LIST OF PAPERS

Electrotehnics and Measurements Department, Electrical Engineering Faculty, Technical University of Cluj-Napoca

A. Ph.D. THESIS

„CONSIDERATIONS REGARDING THE STUDY OF THE MAGNETIC FUNCTIONAL STIMULATION OVER THE SPINAL CORD". Ph.D. Thesis, Technical University of Cluj-Napoca, Electrical Engineering Faculty, Electrotechnics and Measurements Department, Field of research: Electrical Engineering. Date of the presentation: **15th of June 2012**. Commission for the Ph.D. thesis evaluation: President: Prof.dr.eng. Ioan G. Târnovan – dean, Electrical Engineering Faculty, Technical University of Cluj-Napoca, Members: Prof.dr.eng. Radu Vasile Ciupa – *scientific supervisor*, Technical University of Cluj-Napoca, Prof.dr.eng. Alexandru M. Morega - referent, Polytechnic University of Bucharest, Prof.dr.eng. Mirela Toth Taşcău - referent, Polytechnic University of Timişoara, Conf.dr.eng. Laura Darabant – referent, Technical University of Cluj-Napoca, (based on the Minister of Education, Research, Youth and Sport Order no. 6508 from 19th of December 2012).

B. BOOKS AND CHAPTERS IN BOOKS

1. **Mihaela Creţu**, *Theory of the electromagnetic field. Applications in functional magnetic stimulation* (in Romanian), UT Press, Cluj-Napoca, Romania, ISBN 978-606-737-203-8, 247 pages, December 2016 (publishing house recognized by CNCSIS).
2. D. Micu, L. Darabant, D. Stet, **Mihaela Creţu**, A. Ceclan, L. Czumbil, *Theory of electric circuits. Problems* (in Romanian), UT Press, Cluj-Napoca, România, ISBN 978-606-737-140-6, 281 pages, January 2016 (publishing house recognized by CNCSIS).
3. L. Darabant, **Mihaela Creţu**, D. Stet, *Numerical analysis of the electric circuits* (in Romanian), UT Press, Cluj-Napoca, România, ISBN 978-606-737-155-0, 154 pages, April 2016 (publishing house recognized by CNCSIS).
4. D. Stet, L. Darabant, **Mihaela Creţu**, *Electromagnetic compatibility* (in Romanian), UT Press, Cluj-Napoca, România, ISBN 978-606-737-172-7, 122 pages, April 2016 (publishing house recognized by CNCSIS).
5. **Mihaela Creţu**, *Numerical modelling of the electric circuits. Lab Practitioner* (in Romanian), Editura UT Press, Cluj-Napoca, România, ISBN 978-973-662-871-9, 100 pages, August 2013 (publishing house recognized by CNCSIS).

C. SCIENTIFIC PAPERS IN JOURNALS OR PROCEEDINGS OF CONFERENCES

I. PAPERS IN ISI JOURNALS AND ISI PROCEEDINGS

ISI JOURNALS

1. **Mihaela Crețu,** L. Czumbil, B. Bargauan, A. Ceclan, A. Berciu, A. Polycarpou R. Rizzo, D. D. Micu, *Modelling and Evaluation of the Baseline Energy Consumption and the KPIs in TUCN Buildings within a Demand Response Programme – A Case Study*, IET Renewable Power Generation Journal, Rank Q1, Vol. 14, Issue 15, pp 2864-2875, 2020, DOI: 10.1049/iet-rpg.2020.0096, Q1 ranked
2. **Mihaela Crețu**, A. Darabant, R. Ciupa, *Magnetic Stimulation of the Spinal Cord: Evaluating the Characteristics of an Appropriate Stimulator*, Artificial Organs, Rank Q2, vol. 39, Issue 10, pp. 841–848, ISSN 0160564X, october 2015, Q2 ranked
3. **Mihaela Crețu**, D. D. Micu, *Improved coil design for repetitive magnetic stimulation of the spinal cord*, COMPEL, Rank Q3, vol. 34, Issue: 4, pp. 1043-1053, ISSN 03321649, 2015.
4. L. Darabant, **Mihaela Creţu**, A. Darabant, *Magnetic Stimulation of the Spinal Cord: Experimental Results and Simulations*, IEEE Transactions on Magnetics, vol. 49, nr.5, 2013, pp. 1845-48.
5. L. Darabant, **Mihaela Creţu**, R. V. Ciupa, D. D. Micu, D. Şteţ, *Assessment of the Electric Field Induced in the Human Tissue during Magnetic Stimulation of the Spinal Cord,* COMPEL, Rank Q3, 2012, vol. 31, nr. 4, pg. 1164-1172.
6. R. V. Ciupa, L. Darabant, **Mihaela PLEŞA**, O. Creţ, D. D. Micu, *Design Of Efficient Magnetic Coils For Repetitive Stimulation*, Revue Roumaine d'Electrotechnique, vol.55, nr.3, 2010, pp. 251-260.
7. L. Darabant, **Mihaela Pleşa**, D. D. Micu, D. Şteţ, R. V. Ciupa, A. Darabant, *Energy Efficient Coils for Magnetic Stimulation of Peripheral Nerves*, IEEE Transactions on Magnetics, vol. 45, nr. 3, 2009, pp. 1690-1693.
8. R. Creţ, L. Darabant**,** D. D. Micu, **Mihaela Pleşa**, A. Turcu, D. Şteţ**,** *Study of the factors that influence the effective permittivity of the dielectric mixtures,* Revue Roumaine d'Electrotechnique, vol 56, nr. 1, 2011, pp. 69-78.

