Mahmoud M A Al-Qutayri

List of Publications by Year
in descending order

140 papers	1,550 citations	471371 17 h-index	501076 28 g-index
142 all docs	142 docs citations	142 times ranked	1405 citing authors

#	Article	IF	Citations
1	Space-Time Block Coded Spatial Modulation for Indoor Visible Light Communications. IEEE Photonics Journal, 2022, 14, 1-11.	1.0	10
2	An Effective Spatial Modulation Based Scheme for Indoor VLC Systems. IEEE Photonics Journal, 2022, 14, 1-11.	1.0	6
3	Toward Federated-Learning-Enabled Visible Light Communication in 6G Systems. IEEE Wireless Communications, 2022, 29, 48-56.	6.6	18
4	Deep Neural Networks-Based Weight Approximation and Computation Reuse for 2-D Image Classification. IEEE Access, 2022, 10, 41551-41563.	2.6	2
5	Coordinated Beamforming Design for Multi-User Multi-Cell MIMO VLC Networks. IEEE Photonics Journal, 2022, 14, 1-10.	1.0	2
6	Interference Management Strategies for Multiuser Multicell MIMO VLC Systems. IEEE Transactions on Communications, 2022, 70, 6002-6019.	4.9	1
7	ScanSAT: Unlocking Static and Dynamic Scan Obfuscation. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 1867-1882.	3.2	22
8	SLID: Exploiting Spatial Locality in Input Data as a Computational Reuse Method for Efficient CNN. IEEE Access, 2021, 9, 57179-57187.	2.6	3
9	Non-Orthogonal Multiple Access for Hybrid VLC-RF Networks With Imperfect Channel State Information. IEEE Transactions on Vehicular Technology, 2021, 70, 398-411.	3.9	24
10	DS2B: Dynamic and Secure Substitution Box for Efficient Speech Encryption Engine. IEEE Access, 2021, 9, 93902-93915.	2.6	0
11	Rate-Splitting Multiple Access for Indoor Visible Light Communication Networks. , 2021, , .		5
12	*UNSAIL*: Thwarting Oracle-Less Machine Learning Attacks on Logic Locking. IEEE Transactions on Information Forensics and Security, 2021, 16, 2508-2523.	4.5	21
13	Rate-Splitting Multiple Access: Unifying NOMA and SDMA in MISO VLC Channels. IEEE Open Journal of Vehicular Technology, 2020, 1, 393-413.	3.4	37
14	FPGA-Based Memristor Emulator Circuit for Binary Convolutional Neural Networks. IEEE Access, 2020, 8, 117736-117745.	2.6	3
15	Enhanced FPGA realization of the fractional-order derivative and application to a variable-order chaotic system. Nonlinear Dynamics, 2020, 99, 3143-3154.	2.7	19
16	Functional Reverse Engineering on SAT-Attack Resilient Logic Locking. , 2019, , .		13
17	A Novel Protocol for Security of Location Based Services in Multi-agent Systems. Wireless Personal Communications, 2019, 108, 1841-1868.	1.8	2
18	ReRAM-Based In-Memory Computing for Search Engine and Neural Network Applications. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2019, 9, 388-397.	2.7	33

