Ahmed G Radwan

List of Publications by Year
in descending order

373 papers	9,138 citations	38660 50 h-index	69108 77 g-index
379 all docs	379 docs citations	379 times ranked	3083 citing authors

#	Article	IF	Citations
1	On the stability of linear systems with fractional-order elements. Chaos, Solitons and Fractals, 2009, 40, 2317-2328.	2.5	277
2	Fractional-order sinusoidal oscillators: Design procedure and practical examples. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 2051-2063.	3.5	262
3	FIRST-ORDER FILTERS GENERALIZED TO THE FRACTIONAL DOMAIN. Journal of Circuits, Systems and Computers, 2008, 17, 55-66.	1.0	221
4	ON THE GENERALIZATION OF SECOND-ORDER FILTERS TO THE FRACTIONAL-ORDER DOMAIN. Journal of Circuits, Systems and Computers, 2009, 18, 361-386.	1.0	214
5	Fractional Order Butterworth Filter: Active and Passive Realizations. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2013, 3, 346-354.	2.7	179
6	Fractional-Order RC and RL Circuits. Circuits, Systems, and Signal Processing, 2012, 31, 1901-1915.	1.2	177
7	FPGA implementation of two fractional order chaotic systems. AEU - International Journal of Electronics and Communications, 2017, 78, 162-172.	1.7	155
8	Passive and Active Elements Using Fractional ${m L}_{\eta} {m C}_{\alpha}$ Circuit. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 2388-2397.	3.5	125
9	Review of fractional-order electrical characterization of supercapacitors. Journal of Power Sources, 2018, 400, 457-467.	4.0	125
10	Design equations for fractional-order sinusoidal oscillators: Four practical circuit examples. International Journal of Circuit Theory and Applications, 2008, 36, 473-492.	1.3	122
11	The fractional-order modeling and synchronization of electrically coupled neuron systems. Computers and Mathematics With Applications, 2012, 64, 3329-3339.	1.4	117
12	Control and switching synchronization of fractional order chaotic systems using active control technique. Journal of Advanced Research, 2014, 5, 125-132.	4.4	103
13	A Simple Model of Double-Loop Hysteresis Behavior in Memristive Elements. IEEE Transactions on Circuits and Systems II: Express Briefs, 2013, 60, 487-491.	2.2	100
14	Power and energy analysis of fractional-order electrical energy storage devices. Energy, 2016, 111, 785-792.	4.5	99
15	Optimization of Fractional-Order RLC Filters. Circuits, Systems, and Signal Processing, 2013, 32, 2097-2118.	1.2	96
16	Generalized model for Memristor-based Wien family oscillators. Microelectronics Journal, 2011, 42, 1032-1038.	1.1	95
17	Resonance and Quality Factor of the $RL_{\alpha} C_{\alpha}$ Fractional Circuit. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2013, 3, 377-385.	2.7	93
18	Generalized double-humped logistic map-based medical image encryption. Journal of Advanced Research, 2018, 10, 85-98.	4.4	93