ISI PROCEEDINGS

1. **Mihaela Crețu**, Darabant, L, Czumbil, L, Ceclan, A, Stet, D, Dan D. Micu, *Demonstration Scenarios for Renewable Energy Technologies Integration in Different Pilots' Sites within the RE-COGNITION Project*, International Symposium on Advanced Topics in Electrical Engineering, March 25-27 2021, Bucharest, WOS:000676164800164.
2. **Mihaela Crețu**, A. Ceclan, L. Czumbil, D. Şteţ, B. Bârgăuan, D. D. Micu, *Key Performance Indicators (KPIs) for the Evaluation of the Demand Response in the Technical University of*

Cluj-Napoca Buildings, 28th International Conference on Modern Power Systems (MPS2019), Cluj-Napoca, Romania, 21-23May, WOS:000612401900138.

3. **Mihaela Crețu**, L. Czumbil, B. Bârgăuan, D. Şteţ, A. Ceclan, A. Polycarpou, R. Rizzo, D. D. Micu, *Modeling and Forecasting Energy Demand in TUCN Buildings*, International Conference on Clean Electrical Power (ICCEP2019), Otranto, Italy, 2-4July, WOS:000620331100038.
4. D. Stet, L. Czumbil, D. D. Micu, A. Polycarpou, A. Ceclan, **Mihaela Crețu**, *Power Factor Correction Using EMTP-RV for Engineering Education*, 54th International Universities' Power Engineering Conference, (UPEC), 3-6 Sept. 2019, WOS:000619338200021.
5. B. Bargauan, **Mihaela Crețu**, O. Fati, A. Ceclan, L. Darabant, D. D. Micu, D. Stet, L. Czumbil, *Energy Management System for the Demand Response in TUCN Buildings*, 53rd International Universities Power Engineering Conference (UPEC2018), Glasgow, Scotland, 4-7Sept., 2018, WOS:000468972100095./
6. L. Czumbil, D. Stet, A. Ceclan, L. Darabant, **Mihaela Crețu**, D. D. Micu, *Numerical Stability Studies for AC and DC Electrical Circuits*, 53rd International Universities Power Engineering Conference (UPEC2018), Glasgow, Scotland, 4-7Sept., 2018, WOS:000468972100126
7. **Mihaela Crețu**, L. Darabant, A. Ceclan, *Power factor compensation using OrCAD simulation. A new approach in teaching electrical engineering*, Proceedings - 2017 International Conference on Modern Power Systems, MPS 2017 6-9 June 2017, Article number 7974426, ISBN 978-150906565-3, WOS:000428462600054**.**
8. **Mihaela Crețu,** L. Darabant, A. Racasan, *Modelling the Passive Behavior of the Nervous Cell. Influence of Electric Parameters Variation*, MediTech 12-15-October 2016, Cluj-Napoca, Romania, IFBME Proceedings, Vol. 59, pp.159-164, Published 2017, ISBN: 978-331952874-8, WOS:000426009100036.
9. L. Darabant, D. Stet, **Mihaela Crețu**, G. Cosovici, *ORCAD Implementation of a Frequency Response Function using Equivalent Circuits*, ATEE 2017,23-25 May, Bucharest, Romania, pp. 103-107, 2017, ISBN: 978-147997514-3, WOS:000403399400021.
10. Darabant L., **Mihaela Crețu**, Rafiroiu D., Ciupa. R., *Evaluating the Efficiency of Stimulators used in Magnetic Stimulation of the Spinal Cord*, 2015 9TH International Symposium on Advanced Topics in Electrical Engineering (ATEE), 23-25 May, Bucharest, Romania, pp. 275-280, 2015, ISSN: 03321649, WOS:000368159800050.
11. D. Stet, D.O. Micu, A. Ceclan, L. Czumbil, M. Munteanu, **Mihaela Crețu**, A. Nicu, *Numerical modelling of a wind farm located in the south area of Romania through equivalent electrical circuits*, in Proceedings of the Universities Power Engineering Conference, 2-5 September, 2014, Cluj-Napoca, Romania, WOS:000364087800040.
12. **Mihaela Crețu**, R.V. Ciupa, *Magnetic coil design for evaluating the response of the spinal cord during magnetic stimulation*, in EPE 2014 - Proceedings of the 2014 International Conference and Exposition on Electrical and Power Engineering, 16-18 October, Iasi, Romania, pp. 237-240, 2014, WOS:000353565300039.
13. **Mihaela Crețu**, R. V. Ciupa, T. Crețu, *Assessment of the Electric Field Generated by Multilayered Coils during MS*, ATEE 2013, 23-25 May, Bucharest, Romania, pp. 207-210, 2013, WOS:000332928500090.

