

Universitatea din Craiova
Facultatea de Inginerie Electrică
Departamentul de Inginerie Electrică, Energetică și Aerospațială
Ș.I. dr. ing. Ioana-Gabriela SÎRBU

L I S T A
lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Contribuții privind simularea dispozitivelor electromagnetice în regimuri dinamice puternic deformante, domeniul Inginerie electrică, Universitatea Politehnica București, 2012.

B. Suport didactic

1. Ioana-Gabriela Sîrbu, *Bazele electrotehnicii I*, suport de curs pentru programul de studii de licență Ingineria Sistemelor Electroenergetice, Craiova, ediție actualizată 2025 – format electronic, 2025, disponibil pe platforma Google Classroom, Cod vpvj6klr.
2. Ioana-Gabriela Sîrbu, *Bazele electrotehnicii II*, suport de curs pentru programul de studii de licență Ingineria Sistemelor Electroenergetice, Craiova, ediție actualizată 2025 – format electronic, 2025, disponibil pe platforma Google Classroom, Cod bspbozm.
3. Ioana-Gabriela Sîrbu, *Prelucrarea numerică a semnalelor*, suport de curs, format electronic, Craiova, 2024, disponibil pe platforma Google Classroom
4. Ioana-Gabriela Sîrbu, *Teoria câmpului electromagnetic*, suport de curs, format electronic, Craiova, 2025, disponibil pe platforma Google Classroom
5. Ioana-Gabriela Sîrbu, *Modelarea numerică a câmpului electromagnetic*, suport de curs, format electronic, Craiova, 2024, disponibil pe platforma Google Classroom
6. colectiv Bazele electrotehnicii (D. Topan, P.Nicolae, L. Mandache, M. Ardeleanu, I. Sirbu, D. Stanescu, etc.), *Bazele electrotehnicii*, indrumar de laborator (electronic), 2024.
7. Ioana-Gabriela Sîrbu, *Prelucrarea numerica a semnalelor*, indrumar de laborator (electronic), 2021, Google Classroom
8. Ioana-Gabriela Sîrbu, *Modelarea numerică a câmpului electromagnetic*, indrumar de laborator (electronic), 2022, Google Classroom
9. L. Mandache, I.-G. Sîrbu, *Simularea circuitelor electrice*, indrumar de laborator (electronic), 2021, Google Classroom
10. colectiv Bazele electrotehnicii (P.Nicolae, I. Sirbu, D. Stanescu, etc.), *Teoria circuitelor electrice II*, indrumar de laborator (electronic), 2019, Google Classroom.

C. Cărți si capitole în cărți

1. **Sîrbu, Ioana-Gabriela**, *Prelucrarea numerică a semnalelor în ingineria electrică*, Ed. Universitaria, Craiova, 2014, ISBN 978-606-14-0799-6.
2. **Sîrbu, Ioana-Gabriela**, *Circuite cuplate magnetic - Teorie, simulare, utilizare*, Ed. Sitech, Craiova, 2015, ISBN 978-606-11-4892-9.

D. Lucrări indexate ISI/BDI

D1. Reviste

2021-2025

1. M. Grib, **I.-G. Sirbu**, L. Mandache, M. Stanculescu, M. Iordache, L. Bobaru and D. Niculae, *Generation Algorithms for Thévenin and Norton Equivalent Circuits*, *Energies* 2025, vol 18, issue 6, pp. 1-18, <https://doi.org/10.3390/en18061344>, WOS:001453861100001;
2. M.-E.Ardeleanu, A. Scornea, D. G. Stanescu, I. M. Burciu, and **I.-G. Sirbu**, *Current Issues Regarding the Analysis of the Physico-Chemical and Electrical Properties of Transformer Oil*, *Revue Annals of the University of Craiova, Serie: Electrical Engineering*, year 46, no. 46, vol. 46, issue 1, December 2022, pp. 19-25 (Index Copernicus), DOI: <https://doi.org/10.52846/AUCEE.2022.04>;

