

Ahmed S Elwakil

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502
papers

9,111
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47
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73
g-index

568
ext. papers

10,986
ext. citations

2.7
avg, IF

7.09
L-index

| # | Paper | IF | Citations |
|-----|--|-----|-----------|
| 502 | Fractional-order circuits and systems: An emerging interdisciplinary research area. <i>IEEE Circuits and Systems Magazine</i> , 2010 , 10, 40-50 | 3.2 | 349 |
| 501 | On the stability of linear systems with fractional-order elements. <i>Chaos, Solitons and Fractals</i> , 2009 , 40, 2317-2328 | 9.3 | 225 |
| 500 | . <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2008 , 55, 2051-2063 | 3.9 | 205 |
| 499 | FIRST-ORDER FILTERS GENERALIZED TO THE FRACTIONAL DOMAIN. <i>Journal of Circuits, Systems and Computers</i> , 2008 , 17, 55-66 | 0.9 | 172 |
| 498 | Construction of classes of circuit-independent chaotic oscillators using passive-only nonlinear devices. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2001 , 48, 289-307 | | 168 |
| 497 | ON THE GENERALIZATION OF SECOND-ORDER FILTERS TO THE FRACTIONAL-ORDER DOMAIN. <i>Journal of Circuits, Systems and Computers</i> , 2009 , 18, 361-386 | 0.9 | 167 |
| 496 | Field programmable analogue array implementation of fractional step filters. <i>IET Circuits, Devices and Systems</i> , 2010 , 4, 514 | 1.1 | 135 |
| 495 | FPGA implementation of two fractional order chaotic systems. <i>AEU - International Journal of Electronics and Communications</i> , 2017 , 78, 162-172 | 2.8 | 129 |
| 494 | Measurement of Supercapacitor Fractional-Order Model Parameters From Voltage-Excited Step Response. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2013 , 3, 367-376 | 5.2 | 119 |
| 493 | Reevaluation of Performance of Electric Double-layer Capacitors from Constant-current Charge/Discharge and Cyclic Voltammetry. <i>Scientific Reports</i> , 2016 , 6, 38568 | 4.9 | 108 |
| 492 | Fractional-order models of supercapacitors, batteries and fuel cells: a survey. <i>Materials for Renewable and Sustainable Energy</i> , 2015 , 4, 1 | 4.7 | 107 |
| 491 | Fractional-order Wien-bridge oscillator. <i>Electronics Letters</i> , 2001 , 37, 1110 | 1.1 | 104 |
| 490 | Design equations for fractional-order sinusoidal oscillators: Four practical circuit examples. <i>International Journal of Circuit Theory and Applications</i> , 2008 , 36, 473-492 | 2 | 102 |
| 489 | On the practical realization of higher-order filters with fractional stepping. <i>Signal Processing</i> , 2011 , 91, 484-491 | 4.4 | 100 |
| 488 | Review of fractional-order electrical characterization of supercapacitors. <i>Journal of Power Sources</i> , 2018 , 400, 457-467 | 8.9 | 92 |
| 487 | . <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2002 , 49, 527-530 | | 90 |
| 486 | Improved implementation of Chua's chaotic oscillator using current feedback op amp. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2000 , 47, 76-79 | | 88 |