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19	Symmetric encryption algorithms using chaotic and non-chaotic generators: A review. Journal of Advanced Research, 2016, 7, 193-208.	4.4	89
20	Fractional order filter with two fractional elements of dependant orders. Microelectronics Journal, 2012, 43, 818-827.	1.1	86
21	Fractional Order Sallen–Key and KHN Filters: Stability and Poles Allocation. Circuits, Systems, and Signal Processing, 2015, 34, 1461-1480.	1.2	86
22	On The Optimization of Fractional Order Low-Pass Filters. Circuits, Systems, and Signal Processing, 2016, 35, 2017-2039.	1.2	86
23	Theory of Fractional Order Elements Based Impedance Matching Networks. IEEE Microwave and Wireless Components Letters, 2011, 21, 120-122.	2.0	85
24	A novel image encryption system merging fractional-order edge detection and generalized chaotic maps. Signal Processing, 2020, 167, 107280.	2.1	85
25	Biological inspired optimization algorithms for cole-impedance parameters identification. AEU - International Journal of Electronics and Communications, 2017, 78, 79-89.	1.7	80
26	Experimental comparison of integer/fractional-order electrical models of plant. AEU - International Journal of Electronics and Communications, 2017, 80, 1-9.	1.7	80
27	Non linear dynamics of memristor based 3rd order oscillatory system. Microelectronics Journal, 2012, 43, 169-175.	1.1	79
28	Charge controlled memristor-less memcapacitor emulator. Electronics Letters, 2012, 48, 1454.	0.5	78
29	Fractional order oscillators based on operational transresistance amplifiers. AEU - International Journal of Electronics and Communications, 2015, 69, 988-1003.	1.7	78
30	A Novel Chaotic System without Equilibrium: Dynamics, Synchronization, and Circuit Realization. Complexity, 2017, 2017, 1-11.	0.9	77
31	Generalized fractional logistic map encryption system based on FPGA. AEU - International Journal of Electronics and Communications, 2017, 80, 114-126.	1.7	76
32	Reconfigurable chaotic pseudo random number generator based on FPGA. AEU - International Journal of Electronics and Communications, 2019, 98, 174-180.	1.7	70
33	Fractional Smith Chart Theory. IEEE Microwave and Wireless Components Letters, 2011, 21, 117-119.	2.0	68
34	On the mathematical modeling of memristors. , 2010, , .		67
35	Modeling and analysis of fractional order DC-DC converter. ISA Transactions, 2018, 82, 184-199.	3.1	67
36	HP Memristor mathematical model for periodic signals and DC. , 2010, , .		65

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37	CCII based fractional filters of different orders. Journal of Advanced Research, 2014, 5, 157-164.	4.4	65
38	Three Fractional-Order-Capacitors-Based Oscillators with Controllable Phase and Frequency. Journal of Circuits, Systems and Computers, 2017, 26, 1750160.	1.0	65
39	Stability and non-standard finite difference method of the generalized Chua's circuit. Computers and Mathematics With Applications, 2011, 62, 961-970.	1.4	63
40	On some generalized discrete logistic maps. Journal of Advanced Research, 2013, 4, 163-171.	4.4	63
41	A family of memristor-based reactance-less oscillators. International Journal of Circuit Theory and Applications, 2014, 42, 1103-1122.	1.3	59
42	Memristor-based reactance-less oscillator. Electronics Letters, 2011, 47, 1220.	0.5	57
43	CONTROLLABLE V-SHAPE MULTISCROLL BUTTERFLY ATTRACTOR: SYSTEM AND CIRCUIT IMPLEMENTATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250143.	0.7	57
44	Hardware stream cipher with controllable chaos generator for colour image encryption. IET Image Processing, 2014, 8, 33-43.	1.4	57
45	A fractal-based image encryption system. IET Image Processing, 2014, 8, 742-752.	1.4	55
46	Optimization of Cadmium (CD^{2+}) removal from aqueous solutions by novel biosorbent. International Journal of Phytoremediation, 2016, 18, 619-625.	1.7	54
47	Review of activated carbon adsorbent material for textile dyes removal: Preparation, and modelling. Current Research in Green and Sustainable Chemistry, 2022, 5, 100325.	2.9	54
48	MOS realization of the modified Lorenz chaotic system. Chaos, Solitons and Fractals, 2004, 21, 553-561.	2.5	53
49	Fractional-order mutual inductance: analysis and design. International Journal of Circuit Theory and Applications, 2016, 44, 85-97.	1.3	53
50	Approximation of the Fractional-Order Laplacian <inline-formula> <tex-math notation="LaTeX">s^alpha </tex-math> </inline-formula> As a Weighted Sum of First-Order High-Pass Filters. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1114-1118.	2.2	53
51	Optimized Edge Detection Technique for Brain Tumor Detection in MR Images. IEEE Access, 2020, 8, 136243-136259.	2.6	53
52	Chaotic Flower Pollination and Grey Wolf Algorithms for parameter extraction of bio-impedance models. Applied Soft Computing Journal, 2019, 75, 750-774.	4.1	52
53	MOS realization of the double-scroll-like chaotic equation. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2003, 50, 285-288.	0.1	51
54	Generalized Hardware Post-processing Technique for Chaos-Based Pseudorandom Number Generators. ETRI Journal, 2013, 35, 448-458.	1.2	51

