Yichuang Sun

List of Publications by Year
in descending order

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140 papers	2,501 citations	236612 25 h-index	223531 46 g-index
141 all docs	141 docs citations	141 times ranked	1469 citing authors

#	Article	IF	Citations
1	Robust Multimode Function Synchronization of Memristive Neural Networks With Parameter Perturbations and Time-Varying Delays. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 260-274.	5.9	39
2	A locally active discrete memristor model and its application in a hyperchaotic map. Nonlinear Dynamics, 2022, 107, 2935-2949.	2.7	66
3	A W-Band SPDT Switch With 15-dBm P1dB in 55-nm Bulk CMOS. IEEE Microwave and Wireless Components Letters, 2022, 32, 879-882.	2.0	4
4	Brain-Like Initial-Boosted Hyperchaos and Application in Biomedical Image Encryption. IEEE Transactions on Industrial Informatics, 2022, 18, 8839-8850.	7.2	96
5	Memristor-based affective associative memory neural network circuit with emotional gradual processes. Neural Computing and Applications, 2022, 34, 13667-13682.	3.2	29
6	A multi-value 3D crossbar array nonvolatile memory based on pure memristors. European Physical Journal: Special Topics, 2022, 231, 3119-3130.	1.2	11
7	Memristive Cluster Based Compact High-Density Nonvolatile Memory Design and Application for Image Storage. Micromachines, 2022, 13, 844.	1.4	5
8	A memristive non-smooth dynamical system with coexistence of bimodule periodic oscillation. AEU - International Journal of Electronics and Communications, 2022, 153, 154279.	1.7	4
9	SASHA: A Shift-Add Segmented Hybrid Approximated Multiplier for Image Processing. , 2022, , .		0
10	Hyperchaotic memristive ring neural network and application in medical image encryption. Nonlinear Dynamics, 2022, 110, 841-855.	2.7	72
11	Design and Implementation of a Reconfigurable Wideband Radio Frequency Spectrum Analyzer With Image Rejection in the Digital Domain. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-16.	2.4	1
12	A 90-GHz Asymmetrical Single-Pole Double-Throw Switch With >19.5-dBm 1-dB Compression Point in Transmission Mode Using 55-nm Bulk CMOS Technology. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4616-4625.	3.5	10
13	Design of programmable Gaussianâ€derived wavelet filter for wearable biomedical sensor. International Journal of Circuit Theory and Applications, 2021, 49, 2122-2137.	1.3	2
14	A Step-Down ZVS Power Converter with Self-Driven Synchronous Rectifier. , 2021, , .		0
15	Bursting oscillations and bifurcation mechanism in a fully integrated piecewise-smooth chaotic system. European Physical Journal: Special Topics, 2021, 230, 1737-1749.	1.2	7
16	A novel resonant ZVS power converter with selfâ€driven synchronous rectifier for lowâ€voltage highâ€current applications. IET Power Electronics, 2021, 14, 1397-1408.	1.5	4
17	Electrical vehicle grid integration for demand response in distribution networks using reinforcement learning. IET Electrical Systems in Transportation, 2021, 11, 348-361.	1.5	8
18	Neural Bursting and Synchronization Emulated by Neural Networks and Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 3397-3410.	3.5	71

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19	Memristor-based neural network circuit with weighted sum simultaneous perturbation training and its applications. Neurocomputing, 2021, 462, 581-590.	3.5	38
20	An Extremely Simple Multiwing Chaotic System: Dynamics Analysis, Encryption Application, and Hardware Implementation. IEEE Transactions on Industrial Electronics, 2021, 68, 12708-12719.	5.2	79
21	Design and Implementation of a Re-Configurable Versatile Direct Digital Synthesis-Based Pulse Generator. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-14.	2.4	5
22	Wireless network requirements and solutions for the future circular collider: A hostile indoor environment. China Communications, 2021, 18, 193-203.	2.0	0
23	An Isolated ZVS DC/DC Converter with Diode-connected MOSFET in Rectifier. , 2021, , .		0
24	Low-Complexity Lattice Reduction Aided Schnorr Euchner Sphere Decoder Detection Schemes with MMSE and SIC Pre-processing for MIMO Wireless Communication Systems. , 2021, , .		1
25	Design of Miniaturized On-Chip Bandpass Filters Using Inverting-Coupled Inductors in (Bi)-CMOS Technology. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 647-657.	3.5	24
26	Headspace Oxygen Concentration Measurement for Pharmaceutical Glass Bottles in Open-Path Optical Environment Using TDLAS/WMS. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 5828-5842.	2.4	33
27	Automated Visual Defect Detection for Flat Steel Surface: A Survey. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 626-644.	2.4	242
28	Energy Efficient Relay Selection Algorithm for Virtual MIMO Cooperative Networks. , 2020, , .		0
29	An Overview of Automatic Antenna Impedance Matching for Mobile Communications. , 2020, , .		0
30	Flexible reconfigurable GNSS RF receiver for portable application of Internet of Things. Microelectronics Journal, 2020, 106, 104912.	1.1	5
31	A General Traffic Flow Prediction Approach Based on Spatial-Temporal Graph Attention. IEEE Access, 2020, 8, 153731-153741.	2.6	24
32	Jointly optimized echo state network for short-term channel state information prediction of fading channel. , 2020, , .		0
33	Induction Based Detection of Magnetic Particles Via Phase Locked Loop. , 2020, , .		0
34	Robust Statistics Evidence Based Secure Cooperative Spectrum Sensing for Cognitive Radio Networks. , 2020, , .		6
35	Fixed Pattern Noise Reduction and Linearity Improvement in Time-Mode CMOS Image Sensors. Sensors, 2020, 20, 5921.	2.1	7
36	Weighted sum synchronization of memristive coupled neural networks. Neurocomputing, 2020, 403, 211-223.	3.5	37

