

# Mohammed Abo-Zahhad

## List of Publications by Year in Descending Order

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**Version:** 2024-04-23

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

90  
papers

1,305  
citations

21  
h-index

33  
g-index

107  
ext. papers

1,782  
ext. citations

2.5  
avg, IF

5.12  
L-index

#	Paper	IF	Citations
90	Ku-Band Low Phase Noise VCO Using High-Quality Factor Transformer in 0.18- $\mu\text{m}$ CMOS Technology. <i>IEEE Microwave and Wireless Components Letters</i> , <b>2022</b> , 1-4	2.6	1
89	A Multiband VCO Using a Switched Series Resonance for Fine Frequency Tuning Sensitivity and Phase Noise Improvement. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , <b>2021</b> , 29, 2163-2171	2.6	2
88	Enhancing microwave breast cancer hyperthermia therapy efficiency utilizing fat grafting with horn antenna. <i>International Journal of RF and Microwave Computer-Aided Engineering</i> , <b>2021</b> , 31, e22651	1.5	0
87	Recent advances in image processing techniques for automated leaf pest and disease recognition □ A review. <i>Information Processing in Agriculture</i> , <b>2021</b> , 8, 27-51	4.2	42
86	Efficient Node Deployment Based on Immune-Inspired Computing Algorithm for Wireless Sensor Networks. <i>Springer Tracts in Nature-inspired Computing</i> , <b>2021</b> , 105-141	1.8	1
85	A Comprehensive Survey of Intelligent-Based Hierarchical Routing Protocols for Wireless Sensor Networks. <i>Springer Tracts in Nature-inspired Computing</i> , <b>2020</b> , 197-257	1.8	5
84	A wideband dielectric resonator antenna with switchable diversity patterns. <i>International Journal of Microwave and Wireless Technologies</i> , <b>2020</b> , 12, 339-344	0.8	
83	Tomato leaf segmentation algorithms for mobile phone applications using deep learning. <i>Computers and Electronics in Agriculture</i> , <b>2020</b> , 178, 105788	6.5	20
82	Analysis and Implementation of High-Q CT Inductor for Compact and Wide- Tuning Range Ku-Band VCO. <i>IEEE Microwave and Wireless Components Letters</i> , <b>2020</b> , 30, 802-805	2.6	5
81	Efficient vehicle detection and tracking strategy in aerial videos by employing morphological operations and feature points motion analysis. <i>Multimedia Tools and Applications</i> , <b>2020</b> , 79, 26023-26043	2.5	7
80	. <i>IEEE Access</i> , <b>2019</b> , 7, 130782-130790	3.5	6
79	Physical Layer Security Enhancement for Internet of Things in the Presence of Co-Channel Interference and Multiple Eavesdroppers. <i>IEEE Internet of Things Journal</i> , <b>2019</b> , 6, 6441-6452	10.7	11
78	Spectrum Sensing Performance Analysis for Mobile Primary and Secondary Users in Cognitive Radio Networks <b>2019</b> ,		1
77	Robust Vehicle Detection and Counting Algorithm Employing a Convolution Neural Network and Optical Flow. <i>Sensors</i> , <b>2019</b> , 19,	3.8	21
76	Dual Band VCO Based on a High-Quality Factor Switched Interdigital Resonator for the Ku Band Using 180-nm CMOS Technology. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2018</b> , 65, 1874-1878	3.5	9
75	ARBIC: An Adjustable Range Based Immune hierarchy Clustering protocol supporting mobility of Wireless Sensor Networks. <i>Pervasive and Mobile Computing</i> , <b>2018</b> , 43, 27-48	3.5	21
74	Dual-band Rectenna Using Voltage Doubler Rectifier and Four-Section Matching Network <b>2018</b> ,		11

