Sattar Mirzakuchaki

List of Publications by Year
in descending order

117 papers	1,923 citations	394421 19 h-index	302126 39 g-index
118 all docs	118 docs citations	118 times ranked	1426 citing authors

#	Article	IF	Citations
1	A fast color image encryption algorithm based on coupled two-dimensional piecewise chaotic map. Signal Processing, 2012, 92, 1202-1215.	3.7	274
2	A simple, sensitive and secure image encryption algorithm based on hyper-chaotic system with only one round diffusion process. Multimedia Tools and Applications, 2014, 71, 1469-1497.	3.9	176
3	A novel image encryption based on hash function with only two-round diffusion process. Multimedia Systems, 2014, 20, 45-64.	4.7	144
4	A novel color image encryption algorithm based on spatial permutation and quantum chaotic map. Nonlinear Dynamics, 2015, 81, 511-529.	5.2	130
5	A fast color image encryption algorithm based on hyper-chaotic systems. Nonlinear Dynamics, 2014, 78, 995-1015.	5.2	129
6	A novel image encryption based on row-column, masking and main diffusion processes with hyper chaos. Multimedia Tools and Applications, 2015, 74, 781-811.	3.9	99
7	An image encryption algorithm based on DNA sequence operations and cellular neural network. Multimedia Tools and Applications, 2017, 76, 13681-13701.	3.9	53
8	Design and analysis of a novel low-power and energy-efficient 18T hybrid full adder. Microelectronics Journal, 2018, 74, 49-59.	2.0	51
9	A Solution to Remote Detecting of Illegal Electricity Usage Based on Smart Metering. , 2007, , .		47
10	Breaking a novel image encryption scheme based on an improper fractional order chaotic system. Multimedia Tools and Applications, 2017, 76, 1817-1826.	3.9	34
11	QCA implementation of a MUX-Based FPGA CLB. , 2008, , .		33
12	A novel image encryption algorithm based on hash function. , 2010, , .		30
13	Geometric modelling of the wavelet coefficients for image watermarking using optimum detector. IET Image Processing, 2014, 8, 162-172.	2.5	29
14	Semi-analytical modeling of high performance nano-scale complementary logic gates utilizing ballistic carbon nanotube transistors. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 286-296.	2.7	29
15	Breaking an image encryption algorithm based on the new substitution stage with chaotic functions. Optik, 2016, 127, 5695-5701.	2.9	26
16	Design of Multiple Modulated Frequency Lock-In Amplifier for Tapping-Mode Atomic Force Microscopy Systems. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2284-2292.	4.7	25
17	Modular neuron comprises of memristor-based synapse. Neural Computing and Applications, 2017, 28, 1-11.	5.6	23
18	PUFâ€based solutions for secure communications in Advanced Metering Infrastructure (AMI). International Journal of Communication Systems, 2017, 30, e3195.	2.5	23

