Lobna

List of Publications by Year
in descending order

141 papers	2,439 citations	201385 27 h-index	253896 43 g-index
143 all docs	143 docs citations	143 times ranked	1013 citing authors

#	Article	IF	Citations
1	FPGA implementation of two fractional order chaotic systems. AEU - International Journal of Electronics and Communications, 2017, 78, 162-172.	1.7	155
2	Generalized double-humped logistic map-based medical image encryption. Journal of Advanced Research, 2018, 10, 85-98.	4.4	93
3	On The Optimization of Fractional Order Low-Pass Filters. Circuits, Systems, and Signal Processing, 2016, 35, 2017-2039.	1.2	86
4	A novel image encryption system merging fractional-order edge detection and generalized chaotic maps. Signal Processing, 2020, 167, 107280.	2.1	85
5	Biological inspired optimization algorithms for cole-impedance parameters identification. AEU - International Journal of Electronics and Communications, 2017, 78, 79-89.	1.7	80
6	Experimental comparison of integer/fractional-order electrical models of plant. AEU - International Journal of Electronics and Communications, 2017, 80, 1-9.	1.7	80
7	Fractional order oscillators based on operational transresistance amplifiers. AEU - International Journal of Electronics and Communications, 2015, 69, 988-1003.	1.7	78
8	Generalized fractional logistic map encryption system based on FPGA. AEU - International Journal of Electronics and Communications, 2017, 80, 114-126.	1.7	76
9	Three Fractional-Order-Capacitors-Based Oscillators with Controllable Phase and Frequency. Journal of Circuits, Systems and Computers, 2017, 26, 1750160.	1.0	65
10	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
11	Optimized Edge Detection Technique for Brain Tumor Detection in MR Images. IEEE Access, 2020, 8, 136243-136259.	2.6	53
12	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
13	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
14	Two-port two impedances fractional order oscillators. Microelectronics Journal, 2016, 55, 40-52.	1.1	49
15	Synchronization and FPGA realization of fractional-order Izhikevich neuron model. Microelectronics Journal, 2019, 89, 56-69.	1.1	48
16	Parameter identification of fractional-order chaotic systems using different Meta-heuristic Optimization Algorithms. Nonlinear Dynamics, 2019, 95, 2491-2542.	2.7	46
17	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
18	Fractional Order Oscillator Design Based on Two-Port Network. Circuits, Systems, and Signal Processing, 2016, 35, 3086-3112.	1.2	44

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19	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
20	Fractional order integrator/differentiator: FPGA implementation and FOPID controller application. AEU - International Journal of Electronics and Communications, 2019, 98, 220-229.	1.7	43
21	Effect of Different Approximation Techniques on Fractional-Order KHN Filter Design. Circuits, Systems, and Signal Processing, 2018, 37, 5222-5252.	1.2	39
22	Cancellable face recognition based on fractional-order Lorenz chaotic system and Haar wavelet fusion. , 2021, 116, 103103.		39
23	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
24	FPGA implementation of sound encryption system based on fractional-order chaotic systems. Microelectronics Journal, 2019, 90, 323-335.	1.1	37
25	Generalized two-port network based fractional order filters. AEU - International Journal of Electronics and Communications, 2019, 104, 128-146.	1.7	36
26	Fractional controllable multi-scroll V-shape attractor with parameters effect. , 2017, , .		34
27	Ternary Functions Design Using Memristive Threshold Logic. IEEE Access, 2019, 7, 48371-48381.	2.6	34
28	On the Approximations of CFOA-Based Fractional-Order Inverse Filters. Circuits, Systems, and Signal Processing, 2020, 39, 2-29.	1.2	28
29	Extracting Optimized Bio-Impedance Model Parameters Using Different Topologies of Oscillators. IEEE Sensors Journal, 2020, 20, 9947-9954.	2.4	27
30	Comparison between three approximation methods on oscillator circuits. Microelectronics Journal, 2018, 81, 162-178.	1.1	26
31	Active realization of doubly terminated LC ladder filters using current feedback operational amplifier (CFOA) via linear transformation. AEU - International Journal of Electronics and Communications, 2011, 65, 753-762.	1.7	25
32	Cole Bio-Impedance Model Variations in $Daucus~Carota~Sativus$ Under Heating and Freezing Conditions. IEEE Access, 2019, 7, 113254-113263.	2.6	24
33	Numerical Simulations and FPGA Implementations of Fractional-Order Systems Based on Product Integration Rules. IEEE Access, 2020, 8, 102093-102105.	2.6	24
34	A generalized family of memristor€based voltage controlled relaxation oscillator. International Journal of Circuit Theory and Applications, 2018, 46, 1311-1327.	1.3	23
35	Fractional-Order Bio-Impedance Modeling for Interdisciplinary Applications: A Review. IEEE Access, 2021, 9, 33158-33168.	2.6	23
36	Reconfigurable FPGA Realization of Fractional-Order Chaotic Systems. IEEE Access, 2021, 9, 89376-89389.	2.6	23