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19	Digital Emulation of a Versatile Memristor With Speech Encryption Application. IEEE Access, 2019, 7, 174280-174297.	2.6	7
20	MSER-in-Chip: An Efficient Vision ToolÂfor IoT Devices. , 2019, , 245-259.		0
21	Stateful Memristor-Based Search Architecture. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2773-2780.	2.1	11
22	Switching characteristics of microscale unipolar Pd/Hf/HfO 2 /Pd memristors. Microelectronic Engineering, 2018, 185-186, 35-42.	1.1	10
23	Secure Mobile Agent Protocol for Vehicular Communication Systems in Smart Cities. , 2018, , 251-271.		3
24	A Re-configurable Memristor Array Structure for In-Memory Computing Applications. , 2018, , .		1
25	IoT Applications: From Mobile Agents to Microservices Architecture. , 2018, , .		7
26	A Cluster-Based QoS-OLSR Protocol for Urban Vehicular Ad Hoc Networks. , 2018, , .		11
27	Performance Analysis of SWIPT Relay Networks With Noncoherent Modulation. IEEE Transactions on Green Communications and Networking, 2018, 2, 1072-1086.	3.5	18
28	Memristor-Based Hardware Accelerator for Image Compression. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2749-2758.	2.1	31
29	Performance comparison between container-based and VM-based services. , 2017, , .		25
30	Lightweight Security Protocol for ECG Bio-Sensors. Wireless Personal Communications, 2017, 95, 5097-5120.	1.8	31
31	A framework for the verification of an ECG biosensor algorithm. Analog Integrated Circuits and Signal Processing, 2017, 90, 523-538.	0.9	3
32	An Efficient Heterogeneous Memristive xnor for In-Memory Computing. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2427-2437.	3.5	35
33	Lightweight security protocol for health monitoring in Ambient Assisted Living environment. , 2017, , .		4
34	Downlink Beamforming for SWIPT Multi-User MISO Underlay Cognitive Radio Networks. IEEE Communications Letters, 2017, 21, 434-437.	2.5	32
35	Novel hafnium oxide memristor device: Switching behaviour and size effect. , 2017, , .		4
36	Secure lightweight ECC-based protocol for multi-agent IoT systems. , 2017, , .		18

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37	Outage Probability and Throughput of SWIPT Relay Networks with Differential Modulation. , 2017, , .		5
38	Guided Test Case Generation for Enhanced ECG Bio-Sensors Functional Verification. International Journal of E-Health and Medical Communications, 2017, 8, 1-20.	1.4	8
39	Technological Solutions for Smart Homes. , 2017, , 427-442.		0
40	A 65nm ASIC based 256 NIST prime field ECC processor. , 2016, , .		3
41	Resistive switching in sol-gel derived microscale memristors. , 2016, , .		6
42	Assertion-based verification technique for ECG bio-sensor algorithms. , 2016, , .		0
43	The evolution of distributed systems towards microservices architecture. , 2016, , .		43
44	Simulation Framework for a Security Protocol for Wireless Body Sensor Networks. , 2016, , .		0
45	A High-Speed FPGA Implementation of an RSD-Based ECC Processor. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 151-164.	2.1	63
46	State of the art of metal oxide memristor devices. Nanotechnology Reviews, 2016, 5, .	2.6	147
47	Performance evaluation of the time delay digital tanlock loop architectures. International Journal of Electronics, 2016, 103, 88-112.	0.9	0
48	Unified Analysis of Cooperative Spectrum Sensing Over Composite and Generalized Fading Channels. IEEE Transactions on Vehicular Technology, 2016, 65, 6949-6961.	3.9	30
49	Energy Detection of Unknown Signals Over Cascaded Fading Channels. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 135-138.	2.4	33
50	Modeling and Optimization of Memristor and STT-RAM-Based Memory for Low-Power Applications. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 1003-1014.	2.1	41
51	Reliability analysis of healthcare information systems: State of the art and future directions. , 2015, , .		20
52	Evolutionary QR-Based Traffic Sign Recognition System for Next-Generation Intelligent Vehicles. , 2015, , .		3
53	Making air traffic surveillance more reliable: a new authentication framework for automatic dependent surveillanceâ€broadcast (ADSâ€B) based on online/offline identityâ€based signature. Security and Communication Networks, 2015, 8, 740-750.	1.0	11
54	An automatic ECG generator for testing and evaluating ECG sensor algorithms. , 2015, , .		12