14. L. Darabant, **Mihaela Creţu**, C. Aciu, *Analysis of the Activation of Spinal Nerves during Magnetic Stimulation of the Lumbar Area*, ATEE 2013, 23-25 May, Bucharest, Romania, pp. 162-165, 2013, WOS:000332928500082.
15. **Mihaela Creţu**, L. Darabant, R. Ciupa, *Modeling the Activation of a Non-Homogenous Nerve Fiber by Magnetic Stimulation*, in IEEE 12TH International Conference on Bioinformatics & Bioengineering, 11-13 Nov., Larnaca, Cyprus, pp. 651-656, 2012, WOS:000315332900121.
16. L. Darabant, M. Krenn, K. Minassian, **Mihaela Creţu**, W. Mayr, R. Ciupa, *Double Stimuli Paradigms Should Be Careful Interpreted When Applying Lumbar Magnetic Stimulation*, in International Conference on Advancements of Medicine and Health Care through Technology, 23-26 Sept., Cluj-Napoca, Romania, vol. 36, pp. 168-171, 2011, WOS:000308454900036.
17. A. Nicu, C. Curta, **Mihaela Creţu**, R. Ciupa, M. Voinicu, *Mathematical Modeling of Human Ventricular Action Potentials*, in International Conference on Advancements of Medicine and Health Care through Technology, 23-26 Sept., Cluj-Napoca, Romania, vol. 26, pp. 315-318, 2009, WOS:000281139900070.
18. C. Curta, A. Nicu, **Mihaela Pleşa**, M. Valcu, R. Ciupa, *Positioning System for Transcranial Magnetic Stimulation*, in International Conference on Advancements of Medicine and Health Care through Technology, 23-26 Sept., Cluj-Napoca, Romania, vol. 26, pp. 143-146, 2009, WOS:000281139900032.
19. **Mihaela Pleşa**, L. Darabant, R. Ciupa, A. Nicu, C. Curta, *Matlab Modelling of Nerve Fiber Activation by Magnetic Stimulation*, in International Conference on Advancements of Medicine and Health Care through Technology, 23-26 Sept., Cluj-Napoca, Romania, vol. 26, pp. 327-332, 2009,WOS:000281139900073.
20. **Mihaela Pleşa**, L. Darabant, R. Ciupa, A. Darabant, *A medical application of electromagnetic fields: The magnetic stimulation of nerve fibers inside a cylindrical tissue*, in Proceedings of the 11th International Conference on Optimization of Electrical and Electronic Equipment, 22-23 May, Brasov, Romania, vol. I, pp. 87-92, 2008, WOS:000258474200014.
21. L. Cret, **Mihaela Pleşa**, D. Stet, R. Ciupa, *Magnetic Coils Design for Localized Stimulation*, in 11th Mediterranean Conference on Medical and Biological Engineering and Computing 2007, 26-30 June, Slovenia, vol. 1 and 2, no. 1-2, pp. 665-668, 2007, WOS:000261088900173.
22. L. Cret, **Mihaela Pleşa**, D. D. Micu, R. V. Ciupa, *Magnetic coils design for focal stimulation of the nervous system*, in EUROCON 2007: the International Conference on Computer as a Tool, 9-12 Sept., Warsaw, Poland, VOL. 1-6, pp. 2588-2593, 2007, WOS:000257261901199.

II. PAPERS IN IDB JOURNALS AND IDB PROCEEDINGS

1. D. Stet, L. Czumbil, A. Ceclan, S. Cirstea, A. Muresan, D, Jurj, C. Muresan, T. Farkas, L. Darabant, **Mihaela Cretu**, D. D. Micu, G. Papagiannis, *Educational and training program to increase SME's energy efficiency skills*, 56th International Universities Power Engineering Conference (UPEC2019), Virtual, Middlesbrough, UK, 31Aug.-3Sept, DOI: 10.1109/UPEC50034.2021.9548263.
2. **Mihaela Creţu**, R. V. Ciupa, L. Darabant, *Evaluation of spinal cord response during magnetic stimulation of the lumbar area*, in Biomedical Engineering-Biomedizinische Technik, vol. 58, no. Suppl. 1, 2013, DOI: 10.1515/bmt-2013-4009, Scopus.