2016-2020

3. R.-C. Dinu, D. Popescu, **I.-G. Sirbu**, D.-G. Stănescu, *Numerical Modeling of Thermal Comfort Parameters in Residential Buildings*, *Revue Annals of the University of Craiova, Serie: Electrical Engineering*, year 44, no. 44, vol. 44, issue 1, December 2020, pp.65-70 (Index Copernicus);
4. **I.-G. Sirbu**, R.-C. Dinu, D.-G. Stănescu, *Numerical Modeling of Heat Transfer Through Multilayer Walls of a Building, in Stationary and Non-stationary Regimes*, *Revue Annals of the University of Craiova, Serie: Electrical Engineering*, year 43, no. 43, vol. 43, issue 1, December 2019, pp.140-146 (Index Copernicus);
5. **I. G. Sirbu**, L. Mandache, *Analysis of Direct Current Motors in Dynamic Regimes Using Numerical Techniques*, *Revue Annals of the University of Craiova, Electrical Engineering Series*, year 41, no. 41, vol. 41, issue 1, December 2017, pp.122-127 (Index Copernicus);
6. M. Iordache, A. Marinescu, **I. G. Sirbu**, L. Mandache, D. Niculae, L. Iordache, *New Aspects on the Frequency Splitting and Bifurcation Phenomena in Wireless Power Transfer Systems*, *Revue Annals of the University of Craiova, Serie: Electrical Engineering*, year 40, no. 40, vol. 40, issue 1, December 2016, pp.46-53 (Index Copernicus);

D2. Manifestări științifice

2021-2025

7. **I.-G. Sirbu**, L. Mandache, D.G. Stanescu, M.E Ardeleanu, *Mathematical Considerations Regarding the Maximum Power Transfer in Inductive Power Transfer Circuits*, 2024 International Conference on Applied and Theoretical Electricity (ICATE), October 24-26, 2024, Craiova, Romania, pp. 1-8 (IEEEExplore), DOI: 10.1109/ICATE62934.2024.10749273;
8. D.G. Stanescu, **I.-G. Sirbu**, A. Vanvu, M.E Ardeleanu, L. Mandache, M.Iacob, *Aspects Regarding the Testing of an ONAN Distribution Transformer with a Special Construction*, 2024 International Conference on Applied and Theoretical Electricity (ICATE), October 24-26, 2024, Craiova, Romania, pp. 1-5 (IEEEExplore), DOI: 10.1109/ICATE62934.2024.10748911;
9. **I.-G. Sirbu**, L. Mandache, *Mathematical Aspects on the Phase Shift Network of RC Oscillators*, 2024 International Conference on Applied and Theoretical Electricity (ICATE), October 24-26, 2024, Craiova, Romania, pp. 1-6 (IEEEExplore), DOI: 10.1109/ICATE62934.2024.10749092;
10. L. Mandache, **I.-G. Sirbu**, D.-G. Stanescu, M.-E. Ardeleanu, *On the Analysis of Power Chain and Dynamics of Electric Cars*, 2024 9th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE 2024), 27 - 29 June, 2024, Ruse, Bulgaria, pp.1-6 (IEEEExplore), DOI: 10.1109/EEAE60309.2024.10600520, WOS:001298137300028;
11. **I.-G. Sirbu**, L. Mandache, D.G. Stanescu, M.E Ardeleanu, *Series-Series Versus Series-Parallel in Terms of Stability Issues for Inductive Power Transfer Systems*, 2024 24th IEEEIC International Conference on Environment and Electrical Engineering 8th I&CPS Industrial and Commercial Power Systems Europe (IEEEIC 2024), June 17-20, 2024, Rome, Italy, pp.1-6 (IEEEExplore), DOI: 10.1109/IEEEIC/ICPSEurope61470.2024.10751576;
12. M. E. Ardeleanu, I. Mihalcea, D. G. Stanescu, **I. G. Sirbu** and A. M. Stuparu, *Study on Specific Tests for Low-Voltage Electrical Equipment*, 2023 10th International Conference on Modern Power Systems (MPS), Cluj-Napoca, Romania, 21-23 June 2023, pp. 1-6 (IEEEExplore), DOI: 10.1109/MPS58874.2023.10187453;

