

A – Teza de doctorat

“*Metode noi de analiză a circuitelor neliniare de RF*”; Doctorand: ing. **GHEORGHE Alexandru Gabriel**, Indrumator: prof. dr. ing. Florin Constantinescu, 2004 – 2010.

B – Cărți și capitole în cărți

B1 – Cărți:

1. F. Constantinescu, **A. G. Gheorghe**, M. Nitescu, C. V. Marin, A. Ionescu, “*Simularea circuitelor electrice - lucrari de laborator*”, Editura Printech, 2011, ISBN 978-606-521-716-4, 221 pg. , <http://ferrari.lce.pub.ro/studenti>

B1 – Capitole în cărți:

1. Capitol de carte: Dorina Popovici, Florin Constantinescu, Mihai Maricar, Florea Ioan Hantil, Miruna Nitescu and **Al. Gheorghe**, capitolul 25 “*Modeling and simulation of piezoelectric devices*” pp. 471-500, Recent Advances in Modelling and Simulation, I-Tech Education and Publishing, Viena, Austria, iunie 2008, ISBN 978-3-902613-25-7.

C – Lucrări indexate ISI/BDI

C1 – Articole publicate în reviste indexate ISI:

1. Constantinescu F, **Gheorghe AG**, Nitescu M, “*New circuit models of power BAW resonators*”, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, Volume: 53, Issue: 1, ISSN: 0035-4066, Pages: 67-73 Published: JAN-MAR 2008. <http://revue.elth.pub.ro>

2. Hantila FI, Constantinescu F, **Gheorghe AG**, et al., “*A New Algorithm For Frequency Domain Analysis Of Nonlinear Circuits*”, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, Volume: 54, Issue: 1, ISSN: 0035-4066, Pages: 57-66 Published: JAN-MAR 2009. <http://revue.elth.pub.ro>

3. F. Constantinescu, **Al. G. Gheorghe**, M. Nitescu, „*The energy balance error for circuit transient analysis*”, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, No.3, ISSN: 0035-4066, 2010, Pages 243 - 250. <http://revue.elth.pub.ro>

4. Florin.Constantinescu, **Alexandru Gheorghe**, Miruna Nitescu, Aurelian Florea, Olivier Llopis, Petrica Taras, “*Parameter Identification for Nonlinear Circuit Models of Power BAW Resonator*”, Advances in Electrical and Computer Engineering, Number 1,

ISSN: 1582-7445, e-ISSN: 1844-7600, DOI: 10.4316/aece, Year 2011, February 2011, pp. 55-62. www.aece.ro

5. Florin Constantinescu, **Alexandru Gabriel Gheorghe**, Aurelian Florea, Miruna Nițescu, Olivier Llopis, „*Artificial Transmission Line Model for Power BAW Resonators*”, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, No.2, 2011, ISSN: 0035-4066, pp 237 - 246. <http://revue.elth.pub.ro>

6. **Alexandru Gabriel Gheorghe**, Florin Constantinescu, Miruna Nitescu, „*A New Algorithm for Envelope Following Analysis*”, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, No.2, ISSN: 0035-4066, 2011, pp 229 - 236. <http://revue.elth.pub.ro>

7. F. Constantinescu, M. Nitescu, **A. G. Gheorghe**, A. Florea, O. Llopis, „*Behavioral circuit models of power BAW resonators and filters*”, Analog Integrated Circuits and Signal Processing, DOI: 10.1007/s10470-011-9758-7, pp. 1-8, 2011. <http://www.springerlink.com>

C2 – Articole publicate în reviste indexate BDI:

8. **Al. G. Gheorghe**, M. Nitescu, F. Constantinescu, „*Circuit Models for Anti-series and Anti-parallel Connections of Power Bulk Acoustic Wave Resonators*”, ELECTROTEHNICA, ELECTRONICA, AUTOMATICA, 57 (2009) nr.3, ISSN 1582-5175, pp.17-19. <http://www.editura-electra.ro>, <http://journals.indexcopernicus.com/>

