Sami Barmada

List of Publications by Year
in descending order

89 papers	884 citations	471509 17 h-index	580821 25 g-index
91 all docs	91 docs citations	91 times ranked	578 citing authors

#	Article	IF	Citations
1	Innovative model for time-varying power line communication channel response evaluation. IEEE Journal on Selected Areas in Communications, 2006, 24, 1317-1326.	14.0	75
2	Analysis of Power-Line Communication Channels in Ships. IEEE Transactions on Vehicular Technology, 2010, 59, 3161-3170.	6.3	45
3	Arc detection in pantograph–catenary systems by the use of support vector machines–based classification. IET Electrical Systems in Transportation, 2014, 4, 45-52.	2.4	45
4	Deep Learning and Reduced Models for Fast Optimization in Electromagnetics. IEEE Transactions on Magnetics, 2020, 56, 1-4.	2.1	34
5	Transient numerical solutions of nonuniform MTL equations with nonlinear loads by wavelet expansion in time or space domain. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2000, 47, 1178-1190.	0.1	33
6	A Wavelet Based Method for the Analysis of Impulsive Noise Due to Switch Commutations in Power Line Communication (PLC) Systems. IEEE Transactions on Smart Grid, 2011, 2, 92-101.	9.0	28
7	Analysis of the performance of a multi-stage pulsed linear induction launcher. IEEE Transactions on Magnetics, 2001, 37, 111-115.	2.1	27
8	PLC systems for electric vehicles and Smart Grid applications. , 2013, , .		27
9	Wavelet multiresolution analysis for monitoring the occurrence of arcing on overhead electrified railways. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2003, 217, 177-187.	2.0	26
10	Power Line Communication in a full electric vehicle: Measurements, modelling and analysis. , 2010, , .		26
11	Fuzzy integral-based multi-sensor fusion for arc detection in the pantograph-catenary system. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 159-170.	2.0	26
12	A general tool for circuit analysis based on wavelet transform. International Journal of Circuit Theory and Applications, 2000, 28, 461-480.	2.0	25
13	A Spiral Resonators Passive Array for Inductive Wireless Power Transfer Applications With Low Exposure to Near Electric Field. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 1312-1322.	2.2	24
14	Analysis of the performance of a combined coil-rail launcher. IEEE Transactions on Magnetics, 2003, 39, 103-107.	2.1	23
15	Two-port equivalent of PCB discontinuities in the wavelet domain. IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 907-918.	4.6	21
16	Numerical simulation of a complete generator-rail launch system. IEEE Transactions on Magnetics, 2005, 41, 369-374.	2.1	19
17	An Accurate Equivalent Circuit Model of Metasurface-Based Wireless Power Transfer Systems. IEEE Open Journal of Antennas and Propagation, 2020, 1, 549-559.	3.7	19
18	A Deep Learning Surrogate Model for Topology Optimization. IEEE Transactions on Magnetics, 2021, 57, 1-4.	2.1	19