13. **I.-G. Sîrbu**, L. Mandache, D.G. Stănescu, M.E Ardeleanu, Analysis of Inductively Coupled Circuits in Terms of Stability Issues, 2023 10th International Conference on Electrical and Electronics Engineering (ICEEE 2023), May 8-10, 2023, Istanbul, Turkey, pp.312-316, (IEEEExplore), DOI: 10.1109/ICEEE59925.2023.00063;
14. **I. G. Sîrbu**, Aspects Regarding the Improvement of the Constant-k Filter Performances, 2022 9th International Conference on Electrical and Electronics Engineering (ICEEE 2022), March 29-31, 2022, Alanya, Turkey, pp.18-22, (IEEEExplore) DOI: 10.1109/ICEEE55327.2022.9772594, WOS:000852441800005;
15. M.-E. Ardeleanu, A. Scorea, D. G. Stănescu, **I.-G. Sîrbu** and I. Burciu, Modern Methods of Analysing the Transformer Oil, 13th International Conference on Electromechanical and Power Systems - SIELMEN 2021, 6 oct. 2021 Iasi/ 7-8 october Chisinau, p.1-5 (IEEEExplore), DOI: 10.1109/SIELMEN53755.2021.9600296;
16. D. G. Stănescu, M. E. Ardeleanu, **I.-G. Sîrbu**, R. C. Dinu, S. Năciu, The Simulation of Li-Ion Batteries Using Series-Parallel Cells in Different Modes of Operation, MPS 2021, 16-17 iunie 2021, Cluj-Napoca, Romania, p. 1-5 (IEEEExplore), DOI: 10.1109/MPS52805.2021.9492556, WOS:000941563300017;
17. M.-E. Ardeleanu, A. Scorea, D.-G. Stănescu, **I.-G. Sîrbu**, Experimental Determinations of the Influence of Environmental Factors on the Electrical Properties of Some Composite Materials, 2021 International Conference on Applied and Theoretical Electricity (ICATE), May 27-29, 2021, Craiova, Romania, pp. 1-6, (IEEEExplore), DOI: 10.1109/ICATE49685.2021.9464939, WOS:000709089900005;
18. **I. G. Sîrbu**, L. Mandache, Discrete Analysis of Electric Circuits in Transient Regime with Z-Transform, The 12th International Symposium on Advanced Topics in Electrical Engineering (ATEE), March 25-27, 2021, Bucharest, Romania, p. 1-6 (IEEEExplore), DOI: 10.1109/ATEE52255.2021.9425254, WOS:000676164800115;

2016-2020

19. **I.-G. Sîrbu**, D.-G. Stănescu, M.-E. Ardeleanu, Simulation Model for a Rogowski Cord Measurement System, 2020 IEEE 20th International Conference on Environment and Electrical Engineering and 4th Industrial and Commercial Power Systems Europe (EEEIC), June 09-12, 2020, Madrid, Spain, p. 1812-1817 (IEEEExplore), DOI: 10.1109/EEEIC/ICPSEurope49358.2020.9160582;
20. M.-E. Ardeleanu, A. Scorea, D.-G. Stănescu, **I.-G. Sîrbu**, Experimental analysis of composite materials behaviour at fire, International Symposium on Fundamentals of Electrical Engineering ISFEE 2020, November 5-7, 2020, Bucharest, Romania, pp.1-5 (IEEEExplore), DOI: 10.1109/ISFEE51261.2020.9756147, WOS:000812321500017;
21. L. Mandache, A. Marinescu, **I.-G. Sîrbu**, Lumped Circuit Model of High-Frequency Power Transformers for Time-Domain Analysis, 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), 12th - 14th November, 2020, Ruse, Bulgaria, p.1-4 (IEEEExplore), DOI: 10.1109/EEAE49144.2020.9279021;
22. **I. G. Sîrbu**, New Theoretical Aspects on Two-Port Boucherot Circuits, 2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), 26-27 December 2020, Bhubaneswar, India, 452-455 (IEEEExplore), DOI: 10.1109/WIECON-ECE52138.2020.9398014, WOS:000671104100106;
23. L. Mandache, S. Ivanov, R. Prejbeanu, V. Ivanov, Al. Radu, M. Roman, **I.-G. Sîrbu**, Reliable Time-Domain Analysis of Nonlinear Lumped Circuits with Topology Issues, Suitable for Transients of AC Drives, 2019 International Conference on Electromechanical and Energy Systems (SIELMEN), 9-11 Oct. 2019, Craiova-Chisinau, pag. 1-6 (IEEEExplore), DOI: 10.1109/SIELMEN.2019.8905837;
24. D. G. Stănescu, M. E. Ardeleanu, **I. G. Sîrbu**, C. M. Stănoiu, Designing and Testing of a Low Current Active Band Stop Filter, 2018 International Symposium on Fundamentals of Electrical Engineering (ISFEE), 1-3 Nov. 2018, Bucuresti, Romania, p.1-4 (IEEEExplore), DOI: 10.1109/ISFEE.2018.8742417, WOS:000480396400011;
25. M. Stănculescu, **I. G. Sîrbu**, L. Mandache, D. Niculae, M. Voinea, V. Bucata, M. Iordache, About Pathologic Linear Circuits With Inconsistent Initial Conditions, Proceedings of 2018 International Conference on Applied and Theoretical Electricity ICATE, October 4-6, 2018, Craiova, ROMANIA, pag. 1-6 (IEEEExplore), DOI: 10.1109/ICATE.2018.8551414, WOS:000487278600040;

