Farooq Ahmad Khanday

List of Publications by Year
in descending order

81	1,292	566801 15	395343 33
papers	citations	h-index	g-index

82	82	82	867
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dielectrically Modulated III-V Compound Semiconductor Based Pocket Doped Tunnel FET for Label Free Biosensing Applications. IEEE Transactions on Nanobioscience, 2023, 22, 192-198.	2.2	7
2	L-Shaped Schottky Barrier MOSFET for High Performance Analog and RF Applications. Silicon, 2023, 15, 205-215.	1.8	3
3	Dilute magnetic semiconductor electrode based all semiconductor magnetic tunnel junction for high-temperature applications. Physica B: Condensed Matter, 2022, 627, 413525.	1.3	5
4	Fabrication of polymer nanocomposite-based fractional-order capacitor: a guide. , 2022, , 437-483.		3
5	Dynamics and implementation techniques of fractional-order neuron models: a survey. , 2022, , 483-511.		6
6	Analog and digital implementation of fractional-order FitzHughâ€“Nagumo (FO-FHN) neuron model. , 2022, , 475-504.		2
7	Fractional calculus in electronic circuits: a review. , 2022, , 441-482.		9
8	Dual Material Tri-Gate Schottky Barrier MOSFET. , 2022, , .		0
9	Quantum Computing: Fundamentals, Implementations and Applications. IEEE Open Journal of Nanotechnology, 2022, 3, 61-77.	0.9	22
10	Single Germanium MOSFET-Based Low Energy and Controllable Leaky Integrate-and-Fire Neuron for Spiking Neural Networks. IEEE Transactions on Electron Devices, 2022, 69, 4265-4270.	1.6	10
11	Impact of Pocket Doping On the Performance of Planar SOI Junctionless Transistor. Silicon, 2021, 13, 1771-1776.	1.8	2
12	Carbon nanotube field effect transistor (<scp>CNTFET</scp>) operational transconductance amplifier (<scp>OTA</scp>) based design of high frequency memristor emulator. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2021, 34, e2827.	1.2	10
13	Modeling of On-Chip Biosensor for the in Vivo Diagnosis of Hypertension in Wireless Body Area Networks. IEEE Access, 2021, 9, 95072-95082.	2.6	4
14	2-D Design of Double Gate Schottky Tunnel MOSFET for High-Performance Use in Analog/RF Applications. IEEE Access, 2021, 9, 80158-80169.	2.6	18
15	Silicene/MoS₂ Heterojunction for High-Performance Photodetector. IEEE Transactions on Electron Devices, 2021, 68, 138-143.	1.6	20
16	Analysis of Disordered Dynamics in Polymer Nanocomposite Dielectrics for the Realization of Fractional-Order Capacitor. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 266-273.	1.8	14
17	A Survey on the Application of WirelessHART for Industrial Process Monitoring and Control. Sensors, 2021, 21, 4951.	2.1	39
18	Dielectrically Modulated Label Free Metal Controlled Organic Thin Film Transistor for Biosensing Applications. IEEE Sensors Journal, 2021, 21, 18318-18325.	2.4	10

