Esteban Tlelo-Cuautle

List of Publications by Year
in descending order

278 papers	4,253 citations	109137 35 h-index	168136 53 g-index
285 all docs	285 docs citations	285 times ranked	1729 citing authors

#	Article	IF	Citations
1	FPGA realization of multi-scroll chaotic oscillators. Communications in Nonlinear Science and Numerical Simulation, 2015, 27, 66-80.	1.7	180
2	A 3-D Multi-Stable System With a Peanut-Shaped Equilibrium Curve: Circuit Design, FPGA Realization, and an Application to Image Encryption. IEEE Access, 2020, 8, 137116-137132.	2.6	115
3	FPGA realization of a chaotic communication system applied to image processing. Nonlinear Dynamics, 2015, 82, 1879-1892.	2.7	111
4	Hardware implementation of pseudo-random number generators based on chaotic maps. Nonlinear Dynamics, 2017, 90, 1661-1670.	2.7	107
5	Pathological Element-Based Active Device Models and Their Application to Symbolic Analysis. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 1382-1395.	3.5	99
6	Integrated circuit generating 3- and 5-scroll attractors. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 4328-4335.	1.7	93
7	Randomness improvement of chaotic maps for image encryption in a wireless communication scheme using PIC-microcontroller via Zigbee channels. Chaos, Solitons and Fractals, 2020, 133, 109646.	2.5	93
8	Generating a 50-scroll chaotic attractor at 66ÂMHz by using FPGAs. Nonlinear Dynamics, 2016, 85, 2143-2157.	2.7	89
9	Arduino-based chaotic secure communication system using multi-directional multi-scroll chaotic oscillators. Nonlinear Dynamics, 2017, 87, 2203-2217.	2.7	83
10	N-scroll chaotic attractors from saturated function series employing CCII+s. Nonlinear Dynamics, 2010, 61, 331-341.	2.7	78
11	A survey on the integrated design of chaotic oscillators. Applied Mathematics and Computation, 2013, 219, 5113-5122.	1.4	78
12	Frequency limitations in generating multi-scroll chaotic attractors using CFOAs. International Journal of Electronics, 2014, 101, 1559-1569.	0.9	76
13	CHAOTIC COMMUNICATION SYSTEM USING CHUA'S OSCILLATORS REALIZED WITH CCII+s. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 4217-4226.	0.7	69
14	Dynamics, FPGA realization and application of a chaotic system with an infinite number of equilibrium points. Nonlinear Dynamics, 2017, 89, 1129-1139.	2.7	68
15	Implementing a chaotic cryptosystem in a 64-bit embedded system by using multiple-precision arithmetic. Nonlinear Dynamics, 2019, 96, 497-516.	2.7	66
16	FPGA-based implementation of different families of fractional-order chaotic oscillators applying GrÃ¼nwaldâ€“Letnikov method. Communications in Nonlinear Science and Numerical Simulation, 2019, 72, 516-527.	1.7	63
17	New alternatives for analog implementation of fractional-order integrators, differentiators and PID controllers based on integer-order integrators. Nonlinear Dynamics, 2017, 90, 241-256.	2.7	60
18	A New Chaotic System With Stable Equilibrium: From Theoretical Model to Circuit Implementation. IEEE Access, 2017, 5, 8851-8858.	2.6	57