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55	Fractional-order Memristor Response Under DC and Periodic Signals. Circuits, Systems, and Signal Processing, 2015, 34, 961-970.	1.2	51
56	FPGA Implementation of the Fractional Order Integrator/Differentiator: Two Approaches and Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 1484-1495.	3.5	50
57	Two-port two impedances fractional order oscillators. Microelectronics Journal, 2016, 55, 40-52.	1.1	49
58	1-D DIGITALLY-CONTROLLED MULTISCROLL CHAOS GENERATOR. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 227-242.	0.7	48
59	Memristor-CNTFET based ternary logic gates. Microelectronics Journal, 2018, 72, 74-85.	1.1	48
60	Capacitive behavior and stored energy in supercapacitors at power line frequencies. Journal of Power Sources, 2018, 390, 142-147.	4.0	48
61	Synchronization and FPGA realization of fractional-order Izhikevich neuron model. Microelectronics Journal, 2019, 89, 56-69.	1.1	48
62	An inductorless CMOS realization of Chua's circuit. Chaos, Solitons and Fractals, 2003, 18, 149-158.	2.5	47
63	A Grunwald–Letnikov based Manta ray foraging optimizer for global optimization and image segmentation. Engineering Applications of Artificial Intelligence, 2021, 98, 104105.	4.3	47
64	Memristor‐based voltage‐controlled relaxation oscillators. International Journal of Circuit Theory and Applications, 2014, 42, 1092-1102.	1.3	46
65	Parameter identification of fractional-order chaotic systems using different Meta-heuristic Optimization Algorithms. Nonlinear Dynamics, 2019, 95, 2491-2542.	2.7	46
66	All Possible Topologies of the Fractional-Order Wien Oscillator Family Using Different Approximation Techniques. Circuits, Systems, and Signal Processing, 2019, 38, 3931-3951.	1.2	45
67	Fractional Order Oscillator Design Based on Two-Port Network. Circuits, Systems, and Signal Processing, 2016, 35, 3086-3112.	1.2	44
68	Partial fraction expansion–based realizations of fractional‐order differentiators and integrators using active filters. International Journal of Circuit Theory and Applications, 2019, 47, 513-531.	1.3	44
69	Generalized Analysis of Symmetric and Asymmetric Memristive Two-Gate Relaxation Oscillators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 2701-2708.	3.5	43
70	Pinched hysteresis with inverse-memristor frequency characteristics in some nonlinear circuit elements. Microelectronics Journal, 2015, 46, 834-838.	1.1	43
71	Fractional X-shape controllable multi-scroll attractor with parameter effect and FPGA automatic design tool software. Chaos, Solitons and Fractals, 2019, 126, 292-307.	2.5	43
72	Fractional order integrator/differentiator: FPGA implementation and FOPID controller application. AEU - International Journal of Electronics and Communications, 2019, 98, 220-229.	1.7	43

