lâ€type Ca²⁺channel<i>via</i>superoxide anion generation. British Journal of Pharmacology, 2001, 133, 988-996.	5.4	51
240	Cost-effective design of AC/DC converter with programmable power amplification. , 0, , .		0
241	Algorithmic/architectural design for H.264/MPEG-4 AVC low-power video codec. , 0, , .		1
242	High-throughput, low complexity, parametrizable VLSI architecture for full search block matching algorithm for advanced multimedia applications. , 0, , .		5
243	IP reuse VLSI architecture for low complexity fast motion estimation in multimedia applications. , 0, , .		2
244	Programmable and low power VLSI architectures for full search motion estimation in multimedia communications. , 0, , .		3
245	Data driven VLSI computation for low power DCT-based video coding. , 0, , .		18
246	Low-power VLSI architectures for 3D discrete cosine transform (DCT). , 0, , .		6
247	Low-power FFT/IFFT VLSI macro cell for scalable broadband VDSL modem. , 0, , .		7
248	VLSI macro cell for edge-preserving noise smoothing and deblocking in low-power video communications. , 0, , .		0
249	Power optimization of digital IP macrocells for embedded control systems. , 0, , .		2
250	Automated design of FFT/IFFT processors for advanced telecom applications. , 0, , .		2
251	Switching-based topologies for high-efficiency audio amplifiers. , 0, , .		4
252	8051 CPU core optimization for low power at register transfer level. , 0, , .		5

#	Article	IF	Citations
253	Cost-effective VLSI Design of Non Linear Image Processing Filters. , 0, , .		5
254	Design, testing and prototyping of a software programmable I2C/SPI IP on AMBA bus. , 0, , .		17
255	Router IP macrocell for radiation tolerant SpaceWire Networking. , 0, , .		0
256	Dynamic Control of Motion Estimation Search Parameters for Low Complex H. 264/AVC Video Coding. , 0, , .		2