#	Article	IF	Citations
19	A novel fast, low-power and high-performance XOR-XNOR cell. , 2016, , .		21
20	High on/off current ratio in ballistic CNTFETs based on tuning the gate insulator parameters for different ambient temperatures. Applied Physics A: Materials Science and Processing, 2013, 113, 447-457.	2.3	20
21	Infrared dim small target detection with high reliability using saliency map fusion. IET Image Processing, 2016, 10, 524-533.	2.5	20
22	A Ring Oscillator-Based PUF With Enhanced Challenge-Response Pairs. Canadian Journal of Electrical and Computer Engineering, 2016, 39, 174-180.	2.0	20
23	GAA CNT TFETs Structural Engineering: A Higher ON Current, Lower Ambipolarity. IEEE Transactions on Electron Devices, 2019, 66, 2822-2830.	3.0	20
24	A Machine Learning Approach to Brain Tumors Segmentation Using Adaptive Random Forest Algorithm. , 2019, , .		19
25	RGB color image encryption based on Choquet fuzzy integral. Journal of Systems and Software, 2014, 97, 128-139.	4.5	17
26	A Low Power, High SFDR, ROM-Less Direct Digital Frequency Synthesizer. , 0, , .		16
27	Selective area deposition of diamond thin films on patterns of porous silicon by hot‑filament chemical vapor deposition. Applied Physics Letters, 1995, 67, 3557-3559.	3.3	15
28	Design and Implementation of a Low-Power, Embedded CNN Accelerator on a Low-end FPGA. , 2019, , .		15
29	Classification of Low and High Schizotypy Levels via Evaluation of Brain Connectivity. International Journal of Neural Systems, 2022, 32, 2250013.	5.2	14
30	Three phase power line balancing based on smart energy meters. , 2009, , .		13
31	Dependence of carbon nanotube field effect transistors performance on doping level of channel at different diameters: On/off current ratio. Applied Physics Letters, 2011, 99, .	3.3	13
32	Crosstalk bandwidth and stability analysis in graphene nanoribbon interconnects. Microelectronics Reliability, 2015, 55, 1262-1268.	1.7	13
33	A robust and energy-efficient near-threshold SRAM cell utilizing ballistic carbon nanotube wrap-gate transistors. AEU - International Journal of Electronics and Communications, 2019, 110, 152874.	2.9	13
34	Robust image watermarking using dihedral angle based on maximum‑likelihood detector. IET Image Processing, 2013, 7, 451-463.	2.5	12
35	Design and performance analysis of wrap-gate CNTFET-based ring oscillators for IoT applications. The Integration VLSI Journal, 2020, 70, 116-125.	2.1	12
36	High CMRR, Low Power and Wideband Current-Mode Instrumentation Amplifier. , 2006, , .		11

#	Article	IF	Citations
37	Temperature Dependence of I-V Characteristics for CNT Based p-i-n TFET and n-i-n MOSFET. ECS Journal of Solid State Science and Technology, 2016, 5, M44-M50.	1.8	11
38	Breaking an image encryption technique based on neural chaotic generator. Optik, 2017, 140, 946-952.	2.9	11
39	A digital watermarking method based on NSCT transform and hybrid evolutionary algorithms with neural networks. SN Applied Sciences, 2020, 2, 1.	2.9	11
40	Hyperbolic tangent passive resistive-type neuron. , 2015, , .		10
41	Optimization of the low-cost INS/GPS navigation system using ANFIS for high speed vehicle application. , 2015, , .		10
42	IR small target detection based on human visual attention using pulsed discrete cosine transform. IET Image Processing, 2017, 11, 397-405.	2.5	10
43	Modelling and analysis of crosstalk induced noise effects in bundle SWCNT interconnects and its impact on signal stability. Journal of Computational Electronics, 2017, 16, 845-855.	2.5	10
44	High CMRR and low THD current-mode instrumentation amplifier using current inversion technique. , 2007, , .		9
45	SEU Effects on QCA Circuits. , 2009, , .		9
46	Performance dependency on doping level of carbon nanotube for ballistic CNTFETs. Europhysics Letters, 2013, 103, 68009.	2.0	9
47	On DPA-Resistive Implementation of FSR-based Stream Ciphers using SABL Logic Styles. International Journal of Computers, Communications and Control, 2014, 3, 324.	1.8	9
48	Design and implementation of a 118 MHz 2D DCT processor. , 2008, , .		8
49	QCA Implementation of Serpent Block Cipher. , 2009, , .		8
50	Design and Implementation of High Throughput, Robust, Parallel M-QAM Demodulator in Digital Communication Receivers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 1295-1304.	5.4	8
51	A low‐power delay stage ring VCO based on wrap‐gate CNTFET technology for X‐band satellite communication applications. International Journal of Circuit Theory and Applications, 2021, 49, 142-158.	2.0	7
52	Design of new CMOS current mode min and max circuits for FLC chip applications. , 2009, , .		6
53	Single electron fault modelling in quantum binary wire. Micro and Nano Letters, 2011, 6, 75-77.	1.3	6
54	A new high capacity and EMD-based image steganography scheme in spatial domain. , 2013, , .		6

