Sergio Cuenca-Asensi

List of Publications by Year
in descending order

68 papers	526 citations	686830 13 h-index	794141 19 g-index
68 all docs	68 docs citations	68 times ranked	421 citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid Lockstep Technique for Soft Error Mitigation. IEEE Transactions on Nuclear Science, 2022, 69, 1574-1581.	1.2	7
2	Multi-Threaded Mitigation of Radiation-Induced Soft Errors in Bare-Metal Embedded Systems. Journal of Electronic Testing: Theory and Applications (JETTA), 2020, 36, 47-57.	0.9	2
3	Soft error reliability predictor based on a Deep Feedforward Neural Network. , 2020, , .		2
4	Empirical Mathematical Model of Microprocessor Sensitivity and Early Prediction to Proton and Neutron Radiation-Induced Soft Errors. IEEE Transactions on Nuclear Science, 2020, 67, 1511-1520.	1.2	4
5	Softerror mitigation for multi-core processors based on thread replication. , 2019, , .		5
6	Dual-Core Lockstep enhanced with redundant multithread support and control-flow error detection. Microelectronics Reliability, 2019, 100-101, 113447.	0.9	5
7	A Compact Model to Evaluate the Effects of High Level C++ Code Hardening in Radiation Environments. Electronics (Switzerland), 2019, 8, 653.	1.8	6
8	Building ATMR circuits using approximate library and heuristic approaches. Microelectronics Reliability, 2019, 97, 24-30.	0.9	4
9	Nonintrusive Automatic Compiler-Guided Reliability Improvement of Embedded Applications Under Proton Irradiation. IEEE Transactions on Nuclear Science, 2019, 66, 1500-1509.	1.2	14
10	Metaheuristic Optimisation Algorithms for Tuning a Bioinspired Retinal Model. Sensors, 2019, 19, 4834.	2.1	4
11	Improving approximate-TMR using multi-objective optimization genetic algorithm. , 2018, , .		9
12	Design of approximate-TMR using approximate library and heuristic approaches. Microelectronics Reliability, 2018, 88-90, 898-902.	0.9	7
13	SHARC: An efficient metric for selective protection of software against soft errors. Microelectronics Reliability, 2018, 88-90, 903-908.	0.9	4
14	An effective strategy for selective hardening of software. , 2017, , .		2
15	Contrast of a HDL model and COTS version of a microprocessor for soft-error testing. , 2017, , .		0
16	Assessment and Comparison of Evolutionary Algorithms for Tuning a Bio-Inspired Retinal Model. Lecture Notes in Computer Science, 2017, , 95-104.	1.0	0
17	Autofocus method for automated microscopy using embedded GPUs. Biomedical Optics Express, 2017, 8, 1731.	1.5	22
18	A Review of the Bayesian Occupancy Filter. Sensors, 2017, 17, 344.	2.1	26

#	Article	IF	Citations
19	A Comparison of FPGA and GPGPU Designs for Bayesian Occupancy Filters. Sensors, 2017, 17, 2599.	2.1	1
20	MOOGA Parameter Optimization for Onset Detection in EMG Signals. Lecture Notes in Computer Science, 2017, , 171-180.	1.0	6
21	Dependability evaluation of COTS microprocessors via on-chip debugging facilities. , 2016, , .		11
22	Reliability on ARM Processors Against Soft Errors Through SIHFT Techniques. IEEE Transactions on Nuclear Science, 2016, , 1-9.	1.2	17
23	On the influence of compiler optimizations in the fault tolerance of embedded systems. , 2016, , .		5
24	Hybrid soft error mitigation techniques for COTS processor-based systems. , 2016, , .		2
25	Automatic Tuning of a Retina Model for a Cortical Visual Neuroprosthesis Using a Multi-Objective Optimization Genetic Algorithm. International Journal of Neural Systems, 2016, 26, 1650021.	3.2	16
26	A Hardware-Software Approach for On-Line Soft Error Mitigation in Interrupt-Driven Applications. IEEE Transactions on Dependable and Secure Computing, 2016, 13, 502-508.	3.7	19
27	Overhead Reduction in Data-Flow Software-Based Fault Tolerance Techniques. , 2016, , 279-291.		9
28	Soft Error Mitigation in Soft-Core Processors. , 2016, , 239-258.		6
29	Reducing Implicit Overheads of Soft Error Mitigation Techniques Using Selective Hardening. , 2016, , 259-278.		0
30	Application-Based Analysis of Register File Criticality for Reliability Assessment in Embedded Microprocessors. Journal of Electronic Testing: Theory and Applications (JETTA), 2015, 31, 139-150.	0.9	8
31	Considerations on application of selective hardening based on software fault tolerance techniques. , 2015, , .		2
32	Reliability on ARM Processors against Soft Errors by a Purely Software Approach. , 2015, , .		7
33	S-SETA: Selective Software-Only Error-Detection Technique Using Assertions. IEEE Transactions on Nuclear Science, 2015, 62, 3088-3095.	1.2	30
34	Tuning compilations by multi-objective optimization: Application to Apache web server. Applied Soft Computing Journal, 2015, 29, 461-470.	4.1	10
35	On the Automatic Tuning of a Retina Model by Using a Multi-objective Optimization Genetic Algorithm. Lecture Notes in Computer Science, 2015, , 108-118.	1.0	8
36	Modeling the role of fixational eye movements in real-world scenes. Neurocomputing, 2015, 151, 78-84.	3.5	7