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37	Synchronization of inertial memristive neural networks with time-varying delays via static or dynamic event-triggered control. Neurocomputing, 2020, 404, 367-380.	3.5	50
38	A Multi-Stable Memristor and its Application in a Neural Network. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 3472-3476.	2.2	105
39	Exponential multistability of memristive Cohen-Grossberg neural networks with stochastic parameter perturbations. Applied Mathematics and Computation, 2020, 386, 125483.	1.4	33
40	General rational approximation of Gaussian wavelet series and continuousâ€time g_mâ€C filter implementation. International Journal of Circuit Theory and Applications, 2020, 48, 2006-2022.	1.3	7
41	Realization of Analog Wavelet Filter Using Hybrid Genetic Algorithm for On-Line Epileptic Event Detection. IEEE Access, 2020, 8, 33137-33150.	2.6	7
42	Efficient evidenceâ€based decision fusion scheme for cooperative spectrum sensing in cognitive radio networks. Transactions on Emerging Telecommunications Technologies, 2020, 31, e3901.	2.6	5
43	Demand Response Strategy Based on Reinforcement Learning and Fuzzy Reasoning for Home Energy Management. IEEE Access, 2020, 8, 39310-39321.	2.6	90
44	Self-Learning Hot Data Prediction: Where Echo State Network Meets NAND Flash Memories. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 939-950.	3.5	9
45	Firing multistability in a locally active memristive neuron model. Nonlinear Dynamics, 2020, 100, 3667-3683.	2.7	142
46	Lowâ€power, highâ€linearity transconductor with a high tolerance for process and temperature variations. IET Circuits, Devices and Systems, 2020, 14, 1295-1304.	0.9	0
47	Luenberger Observer Based Grid Synchronization Techniques for Smart Grid Application. , 2020, , .		5
48	Generalized Completed Local Binary Patterns for Time-Efficient Steel Surface Defect Classification. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 667-679.	2.4	102
49	Design of Miniaturized On-Chip Bandpass Filters using Inverting-Coupled Structure for Millimter-Wave Applications. , 2019, , .		0
50	Hybrid multisynchronization of coupled multistable memristive neural networks with time delays. Neurocomputing, 2019, 363, 281-294.	3.5	77
51	Design of Reconfigurable dB-Linear Variable-Gain Amplifier and Switchable-Order g_{m} -C Filter in 65-nm CMOS Technology. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 5148-5158.	2.9	20
52	Design of Ultra-Wideband On-Chip Millimter-Wave Bandpass Filter in 0.13-Î¼m (Bi)-CMOS Technology. , 2019, , .		0
53	A Stochastic Method to Physical Layer Security of an Amplify-and-Forward Spectrum Sensing in Cognitive Radio Networks: Secondary User to Relay. , 2019, , .		1
54	Interference Alignment for Cognitive Radio Communications and Networks: A Survey. Journal of Sensor and Actuator Networks, 2019, 8, 50.	2.3	6