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19	FPAA-based implementation of fractional-order chaotic oscillators using first-order active filter blocks. Journal of Advanced Research, 2020, 25, 77-85.	4.4	56
20	Chaotic Image Encryption Using Hopfield and Hindmarshâ€“Rose Neurons Implemented on FPGA. Sensors, 2020, 20, 1326.	2.1	55
21	A Novel Chaotic System with Two Circles of Equilibrium Points: Multistability, Electronic Circuit and FPGA Realization. Electronics (Switzerland), 2019, 8, 1211.	1.8	54
22	Design of Analog Circuits through Symbolic Analysis. , 2012, , .		54
23	Real-time RGB image encryption for IoT applications using enhanced sequences from chaotic maps. Chaos, Solitons and Fractals, 2021, 153, 111506.	2.5	49
24	FPGA-based Chaotic Cryptosystem by Using Voice Recognition as Access Key. Electronics (Switzerland), 2018, 7, 414.	1.8	46
25	Applications of Evolutionary Algorithms in the Design Automation of Analog Integrated Circuits. Journal of Applied Sciences, 2010, 10, 1859-1872.	0.1	46
26	Symbolic analysis of analog circuits containing voltage mirrors and current mirrors. Analog Integrated Circuits and Signal Processing, 2010, 65, 89-95.	0.9	45
27	Optimizing the maximum Lyapunov exponent and phase space portraits in multi-scroll chaotic oscillators. Nonlinear Dynamics, 2014, 76, 1503-1515.	2.7	45
28	A switchedâ€capacitor skewâ€tent map implementation for random number generation. International Journal of Circuit Theory and Applications, 2017, 45, 305-315.	1.3	45
29	Implementation of a chaotic oscillator by designing Chuaâ€™s diode with CMOS CFOAs. Analog Integrated Circuits and Signal Processing, 2006, 48, 159-162.	0.9	44
30	Multiscroll floating gateâ€“based integrated chaotic oscillator. International Journal of Circuit Theory and Applications, 2013, 41, 831-843.	1.3	42
31	Development and implementation of a fish counter by using an embedded system. Computers and Electronics in Agriculture, 2018, 145, 53-62.	3.7	42
32	Analog/Digital Implementation of Fractional Order Chaotic Circuits and Applications. , 2020, , .		42
33	Optimization and CMOS design of chaotic oscillators robust to PVT variations: INVITED. The Integration VLSI Journal, 2019, 65, 32-42.	1.3	40
34	Richardson extrapolation-based sensitivity analysis in the multi-objective optimization of analog circuits. Applied Mathematics and Computation, 2013, 222, 167-176.	1.4	39
35	Traffic Flow Prediction for Smart Traffic Lights Using Machine Learning Algorithms. Technologies, 2022, 10, 5.	3.0	39
36	Design and Construction of an ROV for Underwater Exploration. Sensors, 2019, 19, 5387.	2.1	38

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37	FPGA-based implementation of chaotic oscillators by applying the numerical method based on trigonometric polynomials. AIP Advances, 2018, 8, .	0.6	35
38	Binary Genetic Encoding for the Synthesis of Mixed-Mode Circuit Topologies. Circuits, Systems, and Signal Processing, 2012, 31, 849-863.	1.2	34
39	On the synchronization techniques of chaotic oscillators and their FPGA-based implementation for secure image transmission. PLoS ONE, 2019, 14, e0209618.	1.1	34
40	Automatic Synthesis of VFs and VMs by Applying Genetic Algorithms. Circuits, Systems, and Signal Processing, 2008, 27, 391-403.	1.2	33
41	Optimizing the positive Lyapunov exponent in multi-scroll chaotic oscillators with differential evolution algorithm. Applied Mathematics and Computation, 2013, 219, 8163-8168.	1.4	32
42	A 5-D Multi-Stable Hyperchaotic Two-Disk Dynamo System With No Equilibrium Point: Circuit Design, FPGA Realization and Applications to TRNGs and Image Encryption. IEEE Access, 2021, 9, 81352-81369.	2.6	32
43	Engineering Applications of FPGAs. , 2016, , .		31
44	Symbolic Analysis of OTRAs-Based Circuits. Journal of Applied Research and Technology, 2011, 9, .	0.6	31
45	Thermal-Sensor-Based Occupancy Detection for Smart Buildings Using Machine-Learning Methods. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-21.	1.9	29
46	Generalized admittance matrix models of OTRAs and COAs. Microelectronics Journal, 2010, 41, 502-505.	1.1	26
47	Designing an authenticated Hash function with a 2D chaotic map. Nonlinear Dynamics, 2021, 104, 4569-4580.	2.7	25
48	A New 4-D Multi-Stable Hyperchaotic System With No Balance Point: Bifurcation Analysis, Circuit Simulation, FPGA Realization and Image Cryptosystem. IEEE Access, 2021, 9, 144555-144573.	2.6	25
49	VHDL Descriptions for the FPGA Implementation of PWL-Function-Based Multi-Scroll Chaotic Oscillators. PLoS ONE, 2016, 11, e0168300.	1.1	24
50	Optimising operational amplifiers by evolutionary algorithms and g_m/<scp>I_d</scp>method. International Journal of Electronics, 2016, 103, 1665-1684.	0.9	24
51	Implementing a Chaotic Cryptosystem by Performing Parallel Computing on Embedded Systems with Multiprocessors. Entropy, 2019, 21, 268.	1.1	24
52	FPGA-Based Implementation of a Multilayer Perceptron Suitable for Chaotic Time Series Prediction. Technologies, 2018, 6, 90.	3.0	23
53	CCII+ Based on QFGMOS for Implementing Chua s Chaotic Oscillator. IEEE Latin America Transactions, 2015, 13, 2865-2870.	1.2	22
54	Synchronization of chaotic artificial neurons and its application to secure image transmission under MQTT for IoT protocol. Nonlinear Dynamics, 2021, 104, 4581-4600.	2.7	22

