Anwar H Jarndal

List of Publications by Year
in descending order

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86 papers	1,268 citations	430442 18 h-index	395343 33 g-index
88 all docs	88 docs citations	88 times ranked	543 citing authors

#	Article	IF	Citations
1	A new small-signal modeling approach applied to GaN devices. IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 3440-3448.	2.9	244
2	Large-Signal Model for AlGaN/GaN HEMTs Accurately Predicts Trapping- and Self-Heating-Induced Dispersion and Intermodulation Distortion. IEEE Transactions on Electron Devices, 2007, 54, 2830-2836.	1.6	105
3	Improved Modeling of GaN HEMTs on Si Substrate for Design of RF Power Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 644-651.	2.9	79
4	A Reliable Model Parameter Extraction Method Applied to AlGaN/GaN HEMTs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 211-219.	1.9	60
5	An accurate small-signal model for AlGaN-GaNHEMT suitable for scalable large-signal model construction. IEEE Microwave and Wireless Components Letters, 2006, 16, 333-335.	2.0	58
6	Reliable Hybrid Small-Signal Modeling of GaN HEMTs Based on Particle-Swarm-Optimization. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 1816-1824.	1.9	42
7	ANN-Based Large-Signal Model of AlGaN/GaN HEMTs With Accurate Buffer-Related Trapping Effects Characterization. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3090-3099.	2.9	38
8	On Neural Networks Based Electrothermal Modeling of GaN Devices. IEEE Access, 2019, 7, 94205-94214.	2.6	36
9	Reliable noise modeling of GaN HEMTs for designing lowâ€noise amplifiers. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2585.	1.2	32
10	Large-Signal Modeling of GaN HEMTs Using Hybrid GA-ANN, PSO-SVR, and GPR-Based Approaches. IEEE Journal of the Electron Devices Society, 2021, 9, 195-208.	1.2	30
11	On the performance of GaNâ€onâ€Silicon, Siliconâ€Carbide, and Diamond substrates. International Journal of RF and Microwave Computer-Aided Engineering, 2020, 30, e22196.	0.8	27
12	AlGaN/GaN HEMTs on SiC and Si substrates: A review from the small-signal-modeling's perspective. International Journal of RF and Microwave Computer-Aided Engineering, 2014, 24, 389-400.	0.8	26
13	A New GaN HEMT Equivalent Circuit Modeling Technique Based on X-Parameters. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 2758-2777.	2.9	26
14	Improved modeling of GaN HEMTs for predicting thermal and trapping-induced-kink effects. Solid-State Electronics, 2016, 123, 19-25.	0.8	26
15	Large-signal model for AlGaN/GaN HEMTs suitable for RF switching-mode power amplifiers design. Solid-State Electronics, 2010, 54, 696-700.	0.8	22
16	Genetic algorithm initialized artificial neural network based temperature dependent <scp>smallâ€signal</scp> modeling technique for <scp>GaN</scp> high electron mobility transistors. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22542.	0.8	22
17	On temperatureâ€dependent smallâ€signal modelling of GaN HEMTs using artificial neural networks and support vector regression. IET Microwaves, Antennas and Propagation, 2021, 15, 937-953.	0.7	20
18	Large-signal modeling methodology for GaN HEMTs for RF switching-mode power amplifiers design. International Journal of RF and Microwave Computer-Aided Engineering, 2011, 21, 45-51.	0.8	19