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| 485 | Optimization of Fractional-Order RLC Filters. <i>Circuits, Systems, and Signal Processing</i> , 2013 , 32, 2097-2118. | 2 | 85 |
| 484 | A Simple Model of Double-Loop Hysteresis Behavior in Memristive Elements. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2013 , 60, 487-491 | 3.5 | 83 |
| 483 | Power and energy analysis of fractional-order electrical energy storage devices. <i>Energy</i> , 2016 , 111, 785-793 | 2.2 | 78 |
| 482 | High-quality factor asymmetric-slope band-pass filters: a fractional-order capacitor approach. <i>IET Circuits, Devices and Systems</i> , 2012 , 6, 187 | 1.1 | 74 |
| 481 | On The Optimization of Fractional Order Low-Pass Filters. <i>Circuits, Systems, and Signal Processing</i> , 2016 , 35, 2017-2039 | 2.2 | 73 |
| 480 | Fractional Order Sallen-Key and KHN Filters: Stability and Poles Allocation. <i>Circuits, Systems, and Signal Processing</i> , 2015 , 34, 1461-1480 | 2.2 | 72 |
| 479 | A Novel Chaotic System without Equilibrium: Dynamics, Synchronization, and Circuit Realization. <i>Complexity</i> , 2017 , 2017, 1-11 | 1.6 | 68 |
| 478 | Biological inspired optimization algorithms for cole-impedance parameters identification. <i>AEU - International Journal of Electronics and Communications</i> , 2017 , 78, 79-89 | 2.8 | 67 |
| 477 | Experimental comparison of integer/fractional-order electrical models of plant. <i>AEU - International Journal of Electronics and Communications</i> , 2017 , 80, 1-9 | 2.8 | 65 |
| 476 | Generalized fractional logistic map encryption system based on FPGA. <i>AEU - International Journal of Electronics and Communications</i> , 2017 , 80, 114-126 | 2.8 | 63 |
| 475 | Generalized double-humped logistic map-based medical image encryption. <i>Journal of Advanced Research</i> , 2018 , 10, 85-98 | 13 | 62 |
| 474 | Symmetric encryption algorithms using chaotic and non-chaotic generators: A review. <i>Journal of Advanced Research</i> , 2016 , 7, 193-208 | 13 | 61 |
| 473 | Fractional order oscillators based on operational transresistance amplifiers. <i>AEU - International Journal of Electronics and Communications</i> , 2015 , 69, 988-1003 | 2.8 | 61 |
| 472 | Emulation of a constant phase element using operational transconductance amplifiers. <i>Analog Integrated Circuits and Signal Processing</i> , 2015 , 85, 413-423 | 1.2 | 60 |
| 471 | Extracting the parameters of the double-dispersion Cole bioimpedance model from magnitude response measurements. <i>Medical and Biological Engineering and Computing</i> , 2014 , 52, 749-58 | 3.1 | 60 |
| 470 | Electronically Tunable Fully Integrated Fractional-Order Resonator. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018 , 65, 166-170 | 3.5 | 59 |
| 469 | On the Mathematical Modeling of Memristor, Memcapacitor, and Meminductor. <i>Studies in Systems, Decision and Control</i> , 2015 , | 0.8 | 58 |
| 468 | n-scroll chaos generator using nonlinear transconductor. <i>Electronics Letters</i> , 2002 , 38, 685 | 1.1 | 57 |

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| 467 | A novel image encryption system merging fractional-order edge detection and generalized chaotic maps. <i>Signal Processing</i> , 2020 , 167, 107280 | 4.4 | 57 |
| 466 | A low frequency oscillator using a super-capacitor. <i>AEU - International Journal of Electronics and Communications</i> , 2016 , 70, 970-973 | 2.8 | 56 |
| 465 | Approximated Fractional-Order Inverse Chebyshev Lowpass Filters. <i>Circuits, Systems, and Signal Processing</i> , 2016 , 35, 1973-1982 | 2.2 | 54 |
| 464 | Approximated Fractional Order Chebyshev Lowpass Filters. <i>Mathematical Problems in Engineering</i> , 2015 , 2015, 1-7 | 1.1 | 54 |
| 463 | CCII based fractional filters of different orders. <i>Journal of Advanced Research</i> , 2014 , 5, 157-64 | 13 | 54 |
| 462 | Three Fractional-Order-Capacitors-Based Oscillators with Controllable Phase and Frequency. <i>Journal of Circuits, Systems and Computers</i> , 2017 , 26, 1750160 | 0.9 | 52 |
| 461 | Extracting the Cole-Cole impedance model parameters without direct impedance measurement. <i>Electronics Letters</i> , 2010 , 46, 1367 | 1.1 | 52 |
| 460 | Experimental verification of on-chip CMOS fractional-order capacitor emulators. <i>Electronics Letters</i> , 2016 , 52, 1298-1300 | 1.1 | 49 |
| 459 | Fractional-order electronically controlled generalized filters. <i>International Journal of Circuit Theory and Applications</i> , 2017 , 45, 595-612 | 2 | 49 |
| 458 | On some generalized discrete logistic maps. <i>Journal of Advanced Research</i> , 2013 , 4, 163-71 | 13 | 48 |
| 457 | On a multivibrator that employs a fractional capacitor. <i>Analog Integrated Circuits and Signal Processing</i> , 2010 , 62, 99-103 | 1.2 | 48 |
| 456 | EXPERIMENTAL VERIFICATION OF THE BUTTERFLY ATTRACTOR IN A MODIFIED LORENZ SYSTEM. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2002 , 12, 1627-1632 | 2 | 48 |
| 455 | Modeling and analysis of fractional order DC-DC converter. <i>ISA Transactions</i> , 2018 , 82, 184-199 | 5.5 | 47 |
| 454 | Hardware stream cipher with controllable chaos generator for colour image encryption. <i>IET Image Processing</i> , 2014 , 8, 33-43 | 1.7 | 47 |
| 453 | Generalized Hardware Post-processing Technique for Chaos-Based Pseudorandom Number Generators. <i>ETRI Journal</i> , 2013 , 35, 448-458 | 1.4 | 45 |
| 452 | Reconfigurable chaotic pseudo random number generator based on FPGA. <i>AEU - International Journal of Electronics and Communications</i> , 2019 , 93, 174-180 | 2.8 | 45 |
| 451 | Approximation of the Fractional-Order Laplacian s^α As a Weighted Sum of First-Order High-Pass Filters. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018 , 65, 1114-1118 | 3.5 | 43 |
| 450 | A fractal-based image encryption system. <i>IET Image Processing</i> , 2014 , 8, 742-752 | 1.7 | 43 |