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19	Silicene-Based Spin Filter With High Spin-Polarization. IEEE Transactions on Electron Devices, 2021, 68, 5095-5100.	1.6	2
20	A survey of SRAM-based in-memory computing techniques and applications. Journal of Systems Architecture, 2021, 119, 102276.	2.5	30
21	First principle study of fluorine functionalized germanene based two probe device. Physica B: Condensed Matter, 2021, 620, 413249.	1.3	1
22	Carbon Nanotube Field Effect Transistor (CNTFET) and Resistive Random Access Memory (RRAM) Based Ternary Combinational Logic Circuits. Electronics (Switzerland), 2021, 10, 79.	1.8	41
23	Performance analysis of functionalized silicene nanoribbon â€based photodetector. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2021, 34, .	1.2	6
24	Ternary Arithmetic Logic Unit Design Utilizing Carbon Nanotube Field Effect Transistor (CNTFET) and Resistive Random Access Memory (RRAM). Micromachines, 2021, 12, 1288.	1.4	11
25	Performance Analysis of CNTFET-ReRAM based Crossbar Network for In-Memory Computing. , 2021, , .		1
26	Carbon Nanotube Field Effect Transistor and Resistive Random Access Memory based 2-bit Ternary Comparator. , 2021, , .		3
27	Quasi-analytical model-based performance analysis of dual material gate stack strained GAA FinFET. International Journal of Electronics Letters, 2020, 8, 304-318.	0.7	2
28	Ultra-low-voltage integrable electronic implementation of delayed inertial neural networks for complex dynamical behavior using multiple activation functions. Neural Computing and Applications, 2020, 32, 8297-8314.	3.2	4
29	Spin field effect transistors and their applications: A survey. Microelectronics Journal, 2020, 106, 104924.	1.1	15
30	Modelling for triple gate spinâ€FET and design of triple gate spinâ€FETâ€based binary adder. IET Circuits, Devices and Systems, 2020, 14, 464-470.	0.9	6
31	Hydrogenated silicene based magnetic junction with improved tunneling magnetoresistance and spin-filtering efficiency. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126826.	0.9	13
32	A Novel Single-Component Fractional-Order Capacitor Based on Graphene Nanosheet/P(VDF) Composite: Synthesis and Analysis. , 2020, , .		0
33	Simulation of Triple Gate Spin Field-Effect Transistor and its Applications to Digital Logic. , 2020, , .		1
34	Electronic Properties of Fluorine Functionalized Germanene Nanoribbons. , 2020, , .		2
35	Carbon Nanotube and Resistive Random Access Memory Based Unbalanced Ternary Logic Gates and Basic Arithmetic Circuits. IEEE Access, 2020, 8, 104701-104717.	2.6	38
36	Resistive Random Access Memory (RRAM): an Overview of Materials, Switching Mechanism, Performance, Multilevel Cell (mlc) Storage, Modeling, and Applications. Nanoscale Research Letters, 2020, 15, 90.	3.1	451

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37	Reversible stochastic computing. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2711.	1.2	7
38	Performance analysis of indium phosphide channel based sub-10 nm double gate spin field effect transistor. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126498.	0.9	8
39	Implementation of an efficient magnetic tunnel junction-based stochastic neural network with application to iris data classification. Nanotechnology, 2020, 31, 504001.	1.3	11
40	Reviewâ€"Silicene: From Material to Device Applications. ECS Journal of Solid State Science and Technology, 2020, 9, 115031.	0.9	65
41	Reversible stochastic computing in ratioed, unsigned extended and signed extended stochastic logic formats. Microelectronics Journal, 2019, 90, 187-198.	1.1	4
42	Electrically reconfigurable logic design using multi-gate spin Field Effect Transistors. Microelectronics Journal, 2019, 90, 278-284.	1.1	11
43	Sub-10-nm Silicene Nanoribbon Field Effect Transistor. IEEE Transactions on Electron Devices, 2019, 66, 4976-4981.	1.6	37
44	Threeâ€dimensional analytical modeling and performance analysis of triple material trigate siliconâ€onâ€insulator MOSFET. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2571.	1.2	5
45	Analytical modelling and performance analysis of gateâ€and channelâ€engineered trapezoidal trigate MOSFET. IET Circuits, Devices and Systems, 2019, 13, 1107-1116.	0.9	5
46	A survey of single and multi-component Fractional-Order Elements (FOEs) and their applications. Microelectronics Journal, 2019, 84, 9-25.	1.1	74
47	Low-Voltage Low-Power Integrable CMOS Circuit Implementation of Integer- and Fractionalâ€"Order FitzHughâ€"Nagumo Neuron Model. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 2108-2122.	7.2	42
48	Realization of Fractional-Order Double-Scroll Chaotic System Using Operational Transconductance Amplifier (OTA). Journal of Circuits, Systems and Computers, 2018, 27, 1850006.	1.0	21
49	Analytical Modelling for nanoscale Gate Engineered Silicon-On-Nothing MOSFET with High-K dielectric. , 2018, , .		0
50	PCM based Logic Design and Performance analysis using CNTFET as Access Device. , 2018, , .		0
51	Design and Performance Evaluation of Magnetic Tunnel Junction Based Logic Circuits. , 2018, , .		1
52	Stochastic Computing: Systems, Applications, Challenges and Solutions. , 2018, , .		4
53	3D modelling based comprehensive analysis of high-Î² gate stack graded channel dual material trigate MOSFET. Journal of Semiconductors, 2018, 39, 124016.	2.0	4
54	A Comparative Study of WSN and IoT. , 2018, , .		2

