Koldo Basterretxea

List of Publications by Year
in descending order

34 papers	346 citations	1163117 8 h-index	1281871 11 g-index
34 all docs	34 docs citations	34 times ranked	295 citing authors

#	Article	IF	Citations
1	An Experimental Study on Nonlinear Function Computation for Neural/Fuzzy Hardware Design. IEEE Transactions on Neural Networks, 2007, 18, 266-283.	4.2	41
2	Digital design of sigmoid approximator for artificial neural networks. Electronics Letters, 2002, 38, 35.	1.0	36
3	Controlled accuracy approximation of sigmoid function for efficient FPGAâ€"based implementation of artificial neurons. Electronics Letters, 2013, 49, 1598-1600.	1.0	33
4	Driving Behavior Signals and Machine Learning: A Personalized Driver Assistance System. , 2015, , .		33
5	Digital Gaussian membership function circuit for neuro-fuzzy hardware. Electronics Letters, 2006, 42, 44.	1.0	24
6	A System-on-Chip Development of a Neuroâ€"Fuzzy Embedded Agent for Ambient-Intelligence Environments. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 501-512.	5.0	24
7	A wearable human activity recognition system on a chip. , 2014, , .		20
8	Optimised PWL recursive approximation and its application to neuro-fuzzy systems. Mathematical and Computer Modelling, 2002, 35, 867-883.	2.0	15
9	Efficient Algorithms for Accelerometer-Based Wearable Hand Gesture Recognition Systems. , 2015, , .		13
10	An FPGA-based multiprocessor-architecture for intelligent environments. Microprocessors and Microsystems, 2014, 38, 730-740.	2.8	12
11	Embedded high-speed Model Predictive Controller on a FPGA. , 2011, , .		11
12	Generalized sampled-data hold functions with asymptotic zero-order hold behavior and polynomic reconstruction. Automatica, 2012, 48, 1171-1176.	5.0	11
13	A hardware/software embedded agent for real-time control of ambient-intelligence environments. , 2012, , .		10
14	Recursive sigmoidal neurons for adaptive accuracy neural network implementations. , 2012, , .		10
15	Electronic Hardware for Fuzzy Computation. , 0, , 1-30.		8
16	ELM-based hyperspectral imagery processor for onboard real-time classification. , 2016, , .		6
17	SCALABLE ARCHITECTURE FOR HIGH-SPEED MULTIDIMENSIONAL FUZZY INFERENCE SYSTEMS. Journal of Circuits, Systems and Computers, 2011, 20, 375-400.	1.5	5
18	A fully configurable and scalable neural coprocessor IP for SoC implementations of machine learning applications. , 2017, , .		5

#	Article	IF	Citations
19	A versatile hardware/software platform for personalized driver assistance based on online sequential extreme learning machines. Neural Computing and Applications, 2019, 31, 8871-8886.	5.6	5
20	Dynamic Partial Reconfiguration in Embedded Systems for Intelligent Environments. , 2012, , .		4
21	Scalable parallel architecture for singular value decomposition of large matrices. , 2014, , .		4
22	A semi-active suspension embedded controller in a FPGA. , 2010, , .		3
23	Adaptive scalable SVD unit for fast processing of large LSE problems. , 2014, , .		3
24	A fault tolerant single-chip intelligent agent with feature extraction capability. Applied Soft Computing Journal, 2014, 22, 358-371.	7.2	3
25	Towards the Development of a CAD Tool for the Implementation of High-Speed Embedded MPCs on FPGAs. , 2020, , .		3
26	Towards the Automatic Implementation of Reduced-size and High Throughput MPC on FPGAs. , 2019, , .		2
27	Quantisation Errors in Digital Implementations of Fuzzy Controllers. Advances in Industrial Control, 2001, , 253-274.	0.5	1
28	Gaussian Function Approximation in Neuro-Fuzzy Systems. , 2004, , 163-170.		1
29	Dynamic significant feature extraction for embedded intelligent agent implementations. , 2013, , .		0
30	Easy tuning of fractionalâ€order holds to reduce transient energy consumption of lightly damped resonant systems. IET Control Theory and Applications, 2014, 8, 838-846.	2.1	0
31	Generalized sampled-data holds to reduce energy consumption in resonant systems. Control Engineering Practice, 2014, 26, 28-40.	5.5	0
32	Piecewise multi-linear fuzzy extreme learning machine for the implementation of intelligent agents. , 2017, , .		0
33	DBHI: A Tool for Decoupled Functional Hardware-Software Co-Design on SoCs. , 2020, , .		0
34	Robust embedded MPC with reduced-precision arithmetic for cost-optimized implementations. , 2021, , .		0