3. **Mihaela Creţu**, R.V. Ciupa, L. Darabant, *Active Behavior of Peripheral Nerves during Magnetic Stimulation.* IFMBE Proceedings of the XII Mediterranean Conference on Medical and Biological Engineering and Computing, May 27-30, Chalkidiki, Greece, , vol.29, pp.733-736, 2010, DOI: 10.1007/978-3-642-13039-7_185, Scopus.
4. C. Curta, A.-I. Nicu, **Mihaela Pleșa**, R. Ciupa, S. Crisan, *Magnetic neural stimulators - Geometry assessment*, in Nonlinear Optics Quantum Optics, vol. 39, no. 2-3, pp. 185-193, 2009, jurnal Scopus.
5. A. Racasan, C. Munteanu, V. Topa, C. Racasan, O. Antonescu, **Mihaela Pleșa**, *Techniques to Reduce ESL for EMI Filters Integration*, Acta Electrotehnica, Volum 47, Nr. 1/2006, ISSN 1841-3323, pp. 41-44, 2016, revista, EBSCO, Google Scholar.
6. F. T. Szombatfalvi, E. Simion, D. D. Micu, D. Stet, **Mihaela Pleșa**, L. Darabant, *Experimental Study of the Power Factor Compensation Converter*, Analele Universităţii din Craiova, Seria: Inginerie Electrică, Anul 32, nr. 32, 2008, pp. 289-293, ISSN 1842-4805, Google Scholar.
7. O. Antonescu, C. Munteanu, V. Topa, A. Racasan, C. Racasan, **Mihaela Pleșa**, L. Man, C. Vermesan, I. T Pop, Numerical Analysis of the Lightning Waves Propagation on High Voltage Lines, Acta Electrotehnica, Volum 46, Nr. 4/2005, ISSN 1841-3323, pp. 210-217, 2005, revista, EBSCO, Google Scholar.
8. **Mihaela Pleșa**, L. Cret, R. V Ciupa, O. Antonescu, C. Racasan, A. Racasan, L. Man, *Remarks on the Electric Field Induced in Nerve Fibers by Magnetic Stimulation*, Acta Electrotehnica, Vol. 46, No. 4/2005, pg. 225-231, ISSN 1841-3323, revista, EBSCO, Google Scholar.
9. **Mihaela Pleșa**, L. Cret, R. V. Ciupa, *Magnetic stimulation: Experimental study concerning the evaluation of nerve pathway integrity*, Acta Electrotehnica, Special Issue, 1st International Conference on Advancements of Medicine and Health care through Technology, MediTech Cluj-Napoca, 27-29 septembrie, ISSN 1841-3323, Vol. 48, No. 4, pp. 335-338, 2007, revista, EBSCO, Google Scholar.
10. **Mihaela Pleșa**, L. Darabant, R. V. Ciupa, T. Cretu, *Modelling the Magnetic Stimulation of Nerve Fibbers Inside a Cylindrical Tissue*, Acta Electrotehnica, vol. 50, no. 2, pp. 165-168, 2009, revista EBSCO, Google Scholar.
11. **Mihaela Creţu**, R.V Ciupa, *Influence of the Electrical Parameters Variation of the Membrane Cell over the Nerve Fiber Activation*, in International Conference on Advancements of Medicine and Health Care through Technology; 5th-7th June 2014, Cluj-Napoca, Romania, pp. 209-214, 2014, revista, EBSCO, Google Scholar.
12. **Mihaela Pleşa,** R. Creţ, L. Creţ, D. Duma, *Numerical calculus of binary dielectric mixtures permittivity with inclusions of different geometrical shapes and sizes,* International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, METAMATERIALS 2007, Roma, Italia, 22-24 Oct., 2007, pp. 440-443, ISSN 1873-1988 – Indexat ELSEVIER - http://www.elsevier.com/wps/find/journaldescription.cws_home/710726/description#.
13. R. Creţ, **Mihaela Pleşa**, E. Simion, D. D. Micu, *Numerical modelling of non-homogenous dielectrics with very different permittivities of the components*, International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, METAMATERIALS 2007, Roma, Italia, 22-24 Oct., 2007, pp. 189-192, ISSN 1873-1988, Indexat ELSEVIER http://www.elsevier.com/wps/find/journaldescription.cws_home/710726/description#.