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| 449 | 1-D DIGITALLY-CONTROLLED MULTISCROLL CHAOS GENERATOR. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2007 , 17, 227-242 | 2 | 43 |
| 448 | Fractional-order mutual inductance: analysis and design. <i>International Journal of Circuit Theory and Applications</i> , 2016 , 44, 85-97 | 2 | 42 |
| 447 | Cole impedance extractions from the step-response of a current excited fruit sample. <i>Computers and Electronics in Agriculture</i> , 2013 , 98, 100-108 | 6.5 | 42 |
| 446 | An inductorless CMOS realization of Chua's circuit. <i>Chaos, Solitons and Fractals</i> , 2003 , 18, 149-158 | 9.3 | 42 |
| 445 | Two-port two impedances fractional order oscillators. <i>Microelectronics Journal</i> , 2016 , 55, 40-52 | 1.8 | 41 |
| 444 | Chaotic Flower Pollination and Grey Wolf Algorithms for parameter extraction of bio-impedance models. <i>Applied Soft Computing Journal</i> , 2019 , 75, 750-774 | 7.5 | 41 |
| 443 | A family of Wien-type oscillators modified for chaos. <i>International Journal of Circuit Theory and Applications</i> , 1997 , 25, 561-579 | 2 | 40 |
| 442 | Spectral Capacitance of Series and Parallel Combinations of Supercapacitors. <i>ChemElectroChem</i> , 2016 , 3, 1429-1436 | 4.3 | 39 |
| 441 | Fractional-step Tow-Thomas biquad filters. <i>Nonlinear Theory and Its Applications IEICE</i> , 2012 , 3, 357-374 | 0.6 | 39 |
| 440 | A FOUR-WING BUTTERFLY ATTRACTOR FROM A FULLY AUTONOMOUS SYSTEM. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2003 , 13, 3093-3098 | 2 | 39 |
| 439 | Design of CMOS Analog Integrated Fractional-Order Circuits. <i>Springer Briefs in Electrical and Computer Engineering</i> , 2017 , | 0.4 | 38 |
| 438 | Fractional Order Oscillator Design Based on Two-Port Network. <i>Circuits, Systems, and Signal Processing</i> , 2016 , 35, 3086-3112 | 2.2 | 38 |
| 437 | AN EQUATION FOR GENERATING CHAOS AND ITS MONOLITHIC IMPLEMENTATION. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2002 , 12, 2885-2895 | 2 | 38 |
| 436 | On inverse problem of generalized synchronization between different dimensional integer-order and fractional-order chaotic systems 2016 , | | 38 |
| 435 | Fractional-order Memristor Response Under DC and Periodic Signals. <i>Circuits, Systems, and Signal Processing</i> , 2015 , 34, 961-970 | 2.2 | 37 |
| 434 | Capacitive behavior and stored energy in supercapacitors at power line frequencies. <i>Journal of Power Sources</i> , 2018 , 390, 142-147 | 8.9 | 37 |
| 433 | . <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2013 , 60, 2701-2708 | 3.9 | 37 |
| 432 | A New Second-Order All-Pass Filter in 130-nm CMOS. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2016 , 63, 249-253 | 3.5 | 36 |

