Talal Bonny

List of Publications by Year
in descending order

55 papers	722 citations	759055 12 h-index	642610 23 g-index
56 all docs	56 docs citations	56 times ranked	415 citing authors

#	Article	IF	Citations
1	Can machine language and artificial intelligence revolutionize process automation for water treatment and desalination?. Desalination, 2019, 458, 84-96.	4.0	129
2	Mathematical Model and FPGA Realization of a Multi-Stable Chaotic Dynamical System with a Closed Butterfly-Like Curve of Equilibrium Points. Applied Sciences (Switzerland), 2021, 11, 788.	1.3	47
3	A Novel 3D Chaotic System With Line Equilibrium: Multistability, Integral Sliding Mode Control, Electronic Circuit, FPGA Implementation and Its Image Encryption. IEEE Access, 2022, 10, 68057-68074.	2.6	47
4	Chaotic or Hyper-chaotic Oscillator? Numerical Solution, Circuit Design, MATLAB HDL-Coder Implementation, VHDL Code, Security Analysis, and FPGA Realization. Circuits, Systems, and Signal Processing, 2021, 40, 1061-1088.	1.2	34
5	Hardware Optimized FPGA Implementations of High-Speed True Random Bit Generators Based on Switching-Type Chaotic Oscillators. Circuits, Systems, and Signal Processing, 2019, 38, 1342-1359.	1.2	32
6	FPGA realizations of high-speed switching-type chaotic oscillators using compact VHDL codes. Nonlinear Dynamics, 2018, 93, 819-833.	2.7	28
7	An efficient deep reinforcement machine learning-based control reverse osmosis system for water desalination. Desalination, 2022, 522, 115443.	4.0	27
8	Image Edge Detectors under Different Noise Levels with FPGA Implementations. Journal of Circuits, Systems and Computers, 2018, 27, 1850209.	1.0	22
9	Smart Assistant for Blind and Visually Impaired People. , 2019, , .		21
10	Multiple histogram-based face recognition with high speed FPGA implementation. Multimedia Tools and Applications, 2018, 77, 24269-24288.	2.6	20
11	Clock glitch fault injection attack on an FPGA-based non-autonomous chaotic oscillator. Nonlinear Dynamics, 2019, 96, 2087-2101.	2.7	19
12	A Comparison of Quantized Convolutional and LSTM Recurrent Neural Network Models Using MNIST. , 2019, , .		18
13	Nonlinear time-series analysis of current signal in cathodic contact glow discharge electrolysis. Journal of Applied Physics, 2016, 119, .	1.1	17
14	IoV Road Safety: Vehicle Speed Limiting System. , 2019, , .		16
15	A Convolutional Neural Network for Seizure Detection. , 2020, , .		16
16	Efficient Code Compression for Embedded Processors. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2008, 16, 1696-1707.	2.1	15
17	An Adaptive Hybrid Multiprocessor technique for bioinformatics sequence alignment. , 2010, , .		15
18	Efficient Code Density Through Look-up Table Compression. , 2007, , .		14

#	Article	IF	Citations
19	Emulation of high-performance correlation-based quantum clustering algorithm for two-dimensional data on FPGA. Quantum Information Processing, 2020, 19, 1.	1.0	14
20	Using Lin-Kernighan algorithm for look-up table compression to improve code density. , 2006, , .		13
21	High performance technique for database applicationsusing a hybrid GPU/CPU platform. , 2011, , .		13
22	Highly optimized Qâ€learningâ€based bees approach for mobile robot path planning in static and dynamic environments. Journal of Field Robotics, 2022, 39, 317-334.	3.2	12
23	Instruction splitting for efficient code compression. Proceedings - Design Automation Conference, 2007, , .	0.0	11
24	Huffman-based code compression techniques for embedded processors. ACM Transactions on Design Automation of Electronic Systems, 2010, 15, 1-37.	1.9	11
25	Toward a Unified Performance Metric for Benchmarking Steganography Systems. Journal of Circuits, Systems and Computers, 2020, 29, 2050042.	1.0	10
26	Image Encryption Based on Chua Chaotic Oscillator. , 2020, , .		9
27	SHORT: Segmented histogram technique for robust real-time object recognition. Multimedia Tools and Applications, 2019, 78, 25781-25806.	2.6	8
28	Artificial Neural Network Model Using Short-Term Fourier Transform for Epilepsy Seizure Detection. , 2022, , .		8
29	LICT. , 2009, , .		7
30	Time Efficient Segmented Technique for Dynamic Programming Based Algorithms with FPGA Implementation. Journal of Circuits, Systems and Computers, 2019, 28, 1950227.	1.0	7
31	Sleep Apnea Detection Based on ECG Signals Using Discrete Wavelet Transform and Artificial Neural Network. , 2022, , .		7
32	Voice encryption using a unified hyper-chaotic system. Multimedia Tools and Applications, 2023, 82, 1067-1085.	2.6	7
33	Instruction re-encoding facilitating dense embedded code. , 2008, , .		6
34	New Image Encryption Algorithm Based on Switching-type Chaotic Oscillator. , 2019, , .		6
35	A New Chaos-Based Cryptoystem for Voice Encryption. , 2020, , .		6
36	Chaotic Oscillator Prediction Based on Artificial Neural Network and its Realization on FPGA. , 2022, , .		5

#	Article	IF	Citations
37	Car Plate Recognition Using Machine Learning. , 2022, , .		4
38	Enhancement of Sensitivity in AlGaN/GaN HEMT Based Sensor Using Back-Barrier Technique. IEEE Sensors Journal, 2022, 22, 15742-15749.	2.4	4
39	ABS: Sequence alignment by scanning. , 2011, 2011, 928-31.		3
40	Instruction Re-encoding Facilitating Dense Embedded Code. , 2008, , .		2
41	A Hybrid Heuristic/Deterministic Dynamic Programing Technique for Fast Sequence Alignment. International Journal of Advanced Computer Science and Applications, 2015, 6, .	0.5	2
42	Detection of Epileptic Seizure using Discrete Wavelet Transform on Gamma band and Artificial Neural Network. , 2021, , .		2
43	FBT: Filled Buffer Technique to reduce code size for VLIW processors. , 2008, , .		1
44	Fast global sequence alignment technique. , 2011, , .		1
45	Filtering technique for high speed database sequence comparison. , 2015, , .		1
46	High Speed Database Sequence Comparison. Procedia Computer Science, 2015, 62, 73-80.	1.2	1
47	Accuracy/speed trade-off technique for dynamic programing based algorithms. , 2016, , .		1
48	An Algorithm for Inferring Big Data Objects Correlation Using Word Net. Procedia Computer Science, 2016, 83, 1238-1243.	1.2	1
49	FPGA Reconfigurable UWB CPW Bow-Tie Aperture Antenna for Wi-Fi Applications (4.9 GHz) by Rotating Slots. , 2019, , .		1
50	High-speed enoding/decoding technique for reliable data transmission in wireless sensor networks. , 2014, , .		0
51	Computation Time Reduction to Speed-up the Database Searching Process. , 2015, , .		0
52	Design and Run Time Code Compression for Embedded Systems. , 2007, , 97-128.		0
53	Heterogeneous HW/SW FPGA-Based Embedded System for Database Sequencing Applications. International Journal of Advanced Computer Science and Applications, 2018, 9, .	0.5	0
54	Exploring Quantization-Aware Training on a Convolution Neural Network. , 2020, , .		0

#	Article	IF	Citations
55	Voice Controlled Bedroom Using AIY Google Kit. , 2022, , .		0