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55	Novel MSER-guided street extraction from satellite images. , 2015, , .		1
56	A secure mobile agent protocol for vehicular communication systems. , 2015, , .		2
57	Q-DSR protocol in vehicular ad-hoc networks. , 2015, , .		0
58	A maximally stable extremal regions system-on-chip for real-time visual surveillance. , 2015, , .		15
59	Novel fast and scalable parallel union-find ASIC implementation for real-time digital image segmentation. , 2015, , .		6
60	Performance analysis of energy detection over mixture gamma based fading channels with diversity reception. , 2015, , .		3
61	A framework for comparison of trust models for multi agent systems. , 2015, , .		1
62	A robust histogram-based image segmentation ASIC design for System-on-Chip using 65nm technology. , 2015, , .		2
63	RF-powered cognitive radio networks: technical challenges and limitations. , 2015, 53, 94-100.		89
64	Improved DV-hop localization using node repositioning and clustering. , 2015, , .		7
65	Review of Elliptic Curve Cryptography processor designs. Microprocessors and Microsystems, 2015, 39, 97-112.	1.8	35
66	Memory impact on the lifetime of a Wireless Sensor Node using a Semi-Markov model. , 2015, , .		5
67	Accurate and robust DOA estimation using uniform circular displaced antenna array. , 2015, , .		5
68	QoS-OLSR protocol based on intelligent water drop for Vehicular ad-hoc networks. , 2015, , .		3
69	Adaptive ECG interval extraction. , 2015, , .		7
70	Initialization for time delay digital tanlock loop. , 2015, , .		0
71	Decentralized multi-agent POMDPs framework for humans-robots teamwork coordination in search and rescue. , 2015, , .		3
72	Formal validation of QRS wave within ECG. , 2015, , .		33

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73	Formalizing electrocardiogram (ECG) signal behavior in event-B. , 2014, , .		14
74	A zero-crossing digital phase-locked loop architecture with hyperbolic nonlinearity for high Doppler environments. , 2014, , .		2
75	Centralized cooperative spectrum sensing with multiple antennas over imperfect feedback channels. , 2014, , .		2
76	Robust Hyperbolic Sigma-Delta Based No Delay Tanlock Loop for Wireless Communications. , 2014, , .		2
77	Digital tanlock loop without a phase shifter. , 2014, , .		1
78	A nonuniform DPLL architecture for optimized performance. IEEJ Transactions on Electrical and Electronic Engineering, 2014, 9, 15-23.	0.8	1
79	Framework for a NetFPGA-based Snort NIDS. , 2014, , .		1
80	SaaS Dynamic Evolution Based on Model-Driven Software Product Lines. , 2014, , .		10
81	Review of gate-level differential power analysis and fault analysis countermeasures. IET Information Security, 2014, 8, 51-66.	1.1	16
82	A verification methodology for a wireless body sensor network functionality. , 2014, , .		15
83	A Modbus traffic generator for evaluating the security of SCADA systems. , 2014, , .		21
84	Accelerating snort NIDS using NetFPGA-based Bloom filter. , 2014, , .		9
85	A fault attack countermeasure for ECC processor using One-Hot RSD encoding. , 2014, , .		2
86	Energy efficient system-on-chip architecture for non-invasive mobile monitoring of diabetics. , 2013, , .		7
87	BER performance of LDPC-coded nonlinear OFDM systems. , 2013, , .		2
88	An Authentication Framework for Automatic Dependent Surveillance-Broadcast Based on Online/Offline Identity-Based Signature. , 2013, , .		15
89	Towards collaborative support system for teamwork between robots and human in hazard incidents. , 2013, , .		1
90	RSD based Karatsuba multiplier for ECC processors. , 2013, , .		1

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91	Survey of wireless baseband SoC for biomedical application. , 2013, , .		0
92	Memristor for energy efficient wireless sensor node. , 2013, , .		1
93	Embedded memory design using memristor: Retention time versus write energy. , 2013, , .		3
94	BER performance of turbo product LDPC codes with non-sequential decoding. , 2013, , .		0
95	Extended abstract: Theorem proving verification of privacy in WBSN for healthcare systems. , 2013, , .		5
96	Efficient power management in wireless sensor networks. , 2013, , .		1
97	Modeling of STT-MTJ for low power embedded memory applications: A comparative review. , 2013, , .		1
98	Automated real-time video surveillance algorithms for SoC implementation: A survey. , 2013, , .		11
99	A frequency synthesizer based on Zero-Crossing Digital Phaselocked Loop. , 2013, , .		2
100	Analysis and optimisation of the convergence behaviour of the single channel digital tanlock loop. International Journal of Electronics, 2013, 100, 1296-1308.	0.9	0
101	Investigation of a hybrid localization technique using Received Signal Strength and Direction of arrival. , 2013, , .		4
102	An FPGA implementation of NIST 256 prime field ECC processor. , 2013, , .		23
103	Clustering based self-optimization of pilot power in dense femtocell deployments using genetic algorithms. , 2013, , .		0
104	Efficient MFSK demodulation using TDTL with fast acquisition. , 2013, , .		0
105	Tanlock loop noise reduction using an optimised phase detector. International Journal of Electronics, 2013, 100, 746-761.	0.9	1
106	Synchronization of a renewable energy inverter with the grid. Journal of Renewable and Sustainable Energy, 2012, 4, .	0.8	11
107	Digital tanlock loop architecture with no delay. International Journal of Electronics, 2012, 99, 179-195.	0.9	5
108	Second-order single channel digital tanlock based phase-locked loop. , 2012, , .		1