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55	Synthesis of CCII-s by superimposing VFs and CFs through genetic operations. IEICE Electronics Express, 2008, 5, 411-417.	0.3	21
56	Development of a Portable, Reliable and Low-Cost Electrical Impedance Tomography System Using an Embedded System. Electronics (Switzerland), 2021, 10, 15.	1.8	21
57	Numerical Simulation of Chua's Circuit Oriented to Circuit Synthesis. International Journal of Nonlinear Sciences and Numerical Simulation, 2007, 8, .	0.4	20
58	Symbolic analysis of (MO)(I)CCI(II)(III)â€based analog circuits. International Journal of Circuit Theory and Applications, 2010, 38, 649-659.	1.3	20
59	Sizing CMOS Amplifiers by PSO and MOL to Improve DC Operating Point Conditions. Electronics (Switzerland), 2020, 9, 1027.	1.8	20
60	Optimization of the Kaplan-Yorke dimension in fractional-order chaotic oscillators by metaheuristics. Applied Mathematics and Computation, 2021, 394, 125831.	1.4	20
61	Evolutionary Electronics: Automatic Synthesis of Analog Circuits by GAs. Studies in Computational Intelligence, 2008, , 165-187.	0.7	20
62	Operating-point driven formulation for analog computer-aided design. Analog Integrated Circuits and Signal Processing, 2013, 74, 345-353.	0.9	19
63	Automatic synthesis of 2Dâ€nâ€scrolls chaotic systems by behavioral modeling. Journal of Applied Research and Technology, 2009, 7, .	0.6	18
64	Designing SRCOs by combining SPICE and Verilog-A. International Journal of Electronics, 2007, 94, 373-379.	0.9	17
65	Frequency scaling simulation of Chuaâ€™s circuit by automatic determination and control of step-size. Applied Mathematics and Computation, 2007, 194, 486-491.	1.4	17
66	Optimizing current conveyors by evolutionary algorithms including differential evolution. , 2009, , .		17
67	On the trade-off between the number of scrolls and the operating frequency of the chaotic attractors. , 2011, , .		17
68	On the Electronic Realizations of Fractional-Order Phase-Lead-Lag Compensators with OpAmps and FPAAs. Studies in Computational Intelligence, 2017, , 131-164.	0.7	17
69	Behavioral model generation for symbolic analysis of analog integrated circuits. , 0, , .		16
70	Synchronization of complex networks of identical and nonidentical chaotic systems via model-matching control. PLoS ONE, 2019, 14, e0216349.	1.1	16
71	Estimating the Highest Time-Step in Numerical Methods to Enhance the Optimization of Chaotic Oscillators. Mathematics, 2021, 9, 1938.	1.1	16
72	CMOS OTA-Based Filters for Designing Fractional-Order Chaotic Oscillators. Fractal and Fractional, 2021, 5, 122.	1.6	16