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55	Millimeter-Wave BPFs Design using Quasi-Lumped Elements in 0.13-Î¼m (Bi)-CMOS Technology. , 2019, , .		1
56	Design of Millimeter-Wave Bandpass Filters With Broad Bandwidth in Si-Based Technology. IEEE Transactions on Electron Devices, 2019, 66, 1174-1181.	1.6	14
57	Surface Defect Classification for Hot-Rolled Steel Strips by Selectively Dominant Local Binary Patterns. IEEE Access, 2019, 7, 23488-23499.	2.6	47
58	Compact Millimeter-Wave Bandpass Filters Using Quasi-Lumped Elements in 0.13-mu m (Bi)-CMOS Technology for 5G Wireless Systems. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3064-3073.	2.9	39
59	A Stochastic based Physical Layer Security in Cognitive Radio Networks: Cognitive Relay to Fusion Center. , 2019, , .		4
60	Design of Gm-C wavelet filter for on-line epileptic EEG detection. IEICE Electronics Express, 2019, 16, 20190560-20190560.	0.3	3
61	A 0.1â€“5.0â€¯GHz flexible SDR receiver with digitally assisted calibration in 65â€¯nm CMOS. Microelectronics Journal, 2018, 72, 58-73.	1.1	5
62	A robust high-efficiency cross-coupled charge pump circuit without blocking transistors. Analog Integrated Circuits and Signal Processing, 2018, 95, 395-401.	0.9	1
63	Oscillation-Based DFT for Second-Order Bandpass OTA-C Filters. Circuits, Systems, and Signal Processing, 2018, 37, 1807-1824.	1.2	6
64	A Novel High Linearity and Low Power Folded CMOS LNA for UWB Receivers. Journal of Circuits, Systems and Computers, 2018, 27, 1850047.	1.0	4
65	Optimal Modeled Six-Phase Space Vector Pulse Width Modulation Method for Stator Voltage Harmonic Suppression. Energies, 2018, 11, 2598.	1.6	4
66	High Efficiency Cross-Coupled Charge Pump Circuit with Four-Clock Signals. Radioelectronics and Communications Systems, 2018, 61, 565-570.	0.3	1
67	Performance Analysis of Millimeter Wave Massive MIMO Systems in Centralized and Distributed Schemes. IEEE Access, 2018, 6, 75482-75494.	2.6	18
68	Time-efficient fault detection and diagnosis system for analog circuits. Automatika, 2018, 59, 302-310.	1.2	2
69	Dynamic Virtual Page-Based Flash Translation Layer With Novel Hot Data Identification and Adaptive Parallelism Management. IEEE Access, 2018, 6, 56200-56213.	2.6	10
70	LTE RSRP, RSRQ, RSSNR and local topography profile data for RF propagation planning and network optimization in an urban propagation environment. Data in Brief, 2018, 21, 1724-1737.	0.5	7
71	Spectrum Sensing of DVB-T2 Signals using a Low Computational Noise Power Estimation. , 2018, , .		2
72	A Kosambi-Karhunenâ€“LoÃ¨ve Learning Approach to Cooperative Spectrum Sensing in Cognitive Radio Networks. , 2018, , .		0

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73	Improving Displacement Measurement for Evaluating Longitudinal Road Profiles. IEEE Sensors Journal, 2018, 18, 3767-3779.	2.4	7
74	Time-effective Fault Diagnosis Algorithms for Analog and Mixed-signal Circuits Using Sparsity-aware Multi-class Relevance Vector Machine. , 2018, , .		0
75	Miniaturized Resonator and Bandpass Filter for Silicon-Based Monolithic Microwave and Millimeter-Wave Integrated Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 4062-4071.	3.5	52
76	Systematic Design of Current-Mode Multiple-Loop Feedback Filters Based on a Single CDCTA. IETE Journal of Research, 2017, 63, 435-447.	1.8	3
77	A 10-b Fourth-Order Quadrature Bandpass Continuous-Time $Sigma Delta $ Modulator With 33-MHz Bandwidth for a Dual-Channel GNSS Receiver. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1303-1314.	2.9	12
78	A New Technique for the Design of Multi-Phase Voltage Controlled Oscillators. Journal of Circuits, Systems and Computers, 2017, 26, 1750113.	1.0	5
79	MIMO-OFDM Based Energy Harvesting Cooperative Communications Using Coalitional Game Algorithm. IEEE Transactions on Vehicular Technology, 2017, 66, 11166-11179.	3.9	11
80	Design of fifth-order LF 0.05Â° equiripple linear phase lowpass filter with gain boost using nauta transcondutor. , 2017, , .		0
81	Design of an Elliptic Filter Using Multiple-Loop Feedback Structure in CMOS Technology for Analogue Signal Processing. , 2017, , .		0
82	A G<inf>m</inf>-C complex IF filter using fully differential transconductor for dual-mode GNSS receiver. , 2017, , .		3
83	Guest Editorial Special Issue on the 2016 IEEE International Symposium on Circuits and Systems (ISCAS) Tj ETQq1 1 0.784314 rgBT /Ov	3.5	0
84	Real-Time Fault Detection and Diagnosis System for Analog and Mixed-Signal Circuits of Acoustoâ€“Magnetic EAS Devices. IEEE Design and Test, 2016, 33, 77-90.	1.1	4
85	Transmit Power Minimization for MIMO Systems of Exponential Average BER with Fixed Outage Probability. Wireless Personal Communications, 2016, 90, 1951-1970.	1.8	0
86	Space-time opportunistic interference alignment in cognitive radio networks. , 2016, , .		5
87	A novel computationally-efficient digital frequency locking scheme for software defined radio MODEM. , 2016, , .		0
88	Implementing differential distributed orthogonal space time block coding using coefficient vectors. , 2016, , .		0
89	Optimal entropy quantization for maximum likelihood estimation based cooperative spectrum sensing. , 2016, , .		1
90	A wideband linear tunable CDTA and its application in field programmable analogue array. Analog Integrated Circuits and Signal Processing, 2016, 88, 465-483.	0.9	2