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| 431 | Fractional Resonance-Based RLC Filters. <i>Mathematical Problems in Engineering</i> , 2013 , 2013, 1-10 | 1.1 | 36 |
| 430 | Further experimental evidence of the fractional-order energy equation in supercapacitors. <i>AEU - International Journal of Electronics and Communications</i> , 2017 , 78, 209-212 | 2.8 | 34 |
| 429 | Extracting single dispersion Cole-Cole impedance model parameters using an integrator setup. <i>Analog Integrated Circuits and Signal Processing</i> , 2012 , 71, 107-110 | 1.2 | 34 |
| 428 | . <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019 , 66, 1484-1495 | 3.9 | 34 |
| 427 | Switched-Capacitor Fractional-Step Butterworth Filter Design. <i>Circuits, Systems, and Signal Processing</i> , 2016 , 35, 1377-1393 | 2.2 | 33 |
| 426 | Chua's circuit decomposition: a systematic design approach for chaotic oscillators. <i>Journal of the Franklin Institute</i> , 2000 , 337, 251-265 | 4 | 33 |
| 425 | High frequency Wien-type chaotic oscillator. <i>Electronics Letters</i> , 1998 , 34, 1161 | 1.1 | 33 |
| 424 | Experimental demonstration of fractional-order oscillators of orders 2.6 and 2.7. <i>Chaos, Solitons and Fractals</i> , 2017 , 96, 160-164 | 9.3 | 32 |
| 423 | Chaos synchronisation of continuous systems via scalar signal 2017 , | | 32 |
| 422 | Fractional controllable multi-scroll V-shape attractor with parameters effect 2017 , | | 32 |
| 421 | Multiscroll Chaotic Oscillators: The Nonautonomous Approach. <i>IEEE Transactions on Circuits and Systems Part 2: Express Briefs</i> , 2006 , 53, 862-866 | | 32 |
| 420 | All Possible Topologies of the Fractional-Order Wien Oscillator Family Using Different Approximation Techniques. <i>Circuits, Systems, and Signal Processing</i> , 2019 , 38, 3931-3951 | 2.2 | 32 |
| 419 | Extracting the parameters of the single-dispersion Cole bioimpedance model using a magnitude-only method. <i>Computers and Electronics in Agriculture</i> , 2015 , 119, 153-157 | 6.5 | 31 |
| 418 | Fractional X-shape controllable multi-scroll attractor with parameter effect and FPGA automatic design tool software. <i>Chaos, Solitons and Fractals</i> , 2019 , 126, 292-307 | 9.3 | 31 |
| 417 | On the Realization of Multiphase Oscillators Using Fractional-Order Allpass Filters. <i>Circuits, Systems, and Signal Processing</i> , 2012 , 31, 3-17 | 2.2 | 31 |
| 416 | Effect of Different Approximation Techniques on Fractional-Order KHN Filter Design. <i>Circuits, Systems, and Signal Processing</i> , 2018 , 37, 5222-5252 | 2.2 | 31 |
| 415 | Generalized two-port network based fractional order filters. <i>AEU - International Journal of Electronics and Communications</i> , 2019 , 104, 128-146 | 2.8 | 30 |
| 414 | Partial fraction expansion Based realizations of fractional-order differentiators and integrators using active filters. <i>International Journal of Circuit Theory and Applications</i> , 2019 , 47, 513-531 | 2 | 30 |

