Shuo Cai

List of Publications by Year
in descending order

37 papers	1,131 citations	361296 20 h-index	414303 32 g-index
38 all docs	38 docs citations	38 times ranked	556 citing authors

#	ARTICLE	IF	CITATIONS
1	Ensuring Cryptography Chips Security by Preventing Scan-Based Side-Channel Attacks With Improved DFT Architecture. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 2009-2023.	5.9	10
2	FPGA implementation and image encryption application of a new PRNG based on a memristive Hopfield neural network with a special activation gradient. Chinese Physics B, 2022, 31, 020505.	0.7	56
3	A 6D Fractional-Order Memristive Hopfield Neural Network and its Application in Image Encryption. Frontiers in Physics, 2022, 10, .	1.0	29
4	Dynamic analysis and application in medical digital image watermarking of a new multi-scroll neural network with quartic nonlinear memristor. European Physical Journal Plus, 2022, 137, 434.	1.2	33
5	A novel intelligent hyper-heuristic algorithm for solving optimization problems. Journal of Intelligent and Fuzzy Systems, 2022, 42, 5041-5053.	0.8	3
6	Dynamic Analysis and Audio Encryption Application in IoT of a Multi-Scroll Fractional-Order Memristive Hopfield Neural Network. Fractal and Fractional, 2022, 6, 370.	1.6	28
7	Defect Analysis and Parallel Testing for 3D Hybrid CMOS-Memristor Memory. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 745-758.	3.2	6
8	Chaos-Based Engineering Applications with a 6D Memristive Multistable Hyperchaotic System and a 2D SF-SIMM Hyperchaotic Map. Complexity, 2021, 2021, 1-21.	0.9	25
9	Pseudorandom number generator based on a 5D hyperchaotic four-wing memristive system and its FPGA implementation. European Physical Journal: Special Topics, 2021, 230, 1763-1772.	1.2	42
10	Design and FPGA Implementation of a Pseudo-random Number Generator Based on a Hopfield Neural Network Under Electromagnetic Radiation. Frontiers in Physics, 2021, 9, .	1.0	49
11	A new multi-scroll Chua's circuit with composite hyperbolic tangent-cubic nonlinearity: Complex dynamics, Hardware implementation and Image encryption application. The Integration VLSI Journal, 2021, 81, 71-83.	1.3	76
12	Dynamics analysis, hardware implementation and engineering applications of novel multi-style attractors in a neural network under electromagnetic radiation. Chaos, Solitons and Fractals, 2021, 152, 111350.	2.5	49
13	A 1V, 0.53ns, 59µW Current Comparator Using Standard 0.18µm CMOS Technology. Wireless Personal Communications, 2020, 111, 843-851.	1.8	15
14	Secure Communication Scheme Based on a New 5D Multistable Four-Wing Memristive Hyperchaotic System with Disturbance Inputs. Complexity, 2020, 2020, 1-16.	0.9	39
15	Soft Error Reliability Evaluation of Nanoscale Logic Circuits in the Presence of Multiple Transient Faults. Journal of Electronic Testing: Theory and Applications (JETTA), 2020, 36, 469-483.	0.9	7
16	Multistability Analysis, Coexisting Multiple Attractors, and FPGA Implementation of Yu–Wang Four-Wing Chaotic System. Mathematical Problems in Engineering, 2020, 2020, 1-16.	0.6	37
17	A New 4D Four-Wing Memristive Hyperchaotic System: Dynamical Analysis, Electronic Circuit Design, Shape Synchronization and Secure Communication. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050147.	0.7	77
18	An Efficient Degraded Deductive Fault Simulator for Small-Delay Defects. IEEE Access, 2020, 8, 204855-204862.	2.6	7

#	ARTICLE	IF	CITATIONS
19	Dynamic Analysis, Circuit Design, and Synchronization of a Novel 6D Memristive Four-Wing Hyperchaotic System with Multiple Coexisting Attractors. Complexity, 2020, 2020, 1-17.	0.9	35
20	CCII and FPGA Realization: A Multistable Modified Fourth-Order Autonomous Chua's Chaotic System with Coexisting Multiple Attractors. Complexity, 2020, 2020, 1-17.	0.9	34
21	Chaos-Based Application of a Novel Multistable 5D Memristive Hyperchaotic System with Coexisting Multiple Attractors. Complexity, 2020, 2020, 1-19.	0.9	32
22	Pseudorandom Number Generator Based on Three Kinds of Four-Wing Memristive Hyperchaotic System and Its Application in Image Encryption. Complexity, 2020, 2020, 1-17.	0.9	34
23	A Secure DFT Architecture Protecting Crypto Chips Against Scan-Based Attacks. IEEE Access, 2019, 7, 22206-22213.	2.6	15
24	Securing Cryptographic Chips against Scan-Based Attacks in Wireless Sensor Network Applications. Sensors, 2019, 19, 4598.	2.1	5
25	A robust and fixed-time zeroing neural dynamics for computing time-variant nonlinear equation using a novel nonlinear activation function. Neurocomputing, 2019, 350, 108-116.	3.5	157
26	Single Event Transient Propagation Probabilities Analysis for Nanometer CMOS Circuits. Journal of Electronic Testing: Theory and Applications (JETTA), 2019, 35, 163-172.	0.9	18
27	A Survey on the Design of Current Comparator. , 2019, , .		3
28	Analysis and FPGA Realization of a Novel 5D Hyperchaotic Four-Wing Memristive System, Active Control Synchronization, and Secure Communication Application. Complexity, 2019, 2019, 1-18.	0.9	72
29	Design and FPGA Implementation of a Pseudorandom Number Generator Based on a Four-Wing Memristive Hyperchaotic System and Bernoulli Map. IEEE Access, 2019, 7, 181884-181898.	2.6	55
30	A Survey on True Random Number Generators Based on Chaos. Discrete Dynamics in Nature and Society, 2019, 2019, 1-10.	0.5	58
31	Defect Analysis and Parallel March Test Algorithm for 3D Hybrid CMOS-Memristor Memory. , 2018, , .		5
32	A Second Generation Current Controlled Current Conveyor Realization Using Cascode Current Mirror : A CCCII Realization Using Cascode Current Mirror. , 2018, , .		0
33	Logic operation–based Design for Testability method and parallel test algorithm for 1T1R crossbar. Electronics Letters, 2017, 53, 1631-1632.	0.5	11
34	Reliability evaluation of logic circuits based on transient faults propagation metrics. IEICE Electronics Express, 2017, 14, 20170128-20170128.	0.3	1
35	A novel test data compression approach based on bit reversion. IEICE Electronics Express, 2017, 14, 20170502-20170502.	0.3	2
36	A parallel-SSHI rectifier for ultra-low-voltage piezoelectric vibration energy harvesting. IEICE Electronics Express, 2016, 13, 20160539-20160539.	0.3	5

#	Article	IF	Citations
37	An Accurate Estimation Algorithm for Failure Probability of Logic Circuits Using Correlation Separation. Journal of Electronic Testing: Theory and Applications (JETTA), 0, , 1.	0.9	1