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37	Optimal fractional-order PI with DC-DC converter and PV system. Ain Shams Engineering Journal, 2021, 12, 1895-1906.	3.5	22
38	General fractional order mem-elements mutators. Microelectronics Journal, 2019, 90, 211-221.	1.1	21
39	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
40	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
41	Biomedical image encryption based on double-humped and fractional logistic maps. , 2017, , .		20
42	Emulation circuits of fractional-order memelements with multiple pinched points and their applications. Chaos, Solitons and Fractals, 2020, 138, 109882.	2.5	20
43	FPGA realization of Caputo and Grünwald-Letnikov operators. , 2017, , .		19
44	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
45	Generalized family of fractional-order oscillators based on single CFOA and RC network. , 2017, , .		16
46	Fractional-order oscillator based on single CCII. , 2016, , .		15
47	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
48	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
49	Fractional-order inverting and non-inverting filters based on CFOA. , 2016, , .		14
50	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
51	Fractional order oscillator with independent control of phase and frequency. , 2014, , .		12
52	Memristor-CNTFET based Ternary Full Adders. , 2020, , .		12
53	Generalized fractional logistic map suitable for data encryption. , 2015, , .		11
54	Biologically Inspired Optimization Algorithms for Fractional-Order Bioimpedance Models Parameters Extraction. , 2018, , 125-162.		11

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55	Stability analysis of fractional-order Colpitts oscillators. Analog Integrated Circuits and Signal Processing, 2019, 101, 267-279.	0.9	11
56	Design and Implementation of an Optimized Artificial Human Eardrum Model. Circuits, Systems, and Signal Processing, 2020, 39, 3219-3233.	1.2	10
57	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
58	Fractional-Order Edge Detection Masks for Diabetic Retinopathy Diagnosis as a Case Study. Computers, 2021, 10, 30.	2.1	10
59	Arithmetic optimization approach for parameters identification of different PV diode models with FOPI-MPPT. Ain Shams Engineering Journal, 2022, 13, 101612.	3.5	10
60	FPGA implementation of fractional-order integrator and differentiator based on GrÃ¼nwald Letnikov's definition. , 2017, , .		9
61	FPGA Implementation of X- and Heart-shapes Controllable Multi-Scroll Attractors. , 2018, , .		9
62	Plant stem tissue modeling and parameter identification using metaheuristic optimization algorithms. Scientific Reports, 2022, 12, 3992.	1.6	9
63	Incremental Grounded Voltage Controlled Memristor Emulator. , 2018, , .		8
64	Survey on Two-Port Network-Based Fractional-Order Oscillators. , 2018, , 305-327.		8
65	FPGA implementation of fractional-order Chua's chaotic system. , 2018, , .		7
66	N-digits Ternary Carry Lookahead Adder Design. , 2019, , .		7
67	Chaotic Dynamics and FPGA Implementation of a Fractional-Order Chaotic System With Time Delay. IEEE Open Journal of Circuits and Systems, 2020, 1, 255-262.	1.4	7
68	Two implementations of fractional-order relaxation oscillators. Analog Integrated Circuits and Signal Processing, 2021, 106, 421-432.	0.9	7
69	FPGA Realizations of Chaotic Epidemic and Disease Models Including Covid-19. IEEE Access, 2021, 9, 21085-21093.	2.6	7
70	Current feedback operational amplifier (CFOA) based fractional order oscillators. , 2014, , .		6
71	Fractional order four-phase oscillator based on double integrator topology. , 2017, , .		6
72	Memristor-CNTFET based Ternary Comparator unit. , 2018, , .		6