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37	Tuning software-based fault-tolerance techniques for power optimization. , 2014, , .		3
38	Multi-objective adaptive evolutionary strategy for tuning compilations. Neurocomputing, 2014, 123, 381-389.	3.5	13
39	Efficient metric for register file criticality in processor-based systems. , 2014, , .		3
40	Efficient Mitigation of Data and Control Flow Errors in Microprocessors. IEEE Transactions on Nuclear Science, 2014, 61, 1590-1596.	1.2	21
41	Fault tolerant embedded systems design by multi-objective optimization. Expert Systems With Applications, 2013, 40, 6813-6822.	4.4	15
42	Selective SWIFT-R. Journal of Electronic Testing: Theory and Applications (JETTA), 2013, 29, 825-838.	0.9	30
43	Automatic mapping of OpenCV based systems on new heterogeneous SoCs. , 2013, , .		0
44	RetinaStudio: A bioinspired framework to encode visual information. Neurocomputing, 2013, 114, 45-53.	3.5	14
45	Efficient mitigation of data and control flow errors in microprocessors. , 2013, , .		2
46	Modeling the Effect of Fixational Eye Movements in Natural Scenes. Lecture Notes in Computer Science, 2013, , 332-341.	1.0	3
47	A Co-Design Approach for SET Mitigation in Embedded Systems. IEEE Transactions on Nuclear Science, 2012, 59, 1034-1039.	1.2	13
48	Compiler-Directed Soft Error Mitigation for Embedded Systems. IEEE Transactions on Dependable and Secure Computing, 2012, 9, 159-172.	3.7	45
49	A co-design approach for SET mitigation in embedded systems. , 2011, , .		0
50	Soft core based embedded systems in critical aerospace applications. Journal of Systems Architecture, 2011, 57, 886-895.	2.5	6
51	A morphological-based method for inverse offset generation. An application for surface reconstruction using mechanical digitizers. International Journal of Advanced Manufacturing Technology, 2011, 54, 1067-1076.	1.5	1
52	Hardware approach to tool path computation for STEP-NC enabled CNC: A case study of turning operations. Computers in Industry, 2011, 62, 509-518.	5.7	5
53	On the definition of real conditions for a fault injection experiment on embedded systems. , 2011, , .		0
54	A Novel Co-Design Approach for Soft Errors Mitigation in Embedded Systems. IEEE Transactions on Nuclear Science, 2011, 58, 1059-1065.	1.2	34

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55	An Optimized Framework to Model Vertebrate Retinas. Lecture Notes in Computer Science, 2011, , 185-194.	1.0	0
56	A compiler-based infrastructure for fault-tolerant co-design. , 2010, , .		1
57	Rapid Prototyping of Radiation-Tolerant Embedded Systems on FPGA. , 2010, , .		6
58	Application-driven co-design of fault-tolerant industrial systems. , 2010, , .		3
59	Hardware implementation of a STEP-NC enabled CNC for turning lathe machining. , 2009, , .		0
60	Reconfigurable Architecture for Embedding Web Services. , 2008, , .		5
61	Accelerating tool path computing in CAD/CAM: A FPGA architecture for turning lathe machining. , 2007, , .		1
62	Accelerating Tool Path Computing in Turning Lathe Machining. , 2007, , .		0
63	A Hardware/Software Architecture for Tool Path Computation. An Application to Turning Lathe Machining. , 2007, , .		1
64	Performance Evaluation of FPGA-Embedded Web Servers. , 2007, , .		5
65	Reconfigurable Computing for Tool-Path Computation. International Journal of Advanced Manufacturing Technology, 2003, 21, 945-951.	1.5	7
66	Feature extraction with an associative neural network and its application in industrial quality control. Lecture Notes in Computer Science, 1999, , 460-466.	1.0	2
67	An associative neural network and its special purpose pipeline architecture in image analysis. Lecture Notes in Computer Science, 1999, , 95-106.	1.0	0
68	Texture analysis based on local semicovers. , 0, , .		0