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| 413 | Pinched hysteresis with inverse-memristor frequency characteristics in some nonlinear circuit elements. <i>Microelectronics Journal</i> , 2015 , 46, 834-838 | 1.8 | 30 |
| 412 | Emulation of current excited fractional-order capacitors and inductors using OTA topologies. <i>Microelectronics Journal</i> , 2016 , 55, 70-81 | 1.8 | 30 |
| 411 | Cross-coupled chaotic oscillators and application to random bit generation. <i>IET Circuits, Devices and Systems</i> , 2006 , 153, 506 | | 30 |
| 410 | Parameter identification of fractional-order chaotic systems using different Meta-heuristic Optimization Algorithms. <i>Nonlinear Dynamics</i> , 2019 , 95, 2491-2542 | 5 | 30 |
| 409 | Wien oscillators using current conveyors. <i>Computers and Electrical Engineering</i> , 1999 , 25, 45-55 | 4.3 | 29 |
| 408 | A semi-systematic procedure for producing chaos from sinusoidal oscillators using diode-inductor and FET-capacitor composites. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2000 , 47, 582-590 | | 28 |
| 407 | Fractional order integrator/differentiator: FPGA implementation and FOPID controller application. <i>AEU - International Journal of Electronics and Communications</i> , 2019 , 98, 220-229 | 2.8 | 28 |
| 406 | Dead-beat synchronization control in discrete-time chaotic systems 2017 , | | 27 |
| 405 | Current conveyor chaos generators. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 1999 , 46, 393-398 | | 27 |
| 404 | Fractional-order multi-phase oscillators design and analysis suitable for higher-order PSK applications. <i>Analog Integrated Circuits and Signal Processing</i> , 2016 , 87, 301-312 | 1.2 | 27 |
| 403 | Synchronization and FPGA realization of fractional-order Izhikevich neuron model. <i>Microelectronics Journal</i> , 2019 , 89, 56-69 | 1.8 | 26 |
| 402 | Ferroelectric Fractional-Order Capacitors. <i>ChemElectroChem</i> , 2017 , 4, 2807-2813 | 4.3 | 26 |
| 401 | Nonautonomous pulse-driven chaotic oscillator based on Chua's circuit. <i>Microelectronics Journal</i> , 2002 , 33, 479-486 | 1.8 | 26 |
| 400 | A family of Colpitts-like chaotic oscillators. <i>Journal of the Franklin Institute</i> , 1999 , 336, 687-700 | 4 | 26 |
| 399 | Short-term memory in electric double-layer capacitors. <i>Applied Physics Letters</i> , 2018 , 113, 253901 | 3.4 | 26 |
| 398 | Realization of fractional-order capacitor based on passive symmetric network. <i>Journal of Advanced Research</i> , 2019 , 18, 147-159 | 13 | 25 |
| 397 | Single active element implementation of fractional-order differentiators and integrators. <i>AEU - International Journal of Electronics and Communications</i> , 2018 , 97, 6-15 | 2.8 | 24 |
| 396 | Reduced Graphene Oxide Thin Film on Conductive Substrates by Bipolar Electrochemistry. <i>Scientific Reports</i> , 2016 , 6, 21282 | 4.9 | 23 |

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| 395 | Image encryption using generalized tent map 2013 , | | 22 |
| 394 | Least squares estimation technique of Cole-Cole parameters from step response. <i>Electronics Letters</i> , 2012 , 48, 752 | 1.1 | 22 |
| 393 | Experimental Verification of Fractional-Order Filters Using a Reconfigurable Fractional-Order Impedance Emulator. <i>Journal of Circuits, Systems and Computers</i> , 2017 , 26, 1750142 | 0.9 | 21 |
| 392 | All-Solid-State Double-Layer Capacitors Using Binderless Reduced Graphene Oxide Thin Films Prepared by Bipolar Electrochemistry. <i>ChemElectroChem</i> , 2017 , 4, 2084-2090 | 4.3 | 21 |
| 391 | FPGA implementation of sound encryption system based on fractional-order chaotic systems. <i>Microelectronics Journal</i> , 2019 , 90, 323-335 | 1.8 | 21 |
| 390 | Comprehensive comparison based on meta-heuristic algorithms for approximation of the fractional-order Laplacian as a weighted sum of first-order high-pass filters. <i>Microelectronics Journal</i> , 2019 , 87, 110-120 | 1.8 | 21 |
| 389 | Supercapacitor discharge under constant resistance, constant current and constant power loads. <i>Journal of Power Sources</i> , 2019 , 435, 226829 | 8.9 | 21 |
| 388 | Chaos in pulse-excited resonator with self feedback. <i>Electronics Letters</i> , 2003 , 39, 831 | 1.1 | 21 |
| 387 | On the necessary and sufficient conditions for latch-up in sinusoidal oscillators. <i>International Journal of Electronics</i> , 2002 , 89, 197-206 | 1.2 | 21 |
| 386 | Mathematical Models of the Twin-T, Wien-bridge and Family of Minimum Component Electronic Chaos Generators with Demonstrative Recurrence Plots. <i>Chaos, Solitons and Fractals</i> , 1999 , 10, 1399-1412 | 9.3 | 21 |
| 385 | FPGA realization of a speech encryption system based on a generalized modified chaotic transition map and bit permutation. <i>Multimedia Tools and Applications</i> , 2019 , 78, 16097-16127 | 2.5 | 21 |
| 384 | On the Approximations of CFOA-Based Fractional-Order Inverse Filters. <i>Circuits, Systems, and Signal Processing</i> , 2020 , 39, 2-29 | 2.2 | 21 |
| 383 | Experimental behavior evaluation of series and parallel connected constant phase elements. <i>AEU - International Journal of Electronics and Communications</i> , 2017 , 74, 5-12 | 2.8 | 20 |
| 382 | Supercapacitor reciprocity and response to linear current and voltage ramps. <i>Electrochimica Acta</i> , 2017 , 258, 1081-1085 | 6.7 | 20 |
| 381 | Design of Positive, Negative, and Alternating Sign Generalized Logistic Maps. <i>Discrete Dynamics in Nature and Society</i> , 2015 , 2015, 1-23 | 1.1 | 20 |
| 380 | Systematic realization of a class of hysteresis chaotic oscillators. <i>International Journal of Circuit Theory and Applications</i> , 2000 , 28, 319-334 | 2 | 20 |
| 379 | Inductorless hyperchaos generator. <i>Microelectronics Journal</i> , 1999 , 30, 739-743 | 1.8 | 20 |
| 378 | Comparison between three approximation methods on oscillator circuits. <i>Microelectronics Journal</i> , 2018 , 81, 162-178 | 1.8 | 20 |