#	Article	IF	Citations
55	A band structure study on inter-wall conductance of double-walled carbon nanotubes. Materials Science in Semiconductor Processing, 2014, 17, 222-227.	4.0	6
56	A Low Power, High SFDR, ROM-Less Direct Digital Frequency Synthesizer. , 0, , .		5
57	QCA Implementation of A5/1 Stream Cipher. , 2009, , .		5
58	Design and simulation of a CMOS DLL-based frequency multiplier. , 2010, , .		5
59	Modification of photonic crystals for obtaining common band gaps for TE and TM waves. Canadian Journal of Physics, 2012, 90, 175-180.	1.1	5
60	Two new energy-efficient full adder designs. , 2016, , .		5
61	A low power and energy efficient 4:2 precise compressor based on novel 14T hybrid full adders in 10Ânm wrap gate CNTFET technology. Microelectronics Journal, 2020, 104, 104892.	2.0	5
62	An ultra-miniature broadband operational transconductance amplifier utilizing 10 nm wrap-gate CNTFET technology. Analog Integrated Circuits and Signal Processing, 2021, 107, 423-434.	1.4	5
63	Room-temperature gas-sensing ability of PtSi/porous Si Schottky junctions. IEEE Sensors Journal, 2006, 6, 146-150.	4.7	4
64	A Gm-C anti-aliasing filter for digital radio receivers. , 2008, , .		4
65	Logic-based QCA implementation of a 4. , 2009, , .		4
66	Image encryption scheme based on Choquet fuzzy integral with pseudo-random keystream generator. , 2011, , .		4
67	Study of Carbon Nanotube Field Effect Transistors Performance Based on Changes in Gate Parameters. Journal of Nanoscience and Nanotechnology, 2011, 11, 10424-10428.	0.9	4
68	Design and Analysis of a High Force, Low Voltage and High Flow Rate Electro-Thermal Micropump. Micromachines, 2014, 5, 1323-1341.	2.9	4
69	Vertex angle image watermarking with optimal detector. Multimedia Tools and Applications, 2015, 74, 3077-3098.	3.9	4
70	A novel image encryption algorithm based on discrete wavelet transform using two dimensional logistic map. , 2016, , .		4
71	Logic-based QCA realization of a 4. , 2010, , .		3
72	Cell Number Optimization for Quantum Cellular Automata Based on AND-OR-INVERTER. Journal of Computational and Theoretical Nanoscience, 2012, 9, 627-630.	0.4	3

#	Article	IF	Citations
73	A recognition approach using multilayer perceptron and keyboard dynamics patterns. , 2013, , .		3
74	Low-power and high-performance 5:2 compressors. , 2014, , .		3
75	Using Local-Based Harris-PHOG Features in a Combination Framework for Human Action Recognition. Arabian Journal for Science and Engineering, 2014, 39, 903-912.	1.1	3
76	New Programmable CMOS Fuzzifier and C2V Circuits Applicable in FLC Chip for Signal Processing of MEMS Glucose Sensors. Applied Sciences (Switzerland), 2015, 5, 402-414.	2.5	3
77	Design of new digital blind feedforward timing recovery algorithm for linear modulations in digital communication receivers. IET Communications, 2016, 10, 1736-1743.	2.2	3
78	List Scheduling for Heterogeneous Computing Systems Introducing a Performance-Effective Definition for Critical Path. , 2019, , .		3
79	Public key cryptography using semigroup actions and semirings. Journal of Discrete Mathematical Sciences and Cryptography, 2008, 11, 437-445.	0.8	2
80	Single Electron Fault in QCA Inverter Gate. , 2009, , .		2
81	Design of A 100MHz – 1.66GHz, 0.13µm CMOS phase locked loop. , 2010, , .		2
82	Single Electron Fault Modeling in Basic Quantum Devices. Japanese Journal of Applied Physics, 2011, 50, 094401.	1.5	2
83	Heteroepitaxial growth of InSb directly on (001) GaAs without any buffer layer using growth rate ramping by MBE. , 2012, , .		2
84	A very low complexity IRâ€UWB transmitter with BPSK modulation for balanced antenna. IEEJ Transactions on Electrical and Electronic Engineering, 2015, 10, 144-148.	1.4	2
85	Behavioral Modeling and Simulation of Semiconductor Devices and Circuits Using VHDL-AMS. , 2007, , .		1
86	Design and Implementation of a 50MHZ DXT CoProcessor. , 2007, , .		1
87	Test access to deeply embedded analog terminals within an A/MS SoC. Journal of Zhejiang University: Science A, 2007, 8, 1543-1552.	2.4	1
88	Low cost implementation of Pomaranch S-Box. , 2009, , .		1
89	Alamout: A new synchronous stream cipher with authentication. , 2009, , .		1
90	Single Electron Fault in QCA Binary Wire. , 2009, , .		1

