

# Atef Ibrahim

## List of Publications by Year in descending order

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62  
papers

573  
citations

623699

14  
h-index

677123

22  
g-index

62  
all docs

62  
docs citations

62  
times ranked

377  
citing authors

#	ARTICLE	IF	CITATIONS
1	Systolic Processor Core for Finite-Field Multiplication and Squaring in Cryptographic Processors of IoT Edge Devices. IEEE Internet of Things Journal, 2022, 9, 1354-1360.	8.7	1
2	Combined two-dimensional word-based serial-in/serial-out systolic processor for multiplication and squaring over GF(2 <sup>m</sup> ). Egyptian Informatics Journal, 2022, , .	6.8	0
3	Compact Finite Field Multiplication Processor Structure for Cryptographic Algorithms in IoT Devices with Limited Resources. Sensors, 2022, 22, 2090.	3.8	0
4	Compact Word-Serial Modular Multiplier Accelerator Structure for Cryptographic Processors in IoT Edge Nodes with Limited Resources. Mathematics, 2022, 10, 848.	2.2	0
5	Low-Space Bit-Parallel Systolic Structure for AOP-Based Multiplier Suitable for Resource-Constrained IoT Edge Devices. Mathematics, 2022, 10, 815.	2.2	0
6	Securing IoT-Empowered Fog Computing Systems: Machine Learning Perspective. Mathematics, 2022, 10, 1298.	2.2	7
7	Disturbance Observer-Based Tracking Controller for Uncertain Marine Surface Vessel. Actuators, 2022, 11, 128.	2.3	3
8	Design and Development of a Smart IoT-Based Robotic Solution for Wrist Rehabilitation. Micromachines, 2022, 13, 973.	2.9	10
9	Compact modular multiplier design for strong security capabilities in resource-limited Telehealth IoT devices. Journal of King Saud University - Computer and Information Sciences, 2022, , .	3.9	0
10	Compact hardware accelerator for field multipliers suitable for use in ultra-low power IoT edge devices. AEJ - Alexandria Engineering Journal, 2022, 61, 13079-13087.	6.4	3
11	Word-serial unified and scalable semi-systolic processor for field multiplication and squaring. AEJ - Alexandria Engineering Journal, 2021, 60, 1379-1388.	6.4	0
12	Fuzzy logic-based connected robot for home rehabilitation. Journal of Intelligent and Fuzzy Systems, 2021, 40, 4835-4850.	1.4	6
13	Low-space bit-serial systolic array architecture for interleaved multiplication over GF(2 <sup>m</sup> )	1.1	0
14	A Pervasive Computational Intelligence based Cognitive Security Co-design Framework for Hype-connected Embedded Industrial IoT. International Journal of Computers, Communications and Control, 2021, 16, .	1.8	2
15	Cognitive intelligence in fog computing-inspired veterinary healthcare. Computers and Electrical Engineering, 2021, 91, 107061.	4.8	3
16	Energy-Efficient Word-Serial Processor for Field Multiplication and Squaring Suitable for Lightweight Authentication Schemes in RFID-Based IoT Applications. Applied Sciences (Switzerland), 2021, 11, 6938.	2.5	2
17	Word-Based Systolic Processor for Field Multiplication and Squaring Suitable for Cryptographic Processors in Resource-Constrained IoT Systems. Electronics (Switzerland), 2021, 10, 1777.	3.1	0
18	Smart solution for pain detection in remote rehabilitation. AEJ - Alexandria Engineering Journal, 2021, 60, 3485-3500.	6.4	10

#	ARTICLE	IF	CITATIONS
19	Compact Bit-Parallel Systolic Multiplier Over GF(2 <sup>m</sup> ). Canadian Journal of Electrical and Computer Engineering, 2021, 44, 199-205.	2.0	2
20	Unified and Scalable Digit-Serial Systolic Array for Multiplication and Division Over GF(2 <sup>m</sup> ). IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 1546-1549.	2.7	2
21	Development of an IoT-Based Solution Incorporating Biofeedback and Fuzzy Logic Control for Elbow Rehabilitation. Applied Sciences (Switzerland), 2020, 10, 7793.	2.5	12
22	ANFIS-Inspired Smart Framework for Education Quality Assessment. IEEE Access, 2020, 8, 175306-175318.	4.2	8
23	Toward Blockchain-Enabled Privacy-Preserving Data Transmission in Cluster-Based Vehicular Networks. Electronics (Switzerland), 2020, 9, 1358.	3.1	28
24	IoT-Inspired Framework of Intruder Detection for Smart Home Security Systems. Electronics (Switzerland), 2020, 9, 1361.	3.1	11
25	Softwarization of UAV Networks: A Survey of Applications and Future Trends. IEEE Access, 2020, 8, 98073-98125.	4.2	127
26	Three phase modular multilevel inverter-based multi-terminal asymmetrical DC inputs for renewable energy applications. Engineering Science and Technology, an International Journal, 2020, 23, 831-839.	3.2	15
27	A Fuzzy Logic Architecture for Rehabilitation Robotic Systems. International Journal of Computers, Communications and Control, 2020, 15, .	1.8	16
28	High Speed and Low Area Complexity Extended Euclidean Inversion Over Binary Fields. IEEE Transactions on Consumer Electronics, 2019, 65, 408-417.	3.6	5
29	Implementation of High Speed and Low Area Extended Euclidean Inversion over Ternary Fields. , 2019, , .		0
30	Linear Processor Array Architectures for Similarity Distance Computation. , 2019, , .		0
31	Efficient parallel semi-systolic array structure for multiplication and squaring in GF(2 <sup>i</sup> × GF(2 <sup>m</sup> )). IEICE Electronics Express, 2019, 16, 20190268-20190268.	0.8	1
32	Low-Complexity Scalable Architectures for Parallel Computation of Similarity Measures. Scientific Programming, 2019, 2019, 1-11.	0.7	0
33	Scalable digit-serial processor array architecture for finite field division. Microelectronics Journal, 2019, 85, 83-91.	2.0	14
34	Novel bit-serial semi-systolic array structure for simultaneously computing field multiplication and squaring. IEICE Electronics Express, 2019, 16, 20190600-20190600.	0.8	4
35	Scalable and Parameterizable Processor Array Architecture for Similarity Distance Computation. , 2019, , .		0
36	Blockchain in internet of things: a necessity framework for security, reliability, transparency, immutability and liability. IET Communications, 2019, 13, 3187-3192.	2.2	22