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| 377 | Generalized switched synchronization and dependent image encryption using dynamically rotating fractional-order chaotic systems. <i>AEU - International Journal of Electronics and Communications</i> , 2020 , 123, 153268 | 2.8 | 19 |
| 376 | An expression for the voltage response of a current-excited fractance device based on fractional-order trigonometric identities. <i>International Journal of Circuit Theory and Applications</i> , 2012 , 40, 533-538 | 2 | 19 |
| 375 | 2010 , | | 19 |
| 374 | A Grunwald-Detnikov based Manta ray foraging optimizer for global optimization and image segmentation. <i>Engineering Applications of Artificial Intelligence</i> , 2021 , 98, 104105 | 7.2 | 19 |
| 373 | Extraction of Phase Information from Magnitude-Only Bio-impedance Measurements Using a Modified Kramers-Kronig Transform. <i>Circuits, Systems, and Signal Processing</i> , 2018 , 37, 3635-3650 | 2.2 | 19 |
| 372 | Finite Precision Logistic Map between Computational Efficiency and Accuracy with Encryption Applications. <i>Complexity</i> , 2017 , 2017, 1-21 | 1.6 | 18 |
| 371 | High-Frequency Capacitorless Fractional-Order CPE and FI Emulator. <i>Circuits, Systems, and Signal Processing</i> , 2018 , 37, 2694-2713 | 2.2 | 18 |
| 370 | Two Twin-T based op amp oscillators modified for chaos. <i>Journal of the Franklin Institute</i> , 1998 , 335, 771-787 | 4.7 | 18 |
| 369 | On the realization of circuit-independent nonautonomous pulse-excited chaotic oscillator circuits. <i>IEEE Transactions on Circuits and Systems Part 2: Express Briefs</i> , 2004 , 51, 552-556 | | 18 |
| 368 | A system for chaos generation and its implementation in monolithic form | | 18 |
| 367 | Enhanced hardware implementation of a mixed-order nonlinear chaotic system and speech encryption application. <i>AEU - International Journal of Electronics and Communications</i> , 2020 , 125, 153347 | 2.8 | 18 |
| 366 | Extracting Optimized Bio-Impedance Model Parameters Using Different Topologies of Oscillators. <i>IEEE Sensors Journal</i> , 2020 , 20, 9947-9954 | 4 | 18 |
| 365 | Fundamentals of fractional-order LTI circuits and systems: number of poles, stability, time and frequency responses. <i>International Journal of Circuit Theory and Applications</i> , 2016 , 44, 2114-2133 | 2 | 18 |
| 364 | Design and application examples of CMOS fractional-order differentiators and integrators. <i>Microelectronics Journal</i> , 2019 , 83, 155-167 | 1.8 | 18 |
| 363 | Power law filters: A new class of fractional-order filters without a fractional-order Laplacian operator. <i>AEU - International Journal of Electronics and Communications</i> , 2021 , 129, 153537 | 2.8 | 18 |
| 362 | Generalized Synchronization of Different Dimensional Integer-Order and Fractional Order Chaotic Systems. <i>Studies in Computational Intelligence</i> , 2017 , 671-697 | 0.8 | 17 |
| 361 | Simple non-impedance-based measuring technique for supercapacitors. <i>Electronics Letters</i> , 2015 , 51, 1699-1701 | 1.1 | 17 |
| 360 | Resistive-less memcapacitor-based relaxation oscillator. <i>International Journal of Circuit Theory and Applications</i> , 2015 , 43, 959-965 | 2 | 17 |