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91	Design for testability of highâ€order OTAâ€C filters. International Journal of Circuit Theory and Applications, 2016, 44, 1859-1873.	1.3	7
92	Optimal Quality-of-Service Scheduling for Energy-Harvesting Powered Wireless Communications. IEEE Transactions on Wireless Communications, 2016, 15, 3269-3280.	6.1	24
93	Average Transmit Power Gain of Adaptive ZF Large Scale Multi-user and Multi-antenna Systems. , 2015, , .		0
94	Optimizing diversity gain for non-coherent wireless multimedia sensor networks. , 2015, , .		0
95	A fully-integrated reconfigurable transceiver for narrowband wireless communication in 180nm CMOS. , 2015, , .		4
96	Relay-Based Cooperative Spectrum Sensing with Improved Energy Detection In Cognitive Radio. , 2015, , .		6
97	A Sub-GHz low-power transceiver with PAPR-tolerant power amplifier for 802.11ah applications. , 2015, , .		15
98	A differential space-time coding scheme for cooperative spectrum sensing in cognitive radio networks. , 2015, , .		6
99	Average Transmit Power of Adaptive ZF Very Large Multi-user and Multi-antenna Systems. Wireless Personal Communications, 2015, 81, 1215-1232.	1.8	0
100	Switched-current filter structure for synthesizing arbitrary characteristics based on follow-the-leader feedback configuration. Analog Integrated Circuits and Signal Processing, 2015, 82, 479-486.	0.9	4
101	Duality of antennas and subcarriers in massive MIMOâ€OFDM downlink system. Electronics Letters, 2015, 51, 1115-1117.	0.5	2
102	A 0.5–30GHz wideband differential CMOS T/R switch with independent bias and leakage cancellation techniques. , 2015, , .		3
103	Structure and realization of pole-shared switched-current complex wavelet filter. Analog Integrated Circuits and Signal Processing, 2015, 85, 193-199.	0.9	6
104	A Fully-Integrated Reconfigurable Dual-Band Transceiver for Short Range Wireless Communications in 180 nm CMOS. IEEE Journal of Solid-State Circuits, 2015, 50, 2572-2590.	3.5	19
105	A 14-mW PLL-Less Receiver in 0.18- <inline-formula> <tex-math notation="TeX">$muhbox{m}$</tex-math></inline-formula> CMOS for Chinese Electronic Toll Collection Standard. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 763-767.	2.2	42
106	Energy-harvesting powered transmissions of bursty data packets with strict deadlines. , 2014, , .		5
107	Quasi-Orthogonal Space-Frequency Coding in Non-Coherent Cooperative Broadband Networks. IEEE Transactions on Communications, 2014, 62, 1218-1229.	4.9	3
108	Efficient spaceâ€"frequency block coded pilotâ€aided channel estimation method for multipleâ€inputâ€"multipleâ€output orthogonal frequency division multiplexing systems over mobile frequencyâ€selective fading channels. IET Communications, 2014, 8, 841-851.	1.5	3