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19	Measurements uncertainty and modeling reliability of GaN HEMTs. , 2013, , .		18
20	Genetic algorithm-based neural-network modeling approach applied to AlGaN/GaN devices. International Journal of RF and Microwave Computer-Aided Engineering, 2013, 23, 149-156.	0.8	17
21	On modeling of substrate loading in GaN HEMT using grey wolf algorithm. Journal of Computational Electronics, 2020, 19, 576-590.	1.3	14
22	Neural network electrothermal modeling approach for microwave active devices. International Journal of RF and Microwave Computer-Aided Engineering, 2019, 29, e21764.	0.8	13
23	Reliable particle-swarm-optimization based parameter extraction method applied to GaN HEMTs. , 2016, , .		12
24	Design and implementation of a sign-to-speech/text system for deaf and dumb people. , 2016, , .		11
25	Efficient modeling of GaN HEMTs for linear and nonlinear circuits design. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2017, 30, e2100.	1.2	11
26	Hybrid smallâ€signal model parameter extraction of GaN HEMTs on Si and SiC substrates based on global optimization. International Journal of RF and Microwave Computer-Aided Engineering, 2019, 29, e21555.	0.8	11
27	A New Method for Identification and Minimization of Distortion Sources in GaN HEMT Devices Based on Volterra Series Analysis. IEEE Electron Device Letters, 2007, 28, 343-345.	2.2	10
28	Load forecasting for power system planning using a genetic-fuzzy-neural networks approach. , 2013, , .		10
29	An Improved Transistor Modeling Methodology Exploiting the Quasi-Static Approximation. IEEE Journal of the Electron Devices Society, 2021, 9, 378-386.	1.2	10
30	A two stage green supplier selection and order allocation using AHP and multi-objective genetic algorithm optimization. , 2017, , .		9
31	A simple, direct and reliable extraction method applied to GaN devices. International Journal of Electronics, 2017, 104, 382-393.	0.9	9
32	A particle swarm neural networks electrothermal modeling approach applied to GaN HEMTs. Journal of Computational Electronics, 2019, 18, 1272-1279.	1.3	9
33	GaN HEMT on Si substrate with diamond heat spreader for high power applications. Journal of Computational Electronics, 2021, 20, 873-882.	1.3	9
34	Improved parameter extraction method for GaN HEMT on Si substrate. , 2010, , .		7
35	Conversion Rules Between X-Parameters and Linearized Two-Port Network Parameters for Large-Signal Operating Conditions. IEEE Transactions on Microwave Theory and Techniques, 2018, , 1-12.	2.9	7
36	On the Accurate Voltage and Current Analytical Relationship to <inline-formula> <tex-math notation="LaTeX">${X}$ </tex-math> </inline-formula>-Parameters of a Nonlinear Two-Port Network. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 4439-4451.	2.9	7

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37	GaN-Based Oscillators for Wireless Power Transfer Applications. , 2018, , .		7
38	Hybrid extraction method based on pinch-off S-parameters for mm-wave modeling of GaN HEMTs. , 2016, , .		6
39	GaN low noise amplifier design for WiMax applications. , 2016, , .		6
40	GaN HEMT Electrothermal Modeling Using Feedback Neural Networks Technique. , 2019, , .		6
41	A broadband hybrid GaN cascode low noise amplifier for WiMax applications. International Journal of RF and Microwave Computer-Aided Engineering, 2019, 29, e21456.	0.8	6
42	<scp>2â€mmâ€gateâ€periphery GaN</scp> high electron mobility transistor <scp>s</scp> on <scp>SiC</scp> and Si substrates: A comparative analysis from a <scp>smallâ€signal</scp> standpoint. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22642.	0.8	6
43	Applicability of double Channel Technique in AlGaN/GaN HEMT for future biosensing applications. Superlattices and Microstructures, 2021, 160, 107086.	1.4	6
44	A simplified modelling approach for AlGaN/GaN HEMTs using pinched cold S-parameters. , 2013, , .		5
45	Forecasting of peak electricity demand using ANNGA and ANN-PSO approaches. , 2017, , .		5
46	On hybrid model parameter extraction of GaN HEMTs based on GA, PSO, and ABC optimization. , 2017, , .		5
47	Neurogenetic small-signal modeling approach for microwave active devices. , 2017, , .		5
48	Compact GaN classâ€AB Armstrong oscillator for resonant wireless power transfer. IET Circuits, Devices and Systems, 2019, 13, 233-238.	0.9	5
49	Modelling of GaN high electron mobility transistor on diamond substrate. IET Microwaves, Antennas and Propagation, 2021, 15, 661-673.	0.7	5
50	Hybrid PSO-GWO Optimization Based Parameter Extraction Method Applied to GaN Devices. , 2021, , .		5
51	Hybrid particle swarm optimization<scp>â€</scp>grey wolf optimization based<scp>smallâ€signal</scp>modeling applied to<scp>GaN</scp>devices. International Journal of RF and Microwave Computer-Aided Engineering, 2022, 32, .	0.8	5
52	Parasitic elements extraction of AlGaN/GaN HEMTs on SiC substrate using only pinch-off S-parameter measurements. , 2014, , .		4
53	A general and reliable model for GaN HEMTs on Si and SiC substrates. , 2015, , .		4
54	Reliable Parameter Extraction of Asymmetric GaN-Based Heterojunction Field Effect Transistors. , 2018, , .		4