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73	Underwater Soft Robotics: A Review of Bioinspiration in Design, Actuation, Modeling, and Control. Micromachines, 2022, 13, 110.	1.4	42
74	On inverse problem of generalized synchronization between different dimensional integer-order and fractional-order chaotic systems. , 2016, , .		41
75	Effect of Different Approximation Techniques on Fractional-Order KHN Filter Design. Circuits, Systems, and Signal Processing, 2018, 37, 5222-5252.	1.2	39
76	Cancellable face recognition based on fractional-order Lorenz chaotic system and Haar wavelet fusion. , 2021, 116, 103103.		39
77	Realization of fractional-order capacitor based on passive symmetric network. Journal of Advanced Research, 2019, 18, 147-159.	4.4	38
78	Enhanced hardware implementation of a mixed-order nonlinear chaotic system and speech encryption application. AEU - International Journal of Electronics and Communications, 2020, 125, 153347.	1.7	38
79	FPGA implementation of sound encryption system based on fractional-order chaotic systems. Microelectronics Journal, 2019, 90, 323-335.	1.1	37
80	Fractional-order multi-phase oscillators design and analysis suitable for higher-order PSK applications. Analog Integrated Circuits and Signal Processing, 2016, 87, 301-312.	0.9	36
81	Generalized two-port network based fractional order filters. AEU - International Journal of Electronics and Communications, 2019, 104, 128-146.	1.7	36
82	Improved memristor-based relaxation oscillator. Microelectronics Journal, 2013, 44, 814-820.	1.1	34
83	Fractional controllable multi-scroll V-shape attractor with parameters effect. , 2017, , .		34
84	Ternary Functions Design Using Memristive Threshold Logic. IEEE Access, 2019, 7, 48371-48381.	2.6	34
85	Chaos synchronisation of continuous systems via scalar signal. , 2017, , .		33
86	Generalized switched synchronization and dependent image encryption using dynamically rotating fractional-order chaotic systems. AEU - International Journal of Electronics and Communications, 2020, 123, 153268.	1.7	33
87	The effect of numerical techniques on differential equation based chaotic generators. , 2011, , .		32
88	Random number generation based on digital differential chaos. , 2011, , .		31
89	Novel permutation measures for image encryption algorithms. Optics and Lasers in Engineering, 2016, 85, 72-83.	2.0	30
90	Analytical solution for fractional derivative gas-flow equation in porous media. Results in Physics, 2017, 7, 2432-2438.	2.0	29

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91	Multiplierless chaotic Pseudo random number generators. AEU - International Journal of Electronics and Communications, 2020, 113, 152947.	1.7	29
92	Dead-beat synchronization control in discrete-time chaotic systems. , 2017, , .		28
93	On the Approximations of CFOA-Based Fractional-Order Inverse Filters. Circuits, Systems, and Signal Processing, 2020, 39, 2-29.	1.2	28
94	Fully digital jerk-based chaotic oscillators for high throughput pseudo-random number generators up to 8.77Gbits/s. Microelectronics Journal, 2013, 44, 744-752.	1.1	27
95	Extracting Optimized Bio-Impedance Model Parameters Using Different Topologies of Oscillators. IEEE Sensors Journal, 2020, 20, 9947-9954.	2.4	27
96	An expression for the voltage response of a current‐excited fractance device based on fractional‐order trigonometric identities. International Journal of Circuit Theory and Applications, 2012, 40, 533-538.	1.3	26
97	Fundamentals of fractional‐order LTI circuits and systems: number of poles, stability, time and frequency responses. International Journal of Circuit Theory and Applications, 2016, 44, 2114-2133.	1.3	26
98	Comparison between three approximation methods on oscillator circuits. Microelectronics Journal, 2018, 81, 162-178.	1.1	26
99	Comprehensive comparison based on meta-heuristic algorithms for approximation of the fractional-order Laplacian s as a weighted sum of first-order high-pass filters. Microelectronics Journal, 2019, 87, 110-120.	1.1	26
100	Nonlinear charge-voltage relationship in constant phase element. AEU - International Journal of Electronics and Communications, 2020, 117, 153104.	1.7	26
101	Guest Editorial: Fractional-Order Circuits and Systems: Theory, Design, and Applications. Circuits, Systems, and Signal Processing, 2016, 35, 1807-1813.	1.2	25
102	On the Analysis and Design of Fractional-Order Chebyshev Complex Filter. Circuits, Systems, and Signal Processing, 2018, 37, 915-938.	1.2	25
103	A memristor-based third-order oscillator: beyond oscillation. Applied Nanoscience (Switzerland), 2011, 1, 143-145.	1.6	24
104	Image encryption in the fractional-order domain. , 2012, , .		24
105	Image encryption using generalized tent map. , 2013, , .		24
106	Memristor-less current- and voltage-controlled meminductor emulators. , 2014, , .		24
107	Memristor based N-bits redundant binary adder. Microelectronics Journal, 2015, 46, 207-213.	1.1	24
108	Finite Precision Logistic Map between Computational Efficiency and Accuracy with Encryption Applications. Complexity, 2017, 2017, 1-21.	0.9	24