14. A. I. Nicu, **Mihaela Pleșa**, L. Cret, C. S. Curta, D. V. Rafiroiu, *Electric circuit representation and numerical simulation of the nerve cells active behaviour*, in EPNC, pp. 165-166, 2006, ISBN 83 – 9211340 -1 –X, IEEE Xplore.
15. I. Beriliu, **Mihaela Pleșa,** *The Determination of the Anaerobic Threshold Using LabVIEW Environment*, in Acta Electrotehnica, vol. 49, no. 2, pp. 150-153, 2007, revista, EBSCO.
16. I. Beriliu, **Mihaela Pleșa**, *Analyzing and Modeling of the Respiratory System*, in Acta Electrotehnica, vol. 49, no. 2, pp. 154-159, 2007, revista, EBSCO, Google Scholar.
17. D. Stet, D. Micu, A. Ceclan, L. Darabant, **Mihaela Pleșa**, *The Study of the Electromagnetic Interferences between HV Lines and Metallic Pipelines using a Professional Analysis Software*, in Acta Electrotehnica, pp. 333-336, 2008, revista, EBSCO, Google Scholar.
18. L. Cret, **Mihaela Pleșa**, R. V. Ciupa, D. D. Micu, *Remarks on the optimal design of coils for magnetic stimulation*, in International Symposium on Interdisciplinary Electromagnetic, Mechanic and Biomedical Problems, pp. 352-354, 2005, revista, EBSCO, Google Scholar.
19. R. Cret, L. Darabant, A. Turcu, **Mihaela Pleșa**, *Numerical simulations and experimental analysis of polymer based non-homogeneous dielectrics*, in Proceedings of Joint International Conference Materials for Electrical Engineering, Bucuresti, Romania, 16-17 iunie, 2008, pp. 287-292, ISBN 978-606-521-028-8.
20. **Mihaela Crețu**, L. Darabant, D. V. Rafiroiu, *Analysis of the temporal component of the electric field for the magnetic stimulation technique*, Acta Electrotehnica, Vol. 56, No. 1-2, pp. 5-8, 2015, revista, EBSCO, Google Scholar.
21. Laura Creţ, **Mihaela Pleşa**, R. V. Ciupa, D. D. Micu, L. Man, *Energy Efficient Coils for Magnetic Stimulation of Peripheral Nerves*, Acta Electrotehnica, Special Issue, 1st International Conference on Advancements of Medicine and Health care through Technology, MediTech Cluj-Napoca, 27-29 septembrie, 2007, ISSN 1841-3323, Vol. 48, No. 4, pp. 339-342, revista, EBSCO, Google Scholar.

III. PAPERS IN NON-INDEXED PROCEEDINGS

1. Laura Creţ, **Mihaela Pleşa**, D. D. Micu, Denisa Duma, L. Man, E. Simion - *Design Of Coils For Magnetic Stimulation*, 5th International Conference On Electromechanical And Power Systems, Octombrie 2005, Chisinau, Rep. Moldova, pg. 1041-1044, ISBN 973-716-208-0.
2. **Mihaela Pleșa**, L. Darabant, R. V. Ciupa, C. Curta, A. Racasan, *Magnetic Stimulation of Peripheral Nerves: Induced Electric Field in a Semi-Infinite Conducting Medium*, Lausanne, Elvetia, 2008, (published on CD).
3. L. Darabant, **Mihaela Pleșa**, R. V. Ciupa, O. Creț, A. S. Darabant, *Energy Efficient Coils for Transcranial Magnetic Stimulation (TMS)*, EUROEM 2008, Lausanne, (published on CD), Elvetia.
4. L. Cret, R. V. Ciupa, **Mihaela Pleșa**, D. D. Micu, A. I. Nicu, *Design of special coils for focal magnetic stimulation*, Proceedings of the 5th European Symposium on Biomedical Engineering, ESBME, Patras, Grecia, 7 – 9 iulie 2006, pp. 220 - 223, ISBN 4-890578-00-3.