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55	A broadband hybrid GaN cascode low noise amplifier for WiMax applications. , 2018, , .		4
56	Gray Wolf Optimization-Based Modeling Technique Applied to GaN High Mobility Electron Transistors. IEEE Journal of the Electron Devices Society, 2021, 9, 958-965.	1.2	4
57	Enhancement of Sensitivity in AlGaN/GaN HEMT Based Sensor Using Back-Barrier Technique. IEEE Sensors Journal, 2022, 22, 15742-15749.	2.4	4
58	Combined genetic algorithm and neural network technique for transistor modeling. , 2015, , .		3
59	Modeling of extrinsic parasitic elements of Si based GaN HEMTs using two step de-embedding structures. , 2015, , .		3
60	On designing of a broadband GaN low-noise amplifier for WiMax applications. , 2017, , .		3
61	MM-wave wideband propagation model for wireless communications in built-up environments. Physical Communication, 2018, 28, 97-107.	1.2	3
62	Reliable PSO Based Noise Modeling Approach Applied to GaN HEMTs. , 2018, , .		3
63	On reliable modeling of substrate/buffer loading effects in a gallium nitride high-electron-mobility transistor on silicon substrate. Journal of Computational Electronics, 2021, 20, 503-514.	1.3	3
64	Hybrid GWOCS Optimization Based Parameter Extraction Method Applied to GaN Devices. , 2021, , .		3
65	Temperature Dependent SVR and ANN based I-V Models for GaN HEMTs. , 2020, , .		3
66	<scp>Equivalentâ€circuit</scp> extraction for gallium nitride electron devices: Direct versus <scp>optimizationâ€empowered</scp> approaches. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2022, 35, .	1.2	3
67	On the large-signal modeling of AlGaN/GaN HEMTs for RF switching-mode power amplifiers design. , 2009, , .		2
68	Large-signal modeling of AlGaN/GaN HEMTs based on DC IV and S-parameter measurements. , 2010, , .		2
69	A genetic neural network modeling of GaN HEMTs for RF power amplifiers design. , 2011, , .		2
70	GaN power amplifiers design using genetic neural network model. , 2015, , .		2
71	Design and implementation of a multi-purpose wireless charger. , 2016, , .		2
72	GaN high electron mobility transistors: a review from parasitic elements extraction's perspective. Journal of Engineering, 2016, 2016, 258-265.	0.6	2

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73	An improved reliable PSO based parameter extraction method applied to GaN HEMTs for mm-Wave applications. , 2017, , .		2
74	Global optimization of neural network-based electrothermal model for GaN transistors. , 2017, , .		2
75	On Modeling of Substrate/Buffer Loading in GaN HEMT Using Grey-Wolf Optimization Technique. , 2019, , .		2
76	Comparison of GA, GWO, and HHO Optimization Techniques for Modeling Substrate/Buffer Loading Effect on GaN HEMTs. , 2021, , .		2
77	Large-Signal Model for AlGaN/GaN HEMT for Designing High Power Amplifiers of Next Generation Wireless Communication Systems. , 2007, , .		1
78	Optimizing the parameters of a biodynamic responses to vibration model using Particle Swarm and Genetic Algorithms. , 2017, , .		1
79	Design and Implementation of GaN based DC-AC Converter for Wireless Power Transfer Applications. , 2021, , .		1
80	GaN-Based Two-Stage Colpitts Oscillator for Wireless Power Transfer. , 2021, , .		1
81	Forecasting of Electric Peak Load Using ANN-Cascaded, ANN-NARX and GPR Techniques. , 2020, , .		1
82	GaN Power Amplifiers Design Using Efficient GA-ANN Dynamic Nonlinear Model. , 2021, , .		1
83	GaN Power Transistor Modeling Using Global Optimization Based Artificial Neural Networks. , 2022, , .		1
84	Reliable Propagation Model for 5G Systems in Urban Environments. , 2018, , .		0
85	An Armstrong GaN-Based Oscillator for Wireless Power Transfer Applications. , 2019, , .		0
86	GaN HEMT with Enhanced Back-Barrier for Power Electronics Applications. , 2022, , .		0