73	Real-Time Algorithm for Simultaneous Vehicle Detection and Tracking in Aerial View Videos <b>2018</b> ,		6
72	70 % Improvement in Q-Factor of Spiral Inductor and its Application in Switched K-Band VCO Using 0.18 $\mu$ m CMOS Technology <b>2018</b> ,		1
71	Convex Lenses Horn Antenna Microwave Hyperthermia Scheme <b>2018</b> ,		1
70	Energy Efficient Framework for Multiuser Downlink MIMO-NOMA Systems <b>2018</b> ,		3
69	High-Efficiency CMOS RF-to-DC Rectifier Based on Dynamic Threshold Reduction Technique for Wireless Charging Applications. <i>IEEE Access</i> , <b>2018</b> , 6, 46826-46832	3.5	16
68	A New Localization Technique for Wireless Sensor Networks Using Social Network Analysis. <i>Arabian Journal for Science and Engineering</i> , <b>2017</b> , 42, 2817-2827	2.5	7
67	A Comprehensive Survey on Hierarchical-Based Routing Protocols for Mobile Wireless Sensor Networks: Review, Taxonomy, and Future Directions. <i>Wireless Communications and Mobile Computing</i> , <b>2017</b> , 2017, 1-23	1.9	66
66	Optimization of Transmitted Power and Modulation Level for Minimizing Energy Consumption in Wireless Sensor Networks. <i>Wireless Personal Communications</i> , <b>2017</b> , 96, 4047-4062	1.9	2
65	Modeling of Wireless Sensor Networks with Minimum Energy Consumption. <i>Arabian Journal for Science and Engineering</i> , <b>2017</b> , 42, 2631-2639	2.5	10
64	Eye Blinking EOG Signals as Biometrics. <i>Signal Processing for Security Technologies</i> , <b>2017</b> , 121-140		9
63	Biometrics from heart sounds: Evaluation of a new approach based on wavelet packet cepstral features using HSCT-11 database. <i>Computers and Electrical Engineering</i> , <b>2016</b> , 53, 346-358	4.3	10
62	A fast accurate method for calculating symbol error probabilities for AWGN and Rayleigh fading channels <b>2016</b> ,		2
61	A centralized immune-Voronoi deployment algorithm for coverage maximization and energy conservation in mobile wireless sensor networks. <i>Information Fusion</i> , <b>2016</b> , 30, 36-51	16.7	63
60	A comparative approach between cepstral features for human authentication using heart sounds. <i>Signal, Image and Video Processing</i> , <b>2016</b> , 10, 843-851	1.6	9
59	An Unequal Multi-hop Balanced Immune Clustering protocol for wireless sensor networks. <i>Applied Soft Computing Journal</i> , <b>2016</b> , 43, 372-389	7.5	49
58	A new multi-level approach to EEG based human authentication using eye blinking. <i>Pattern Recognition Letters</i> , <b>2016</b> , 82, 216-225	4.7	50
57	A Graphical-based educational simulation tool for Wireless Sensor Networks. <i>Simulation Modelling Practice and Theory</i> , <b>2016</b> , 69, 55-79	3.9	3
56	. <i>IEEE Sensors Journal</i> , <b>2015</b> , 15, 4576-4586	4	121