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73	On the Approximation of Fractional-Order Circuit Design. , 2018, , 239-270.		6
74	Toward Portable Bio-impedance devices. , 2019, , .		6
75	A Simple BJT Inverse Memristor Emulator and Its Application in Chaotic Oscillators. , 2019, , .		6
76	Analysis and FPGA of semi-fractal shapes based on complex Gaussian map. Chaos, Solitons and Fractals, 2021, 142, 110493.	2.5	6
77	Generalized delayed logistic map suitable for pseudo-random number generation. , 2015, , .		5
78	Fractional order oscillators with single non-zero transmission matrix element. , 2015, , .		5
79	Fractional-Order Filter Design. , 2018, , 357-382.		5
80	On the Fractional Order Generalized Discrete Maps. , 2018, , 375-408.		5
81	Multifunction Fractional Inverse Filter Based on OTRA. , 2019, , .		5
82	Design of FOPID Controller for a DC Motor Using Approximation Techniques. , 2019, , .		5
83	Tunable Fractional-Order Band-pass Filter of order 2α. , 2019, , .		5
84	CNTFET design of a multiple-port ternary register file. Microelectronics Journal, 2021, 113, 105076.	1.1	5
85	Active emulation circuits of fractional-order memristive elements and its applications. AEU - International Journal of Electronics and Communications, 2021, 138, 153855.	1.7	5
86	Comparative Study of CNTFET Implementations of 1-trit Multiplier. , 2020, , .		5
87	CNTFET-Based Ternary Multiply-and-Accumulate Unit. Electronics (Switzerland), 2022, 11, 1455.	1.8	5
88	CMOS digitally programmable lossless floating inductor. , 2010, , .		4
89	Fractional order two port network oscillator with equal order. , 2014, , .		4
90	Fractional-Order Relaxation Oscillators Based on Op-Amp and OTRA. , 2018, , .		4

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91	FPGA Speech Encryption Realization Based on Variable S-Box and Memristor Chaotic Circuit. , 2018, , .		4
92	Using Meta-heuristic Optimization to Extract Bio-impedance Parameters from an Oscillator Circuit. , 2019, , .		4
93	A Universal Fractional-Order Memelement Emulation Circuit. , 2019, , .		4
94	Banana Ripening and Corresponding Variations in Bio-Impedance and Glucose Levels. , 2019, , .		4
95	Fractional-Order Oscillators Based on Double Op-Amp. , 2019, , .		4
96	A Modified Differentiator Circuit for Extracting Cole-Impedance Model Parameters Using Meta-heuristic Optimization Algorithms. Arabian Journal for Science and Engineering, 2021, 46, 9945-9951.	1.7	4
97	Fractional-order Memristor Emulator with Multiple Pinched Points. , 2020, , .		4
98	Numerical Sensitivity Analysis and Hardware Verification of a Transiently-Chaotic Attractor. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2022, 32, .	0.7	4
99	A Unified FPGA Realization for Fractional-Order Integrator and Differentiator. Electronics (Switzerland), 2022, 11, 2052.	1.8	4
100	Current feedback operational amplifier(CFOA) based programmable lossless floating inductor realization. , 2014, , .		3
101	FPGA Implementation of Fractional-Order Chaotic Systems. , 2018, , 33-62.		3
102	Analysis and Design of Fractional-order Low-pass Filter with Three Elements of Independent Orders. , 2019, , .		3
103	Two-Port Network Analysis of Equal Fractional-order Wireless Power Transfer Circuit. , 2020, , .		3
104	FPGA Implementation of Integer/Fractional Chaotic Systems. Studies in Computational Intelligence, 2020, , 199-229.	0.7	3
105	A Scalable Firmware-Over-The-Air Architecture suitable for Industrial IoT Applications. , 2021, , .		3
106	Double Fractional-order Masks Image Enhancement. , 2021, , .		3
107	A Comparative Study of Different Chaotic Systems in Path Planning for Surveillance Applications. , 2021, , .		3
108	CNTFETâ€based ternary address decoder design. International Journal of Circuit Theory and Applications, 2022, 50, 3682-3691.	1.3	3