5. **Mihaela Pleşa**, L. Cret, D. V. Rafiroiu, A. I. Nicu, C. Curta, On the nervous cell subthreshold response. influence of electric parameters variation, Proceedings of the 5th European Symposium on Biomedical Engineering, ESBME, Patras, Grecia, 7 – 9 iulie, pp. 232 - 235, ISBN 4-890578-00-3, 2006.
6. Laura Cret, **Mihaela Pleşa**, R. V. Ciupa, D. D. Micu, *Remarks on the optimal design of coils for magnetic stimulation*, International Symposium on Interdisciplinary Electromagnetic, Mechanic and Biomedical Problems, ISEM-Bad Gastein, Austria, 12-14 Sept. 2005, pp. 352-354, ISBN 3-902105-00-1.
7. Claudia Răcăşan, V. Ţopa, Adina Răcăşan, Oana Antonescu, **Mihaela Pleşa**, Modeling of On-Chip Inductance, ANCME 2005, Belgia, ISBN 10 973 -686 -798 -6, pp. 110-119;
8. Oana Antonescu, C. Munteanu, V. Ţopa, Adina Răcăşan, Claudia Răcăşan, **Mihaela Pleşa**, V. Retegan, *Modelling Pulse Signals Propagation on High Voltage Lines using Non-Uniform Transmission Lines*, ANCME 2005, Belgia, ISBN 10 973 -686 -798 -6, pp. 152-160.
9. Adina Răcăşan, C. Munteanu, Claudia Răcăşan, V. Ţopa, Oana Antonescu, **Mihaela Pleşa**, *Interconnect Parameter Parasistics in Deep Sub-Micron Geometries*, ANCME 2005, Belgia, ISBN 10 973 -686 -798 -6, pp.170-180.
10. **Mihaela Pleşa**, Laura Dărăbant, R. V. Ciupa, Adina Răcăşan, Claudia Răcăşan, *Magnetic Stimulation of Peripheral Nerves in a Cylindrical Volume Conductor*, 13th Biennial IEEE Conference on Electromagnetic Field Computation CEFC 2008, 11-15 May, 2008, Atena, Grecia (publicat pe CD).
11. Laura Dărăbant, **Mihaela Pleşa**, D. D. Micu, Denisa Ştefţ, R. V. Ciupa, *Energy Efficient Coils for Magnetic Stimulation of Peripheral Nerves*, 13th Biennial IEEE Conference on Electromagnetic Field Computation CEFC 2008, 11-15 May, 2008, Atena, Grecia, (published on CD).
12. Adina Răcăşan, C. Munteanu, V. Ţopa, Claudia Răcăşan, **Mihaela Pleşa**, *Electromagnetic modelling of Integrated L-C Structures for EMI Filters Implementation*, EUROEM2008 European Electromagnetics, 21-25 July 2008, Lausanne, Elveţia, pp. 396-397 (published on CD).
13. **Mihaela Pleşa**, Laura Dărăbant, R.V. Ciupa, Denisa Ştefţ, *Numerical Simulation of the Nerve Fibers' Active Behaviour During Magnetic Stimulation*, XIV International Symposium on Electromagnetic Fields in Mechatronics, Electrica land Electronic Engineering, 10-12 September, Arras, France, ISEF 2009, ISBN 978-2-84832-111-0, pp.429-430.

IV. PAPERS IN NATIONAL NON-INDEXED JOURNALS

1. Laura Creţ, **Mihaela Pleşa**, D. D. Micu, R. V. Ciupa, *Analysis of the electric field induced in human tissues by magnetic stimulation*, Analele Universităţii din Oradea, 2004, pp. 19-21, ISSN 1223-2006.
2. **Mihaela Pleşa**, Laura Creţ, R. V. Ciupa, T. Creţu, Adina Răcăşan, Claudia Răcăşan, *About the Determination of the Spatial and Temporal Distribution of the Electric Field Induced in Human*

Tissue During Magnetic Stimulation, Buletinul Ştiinţific al Universităţii Politehnica din Timisoara, Seria Energetică, Tom 50(64) 2005, Fascicola 1-2, ISSN 1582-7194, pp. 451-456.