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73	Pipeline FPGA-Based Implementations of ANNs for the Prediction of up to 600-Steps-Ahead of Chaotic Time Series. Journal of Circuits, Systems and Computers, 2021, 30, 2150164.	1.0	16
74	Design of Current-Mode Gm-C Filters from the Transformation of Opamp-RC Filters. Journal of Applied Sciences, 2007, 7, 1321-1326.	0.1	16
75	On the Sizing of CMOS Operational Amplifiers by Applying Many-Objective Optimization Algorithms. Electronics (Switzerland), 2021, 10, 3148.	1.8	16
76	Evaluation of underwater image enhancement algorithms based on Retinex and its implementation on embedded systems. Neurocomputing, 2022, 494, 148-159.	3.5	16
77	On the Relation between the Number of Scrolls and the Lyapunov Exponents in PWL-functions-based Î-Scroll Chaotic Oscillators. International Journal of Nonlinear Sciences and Numerical Simulation, 2010, 11, .	0.4	15
78	Analysis of a 4-D Hyperchaotic Fractional-Order Memristive System with Hidden Attractors. Studies in Computational Intelligence, 2017, , 207-235.	0.7	15
79	Experimental Verification of Optimized Multiscroll Chaotic Oscillators Based on Irregular Saturated Functions. Complexity, 2018, 2018, 1-17.	0.9	15
80	Issues on Applying One- and Multi-Step Numerical Methods to Chaotic Oscillators for FPGA Implementation. Mathematics, 2021, 9, 151.	1.1	15
81	On the Computational Synthesis of CMOS Voltage Followers. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2005, E88-A, 3479-3484.	0.2	15
82	Optimization of fractional-order chaotic cellular neural networks by metaheuristics. European Physical Journal: Special Topics, 2022, 231, 2037-2043.	1.2	15
83	An Image Encryption Scheme Synchronizing Optimized Chaotic Systems Implemented on Raspberry Pis. Mathematics, 2022, 10, 1907.	1.1	15
84	CDCTA and OTA Realizations of a Multi-phase Sinusoidal Oscillator. IETE Technical Review (Institution) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.1	14
85	Evaluation of Machine Learning Algorithms for Classification of EEG Signals. Technologies, 2022, 10, 79.	3.0	14
86	Simulation-based optimization of UGCs performances. , 2008, , .		13
87	Simulation of Piecewise-Linear One-Dimensional Chaotic Maps by Verilog-A. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2015, 32, 304-310.	2.1	13
88	PVT-Robust CMOS Programmable Chaotic Oscillator: Synchronization of Two 7-Scroll Attractors. Electronics (Switzerland), 2018, 7, 252.	1.8	13
89	Optimizing the Kaplanâ€“Yorke Dimension of Chaotic Oscillators Applying DE and PSO. Technologies, 2019, 7, 38.	3.0	13
90	Synthesis of VFs and CFs by Manipulation of Generic Cells. Analog Integrated Circuits and Signal Processing, 2006, 46, 99-102.	0.9	12

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91	Synthesis of CCIIs and Design of Simulated CCII Based Floating Inductances. , 2007, , .		12
92	Behavioral Modeling of SNFS for Synthesizing Multi-Scroll Chaotic Attractors. International Journal of Nonlinear Sciences and Numerical Simulation, 2013, 14, 463-469.	0.4	12
93	Maximizing Lyapunov Exponents in a Chaotic Oscillator by Applying Differential Evolution. International Journal of Nonlinear Sciences and Numerical Simulation, 2014, 15, 11-17.	0.4	12
94	Application of a Chaotic Oscillator in an Autonomous Mobile Robot. Journal of Electrical Engineering, 2014, 65, 157-162.	0.4	12
95	Maximizing the Chaotic Behavior of Fractional Order Chen System by Evolutionary Algorithms. Mathematics, 2021, 9, 1194.	1.1	12
96	Sizing Analog Integrated Circuits by Current-Branches-Bias Assignments with Heuristics. Elektronika Ir Elektrotechnika, 2013, 19, .	0.4	12
97	Attention Measurement of an Autism Spectrum Disorder User Using EEG Signals: A Case Study. Mathematical and Computational Applications, 2022, 27, 21.	0.7	12
98	Symbolic formulation method for mixed-mode analog circuits using nullors. , 2009, , .		11
99	Graph-Based Symbolic Technique for Improving Sensitivity Analysis in Analog Integrated Circuits. IEEE Latin America Transactions, 2014, 12, 871-876.	1.2	11
100	An RBF-PSO technique for the rapid optimization of (CMOS) analog circuits. , 2018, , .		11
101	Design of a Wide-Band Voltage-Controlled Ring Oscillator Implemented in 180 nm CMOS Technology. Electronics (Switzerland), 2019, 8, 1156.	1.8	11
102	Fractional-Order Approximation of PID Controller for Buckâ€“Boost Converters. Micromachines, 2021, 12, 591.	1.4	11
103	Biasing analog circuits using the nullor concept. , 0, , .		10
104	An efficient biasing technique suitable for any kind of the four basic amplifiers designed at nullor level. , 0, , .		10
105	SIASCA: Interactive System for the Symbolic Analysis of Analog Circuits. IEICE Electronics Express, 2004, 1, 19-23.	0.3	10
106	Three transistor exponential transconductor. , 2005, , .		10
107	Designing VFs by applying genetic algorithms from nullator-based descriptions. , 2007, , .		10
108	Simulation of Chuaâ€™s circuit by automatic control of step-size. Applied Mathematics and Computation, 2007, 190, 1526-1533.	1.4	10