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109	Two port network analysis for three impedance based oscillators. , 2011, , .		2
110	Two topologies of fractional-order oscillators based on CFOA and RC networks. , 2018, , .		2
111	Design of Fractional-Order Differentiator-Lowpass Filters for Extracting the R peaks in ECG Signals. , 2019, , .		2
112	Generic Hardware of Fractional Order Multi-Scrolls Chaotic Generator Based on FPGA. , 2019, , .		2
113	Power Tracking Controller Design For Photo-voltaic Systems Based On Particle Swarm Optimization Technique. , 2019, , .		2
114	A Digital Hardware Implementation for A new Mixed-Order Nonlinear 3-D Chaotic System. , 2019, , .		2
115	A Comparative Study of Different Human Skin Impedance Models. , 2021, , .		2
116	Memristive Bio-Impedance Modeling of Fruits and Vegetables. IEEE Access, 2021, 9, 21498-21506.	2.6	2
117	FPGA Implementation of Delayed Fractional-Order Financial Chaotic System. , 2020, , .		2
118	FPGA REALIZATION OF COMPLEX LOGISTIC MAP FRACTAL BEHAVIOR. Fractals, 2022, 30, .	1.8	2
119	Over-The-Air Firmware Updating Model suitable for Industrial IoT based on Microchip AVR MCU. , 2021, , .		2
120	FPGA realization of fractals based on a new generalized complex logistic map. Chaos, Solitons and Fractals, 2022, 160, 112215.	2.5	2
121	Mathematical analysis of gene regulation activator model. , 2018, , .		1
122	Frational Order Inverse Filters Based on CCII Family. , 2019, , .		1
123	Heating and Freezing Injury to Plant Tissues and Their Effect on Bioimpedance: Experimental Study. , 2019, , .		1
124	A Universal Floating Fractional-Order Elements/Memelements Emulator. , 2019, , .		1
125	Fractional-order Nonminimum-phase Filter Design. , 2019, , .		1
126	Do the Bio-impedance Models Exhibit Pinched Hysteresis?. , 2020, , .		1

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127	Design and fabrication of CNT/graphene-based polymer nanocomposite applications in nanosensors. , 2020, , 281-294.		1
128	Generalized Î±+Î²-order Filter Based on Single CCII. , 2020, , .		1
129	Observability of speed DC motor with self-tuning fuzzy-fractional-order controller. , 2022, , 157-179.		1
130	Modeling woody plant tissue using different fractional-order circuits. , 2022, , 457-474.		1
131	A survey on memristor active emulation circuits in the fractional-order domain. , 2022, , 375-410.		1
132	Design of IoT Microchip AVR Programmer for FOTA Updates based on Unified Programming and Debug Interface using Wi-Fi and LoRa. , 2021, , .		1
133	Vulnerable Road Users Detection and Tracking using YOLOv4 and Deep SORT. , 2021, , .		1
134	Digitally programmable lossless floating inductor realization using current differential amplifier (CDA). , 2012, , .		0
135	Two-port oscillators based on three impedance structure. , 2014, , .		0
136	Center pulse width modulation implementation based on memristor. AEU - International Journal of Electronics and Communications, 2019, 111, 152843.	1.7	0
137	CAD Tool for Two-Digit Ternary Functions Design. , 2019, , .		0
138	Fractional-Order Generalized Gene Regulation Model CCII-Based Practical Emulator. , 2020, , .		0
139	On Series Connections of Fractional-Order Elements and Memristive Elements. , 2020, , .		0
140	Fractional-order oscillators based on a single Op-Amp. , 2022, , 411-439.		0
141	MPPT for a Partially Shaded PV System Using Accelerated Particle Swarms. , 2021, , .		0