9. **Al. G. GHEORGHE**, Florin CONSTANTINESCU, “*Solution computation for resistive circuits containing companion models*“, UNIVERSITY POLITEHNICA OF BUCHAREST, SCIENTIFIC BULLETIN SERIES C - ELECTRICAL ENGINEERING, Vol. 72, Iss. 4, 2010, pp. 193-204. www.scopus.com
<http://www.scopus.com>

C3 – Articole publicate in proceedings-uri indexate ISI:

10. Constantinescu, F; **Gheorghe, A**; Loan, CD; Nitescu, M; Iordache, M; Dumitriu, L, “*A new approach to the computation of reduced order models for one-port and two-port RC circuits*”, IEEE International Symposium on Circuits and Systems, MAY 21-24, 2006, Kos Isl, GREECE, ISBN: 0-7803-9389-9, DOI: : 10.1109/ISCAS.2006.1693506, pp. 4002-4005. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

11. **Gheorghe, AG**; Constantinescu, F; Nitescu, M, “*Efficiency of the envelope following analyses*”, International Symposium on Signals, Circuits and Systems, JUL 12-13, 2007, Iasi, ROMANIA, ISBN: 1-4244-0969-1, DOI : 10.1109/ISSCS.2007.4292776, pp. 517-520. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

12. Constantinescu, F; Nitescu, M; **Gheorghe, AG**, “*Circuit models for power BAW resonators - Set-up and implementation*”, 8th IEEE Africon Conference, SEP 26-28,

2007, Windhoek, NAMIBIA, ISBN: 978-1-4244-0987-7, DOI: :
10.1109/AFRCON.2007.4401629, pp. 1262-1266. <http://www.scopus.com>,
<http://ieeexplore.ieee.org>

13. Nitescu, A; Constantinescu, F; **Gheorghe, AG**, “*Modeling of power BAW resonators*”, 5th International Conference on Applied Electromagnetics, Wireless and Optical Communications, ELECTROSCIENCE'07, DEC 14-16, 2007, Puerto de la Cruz, SPAIN, ISBN: 978-960-6766-25-1, pp. 103-106. <http://dl.acm.org>

14. Gheorghe, AG; Marin, CV; Constantinescu, F; Nitescu, M , “*A new circuit model for body cell mass prediction*”, 4th European Conference on Circuits and Systems for Communications (ECCSC 08), JUL 10-11, 2008, Politehn Univ, Bucharest, ROMANIA, ISBN : 978-1-4244-2420-7, DOI: 10.1109/ECCSC.2008.4611674, pp. 189-192. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

15. Hantila, IF; Constantinescu, F; **Gheorghe, AG**; Nitescu, M, “*A frequency domain method for analysis of dynamic circuits with resistive nonlinearities*”, 4th European Conference on Circuits and Systems for Communications (ECCSC 08), JUL 10-11, 2008, Politehn Univ, Bucharest, ROMANIA, ISBN : 978-1-4244-2420-7, DOI: 10.1109/ECCSC.2008.4611677, pp. 201-204. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

16. Nitescu, A; Constantinescu, F; **Gheorghe, AG** “*An A.C. linear parametric behavioral model of a nonlinear BAW resonator*”, 4th European Conference on Circuits and Systems for Communications (ECCSC 08), JUL 10-11, 2008, Politehnica University, Bucharest, ROMANIA, ISBN : 978-1-4244-2420-7, DOI: 10.1109/ECCSC.2008.4611671, pp.176-179. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

17. Constantinescu, F; Nitescu, M; **Gheorghe, AG**; Marin, CV, “*A method for one port and two-port RC circuit synthesis*”, 7th WSEAS International Conference on Circuits, Systems, Electronics, Control & Signal Processing CSECS'08, DEC 15-17, 2008, Puerto de la Cruz, SPAIN, ISBN: 978-960-474-035-2, pp. 124-127. <http://dl.acm.org>

18. Florin Constantinescu, **Al. G. Gheorghe**, Miruna Nitescu, „*A Time Step Choice Algorithm for Transient Analysis of Circuits*”, AFRICON 2009, Nairobi, Kenya, September 23-26, 2009, ISBN : 978-1-4244-3919-5, DOI: 10.1109/AFRCON.2009.5308136, pp. 619-622. <http://ieeexplore.ieee.org>