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109	Symbolic behavioral model generation of current-mode analog circuits. , 2009, , .		10
110	Synthesis of Analog Circuits by Genetic Algorithms and their Optimization by Particle Swarm Optimization. , 2010, , 173-192.		10
111	Designing Chuaâ€™s circuit from the behavioral to the transistor level of abstraction. Applied Mathematics and Computation, 2007, 184, 715-720.	1.4	9
112	Synthesis of n-scroll attractors using saturated functions from high-level simulation. Journal of Physics: Conference Series, 2008, 96, 012050.	0.3	9
113	Decomposition-based multi-objective optimization of second-generation current conveyors. , 2009, , .		9
114	Graph-Based Symbolic and Symbolic Sensitivity Analysis of Analog Integrated Circuits. Lecture Notes in Electrical Engineering, 2013, , 101-122.	0.3	9
115	Modeling memory effects in RF power amplifiers applied to a digital pre-distortion algorithm and emulated on a DSP-FPGA board. The Integration VLSI Journal, 2015, 49, 49-64.	1.3	9
116	On the accurate modeling of analog circuits via the Kriging metamodeling technique. , 2017, , .		9
117	Sizing Analogue Integrated Circuits by Integer Encoding and NSGA-II. IETE Technical Review (Institution) Tj ETQq1 1 0.784314 rgBT /Ov	2.1	9
118	Convergence rates of the efficient global optimization algorithm for improving the design of analog circuits. Analog Integrated Circuits and Signal Processing, 2020, 103, 143-162.	0.9	9
119	FPGA Realization of Spherical Chaotic System with Application in Image Transmission. Mathematical Problems in Engineering, 2021, 2021, 1-16.	0.6	9
120	Automatic biasing and sizing of CMOS analog integrated circuits. , 2005, , .		8
121	Simulation of Chua’s chaotic oscillator using unity-gain cells. , 2008, , .		8
122	Simulation-based optimization of CCIIs' performances in weak inversion. , 2010, , .		8
123	DDD-based symbolic sensitivity analysis of active filters. , 2012, , .		8
124	Performance bound analysis of analog circuits in frequency- and time-domain considering process variations. ACM Transactions on Design Automation of Electronic Systems, 2013, 19, 1-22.	1.9	8
125	OCBA in the yield optimization of analog integrated circuits by evolutionary algorithms. , 2015, , .		8
126	Memory Circuit Elements: Complexity, Complex Systems, and Applications. Complexity, 2019, 2019, 1-4.	0.9	8

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127	FPGA Realization of the Parameter-Switching Method in the Chen Oscillator and Application in Image Transmission. Symmetry, 2021, 13, 923.	1.1	8
128	Kalman observers in estimating the states of chaotic neurons for image encryption under MQTT for IoT protocol. European Physical Journal: Special Topics, 2022, 231, 945-962.	1.2	8
129	PoincarÃ© maps for detecting chaos in fractional-order systems with hidden attractors for its Kaplan-Yorke dimension optimization. AIMS Mathematics, 2022, 7, 5871-5894.	0.7	8
130	Experimental Synchronization of two Integrated Multi-scroll Chaotic Oscillators. Journal of Applied Research and Technology, 2014, 12, 459-470.	0.6	7
131	RF-PA Modeling of PAPR: A Precomputed Approach to Reinforce Spectral Efficiency. IEEE Access, 2020, 8, 138217-138235.	2.6	7
132	Surrogate Assisted Optimization for Low-Voltage Low-Power Circuit Design. Journal of Low Power Electronics and Applications, 2020, 10, 20.	1.3	7
133	Selection of MOSFET Sizes by Fuzzy Sets Intersection in the Feasible Solutions Space. Journal of Applied Research and Technology, 2012, 10, .	0.6	7
134	Synthesis of CCs and CFOAs by manipulation of VFs and CFs. , 0, , .		6
135	Sensitivity analysis in the optimal sizing of analog circuits by evolutionary algorithms. , 2010, , .		6
136	Design and Applications of Continuous-Time Chaos Generators. , 2011, , .		6
137	On the Prediction of the Threshold Voltage Degradation in CMOS Technology Due to Bias-Temperature Instability. Electronics (Switzerland), 2018, 7, 427.	1.8	6
138	Effect of the design space sampling on the design performances. , 2018, , .		6
139	Prediction of chaotic time series by using ANNs, ANFIS and SVMs. , 2018, , .		6
140	On maximizing the positive Lyapunov exponent of chaotic oscillators applying DE and PSO. International Journal of Dynamics and Control, 2019, 7, 1157-1172.	1.5	6
141	FPGA Implementation of Chaotic Oscillators, Their Synchronization, and Application to Secure Communications. , 2019, , 301-328.		6
142	Evaluation of Machine Learning Algorithms for Early Diagnosis of Deep Venous Thrombosis. Mathematical and Computational Applications, 2022, 27, 24.	0.7	6
143	Symbolic Noise Analysis in Gm-C Filters. , 2006, , .		5
144	Synchronization of n-scrolls chaotic systems synthesized from high-level behavioral modeling. , 2008, , .		5