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109	Design and analysis of 2T2M hybrid CMOS-Memristor based RRAM. Microelectronics Journal, 2018, 73, 75-85.	1.1	24
110	Cole Bio-Impedance Model Variations in $Daucus~Carota~Sativus$ Under Heating and Freezing Conditions. IEEE Access, 2019, 7, 113254-113263.	2.6	24
111	FPGA realization of a speech encryption system based on a generalized modified chaotic transition map and bit permutation. Multimedia Tools and Applications, 2019, 78, 16097-16127.	2.6	24
112	Numerical Simulations and FPGA Implementations of Fractional-Order Systems Based on Product Integration Rules. IEEE Access, 2020, 8, 102093-102105.	2.6	24
113	Design of Positive, Negative, and Alternating Sign Generalized Logistic Maps. Discrete Dynamics in Nature and Society, 2015, 2015, 1-23.	0.5	23
114	Generalized Synchronization of Different Dimensional Integer-Order and Fractional Order Chaotic Systems. Studies in Computational Intelligence, 2017, , 671-697.	0.7	23
115	A generalized family of memristorâ€based voltage controlled relaxation oscillator. International Journal of Circuit Theory and Applications, 2018, 46, 1311-1327.	1.3	23
116	One-terminal electronically controlled fractional-order capacitor and inductor emulator. AEU - International Journal of Electronics and Communications, 2019, 103, 32-45.	1.7	23
117	Fractional-Order Bio-Impedance Modeling for Interdisciplinary Applications: A Review. IEEE Access, 2021, 9, 33158-33168.	2.6	23
118	Reconfigurable FPGA Realization of Fractional-Order Chaotic Systems. IEEE Access, 2021, 9, 89376-89389.	2.6	23
119	Discrete fractional-order Caputo method to overcome trapping in local optima: Manta Ray Foraging Optimizer as a case study. Expert Systems With Applications, 2022, 192, 116355.	4.4	23
120	Amplitude Modulation and Synchronization of Fractional-Order Memristor-Based Chua's Circuit. Abstract and Applied Analysis, 2013, 2013, 1-10.	0.3	22
121	High-Frequency Capacitorless Fractional-Order CPE and FI Emulator. Circuits, Systems, and Signal Processing, 2018, 37, 2694-2713.	1.2	22
122	Optimal fractional-order PI with DC-DC converter and PV system. Ain Shams Engineering Journal, 2021, 12, 1895-1906.	3.5	22
123	Resistiveâ€less memcapacitorâ€based relaxation oscillator. International Journal of Circuit Theory and Applications, 2015, 43, 959-965.	1.3	21
124	General fractional order mem-elements mutators. Microelectronics Journal, 2019, 90, 211-221.	1.1	21
125	A general emulator for fractional-order memristive elements with multiple pinched points and application. AEU - International Journal of Electronics and Communications, 2020, 124, 153338.	1.7	21
126	A study of the nonlinear dynamics of human behavior and its digital hardware implementation. Journal of Advanced Research, 2020, 25, 111-123.	4.4	21