19. G. Stroe, A. Florea, O. Llopis, F. Constantinescu, **A. G. Gheorghe**, M. Nitescu, „*Measurement of Nonlinear Effects for Anti-series and Anti-parallel Connections of Power Bulk Acoustic Wave Resonators*”, IEEE COMCAS 2011, Tel Aviv; Israel, November 7-9, 2011, ISBN: 978-1-4577-1692-8, DOI: 10.1109/COMCAS.2011.6105806. <http://ieeexplore.ieee.org>

20. Florin Constantinescu, **Alexandru Gabriel Gheorghe**, Miruna Nitescu, Aurelian Florea, „*Nonlinear artificial line models for power BAW resonators*”, AFRICON 2011, September 13-15, 2011, Livingstone, Zambia, ISSN : 2153-0025, ISBN: 978-1-61284-992-8, DOI: 10.1109/AFRCON.2011.6072051. <http://ieeexplore.ieee.org>

C4 – Articole publicate în proceedings-uri indexate BDI:

21. Florin Constantinescu, Miruna Nitescu, **Al. G. Gheorghe**, “*New Nonlinear Circuit Models for Power BAW Resonators*”, Politehnica University, Romania, ICCSC 2008, 26-28 mai 2008, Shanghai, China, ISBN : 978-1-4244-1708-7, DOI: 10.1109/ICCSC.2008.133, pp. 599-603. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

22. **Al. G. Gheorghe**, F. Constantinescu, M. Nitescu, „*Error control in circuit transient analysis*”, 2009 IEEE International Conference on Electronics Circuits and Systems, Medina Hammamet, Tunis, December 13-16, 2009, ISBN : 978-1-4244-5091-6, DOI: 10.1109/ICECS.2009.5410972, pp. 207-210. <http://ieeexplore.ieee.org>

23. Florin Constantinescu, **Alexandru Gabriel Gheorghe**, Miruna Nitescu, „*Circuit Models of Passive One-ports with Resistive and Capacitive Behavior*”, Politehnica University of Bucharest, Romania, International Symposium on Electrical and Electronics Engineering, September 16-18, 2010, ISEEE 2010, Galați, Romania, ISBN: 978-1-4244-8406-5, DOI: 10.1109/ISEEE.2010.5628477, pp. 1-4. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

24. F. Constantinescu, M. Nitescu, **A.-G. Gheorghe**, „*Modeling and Simulation of Power BAW Resonators and Filters*”, Politehnica University of Bucharest, Romania, SM2ACD 2010, October 5-6, 2010, Tunis-Gammarth, Tunisia, ISBN: 978-1-4244-6816-4, DOI: 10.1109/SM2ACD.2010.5672356. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

25. Florin Constantinescu, Miruna Nitescu, **Alexandru Gabriel Gheorghe**, “*Circuit Models for Power Baw Resonators*”, 2010 IEEE 26-th Convention of Electrical and Electronics Engineers in Israel, November 17-20, 2010, Eilat, Israel, ISBN: 978-1-4244-8681-6, DOI: 10.1109/EEEL.2010.5662086, pp. 849-853. <http://www.scopus.com>, <http://ieeexplore.ieee.org>

26. F. Constantinescu, **A. G. Gheorghe**, M. Nitescu, A. Florea, “*Nonlinear Artificial Line Models for Power BAW Resonators*”, IEEE Africon 2011, 13 Sept- 15 Sept 2011, Zambia, ISSN : 2153-0025, ISBN: 978-1-61284-992-8, DOI: 10.1109/AFRCON.2011.6072051. <http://ieeexplore.ieee.org>

D – Lucrări publicate în reviste și volume de conferințe cu referenți (neindexate)

D1 – Articole publicate în proceedings-urile unor conferințe internaționale:

