

Lubomir Brancik

List of Publications by Year in descending order

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54
papers

337
citations

1874746
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1637695
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g-index

54
all docs

54
docs citations

54
times ranked

252
citing authors

#	ARTICLE	IF	CITATIONS
1	Noise Influenced Transmission Line Model via Partial Stochastic Differential Equations. , 2019, , .		4
2	Synthesis and Optimization of Fractional-Order Elements Using a Genetic Algorithm. IEEE Access, 2019, 7, 80233-80246.	2.6	56
3	Multiconductor Transmission Line System with Stochastically Affected Boundary Conditions. , 2019, , .		0
4	Application of Numerical Inverse Laplace Transform Methods for Simulation of Distributed Systems with Fractional-Order Elements. Journal of Circuits, Systems and Computers, 2018, 27, 1850172.	1.0	14
5	Characterization of MTL Hybrid Circuits with Stochastic Parameters through SDAE Approach. , 2018, , .		0
6	Numerical simulation of nonuniform multiconductor transmission lines with HF losses in Matlab: Laplace-domain and time-domain approaches. , 2018, , .		0
7	Proposed Hyperbolic NILT Method "Acceleration Techniques and Two-Dimensional Expansion for Electrical Engineering Applications. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2018, E101.A, 763-771.	0.2	1
8	Stochastic Differential Equations Describing Systems with Coloured Noise. Tatra Mountains Mathematical Publications, 2018, 71, 99-107.	0.1	0
9	Confidence intervals for RLCG cell influenced by coloured noise. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2017, 36, 838-849.	0.5	3
10	Analysis of nonlinear cell of transmission line model using Volterra series approach. , 2017, , .		1
11	CFOA-based fractional-order oscillator design and analysis with NILT method. , 2017, , .		4
12	Fractional-order oscillator design using unity-gain voltage buffers and OTAs. , 2017, , .		26
13	Matlab simulation of nonlinear electrical networks via volterra series expansion and multidimensional NILT. , 2017, , .		0
14	Fractional-Order lossy transmission line with skin effect using NILT method. , 2017, , .		6
15	Matlab Simulation of Transmission Lines with Skin Effect via Fractional Telegraph Equations and NILT. , 2017, , .		2
16	Limitations of High-Speed Square Pulses on Printed Circuit Boards. , 2017, , .		1
17	Distortion of Short Square Pulses by Transmission Line on Printed Circuit Board. , 2017, , .		0
18	Distortion of High-Speed Linear Pulses Caused by Transmission on Printed Circuit Boards. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
19	Comparative simulations of hybrid systems with nonuniform MTLs via Wendroff and NILT based techniques. , 2016, , .		5
20	The effect of the colored noise to RLC(G) electrical circuits. , 2016, , .		0
21	On two-dimensional numerical inverse laplace transforms with transmission line applications. , 2016, , .		4
22	Simulation of multiconductor transmission lines with random parameters via stochastic differential equations approach. Simulation, 2016, 92, 521-533.	1.1	8
23	Requirements on Needed Frequency Bandwidth Depending on Pulse Waveforms and Their Allowed Distortion. Journal of Electrical Engineering, 2016, 67, 459-462.	0.4	4
24	Confidence intervals at multiconductor transmission lines with stochastic excitations: Stochastic differential equations approach. , 2015, , .		1
25	The Milstein numerical scheme in solving stochastic second order networks. , 2015, , .		0
26	Multiconductor transmission line models excited from multiple stochastic sources. , 2015, , .		3
27	Variance assessment at transmission lines with randomly varying parameters via SDE theory. , 2015, , .		1
28	SDE-based variance simulation in transmission line models with random excitations. , 2015, , .		3
29	Time-domain simulation of transmission line models with multiple stochastic excitations. , 2014, , .		1
30	Simulation of stochastic responses at multiconductor transmission lines with fluctuating parameters. , 2013, , .		3
31	Simulation of hybrid MTL systems with random parameters based on stochastic DAEs. , 2013, , .		2
32	Modified nodal analysis and state variable descriptions for MTLs systems solution in Matlab. , 2013, , .		1
33	Degradation of free space optical communication performance caused by atmospheric turbulence. , 2012, , .		4
34	Simulation of random effects in transmission line models via stochastic differential equations. , 2012, , .		6
35	Stochastic differential equations approach in the analysis of MTLs with randomly varied parameters. , 2012, , .		12
36	Vector linear stochastic differential equations and their applications to electrical networks. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
37	Simulation of MTLs via Wendroff method combined with modified nodal analysis. , 2011, , .		1
38	Adaptive time-domain pre-emphasis techniques for high-speed VLSI systems. , 2011, , .		1
39	Time-domain pre-emphasis technique based on pulse-width modulation scheme. , 2011, , .		1
40	Fully time-domain simulation of multiconductor transmission line systems: Implicit Wendroff and Euler methods within modified nodal analysis. , 2011, , .		1
41	Error Analysis at Numerical Inversion of Multidimensional Laplace Transforms Based on Complex Fourier Series Approximation. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2011, E94-A, 999-1001.	0.2	4
42	Application of pulse-width modulated pre-emphasis in closely-spaced transmission lines with additional discontinuities. , 2011, , .		0
43	Time and Laplace-domain methods for MTL transient and sensitivity analysis. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2011, 30, 1205-1223.	0.5	11
44	Technique of 3D NILT based on complex Fourier series and quotient-difference algorithm. , 2010, , .		2
45	Numerical inversion of 3D Laplace transforms for weakly nonlinear systems solution. , 2010, , .		6
46	Comparison of some mathematical models for MTL transient and sensitivity analysis. , 2009, , .		2
47	Solution of Voltage/Current Waves and Their Sensitivities in MTL Structures by using State-Variable Method. , 2008, , .		2
48	Numerical Inversion of Two-Dimensional Laplace Transforms Based on Partial Inversions. , 2007, , .		12
49	SPI Proceedings: Voltage/Current Waves Sensitivity in Hybrid Circuits with Nonuniform MTLs. , 2006, , .		0
50	Multiconductor Transmission Lines Sensitivity via Two-Dimensional Laplace Transform. , 2006, , .		1
51	Techniques of Matrix Exponential Function Derivative for Electrical Engineering Simulations. , 2006, , .		2
52	Approximate formulae for numerical inversion of Laplace transforms. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 1998, 11, 153-166.	1.2	96
53	Approximate formulae for numerical inversion of Laplace transforms. , 1998, 11, 153.		3
54	Numerical Inverse Laplace Transforms for Electrical Engineering Simulation. , 0, , .		11