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109	Focal design issues affecting the deployment of wireless sensor networks for pipeline monitoring. Ad Hoc Networks, 2013, 11, 1237-1253.	3.4	59
110	The Capacity Performance of ASTC-MIMO-OFDM System in a Correlated Rayleigh Frequency-Selective Channel. Wireless Personal Communications, 2013, 68, 1365-1376.	1.8	6
111	Automatic impedance matching and antenna tuning using quantum genetic algorithms for wireless and mobile communications. IET Microwaves, Antennas and Propagation, 2013, 7, 693-700.	0.7	19
112	A low-noise amplifier with continuously-tuned input matching frequency and output resonance frequency. , 2013, , .		1
113	Source-assisting strategy for differential distributed space time block codes. , 2013, , .		2
114	Current-mode high-frequency wavelet filter based on leap-frog multiple-loop feedback structure. , 2013, , .		0
115	An elliptic filter based on MLF LF structure for wireless receiver. , 2013, , .		0
116	An improved sphere decoder for MIMO systems. , 2012, , .		1
117	A Novel Algebraic Carrier Frequency Offset Estimator for ASTC-MIMO-OFDM Systems Over a Correlated Frequency-Selective Channel. IEEE Transactions on Vehicular Technology, 2012, 61, 2468-2475.	3.9	9
118	Design of test stimuli and minimisation of ambiguity in fault diagnosis of analogue circuits with tolerance. International Journal of Electronics, 2011, 98, 173-183.	0.9	1
119	Programmable analogue baseband filters for software defined and cognitive radio. , 2011, , .		2
120	Multistandard Analogue Baseband Filters for Software-Defined and Cognitive Radio Receivers. Circuits, Systems, and Signal Processing, 2011, 30, 755-774.	1.2	6
121	On the Capacity of ASTC-MIMO-OFDM System in a Correlated Rayleigh Frequency-Selective Channel. , 2011, , .		6
122	Performance comparison of high-order IFLF and LF linear phase lowpass OTA-C filters with and without gain boost. Analog Integrated Circuits and Signal Processing, 2010, 63, 451-463.	0.9	2
123	Data-fused method of fault diagnosis for analog circuits. Analog Integrated Circuits and Signal Processing, 2009, 61, 87-92.	0.9	2
124	A 10-bit 200-MHz CMOS video DAC for HDTV applications. Analog Integrated Circuits and Signal Processing, 2007, 52, 133-138.	0.9	7
125	HIGH-FREQUENCY LINEAR MULTIPLE-OUTPUT CMOS TRANSCONDUCTANCE AMPLIFIER FOR CURRENT-MODE FILTERS. Journal of Circuits, Systems and Computers, 2006, 15, 701-717.	1.0	2
126	PERFORMANCE ANALYSIS AND COMPARISON OF MULTIPLE LOOP FEEDBACK OTA-C FILTERS. Journal of Circuits, Systems and Computers, 2005, 14, 685-720.	1.0	8

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127	A Low Distortion Wide Tuning Range CMOS Fully-Differential Fourth-Order Bessel Filter. Analog Integrated Circuits and Signal Processing, 2004, 41, 55-63.	0.9	2
128	Large Dynamic Range High Frequency Fully Differential CMOS Transconductance Amplifier. Analog Integrated Circuits and Signal Processing, 2003, 34, 247-255.	0.9	10
129	A field programmable analog array for CMOS continuous-time OTA-C filter applications. IEEE Journal of Solid-State Circuits, 2002, 37, 125-136.	3.5	118
130	Universal third-order OTA-C filters. International Journal of Electronics, 1998, 85, 597-609.	0.9	11
131	Second-order OTA-C filters derived from Nawrocki-Klein biquad. Electronics Letters, 1998, 34, 1449.	0.5	26
132	Note on two integrator loop OTA-C configurations. Electronics Letters, 1998, 34, 1533.	0.5	6
133	Structure generation and design of multiple loop feedback OTA-grounded capacitor filters. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1997, 44, 1-11.	0.1	50
134	Current-mode multiple-loop feedback filters using dual-output OTAs and grounded capacitors. International Journal of Circuit Theory and Applications, 1997, 25, 69-80.	1.3	22
135	Design of current-mode multiple output OTA and capacitor filters. International Journal of Electronics, 1996, 81, 95-99.	0.9	25
136	Analysis of current conveyor error effects in signal-processing circuits. International Journal of Circuit Theory and Applications, 1996, 24, 479-487.	1.3	3
137	Determination of the impedance matching domain of passive LC ladder networks: Theory and implementation. Journal of the Franklin Institute, 1996, 333, 141-155.	1.9	15
138	Resonatorâ€based universal otaâ€grounded capacitor filters. International Journal of Circuit Theory and Applications, 1995, 23, 261-265.	1.3	12
139	Versatile active biquad based on second-generation current conveyors. International Journal of Electronics, 1994, 76, 91-98.	0.9	52
140	Symbolic Circuit Analysis Using Mathematica. International Journal of Electrical Engineering and Education, 1994, 31, 324-333.	0.4	3