1. F. Constantinescu, **Al. Gheorghe**, D. Ioan, M. Nitescu, „*Building Reduced Order Circuit Models via Internal Node Elimination*”, SMACD '04, International Workshop on Symbolic Methodes and Application on Circuit Design, Wroclaw, Polonia 23-24 septembrie 2004, pp. 96-99.
2. Florin Constantinescu, Miruna Nitescu, **Gheorghe Al. G.** "Parameter Identification for a Behavioral Model of a Nonlinear BAW Resonator", NDES 2006 (Nonlinear Dynamics Of Electronic Systems), june 6-9, 2006, University of Burgundy, Dijon, France, pp. 14-17.
3. M. Nitescu, F. Constantinescu, **Al.-G. Gheorghe**, „*Fast solving of a linear parametric A.C. model using a symbolic admittance expression*”, SMACD: Proceedings of the Workshop on Symbolic Methods and Applications to Circuit Design, Firenze, Italia, October 12-13, 2006, pp. 16-20.
4. F. Constantinescu, **Al. G. Gheorghe**, M. Nitescu, „*A time step choice algorithm for transient analysis of circuits*”, JAPMED'6, Politehnica University Bucharest, July 27-29 2009, Bucharest Romania, extended summary p.91.
5. **Al. G. Gheorghe**, D. Chiriac, F. Constantinescu, „*A reduced order circuit model for an interdigital capacitor*”, JAPMED'6, Politehnica University Bucharest, july 27-29 2009, Bucharest Romania, extended summary p. 203.

D2 – Articole publicate în proceedings-urile unor conferințe naționale:

6. **Al. Gheorghe**, Florin Constantinescu, Daniel Ioan, Miruna Nitescu, „*Modele pasive de ordin redus ale circuitelor de mari dimensiuni de tip RC*”, SNET '04, Simpozionul National de Electrotehnica Teoretica, Bucuresti 22-23 octombrie 2004.
7. **Al. Gheorghe**, „*Determinarea raspunsului periodical circuitelor neliniare de radiofrecventa cu SPECTRE RF*”, SNET '04, Simpozionul National de Electrotehnica Teoretica, Bucuresti 22-23 octombrie 2004.
8. **Al. Gheorghe**, „*Calculul raspunsului periodic al circuitelor neliniare de RF cu metoda urmaririi infasuratoarei implementata in SPECTRE RF*”, ATEE '04, Advanced Topics in Electric Engineering, Bucuresti, 23-24 noiembrie 2004.
9. Florin Constantinescu, **Al. Gheorghe**, Daniel Ioan, Miruna Nitescu, „*A new approach to the computation of passive reduced order models of RC circuits*” ATEE '04, Advanced Topics in Electric Engineering, Bucuresti, 23-24 noiembrie 2004.
10. **Al. Gheorghe**, Florin. Constantinescu, „*Steady State Analysis Implementation Using SPECTRE RF Sensitivity Computation*”, SNET '05, Simpozionul National de Electrotehnica Teoretica, Bucuresti 12-13 mai 2005.