#	ARTICLE	IF	CITATIONS
37	Efficient Parallel and Serial Systolic Structures for Multiplication and Squaring Over $GF(2^m)$ . Canadian Journal of Electrical and Computer Engineering, 2019, 42, 114-120.	2.0	10
38	Systolic Design Space Exploration of Polynomial Division over $GF(3^m)$ . Advances in Intelligent Systems and Computing, 2019, , 933-943.	0.6	0
39	New systolic array architecture for finite field division. IEICE Electronics Express, 2018, 15, 20180255-20180255.	0.8	19
40	Design Space Exploration of 2-D Processor Array Architectures for Similarity Distance Computation. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 2218-2228.	5.6	3
41	Scalable and Unified Digit-Serial Processor Array Architecture for Multiplication and Inversion Over $GF(2^m)$ . IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2894-2906.	5.4	28
42	Unified systolic array architecture for finite field multiplication and inversion. Computers and Electrical Engineering, 2017, 61, 104-115.	4.8	20
43	New Systolic Array Architecture for Finite Field Inversion. Canadian Journal of Electrical and Computer Engineering, 2017, 40, 23-30.	2.0	25
44	Efficient Scalable Digit-Serial Inverter Over $GF(2^m)$ for Ultra-Low Power Devices. IEEE Access, 2016, 4, 9758-9763.	4.2	5
45	Reconfigurable Hardware Accelerator for Profile Hidden Markov Models. Arabian Journal for Science and Engineering, 2016, 41, 3267-3277.	1.1	7
46	New scalable digit-serial inverter over $GF(2^m)$ for embedded applications. , 2016, ,		0
47	Novel Reconfigurable Hardware Accelerator for Protein Sequence Alignment Using Smith-Waterman Algorithm. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2016, E99.A, 683-690.	0.3	2
48	Low space-complexity and low power semi-systolic multiplier architectures over $GF(2^m)$ based on irreducible trinomial. Microprocessors and Microsystems, 2016, 40, 45-52.	2.8	14
49	Low Power Semi-systolic Architectures for Polynomial-Basis Multiplication over $GF(2^m)$ Using Progressive Multiplier Reduction. Journal of Signal Processing Systems, 2016, 82, 331-343.	2.1	15
50	Optimized structures of hybrid ripple carry and hierarchical carry lookahead adders. Microelectronics Journal, 2015, 46, 783-794.	2.0	16
51	Systolic Array Architectures for Sunar's Optimal Normal Basis Type II Multiplier. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 2090-2102.	3.1	17
52	Efficient Scalable Serial Multiplier Over $GF(2^m)$ on Trinomial. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 2322-2326.	3.1	24
53	Low-Power, High-Speed Unified and Scalable Word-Based Radix 8 Architecture for Montgomery Modular Multiplication in $GF(P)$ and $GF(2^n)$ . Arabian Journal for Science and Engineering, 2014, 39, 7847-7863.	1.1	5
54	New and improved word-based unified and scalable architecture for radix 2 Montgomery modular multiplication algorithm. , 2013, ,		6

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55	New processor array architecture for scalable radix 8 montgomery modular multiplication algorithm. , 2011, , .		2
56	Processor Array Architectures for Scalable Radix 4 Montgomery Modular Multiplication Algorithm. IEEE Transactions on Parallel and Distributed Systems, 2011, 22, 1142-1149.	5.6	14
57	New processor array architecture for scalable radix 2 Montgomery modular multiplication algorithm. , 2009, , .		2
58	High-performance, low-power architecture for scalable radix 2 montgomery modular multiplication algorithm. Canadian Journal of Electrical and Computer Engineering, 2009, 34, 152-157.	2.0	18
59	Design and implementation of scalable low power radix-4 Montgomery modular multiplier. , 2007, , .		2
60	FPGA implementation of radix 2 division with over-redundant quotient selection. , 2003, , .		0
61	FPGA implementation of fast radix 4 division algorithm. , 0, , .		3
62	The Industrial Internet of Things (IIoT): An Anomaly Identification and Countermeasure Method. Journal of Circuits, Systems and Computers, 0, , .	1.5	0