#	Article	IF	Citations
91	LUT-Based QCA Implementation of a 4×4 S-Box. , 2009, , .		1
92	Optimized Local Relocation for VLSI Circuit Modification Using Mean-Field Annealing. ETRI Journal, 2010, 32, 932-939.	2.0	1
93	Using Symlet Decomposition Method, Fuzzy Integral and Fisherface Algorithm for Face Recognition. , 2010, , .		1
94	A second-order Gm-C continuous time filter in mobile radio receiver architecture. , 2010, , .		1
95	A novel 3D wavelet-based method for blind digital video watermarking. , 2010, , .		1
96	The impact of gate insulator dielectric constant on performance of CNTFETs at different ambient temperatures. , 2011, , .		1
97	Geometric modeling of the wavelet coefficients for image watermarking. , 2013, , .		1
98	Design and implementation of high throughput FPGA-based DVB-T system. Computers and Electrical Engineering, 2016, 51, 43-57.	4.8	1
99	An innovative smart package for liquid flow meters. , 2017, , .		1
100	New MGDI-based full adder cells for energy-efficient applications. International Journal of Electronics, 2021, 108, 462-477.	1.4	1
101	Room-Temperature Infrared Radiation Detection Using n-Type PtSi/Porous Si. Sensor Letters, 2007, 5, 392-394.	0.4	1
102	Simulation of substrate coupling in mixed-signal IC's using an efficient and real-time macromodel. IEICE Electronics Express, 2006, 3, 509-516.	0.8	0
103	Modeling the Effects of Deep Level Traps and Carrier Transport on the L-I characteristic, Transient Response and Wavelength Chirp of SCH-QW Lasers. , 2007, , .		0
104	LUT-based QCA implementation of a 4×4 S-Box. , 2009, , .		0
105	Power Amplifiers Linearization Based on Digital Predistortion with Memory Effects. , 2009, , .		0
106	Using subclass discriminant analysis, fuzzy integral and symlet decomposition for face recognition. , 2010, , .		0
107	Study of carbon nanotube field effect transistor performance based on changes in gate parameters. , 2010, , .		0
108	On design of differential voltage controlled oscillators with single ended control line. , 2010, , .		0

#	Article	IF	Citations
109	Space radiation effects in QCA binary wire. , 2010, , .		0
110	Robust image watermarking in 3-D space using wavelet coefficients. , 2013, , .		0
111	Homo- and hetero-epitaxial growth of InSb and Al<inf>x</inf>In<inf>1−x</inf>Sb layers by molecular beam epitaxy. , 2013, , .		0
112	A novel FPGA design of a high dynamic human tracking system using particle filter. , 2016, , .		0
113	Development of a Robust Carrier Synchronizer for High Dynamic and Low Signal to Noise Ratio Signals in GPS Receivers. Wireless Personal Communications, 2019, 108, 1243-1259.	2.7	0
114	Design of InSb-based quantum-well laser with emission line at 5.6ÂÎ¼m. European Physical Journal Plus, 2021, 136, 1.	2.6	0
115	Design and Implementation of an Image CoProcessor. Lecture Notes in Computer Science, 2008, , 498-507.	1.3	0
116	Hardware Realization of a Novel LSB Steganographic Algorithm. , 2011, , 1129-1133.		0
117	Single Electron Fault Modeling in Basic Quantum Devices. Japanese Journal of Applied Physics, 2011, 50, 094401.	1.5	0