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145	Fuzzy-set based approach to compute optimum sizes of Voltage Followers. , 2009, , .		5
146	Symbolic Moment Computation for Statistical Analysis of Large Interconnect Networks. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2013, 21, 944-957.	2.1	5
147	Review: Advances in BTI modeling for the design of reliable ICs. , 2016, , .		5
148	Expected Improvement-Based Optimization Approach for the Optimal Sizing of a CMOS Operational Transconductance Amplifier. , 2018, , .		5
149	Single-Objective Optimization of a CMOS VCO Considering PVT and Monte Carlo Simulations. Mathematical and Computational Applications, 2020, 25, 76.	0.7	5
150	Investigation of Early Warning Indexes in a Three-Dimensional Chaotic System with Zero Eigenvalues. Entropy, 2020, 22, 341.	1.1	5
151	FPGAâ€based system for effective IQ imbalance mitigation of RF power amplifiers. International Journal of Circuit Theory and Applications, 2020, 48, 512-523.	1.3	5
152	Simulation of a parallel mechanical elbow with 3 DOF. Journal of Applied Research and Technology, 2009, 7, .	0.6	5
153	Analog implementation of MOS-translinear Morlet Wavelets. , 0, , .		4
154	Low-Voltage Chaotic Oscillator using Voltage and Current Followers. , 2007, , .		4
155	Modeling and Simulation of a Parallel Mechanical Elbow with 3 DOF. , 2008, , .		4
156	Symbolic noise analysis of low voltage amplifiers by using nullors. , 2010, , .		4
157	Multiscroll oscillator based on floating gate CMOS inverter. , 2010, , .		4
158	Synchronization of multi-directional multi-scroll chaos generators: A Hamiltonian approach. , 2011, , .		4
159	Symbolic nodal analysis of analog integrated circuits using pathological elements. , 2012, , .		4
160	Simulating the synchronization of multi-scroll chaotic oscillators. , 2013, , .		4
161	Optimizing an LDO voltage regulator by evolutionary algorithms considering tolerances of the circuit elements. , 2015, , .		4
162	Optimization of LDO voltage regulators by NSGA-II. , 2016, , .		4

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163	Electronic System for Chaotic Time Series Prediction Associated to Human Disease. , 2018, , .		4
164	Pseudo Expected Improvement Based-Optimization for CMOS Analog Circuit Design. , 2019, , .		4
165	Enhancing Q-Factor in a Biquadratic Bandpass Filter Implemented with Opamps. Technologies, 2019, 7, 64.	3.0	4
166	Gate Sizing Methodology with a Novel Accurate Metric to Improve Circuit Timing Performance under Process Variations. Technologies, 2020, 8, 25.	3.0	4
167	Metamodelling Techniques for the Optimal Design of Low-Noise Amplifiers. Electronics (Switzerland), 2020, 9, 787.	1.8	4
168	Automated Driving of GaN Chireix Power Amplifier for the Digital Predistortion Linearization. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 1887-1891.	2.2	4
169	Hyperchaotic Encryption for Secure E-Mail Communication. Advanced Information and Knowledge Processing, 2010, , 471-486.	0.2	4
170	SODAC. International Journal of Applied Metaheuristic Computing, 2012, 3, 64-83.	0.5	4
171	Computing embedded positive feedback loops in analog circuits using nullors. , 0, , .		3
172	Symbolic noise analysis in analog integrated circuits. , 0, , .		3
173	Computing simplified noise-symbolic-expressions in CMOS CCs by applying SPA and SAG. , 2007, , .		3
174	Current conveyor realization of synchronized Chua’s circuits for binary communications. , 2008, , .		3
175	Multi-scroll Chaotic Oscillator Employing UGCs. , 2009, , .		3
176	A CAD-tool for the design of n-scrolls chaotic systems from behavioral modeling. , 2009, , .		3
177	Chaos-based communication systems by applying Hamiltonian synchronization. , 2010, , .		3
178	Frequency limitations from the circuit realization of saw-tooth based multi-scroll oscillators. , 2011, , .		3
179	Symbolic DDD-based tool for the computation of noise in CMOS analog circuits. , 2012, , .		3
180	Statistical extraction and modeling of inductance considering spatial correlation. Analog Integrated Circuits and Signal Processing, 2012, 73, 3-11.	0.9	3