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127	Modelling and implementation of soft bio-mimetic turtle using echo state network and soft pneumatic actuators. Scientific Reports, 2021, 11, 12076.	1.6	21
128	Meminductor Response Under Periodic Current Excitations. Circuits, Systems, and Signal Processing, 2014, 33, 1573-1583.	1.2	20
129	Biomedical image encryption based on double-humped and fractional logistic maps. , 2017, , .		20
130	Fractional-Order and Memristive Nonlinear Systems: Advances and Applications. Complexity, 2017, 2017, 1-2.	0.9	20
131	Memristor FPGA IP Core Implementation for Analog and Digital Applications. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 1381-1385.	2.2	20
132	Emulation circuits of fractional-order memelements with multiple pinched points and their applications. Chaos, Solitons and Fractals, 2020, 138, 109882.	2.5	20
133	RF MEMS Fractal Capacitors With High Self-Resonant Frequencies. Journal of Microelectromechanical Systems, 2012, 21, 10-12.	1.7	19
134	Fractional-order Fitzhugh-Nagumo and Izhikevich neuron models. , 2016, , .		19
135	Low‐voltage commercial super‐capacitor response to periodic linear‐with‐time current excitation: a case study. IET Circuits, Devices and Systems, 2017, 11, 189-195.	0.9	19
136	FPGA realization of Caputo and Grünwald-Letnikov operators. , 2017, , .		19
137	Enhanced FPGA realization of the fractional-order derivative and application to a variable-order chaotic system. Nonlinear Dynamics, 2020, 99, 3143-3154.	2.7	19
138	Memcapacitor response under step and sinusoidal voltage excitations. Microelectronics Journal, 2014, 45, 1372-1379.	1.1	18
139	Transient and Steady-State Response of a Fractional-Order Dynamic PV Model Under Different Loads. Journal of Circuits, Systems and Computers, 2018, 27, 1850023.	1.0	18
140	FPGA Implementation of Reconfigurable CORDIC Algorithm and a Memristive Chaotic System With Transcendental Nonlinearities. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 2885-2892.	3.5	18
141	Analysis of bus width and delay on a fully digital signum nonlinearity chaotic oscillator. , 2011, , .		17
142	Low-voltage puzzle-like fractal microelectromechanial system variable capacitor suppressing pull-in. Micro and Nano Letters, 2012, 7, 965-969.	0.6	17
143	Memristor-based balanced ternary adder. , 2013, , .		17
144	Fractional order Chebyshev-like low-pass filters based on integer order poles. Microelectronics Journal, 2019, 90, 72-81.	1.1	17

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145	Two-Dimensional Rotation of Chaotic Attractors: Demonstrative Examples and FPGA Realization. Circuits, Systems, and Signal Processing, 2019, 38, 4890-4903.	1.2	17
146	Neuron Model with Simplified Memristive Ionic Channels. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1530017.	0.7	16
147	An optimal linear system approximation of nonlinear fractional-order memristor–capacitor charging circuit. Microelectronics Journal, 2016, 51, 58-66.	1.1	16
148	Generalized family of fractional-order oscillators based on single CFOA and RC network. , 2017, , .		16
149	On the analysis of current-controlled fractional-order memristor emulator. , 2017, , .		16
150	Multiple Pinch-Off Points in Memristive Equations: Analysis and Experiments. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3052-3063.	3.5	16
151	Software and Hardware Implementation Sensitivity of Chaotic Systems and Impact on Encryption Applications. Circuits, Systems, and Signal Processing, 2020, 39, 5638-5655.	1.2	16
152	Optimal Charging and Discharging of Supercapacitors. Journal of the Electrochemical Society, 2020, 167, 110521.	1.3	16
153	Time domain oscillating poles: Stability redefined in Memristor based Wien-oscillators. , 2010, , .		15
154	A low start up voltage charge pump for thermoelectric energy scavenging. , 2011, , .		15
155	Fractional-Order Two-Port Networks. Mathematical Problems in Engineering, 2016, 2016, 1-5.	0.6	15
156	Fractional-order oscillator based on single CCII. , 2016, , .		15
157	A Study on Coexistence of Different Types of Synchronization Between Different Dimensional Fractional Chaotic Systems. Studies in Computational Intelligence, 2017, , 637-669.	0.7	15
158	Memristor and Inverse Memristor: Modeling, Implementation and Experiments. Studies in Computational Intelligence, 2017, , 371-392.	0.7	15
159	Generalized Smooth Transition Map Between Tent and Logistic Maps. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1730004.	0.7	15
160	Implementation and analysis of tunable fractional-order band-pass filter of order 2α. AEU - International Journal of Electronics and Communications, 2020, 124, 153343.	1.7	15
161	Design and FPGA Verification of Custom-Shaped Chaotic Attractors Using Rotation, Offset Boosting and Amplitude Control. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 3466-3470.	2.2	15
162	Design equations for fractional-order sinusoidal oscillators: Practical circuit examples. , 2007, , .		14