55	Rearrangement of mobile wireless sensor nodes for coverage maximization based on immune node deployment algorithm. <i>Computers and Electrical Engineering</i> , <b>2015</b> , 43, 76-89	4.3	23
54	Utilisation of multi-objective immune deployment algorithm for coverage area maximisation with limit mobility in wireless sensors networks. <i>IET Wireless Sensor Systems</i> , <b>2015</b> , 5, 250-261	1.6	7
53	State-of-the-art methods and future perspectives for personal recognition based on electroencephalogram signals. <i>IET Biometrics</i> , <b>2015</b> , 4, 179-190	2.9	49
52	A Novel Biometric Approach for Human Identification and Verification Using Eye Blinking Signal. <i>IEEE Signal Processing Letters</i> , <b>2015</b> , 22, 876-880	3.2	42
51	Modeling and minimization of energy consumption in wireless sensor networks <b>2015</b> ,		6
50	A New EEG Acquisition Protocol for Biometric Identification Using Eye Blinking Signals. <i>International Journal of Intelligent Systems and Applications</i> , <b>2015</b> , 7, 48-54	1.5	22
49	C20. Energy consumption and lifetime analysis for Wireless Sensor Networks <b>2015</b> ,		3
48	A new biometric authentication system using heart sounds based on wavelet packet features <b>2015</b> ,		1
47	An energy consumption model for wireless sensor networks <b>2015</b> ,		16
46	Design and implementation of building energy monitoring and management system based on wireless sensor networks <b>2015</b> ,		6
45	Modeling and optimization of energy consumption in Wireless Sensor Networks <b>2015</b> ,		1
44	Wavelet Threshold-Based ECG Data Compression Technique Using Immune Optimization Algorithm. <i>International Journal of Signal Processing, Image Processing and Pattern Recognition</i> , <b>2015</b> , 8, 347-360		5
43	<b>2014</b> ,		16
42	<b>2014</b> ,		6
41	A New Energy-Efficient Adaptive Clustering Protocol Based on Genetic Algorithm for Improving the Lifetime and the Stable Period of Wireless Sensor Networks. <i>International Journal of Energy Information and Communications</i> , <b>2014</b> , 5, 47-72	2	26
40	<b>2014</b> ,		3
39	A Survey on Protocols, Platforms and Simulation Tools for Wireless Sensor Networks. <i>International Journal of Energy Information and Communications</i> , <b>2014</b> , 5, 17-34	2	5
38	A wireless emergency telemedicine system for patients monitoring and diagnosis. <i>International Journal of Telemedicine and Applications</i> , <b>2014</b> , 2014, 380787	2.6	44

37	Biometric authentication based on PCG and ECG signals: present status and future directions. <i>Signal, Image and Video Processing</i> , <b>2014</b> , 8, 739-751	1.6	55
36	A Novel Circular Mapping Technique for Spectral Classification of Exons and Introns in Human DNA Sequences. <i>International Journal of Information Technology and Computer Science</i> , <b>2014</b> , 6, 19-29	1.4	4
35	Integrated Model of DNA Sequence Numerical Representation and Artificial Neural Network for Human Donor and Acceptor Sites Prediction. <i>International Journal of Information Technology and Computer Science</i> , <b>2014</b> , 6, 51-57	1.4	4
34	Future location prediction of mobile subscriber over mobile network using Intra Cell Movement pattern algorithm <b>2013</b> ,		5
33	A new algorithm for the compression of ECG signals based on mother wavelet parameterization and best-threshold levels selection <b>2013</b> , 23, 1002-1011		43
32	An Efficient Technique for Compressing ECG Signals Using QRS Detection, Estimation, and 2D DWT Coefficients Thresholding. <i>Modelling and Simulation in Engineering</i> , <b>2012</b> , 2012, 1-10	1.3	18
31	A New Method for Fastening the Convergence of Immune Algorithms Using an Adaptive Mutation Approach. <i>Journal of Signal and Information Processing</i> , <b>2012</b> , 03, 86-91	0.6	4
30	Genomic Analysis and Classification of Exon and Intron Sequences Using DNA Numerical Mapping Techniques. <i>International Journal of Information Technology and Computer Science</i> , <b>2012</b> , 4, 22-36	1.4	25
29	Hybrid Uplink-Time Difference of Arrival and Assisted-GPS Positioning Technique. <i>International Journal of Communications, Network and System Sciences</i> , <b>2012</b> , 05, 303-312	0.2	4
28	<b>2011</b> ,		1
27	ECG Signal Compression Using Discrete Wavelet Transform <b>2011</b> ,		6
26	ECG signal compression using combined modified discrete cosine and discrete wavelet transforms. <i>Journal of Medical Engineering and Technology</i> , <b>2009</b> , 33, 1-8	1.8	11
25	An ECG signal compressor based on the selection of optimal threshold levels of discrete wavelet transform coefficients. <i>Journal of Medical Engineering and Technology</i> , <b>2008</b> , 32, 425-33	1.8	1
24	A hybrid ECG compression algorithm based on singular value decomposition and discrete wavelet transform. <i>Journal of Medical Engineering and Technology</i> , <b>2007</b> , 31, 54-61	1.8	16
23	A novel algorithm for the design of selective FIR filters with arbitrary amplitude and phase characteristics <b>2006</b> , 16, 211-224		5
22	High-quality low-complexity wavelet-based compression algorithm for audio signals. <i>Electrical Engineering</i> , <b>2003</b> , -1, 1-1	1.5	1
21	Current state and future directions of multirate filter banks and their applications <b>2003</b> , 13, 495-518		12
20	A novel compression algorithm for electrocardiogram signals based on the linear prediction of the wavelet coefficients <b>2003</b> , 13, 604-622		64