3. **Mihaela Pleşa**, Laura Creţ, Oana Antonescu, *Walking aid for people with Parkinson's disease*, Acta Technica Napocensis, Series Applied Mathematics and Mechanics 49, Volum II, 2006, ISSN 1221 – 5872, pp. 365 – 368.
4. Claudia Răcăşan, V. Ţopa; Adina Răcăşan, Oana Antonescu, **Mihaela Pleşa**, *Study of On-Chip Inductance*, Acta Electrotehnica, Volum 47, Nr. 1/2006, ISSN 1841-3323, pp. 45-50.
5. **Mihaela Pleşa**, Laura Creţ, D. V. Rafiroiu, R. V. Ciupa, , E. Simion, *Numerical and analytical modeling of the subtreshold response of the membrane cell*, Buletinul Institutului Politehnic din Iaşi, Seria Electrotehnică. Energetică. Electronică, Fascicola 5B, Tomul LII(LVI), ISSN 1223-8139, pp. 737-742, 2006.
6. Laura Creţ, **Mihaela Pleşa**, D. D. Micu, Denisa Ştefţ, E. Simion, *Remarks on the optimal design of coils for magnetic stimulation of nerve fibers*, Buletinul Institutului Politehnic din Iaşi, Seria Electrotehnică. Energetică. Electronică, Fascicola 5B, Tomul LII(LVI), ISSN 1223-8139, pp. 647-652, 2006.
7. Claudia Răcăşan, V. Ţopa; Adina Răcăşan, C. Munteanu, Oana Antonescu, **Mihaela Pleşa**, *On-chip inductance computation using Ansoft 2D Extractor*, Buletinul Institutului Politehnic din Iasi, Seria Electrotehnică. Energetică. Electronică, Fascicola 5B, Tomul LII(LVI), ISSN 1223-8139, pp. 757-763, 2006.
8. Laura Creţ, **Mihaela Pleşa**, D. D. Micu, *Magnetic Coils for Localized Stimulation of the Central Nervous System*, Acta Electrotehnica, Special Issue, 1st International Conference on Modern Power Systems, MPS Cluj-Napoca, 8-11 noiembrie, 2006, ISSN 1841-3323, Vol. 47, No. 4, pp. 225-228.
9. **Mihaela Pleşa**, Laura Creţ, R. V. Ciupa, D. V. Rafiroiu, C. Curta, *Remarks on the propagation wave velocity of the nervous fiber*, Acta Electrotehnica, Special Issue, 1st International Conference on Modern Power Systems, MPS Cluj-Napoca, 8-11 noiembrie, 2006, ISSN 1841-3323, Vol. 47, No. 4, pp. 275-278, *(Categoria B+: Cod CNCSIS 576).*
10. C. Curta, Anca-Iulia Nicu, **Mihaela Pleşa,** *Magnetic Neural Stimulators-Comparative Study*, Acta Electrotehnica, Special Issue, 1st International Conference on Modern Power Systems, MPS Cluj-Napoca, 8-11 noiembrie, 2006, ISSN 1841-3323, Vol. 47, No. 4, pp. 233-236.
11. Adina Răcăşan, C. Munteanu, V. Ţopa, Claudia Răcăşan, **Mihaela Pleşa**, *Solutions to Minimize the Equivalent Series Inductance and the Equivalent Parallel Capacitance for EMI Filters Integration*, Proceedings of the 7th International Power Systems Conference, PSC 2007, Timisoara, 21-23 noiembrie 2007, pp.557-564 , ISSN 1582-7194.
12. **Mihaela Pleşa**, Rodica Creţ, Laura Creţ, R. V. Ciupa, Claudia Răcăşan, *2D Simulations for estimating the dielectric mixtures permittivity with different inclusions*, Analele Universităţii din Oradea, Fascicola Electrotehnica (Secţiunea Inginerie Electrică), ISSN 1223-2106, pp. 111-114, 2007.
13. C. Curta, Anca –Iulia Nicu, **Mihaela Pleşa**, S. Crişan, R. V. Ciupa *Magnetic neural stimulator –Geometry optimization*, 5-Th International Conference on Electrical and Power Engineering), Iaşi, 3-5 October 2008, Buletinul Institutului Politehnic Iaşi, Tomul LIV(LVIII), Fasc. 3, pp. 257-263, ISSN 1223-8139.

14. **Mihaela Pleşa,** Laura. Dărăbant, R. V. Ciupa, T. Creţu, *Modelling the Magnetic Stimulation of Nerve Fibers Inside a Cylindrical Tissue*, Acta Electrotehnica, Vol. 50, Nr. 2, 2009, pp. 165-168, ISSN 1841-3323, *(Categoria B+: Cod CNCSIS 576).*
15. L. Darabant, **Mihaela Crețu**, R. V. Ciupa, *Modeling the non-homogenous nerve fibers located inside the human spinal cord*, Buletinul Institutului Politehnic Iasi, Serie Electrotehnica, Energetica, Electronica, Fascicola 3/2015, pg. 43-56.
16. Rodica Creţ, Laura Dărăbant, C. Fărcaş, Denisa Şteţ, **Mihaela Pleşa**, *Numerical computation of electrical characteristics of biphasic dielectric composites using the finite elements method (FEM)*, Joint MmdE – IEEE ROMSC International Conference, Iaşi, 6-8 iunie 2010.
17. C. Curta, Anca –Iulia Nicu, **Mihaela Pleşa**, R. V. Ciupa, S. Crişan, *Magnetic Neural Stimulators – Geometry Assesment*, UPB BIOINGTEH – Exploratory Workshop CNCSIS on Advanced Materials & Technologies in Biology and Medicine, 18-20 September 2008, Poiana Brasov, Romania, pp.50, ISSN 1844-8275.
18. R. V. Ciupa, Laura. Dărăbant, **Mihaela Pleşa**, D. V. Rafiroiu, C. Curta, Anca-Iulia Nicu, Stimularea magnetică a ţesutului nervos uman - metodă nouă de investigare şi tratament, Volumul conferinţei naţionale de inginerie biomedicală INGIMED IX 2008, pag 27-34, Editura AISTEDA, Bucureşti, ISBN :978-973-8408-27-2.

D. GRANTS OBTAINED IN COMPETITION

I. PROJECT MANAGER IN NATIONAL GRANTS OBTAINED IN COMPETITION

1. Project manager: Mihaela Pleşa**,** Contract TD_283, no. Contract 601/2007, *Contributions to the Theoretical and Experimental Study of Functional Magnetic Stimulation* (in Romanian).
2. Project manager: Mihaela Pleşa, Contract MC, Cod CNCSIS 102/2007, *Numerical Calculus of Binary Dielectric Mixtures Permittivity with Inclusions of Different Geometrical Shapes and Sizes.*