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19	Analysis of Power Lines Uncertain Parameter Influence on Power Line Communications. IEEE Transactions on Power Delivery, 2007, 22, 2163-2171.	4.3	18
20	Multi-resolution based sensitivity analysis of complex non-linear circuits. IET Circuits, Devices and Systems, 2012, 6, 176.	1.4	18
21	Analysis of Integrated Circuit System s by An Innovative Wavelet-Based Scattering Matrix Approach. IEEE Transactions on Advanced Packaging, 2007, 30, 86-96.	1.6	17
22	Design of a PLC system onboard trains: Selection and analysis of the PLC channel. , 2008, , .		16
23	Impulsive Noise Characterization in Narrowband Power Line Communication. Energies, 2018, 11, 863.	3.1	16
24	Wavelet-Based Time-Domain Solution of Multiconductor Transmission Lines With Skin and Proximity Effect. IEEE Transactions on Electromagnetic Compatibility, 2005, 47, 774-780.	2.2	15
25	Time domain surface impedance concept for low frequency electromagnetic problems—Part II: Application to transient skin and proximity effect problems in cylindrical conductors. IET Science, Measurement and Technology, 2005, 152, 207-216.	0.7	15
26	Power line communication integrated in a Wireless Power Transfer system: A feasibility study. , 2014, , .		14
27	Fault Prediction and Early-Detection in Large PV Power Plants Based on Self-Organizing Maps. Sensors, 2021, 21, 1687.	3.8	14
28	Design and Realization of a Multiple Access Wireless Power Transfer System for Optimal Power Line Communication Data Transfer. Energies, 2019, 12, 988.	3.1	13
29	Blind Channel Estimation for Power-line Communications by a Kohonen Neural Network. , 2007, , .		12
30	Field analysis in axisymmetric actuators. IEEE Transactions on Magnetics, 2000, 36, 1906-1909.	2.1	11
31	Design and experimental characterization of a combined WPT–PLC system. Wireless Power Transfer, 2017, 4, 160-170.	1.1	11
32	A Regularized Procedure to Generate a Deep Learning Model for Topology Optimization of Electromagnetic Devices. Electronics (Switzerland), 2021, 10, 2185.	3.1	11
33	Force and torque evaluation in hybrid FEM-MOM formulations. IEEE Transactions on Magnetics, 2001, 37, 3108-3111.	2.1	10
34	Optimization of a magnetically coupled resonators system for Power Line Communication integration. , 2015, , .		10
35	Clustering techniques applied to a high-speed train pantograph–catenary subsystem for electric arc detection and classification. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 85-96.	2.0	10
36	Channel evaluation for power line communication in plug – in electric vehicles. IET Electrical Systems in Transportation, 2012, 2, 195.	2.4	8

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37	Experimental validation of a hybrid Wireless Power Transfer - Power Line Communication system. , 2016, , .		8
38	Hybrid FEM/MOM formulation for eddy current problems with moving conductors. IEEE Transactions on Magnetics, 2000, 36, 827-830.	2.1	7
39	Improving the performance of the boundary element method with time-dependent fundamental solutions by the use of a wavelet expansion in the time domain. International Journal for Numerical Methods in Engineering, 2007, 71, 363-378.	2.8	6
40	An evolutionary algorithm for global optimization based on self-organizing maps. Engineering Optimization, 2016, 48, 1740-1758.	2.6	6
41	A multi€objective optimization algorithm based on self€organizing maps applied to wireless power transfer systems. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2017, 30, e2145.	1.9	6
42	Hybrid F.E.-wavelet method for nonlinear analysis of nonuniform MTL transients. IEEE Transactions on Magnetics, 2000, 36, 977-981.	2.1	5
43	Algebraic solution of time-domain nonuniform transmission-line equations by 2-D wavelet transform. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 504-508.	0.1	5
44	Field analysis in tubular coilguns by wavelet transform. IEEE Transactions on Magnetics, 2003, 39, 120-124.	2.1	5
45	Analysis of a homopolar disk generator via equivalent network. IEEE Transactions on Magnetics, 2003, 39, 125-128.	2.1	5
46	Response Bounds of Indoor Power-Line Communication Systems With Cyclostationary Loads. IEEE Transactions on Power Delivery, 2009, 24, 596-603.	4.3	5
47	On the time invariance of PLC channels in complex power networks. , 2010, , .		5
48	Global optimization algorithm based on self-organizing centroids. , 2012, , .		5
49	Indirect monitoring and early detection of faults in trains' motors. IET Electrical Systems in Transportation, 2018, 8, 86-94.	2.4	4
50	Didactic Considerations on Magnetic Circuits Excited by Permanent Magnets. IEEE Transactions on Education, 2009, 52, 532-537.	2.4	3
51	Modeling of Nonlinearly Loaded Microwave Devices by a Wavelet Convolution Operator-Based Formulation. Electromagnetics, 2009, 29, 31-52.	0.7	3
52	Analysis of transmission lines with frequency-dependent parameters by wavelet-FFT method. IEEE Transactions on Magnetics, 2003, 39, 1602-1605.	2.1	2
53	Nonlinear decision feedback estimation for multicarrier power line communication. , 2008, , .		2
54	Analysis of time-varying properties of Power Line Communication Channels in ships. , 2011, , .		2