19	Impedance-Based Algorithm for the Discrimination between Inrush and Short-Circuit Currents in Single-Phase Transformers. <i>Electric Power Components and Systems</i> , <b>2003</b> , 31, 593-604	1	4
18	An effective coding technique for the compression of one-dimensional signals using wavelet transforms. <i>Medical Engineering and Physics</i> , <b>2002</b> , 24, 185-99	2.4	31
17	A new hybrid algorithm for ECG signal compression based on the wavelet transformation of the linearly predicted error. <i>Medical Engineering and Physics</i> , <b>2001</b> , 23, 117-26	2.4	36
16	ECG data compression using optimal non-orthogonal wavelet transform. <i>Medical Engineering and Physics</i> , <b>2000</b> , 22, 39-46	2.4	45
15	Chebyshev Response of Thin Film Optical Filters. <i>Optical Review</i> , <b>2000</b> , 7, 341-347	0.9	0
14	Design of selective M-channel perfect reconstruction FIR filter banks. <i>Electronics Letters</i> , <b>1999</b> , 35, 1223-1224	1.1	1
13	Synthesis of IIR digital filters exhibiting simultaneous amplitude and phase responses for VLSI implementations. <i>International Journal of Circuit Theory and Applications</i> , <b>1997</b> , 25, 1-14	2	2
12	Synthesis of low-sensitivity orthogonal digital filters. <i>International Journal of Circuit Theory and Applications</i> , <b>1997</b> , 25, 503-520	2	2
11	On optimal filters with maximum number of constraints on amplitude and phase characteristics. <i>International Journal of Circuit Theory and Applications</i> , <b>1996</b> , 24, 165-181	2	3
10	Arbitrary amplitude and linear phase approximations for non-prototype ladder and lattice wave digital filters. <i>International Journal of Circuit Theory and Applications</i> , <b>1996</b> , 24, 605-620	2	4
9	Design of selective lowpass sampled-data and digital filters exhibiting equiripple amplitude and phase error characteristics. <i>International Journal of Circuit Theory and Applications</i> , <b>1995</b> , 23, 59-74	2	9
8	Design of two-dimensional scaled state space filters with fixed point arithmetic. <i>International Journal of Circuit Theory and Applications</i> , <b>1994</b> , 22, 467-477	2	2
7	Comments on Simultaneous amplitude and phase approximation for lumped and sampled filters. <i>International Journal of Circuit Theory and Applications</i> , <b>1993</b> , 21, 559-561	2	
6	Odd-degree selective bandpass digital filters interpolating linear phase and constant group delay. <i>International Journal of Circuit Theory and Applications</i> , <b>1991</b> , 19, 375-387	2	1
5	Design of odd-degree linear-phase sampled-data bandpass filters with equiripple amplitude response. <i>International Journal of Circuit Theory and Applications</i> , <b>1989</b> , 17, 87-101	2	2
4	. <i>IEEE Transactions on Circuits and Systems</i> , <b>1988</b> , 35, 1220-1229		6
3			2
2	Frequency-reconfigurable dielectric resonator antenna using metasurface. <i>International Journal of Microwave and Wireless Technologies</i> , 1-7	0.8	0

1	Faster CNN-based vehicle detection and counting strategy for fixed camera scenes. <i>Multimedia Tools and Applications</i> ,1	2.5	1
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