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109	Framework of a national level electronic health record system. , 2012, , .		39
110	Synchronization of a Single-phase Photovoltaic Generator With the Low-Voltage Utility Grid. Journal of Solar Energy Engineering, Transactions of the ASME, 2012, 134, .	1.1	9
111	Self-Optimization of Pilot Power in Enterprise Femtocells Using Multi objective Heuristic. Journal of Computer Networks and Communications, 2012, 2012, 1-14.	1.2	15
112	Synchronization of a Renewable Energy Inverter with the Grid. Smart Innovation, Systems and Technologies, 2012, , 225-233.	0.5	3
113	An Accurate Localization Technique for Wireless Sensor Networks Using MUSIC Algorithm. Journal of Communications, 2012, 7, .	1.3	3
114	An integrated wireless indoor navigation system for visually impaired. , 2011, , .		10
115	Solar powered autonomous explorer architecture. , 2011, , .		0
116	Blind assistant navigation system. , 2011, , .		8
117	Synchronization of a Single-Phase Photovoltaic Generator With the Low-Voltage Utility Grid. , 2011, , .		1
118	Impulsive noise reduction using Auto-Gating technique. , 2011, , .		6
119	Performance evaluation of heuristic techniques for coverage optimization in femtocells. , 2011, , .		1
120	Adaptive TDTL using frequency and phase processing techniques. , 2010, , .		2
121	Engineering degree programs with technical focus and embedded quality assurance measures: a case study. , 2009, , .		0
122	Integrated secure wireless ordering and transaction processing system architecture. , 2009, , .		0
123	A Framework for an End-to-End Secure Wireless Smart Home System. , 2008, , .		12
124	Indirect frequency synthesizer using second order digital time delay tanlock loop. , 2008, , .		3
125	Comparison of various order TDTL frequency synthesizers. , 2008, , .		0
126	Frequency Synthesizer using TDTL with Enhanced Performance. , 2007, , .		1

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127	Impulsive noise reduction techniques based on rate of occurrence estimation. , 2007, , .		10
128	Improved First-Order Time-Delay Tanlock Loop Architectures. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2006, 53, 1896-1908.	0.1	22
129	Comparison of Multipliers Architectures through Emulation and Handle-C FPGA Implementation. , 2006, , .		0
130	Design and Implementation of an Adaptive Smart Antenna System. , 2006, , .		12
131	Frequency Synthesizer for Wireless Applications using TDTL. , 2006, , .		2
132	Implementation of reconfigurable time delay digital tanlock loop. , 2005, , .		2
133	Rapid acquisition adaptive zero-crossing DPLL. , 2005, , .		3
134	Nonuniform sampling digital PLL with fast error correction technique. , 2005, , .		2
135	Analogue filter circuits testing using voltage and current measurements. , 2003, , .		0
136	System level testing of analog functions in a mixed-signal circuit. , 0, , .		3
137	Supply current monitor and set-up for fault detection in analogue circuits. , 0, , .		0
138	Continuous time analog filter test using signature analysis. , 0, , .		0
139	Wideband FM detection using an adaptive second order TDTL. , 0, , .		1
140	Security and Privacy of Intelligent VANETs. , 0, , .		29