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| 359 | Numerical Simulations and FPGA Implementations of Fractional-Order Systems Based on Product Integration Rules. <i>IEEE Access</i> , 2020 , 8, 102093-102105 | 3.5 | 17 |
| 358 | FPGA realizations of high-speed switching-type chaotic oscillators using compact VHDL codes. <i>Nonlinear Dynamics</i> , 2018 , 93, 819-833 | 5 | 17 |
| 357 | On the Analysis and Design of Fractional-Order Chebyshev Complex Filter. <i>Circuits, Systems, and Signal Processing</i> , 2018 , 37, 915-938 | 2.2 | 17 |
| 356 | Hardware Optimized FPGA Implementations of High-Speed True Random Bit Generators Based on Switching-Type Chaotic Oscillators. <i>Circuits, Systems, and Signal Processing</i> , 2019 , 38, 1342-1359 | 2.2 | 17 |
| 355 | DC and AC Performance of Graphite Films Supercapacitors Prepared by Contact Glow Discharge Electrolysis. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A2539-A2546 | 3.9 | 17 |
| 354 | Fractional-Order and Memristive Nonlinear Systems: Advances and Applications. <i>Complexity</i> , 2017 , 2017, 1-2 | 1.6 | 17 |
| 353 | Meminductor Response Under Periodic Current Excitations. <i>Circuits, Systems, and Signal Processing</i> , 2014 , 33, 1573-1583 | 2.2 | 17 |
| 352 | Systematic realization of low-frequency oscillators using composite passive-active resistors. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1998 , 47, 584-586 | 5.2 | 17 |
| 351 | CHAOTIC OSCILLATOR CONFIGURATION USING A FREQUENCY DEPENDENT NEGATIVE RESISTOR. <i>Journal of Circuits, Systems and Computers</i> , 1999 , 09, 229-242 | 0.9 | 17 |
| 350 | Design of a Portable Low-Cost Impedance Analyzer 2017 , | | 17 |
| 349 | Multiplierless chaotic Pseudo random number generators. <i>AEU - International Journal of Electronics and Communications</i> , 2020 , 113, 152947 | 2.8 | 17 |
| 348 | FPGA realization of Caputo and Gr̄wald-Letnikov operators 2017 , | | 16 |
| 347 | Cole Bio-Impedance Model Variations in \$Daucus~Carota~Sativus\$ Under Heating and Freezing Conditions. <i>IEEE Access</i> , 2019 , 1-1 | 3.5 | 16 |
| 346 | One-terminal electronically controlled fractional-order capacitor and inductor emulator. <i>AEU - International Journal of Electronics and Communications</i> , 2019 , 103, 32-45 | 2.8 | 16 |
| 345 | A study of the nonlinear dynamics of human behavior and its digital hardware implementation. <i>Journal of Advanced Research</i> , 2020 , 25, 111-123 | 13 | 16 |
| 344 | Image encryption in the fractional-order domain 2012 , | | 16 |
| 343 | On the two-port network classification of Colpitts oscillators. <i>IET Circuits, Devices and Systems</i> , 2009 , 3, 223-232 | 1.1 | 16 |
| 342 | Compact Wide Frequency Range Fractional-Order Models of Human Body Impedance against Contact Currents. <i>Mathematical Problems in Engineering</i> , 2016 , 2016, 1-10 | 1.1 | 16 |

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