II. MEMBER OF THE RESEARCH TEAM IN INTERNATIONAL GRANTS

1. Grant member: Mihaela Pleşa, Bilateral grant Romania-Austria, no. 224/2009, *Functional Stimulation of the Spinal Cord*, Project manager: Prof. dr. ing. Radu Ciupa.
2. Grant member: Mihaela Crețu, Grant H2020_EE_2014_CSA_64977: *Meeting the Energy Profesionals Skills*, Project manager: Prof. dr. ing. Dan D. Micu.
3. Grant member: Mihaela Crețu, Grant H2020, no. 696114: *Demand Response in Block of Buildings*, Project manager: Prof. dr. ing. Dan D. Micu.
4. Grant member: Mihaela Crețu, Bilateral grant Roamania-Norway, no. 28.407/26.05.2017, *Enhancing the Transfer of Research and Development Methods in Energy-Related Clusters from Norway to Romania – EmPower Efficiency*, Project manager: Prof. dr. ing. Dan D. Micu.
5. Grant member: Mihaela Crețu, H2020-LC-SC3-2018-2019-2020/ Project no. 815301: *REnewable COGeneration and storage techNologies IntegraTIon for energy autONomous buildings (RE-COGNITION)*, Project manager: Prof. dr. ing. Dan D. Micu.

6. Grant member: Mihaela Crețu, H2020-LC-SC3-2018-2019-2020 / Project No. 847132, *A holistic framework for Empowering SME's capacity to increase their energy efficiency (SMEmPower Efficiency)*, Project manager: Prof. dr. ing. Dan D. Micu.

III. MEMBER OF THE RESEARCH TEAM IN NATIONAL GRANTS

1. Grant member: Mihaela Pleşa, Contract PN2 Idei ID_1078, no. 342/2007, *Neural magnetic stimulation - research on improving the performance of electrical equipment and clinical efficiency in diagnosis and treatment,* (in Romanian), Project manager: Prof. dr. ing. Radu Ciupa.
2. Grant member: Mihaela Pleşa, PN2 Idei ID_1024, no. 344/2007, *Mathematical model for the study of the influence of electromagnetic pollution in the a.c. underground gas pipelines, with and without cathodic protection, in the vicinity of a transformer station,* (in Romanian), Project manager: Prof. dr. ing. Emil Simion.
3. Grant member: Mihaela Pleşa, CEEX Grant, no. X2C37/2006, *Impact of anthropogenic electromagnetic fields on ecosystems*, (in Romanian), Project manager: Prof. dr. ing. Claudia Popescu.
4. Grant member: Mihaela Pleşa, CEEX Grant, no. 136/2006, *Intelligent and active diagnosis and prediction of buildings with a resistance structure in the polluted complex environment*, (in Romanian), Project manager: Prof. dr. ing. Dorin Isoc.
5. Grant member: Mihaela Pleşa, CEEX Grant: *Theoretical and experimental research on the behavior of electro-insulating materials in order to substantiate intelligent diagnostics and prediction*, (in Romanian), no. 264/12.09.2006, Project manager: Prof. dr. ing. Doina Gavrilă.
6. Grant member: Mihaela Pleşa, Grant CNCSIS type A, *The influence of electromagnetic fields on the operational stability and the performance of the combustion plants*, (in Romanian), CNCSIS Code 1279/2006, Project manager: Prof. Dr. ing. Emil Simion.
7. Grant member: Mihaela Pleşa, Grant CNCSIS type A, *Development of software applications and experimental investigations for the study of the cavitational phenomenon in mechanical heart valves*, (in Romanian), CNCSIS Code 966/2005, Project manager: Conf. dr. ing. Dan Rafiroiu.
8. Grant member: Mihaela Pleşa, PARTENERIATE no. 22122 from 1st of October 2008, *Intelligent prediction and diagnosis system to prevent damage to power cables,* (in Romanian), Project manager: dr. ing. Carmen Ligvay.

E. RESEARCH GRANTS WITH THIRD PARTIES

1. Grant membert: Mihaela Crețu, *Protection of equipment from the objectives of DSNA Cluj and DR Bucharest PNA / CNS Cluj Section at electromagnetic overvoltages and pulses caused by lightning in the power lines and in the voice and data circuits,* (in Romanian), ROMATSA_3423/2013, Project manager: Prof. dr. ing. Dan D. Micu.
2. Grant member: Mihaela Crețu, Energy Audit Report - Assessment of Energy Efficiency, Beneficiary: *UTI Group SA*, Funding: 46.380 RON, (in Romanian), Project manager: Prof. dr. ing. Dan D. Micu

F. POSTDOCTORAL RESEARCH GRANTS

1. Mihaela Crețu, postdoctoral researcher in the frame of the project "Inter-university partnership for excellence in engineering - PARTING", POSDRU/159/1.5/S/137516: Grant Code: POSDRU/159/1.5/S/137516, Title of the research topic: *Research on the efficient design of a magnetic stimulator used to activate the spinal cord*.

Cluj-Napoca,
12 of February 2020

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