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181	Sensitivity analysis in the optimal sizing of analog ICs by evolutionary algorithms. , 2013, , .		3
182	Experimental Realization of a Multiscroll Chaotic Oscillator with Optimal Maximum Lyapunov Exponent. Scientific World Journal, The, 2014, 2014, 1-16.	0.8	3
183	Sizing analog integrated circuits by combining g<inf>m</inf>/I<inf>D</inf> technique and evolutionary algorithms. , 2014, , .		3
184	A new segmentation-based GPU-accelerated sparse matrix-vector multiplication. , 2014, , .		3
185	Optimizing an amplifier by a many-objective algorithm based on R2 indicator. , 2015, , .		3
186	Optimizing operational amplifiers by metaheuristics and considering tolerance analysis. , 2015, , .		3
187	Study of regression methodologies on analog circuit design. , 2015, , .		3
188	Application of Computational Intelligence Techniques to Maximize Unpredictability in Multiscroll Chaotic Oscillators. , 2015, , 59-81.		3
189	A Memristive System with Hidden Attractors and Its Engineering Application. Studies in Computational Intelligence, 2017, , 81-99.	0.7	3
190	A new four-dimensional chaotic system with hidden attractor and its circuit design. , 2018, , .		3
191	High-Q and Wide-Bandwidth Capacitor Multiplier Optimized by NSGA-II. IETE Journal of Research, 2019, 65, 661-666.	1.8	3
192	Mathematical and numerical analysis of the dynamical behavior of chen oscillator. International Journal of Dynamics and Control, 2020, 8, 386-395.	1.5	3
193	Integer and Fractional-Order Chaotic Circuits and Systems. , 2020, , 1-40.		3
194	Analog Implementations of Fractional-Order Chaotic Systems. , 2020, , 93-114.		3
195	A CAD tool suitable for LTI systems analysis. , 0, , .		2
196	Systematic design of CCI(II)(III)s by combining UGCs. , 2008, , .		2
197	Automatic synthesis of CMOS compatible CCII+s. , 2008, , .		2
198	Non-sorting genetic algorithm in the optimization of unity-gain cells. , 2009, , .		2

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199	Computing optimum sizes of a Voltage Follower using fuzzy sets. , 2009, , .		2
200	Sizing mixed-mode circuits by multi-objective evolutionary algorithms. , 2010, , .		2
201	Symbolic behavioral modeling of low voltage amplifiers. , 2010, , .		2
202	Statistical extraction and modeling of 3-D inductance with spatial correlation. , 2010, , .		2
203	Multi-objective simulation-based optimization for the optimal design of analog circuits. , 2011, , .		2
204	Design of current conveyors and their applications in universal filters. , 2011, , .		2
205	Performance bound and yield analysis for analog circuits under process variations. , 2013, , .		2
206	Analysis, Design and Optimization of Active Devices. , 2013, , 1-30.		2
207	Symbolic sensitivity analysis in the sizing of analog integrated circuits. , 2013, , .		2
208	Selection of the Optimal Sizes of Analog Integrated Circuits by Fuzzy Sets Intersection. IEEE Latin America Transactions, 2014, 12, 1005-1011.	1.2	2
209	Discrete Chaotic Dynamics for Economics and Social Science. Discrete Dynamics in Nature and Society, 2016, 2016, 1-2.	0.5	2
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