11. M. Nitescu, F. Constantinescu, **Al.-G. Gheorghe**, „*A.C. Analysis of Circuits with “Energetic” Parametric Models*”, Proceedings of ATEE: “Advanced Topics in Electrical Engineering”, Politehnica University, Bucharest, Romania, November 24-25, 2006, pp. 195-197.
12. F. Constantinescu, **Al.-G. Gheorghe**, M. Nitescu, „*Large signal analysis of RF circuits – an overview*”, Proceedings of ATEE: “Advanced Topics in Electrical Engineering”, Politehnica University, Bucharest, Romania, November 24-25, 2006.
13. **Al. G. Gheorghe**, F. Constantinescu, M. Nitescu, “*A comparison between envelope analysis implementations*“, SNET 2007 Simpozionul National de Electrotehnica Teoretica, Bucuresti 12 - 14 octombrie 2007. ISBN(10) 973-8987-12-1, ISBN(13) 978-973-8987-12-8, pp. 107-113.
14. F. Constantinescu, M. Nitescu, **Al. G. Gheorghe**, “*Simulation of nonlinear effects in power BAW resonators and filters*”, SNET 2007 Simpozionul National de Electrotehnica Teoretica, Bucuresti 12 - 14 octombrie 2007. ISBN(10) 973-8987-12-1, ISBN(13) 978-973-8987-12-8, pp. 114-119.
15. **Al. G. Gheorghe**, C. V. Marin, F. Constantinescu, M. Nitescu, “*Synthesis of a new RC model for body cell mass prediction*”, Simpozionul Național de Electrotehnică Teoretică (SNET), 5-7 iunie 2008, București.
16. F. Hantila, F. Constantinescu, M. Maricaru, M. Nitescu, **Al. G. Gheorghe**, “*A new method for solving steady-state nonlinear circuits*”, Simpozionul Național de Electrotehnică Teoretică (SNET), 5-7 iunie 2008, București.
17. F. Constantinescu, **Al. G. Gheorghe**, M. Nitescu, „*The Energy Balance Error for Circuit Transient Analysis*”, Advanced Topics in Electrical Engineering, ATEE’08, november 20-21, 2008, Bucharest, Romania.
18. **Al. G. Gheorghe**, M. Nitescu, F. Constantinescu, „*Circuit Models for Anti-series and Anti-parallel Connections of Power BAW Resonators*”, Advanced Topics in Electrical Engineering, ATEE’08, november 20-21, 2008, Bucharest, Romania.
18. F. Constantinescu, **A. Gheorghe**, “*A new envelope following algorithm*”, Simpozionul Național de Electrotehnică Teoretică (SNET ’10), 3-4 decembrie 2010, București.
20. F. Constantinescu, **A. G. Gheorghe**, A. Florea, M. Nitescu, “*The nonlinear artificial transmission line model for power BAW resonators*”, Simpozionul Național de Electrotehnică Teoretică (SNET ’10), 3-4 decembrie 2010, București.
21. **A. Gheorghe**, F. Constantinescu, M. Nitescu, “*Waveform interpolation for transient analysis*”, Simpozionul Național de Electrotehnică Teoretică (SNET ’10), 3-4 decembrie 2010, București.

E – Brevete

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F – Contracte

1. Director de proiect la „*Metode noi de analiza a circuitelor neliniare de RF*”, 2007-2008, Proiect CNCSIS tip TD, 22000 RON.

2. Director de proiect la „*OPTIMAL DESIGN OF ELECTRICAL CIRCUITS USING SYMBOLIC EXPRESSIONS OF POLES AND ZEROS*”, 2012-2013, Proiect CNCSIS tip PD.

3. Coautor la „*Mixed SiP and SoC Integration of Power BAW Filters for Digital Wireless Transmissions (MOBILIS)*”, 2006-2009, Proiect FP6, Florin Constantinescu (directorul de proiect al partii romane), Universitatea Politehnica din Bucuresti.

4. Coautor la „*Simularea eficienta a circuitelor integrate neliniare de RF –mixere si amplificatoare neliniare*”, 2005-2007, proiect CNCSIS, Florin Constantinescu, Universitatea Politehnica din Bucuresti.

5. Coautor la „*Sinteza unor modele comportamentale neliniare de circuit ale rezonatoarelor de putere cu unde acustice de volum pentru telefonie mobila*”, 2006-2008, proiect CNCSIS, Miruna Nutescu, Universitatea Politehnica din Bucuresti.

6. Coautor la „*Modele neliniare de camp si de circuit pentru rezonatoarele BAW de putere*”, 2009-2011, proiect CNCSIS tip IDEI, Florin Constantinescu, Universitatea Politehnica din Bucuresti.

7. Coautor la „*Metode noi de analiza a circuitelor in domeniul timpului si in domeniul frecventei*”, 2009-2011, proiect CNCSIS tip IDEI, Ioan Florea Hantila, Universitatea Politehnica din Bucuresti.

8. Coautor la „*Metode noi de diagnosticare a defectelor in circuitele analogice*”, 2009-2011, proiect CNCSIS tip IDEI, Marin Constantin Viorel, Universitatea Politehnica din Bucuresti.

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