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163	Hardware realization of chaos based block cipher for image encryption. , 2011, , .		14
164	Fractional-order inverting and non-inverting filters based on CFOA. , 2016, , .		14
165	Generalized Dynamic Switched Synchronization between Combinations of Fractional-Order Chaotic Systems. Complexity, 2017, 2017, 1-17.	0.9	14
166	Chaos-based hardware speech encryption scheme using modified tent map and bit permutation. , 2018, , .		14
167	Butterworth passive filter in the fractional-order. , 2011, , .		13
168	Identifying the Parameters of Cole Impedance Model Using Magnitude Only and Complex Impedance Measurements: A Metaheuristic Optimization Approach. Arabian Journal for Science and Engineering, 2020, 45, 6541-6558.	1.7	13
169	Trajectory control and image encryption using affine transformation of lorenz system. Egyptian Informatics Journal, 2021, 22, 155-166.	4.4	13
170	Fractional order oscillator with independent control of phase and frequency. , 2014, , .		12
171	An image encryption system based on generalized discrete maps. , 2014, , .		12
172	Memristor: Models, Types, and Applications. Studies in Systems, Decision and Control, 2015, , 13-49.	0.8	12
173	Controlled Picard Method for Solving Nonlinear Fractional Reaction–Diffusion Models in Porous Catalysts. Chemical Engineering Communications, 2017, 204, 635-647.	1.5	12
174	Applications of Continuous-time Fractional Order Chaotic Systems. , 2018, , 409-449.		12
175	Memristor-CNTFET based Ternary Full Adders. , 2020, , .		12
176	Design, implementation and analysis of fully digital 1-D controllable multiscroll chaos. , 2011, , .		11
177	Effect of boundary on controlled memristor-based oscillator. , 2012, , .		11
178	Design of a generalized bidirectional tent map suitable for encryption applications. , 2015, , .		11
179	Generalized fractional logistic map suitable for data encryption. , 2015, , .		11
180	Aging effect on apples bio-impedance using AD5933. , 2016, , .		11

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181	Modified methods for solving two classes of distributed order linear fractional differential equations. Applied Mathematics and Computation, 2018, 323, 106-119.	1.4	11
182	Experimental Verification of Triple Lobes Generation in Fractional Memristive Circuits. IEEE Access, 2018, 6, 75169-75180.	2.6	11
183	Biologically Inspired Optimization Algorithms for Fractional-Order Bioimpedance Models Parameters Extraction. , 2018, , 125-162.		11
184	FPGA realization of speech encryption based on modified chaotic logistic map. , 2018, , .		11
185	Stability analysis of fractional-order Colpitts oscillators. Analog Integrated Circuits and Signal Processing, 2019, 101, 267-279.	0.9	11
186	Memristor-based quinary half adder. AEU - International Journal of Electronics and Communications, 2019, 98, 123-130.	1.7	11
187	A chess-based chaotic block cipher. , 2014, , .		10
188	Design and Implementation of an Optimized Artificial Human Eardrum Model. Circuits, Systems, and Signal Processing, 2020, 39, 3219-3233.	1.2	10
189	Hardware realization of a secure and enhanced s-box based speech encryption engine. Analog Integrated Circuits and Signal Processing, 2021, 106, 385-397.	0.9	10
190	Fractional-Order Edge Detection Masks for Diabetic Retinopathy Diagnosis as a Case Study. Computers, 2021, 10, 30.	2.1	10
191	Arithmetic optimization approach for parameters identification of different PV diode models with FOPI-MPPT. Ain Shams Engineering Journal, 2022, 13, 101612.	3.5	10
192	State space modeling of Memristor-based Wien oscillator. , 2011, , .		9
193	Memristor-based relaxation oscillators using digital gates. , 2012, , .		9
194	Comparative study of fractional filters for Alzheimer disease detection on MRI images. , 2016, , .		9
195	Fractional-order impedance transformation based on three port mutators. AEU - International Journal of Electronics and Communications, 2017, 81, 12-22.	1.7	9
196	FPGA implementation of fractional-order integrator and differentiator based on Grünwald Letnikov's definition. , 2017, , .		9
197	FPGA Implementation of X- and Heart-shapes Controllable Multi-Scroll Attractors. , 2018, , .		9
198	Fractional chaos maps with flower pollination algorithm for chaotic systems' parameters identification. Neural Computing and Applications, 2020, 32, 16291-16327.	3.2	9

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199	Plant stem tissue modeling and parameter identification using metaheuristic optimization algorithms. Scientific Reports, 2022, 12, 3992.	1.6	9
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