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55	0.65â€…V integrable electronic realisation of integerâ€•and fractionalâ€•order Hindmarshâ€“Rose neuron model using companding technique. IET Circuits, Devices and Systems, 2018, 12, 696-706.	0.9	14
56	Low-Voltage Realization of Neural Networks using Non-Monotonic Activation Function for Digital Applications. Recent Advances in Electrical and Electronic Engineering, 2018, 11, 367-375.	0.2	2
57	Capacitorless digitally programmable fractional-order filters. AEU - International Journal of Electronics and Communications, 2017, 78, 228-237.	1.7	22
58	Electronic Implementation of Fractional-Order Newtonâ€“Leipnik Chaotic System With Application to Communication. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	0.7	11
59	Realization of Integrable Incommensurate-Fractional-Order-RÃ¶ssler-System Design Using Operational Transconductance Amplifiers (OTAs) and Its Experimental Verification. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750077.	0.7	15
60	Ultra-low-Voltage Integrable Electronic Realization of Integer- and Fractional-Order Liaoâ€™s Chaotic Delayed Neuron Model. Circuits, Systems, and Signal Processing, 2017, 36, 4844-4868.	1.2	17
61	Log-domain realization of Fractional-Order Nonlinear Energy Operator (FNEO). , 2017, , .		0
62	Fractional-order filter design for ultra-low frequency applications. , 2016, , .		13
63	Log-Domain Implementation of QRS Detection System Using the Pan-Tompkins Algorithm with Fractional-Order Differentiator for Improved Noise Rejection. Journal of Low Power Electronics, 2016, 12, 352-360.	0.6	5
64	An ultra-low-voltage electronic implementation of inertial neuron model with nonmonotonous Liaoâ€™s activation function. Network: Computation in Neural Systems, 2015, 26, 116-135.	2.2	6
65	1.2â€‰V Sinhâ€Domain allpass filter. International Journal of Circuit Theory and Applications, 2015, 43, 22-35.	1.3	5
66	0.5ÂV sinh-domain differentiator. International Journal of Electronics Letters, 2015, 3, 34-44.	0.7	3
67	Sinh-domain complex integrators. International Journal of Electronics, 2015, 102, 1073-1090.	0.9	1
68	Single MIMO-OTA and single-grounded-capacitor-based first-order allpass filter design. International Journal of Electronics, 2014, 101, 1716-1723.	0.9	6
69	Sinh-Domain linear transformation filters. International Journal of Electronics, 2014, 101, 241-254.	0.9	2
70	A 50 mHz Sinh-Domain High-pass Filter for Realizing an ECG Signal Acquisition System. Circuits, Systems, and Signal Processing, 2014, 33, 3673-3696.	1.2	6
71	Universal filters of arbitrary order and type employing square-root-domain technique. International Journal of Electronics, 2014, 101, 894-918.	0.9	2
72	0.5V Sinh-Domain Design of Activation Functions and Neural Networks. Journal of Low Power Electronics, 2014, 10, 201-213.	0.6	6

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73	Square-Root-Domain Realization of Single-Cell Architecture of Complex TDCNN. Circuits, Systems, and Signal Processing, 2013, 32, 959-978.	1.2	3
74	Sinh-Domain multiphase sinusoidal oscillator. Microelectronics Journal, 2013, 44, 834-839.	1.1	9
75	A low-voltage and low-power sinh-domain universal biquadratic filter for low-frequency applications. Turkish Journal of Electrical Engineering and Computer Sciences, 2013, 21, 2205-2217.	0.9	5
76	Ultra Low-Voltage Ultra Low-Power Sinh-Domain Wavelet Filer for Electrocardiogram Signal Analysis. Journal of Low Power Electronics, 2013, 9, 288-294.	0.6	2
77	A Generic Current Mode Design for Multifunction Grounded Capacitor Filters Employing Log-Domain Technique. Active and Passive Electronic Components, 2011, 2011, 1-10.	0.3	1
78	A DC stabilized logâ€domain nthâ€order multifunction filter based on the decomposition of nthâ€order HP filter function to FLF topology. International Journal of Circuit Theory and Applications, 2009, 37, 1075-1091.	1.3	9
79	Log-domain synthesis of nth order universal filter. Analog Integrated Circuits and Signal Processing, 2009, 59, 309-315.	0.9	6
80	A low-voltage square-root domain n-th order multifunction FLF filter topology. Analog Integrated Circuits and Signal Processing, 2009, 61, 315-322.	0.9	6
81	Photo-Detectors Based on Two Dimensional Materials. , 0, , .		0