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55	A delta–method technique in the wavelet domain to determine statistical quantities of the response of electromagnetic devices with uncertain parameters. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2011, 24, 357-374.	1.9	2
56	Simulations and experiments for EMC compliance in automotive environment. , 2016, , .		2
57	Analysis of noise in in-home channels for narrowband power line communications. , 2017, , .		2
58	Space-time wavelet expansion iterative solution of non-uniform transmission lines with arbitrary loads. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2001, 14, 219-235.	1.9	1
59	Analysis of PCB Discontinuities Using FD-TD and Wavelets. , 2002, , .		1
60	Numerical solution of Maxwell's equations by wavelets on the interval and equivalence theorem. IEEE Transactions on Magnetics, 2002, 38, 381-384.	2.1	1
61	New wavelet based approach for time domain simulations. IEEE Transactions on Antennas and Propagation, 2003, 51, 1590-1598.	5.1	1
62	Equivalence Theorem Boundary Conditions for FDTD Formulations. IEEE Transactions on Magnetics, 2004, 40, 1049-1052.	2.1	1
63	Simulation of high frequency signal transmission on power lines. , 2005, , .		1
64	Electromechanical analysis of an electrodynamic bearing. , 2017, , .		1
65	Transmission Channel Analysis for Broadband Communication over Multiconductor UIC Cables Onboard Regional Trains. Energies, 2019, 12, 497.	3.1	1
66	Power Regulation in Inductive Power Transfer via Power Line Communication. , 2019, , .		1
67	Harmonic distortion considerations for an integrated WPT-PLC system. Wireless Power Transfer, 2020, 7, 33-41.	1.1	1
68	Study of nonlinearly loaded microwave circuits by an innovative multiresolution time-frequency analysis. , 2007, , .		1
69	Solution of electromagnetic transients by wavelet expansion in the time domain. , 0, , .		0
70	Field–excited multiconductor transmission lines: a wavelet approach. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2001, 20, 380-394.	0.9	0
71	Efficiency improvement of integral formulation via multiresolution analysis. IEEE Transactions on Magnetics, 2003, 39, 1417-1420.	2.1	0
72	Response Bounds Analysis for Transmission Lines Characterized by Uncertain Parameters. , 0, , .		0

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73	Analysis of parameters' uncertainty effects on equivalent circuit macromodels. , 0, , .		0
74	Influence of Parameters Uncertainties in Equivalent Circuit Modeling of 3D Electromagnetic Devices. Journal of Electromagnetic Waves and Applications, 2005, 19, 2049-2058.	1.6	0
75	Comments on "Deficiencies in the way scattering parameters are Taught". IEEE Transactions on Education, 2006, 49, 176-178.	2.4	0
76	A wavelet approach for the discrimination of buried objects. , 0, , .		0
77	Efficient method to treat parameters' uncertainties in complex circuits. , 0, , .		0
78	Time domain sensitivity of non linear circuits via wavelet transform. , 2008, , .		0
79	Analysis of Equivalent Circuit Sensitivity on Extraction Procedure. Electromagnetics, 2010, 30, 324-346.	0.7	0
80	The Leaf Community: Control of an AC microgrid. , 2015, , .		0
81	Electromechanical analysis of a new PMs bearing. , 2016, , .		0
82	Combining WPT and PLC: A review. , 2016, , .		0
83	Electromagnetic analysis of coils for wireless power transfer. , 2017, , .		0
84	Analysis of two/four coils WPT systems for embedded PLC communications. , 2018, , .		0
85	Wireless Power Transfer and Data Communication Cognitive Radio through Two-Coil Inductive Channel. , 2019, , .		0
86	Wireless Power Transfer with Data Transfer Capability for Electric and Hybrid Vehicles: State of the Art and Future Trends. , 2021, , .		0
87	Short-Term Forecast of Emergency Departments Visits Through Calendar Selection. Contributions To Statistics, 2020, , 415-426.	0.2	0
88	Electric Near Field Reduction in Wireless Power Transfer Systems. , 2020, , .		0
89	Wireless Power Transfer with Data Transfer Capability for Electric and Hybrid Vehicles: State of the Art and Future Trends. , 2021, , .		0