26. **I. G. Sirbu**, Aspects Regarding the Dimensioning of the Analog Circuits with Magnetically Coupled Coils, 2018 IEEE 18th International Conference on Environment and Electrical Engineering and 2nd Industrial and Commercial Power Systems Europe (EEEIC), June 12-15, 2018, Palermo, Italy, p. 3180-3185, (IEEEExplore), DOI: 10.1109/EEEIC.2018.8493954, WOS:000450163701064;
27. **I. G. Sirbu**, L. Mandache, Comparative Analysis of Different Topologies for Wireless Power Transfer Systems, 2017 IEEE 17th International Conference on Environment and Electrical Engineering and 1st Industrial and Commercial Power Systems Europe, June 6-9, 2017, Milan, Italy, p. 2666-2671 (IEEEExplore), DOI: 10.1109/EEEIC.2017.7977863, WOS:000426764000450;
28. **I. G. Sirbu**, A. Marinescu, L. Mandache, On Electric Vehicle Wireless Chargers with Tight Coupling, The 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE), March 23-25, 2017, Bucharest, Romania, p. 404-409 (IEEEExplore), DOI: 10.1109/ATEE.2017.7905139, WOS:000403399400079;
29. **I. G. Sirbu**, L. Mandache, On the Power Transfer in Series-Series Magnetically Coupled Circuits with Non-Matched Natural Frequencies, Proceedings of 2016 International Conference on Applied and Theoretical Electricity ICATE, October 6-8, 2016, Craiova, Romania, pag. 1-6, (IEEEExplore), DOI: 10.1109/ICATE.2016.7754707, WOS:000390767500105;
30. M. Iordache, A. Marinescu, **I. G. Sirbu**, L. Mandache, D. Niculae, L. Iordache, Comparative Study of the Frequency Splitting and Bifurcation Phenomena for Equivalent Circuits of the Wireless Power Transfer System, 2016 International Conference on Applied and Theoretical Electricity ICATE, October 6-8, 2016, Craiova, Romania, pag. 1-7 (IEEEExplore), DOI: 10.1109/ICATE.2016.7754702, WOS:000390767500100;

E. Lucrări publicate în reviste și volume de conferințe cu referenți (neindexate)

2021-2025

1. L. Mandache, **I.-G. Sirbu**, D.-G. Stănescu, A.-I. Dolan, M.-E. Ardeleanu, M. Brojboiu, Fast Generation of Transfer Functions for Nonreciprocal Circuits, 15th International Conference on Electromechanical and Power Systems - SIELMEN 2025, 15 October 2025 Iasi/ 16-17 October Chisinau, Rep. Moldova, p.1-6 (în curs de indexare);
2. **I.-G. Sirbu**, L. Mandache, D.-G. Stănescu, A.-I. Dolan, M. Brojboiu, M.-E. Ardeleanu, Analysis on Electromagnetic Testing Method for Flat Pieces Using Numerical Modeling, 15th International Conference on Electromechanical and Power Systems - SIELMEN 2025, 15 October 2025 Iasi/ 16-17 October Chisinau, Rep. Moldova, p.1-6 (în curs de indexare);
3. D.G. Stănescu, **I.G. Sirbu**, A. Vanvu, L. Mandache, M.E. Ardeleanu, M. Iacob, Aspects Regarding the Design, Realization and Testing of an ONAN Special Transformer Used in the Electrical Distribution Networks, 15th International Conference on Electromechanical and Power Systems - SIELMEN 2025, 15 October 2025 Iasi/ 16-17 October Chisinau, Rep. Moldova, p.1-5 (în curs de indexare);
4. **I.-G. Sirbu**, Discrete Model Technique for Analyzing Inductive Power Transfer Circuits in Dynamic Regimes, 2025 12th International Conference on Electrical and Electronics Engineering (ICEEE 2025), September 24-26, 2025, Istanbul, Turkey, pp.29-35;
5. D.-G. Stănescu, **I.-G. Sirbu**, I.-A. Mihăilă, A.-I. Dolan, L. Mandache, C.-M. Bușe, Instrumente software utilizate pentru simularea funcționării filtrelor electrice de curenți slabi, APME — Actualități și Perspective în Domeniul Mașinilor Electrice, anul 20, issue 1, pp. 98-102, 2024, SME'XX, 29 Noiembrie 2024, Bucuresti, UPB, DOI: 10.36801/apme.2024.1.12;
6. D. G. Stănescu, **I.G. Sirbu**, I. A. Mihăilă, M.E. Ardeleanu, R.C. Dinu, Simularea comportării unui sistem de două bobine cuplate magnetic în prezența tolelor metalice, SME'23, 24 noiembrie 2023, Electric Machines, Materials and Drives Present and Trends, revista APME - Actualități și Perspective în Domeniul Mașinilor Electrice - Electric Machines, Materials and Drives - Present and Trends, vol. 19, issue 1, pp. 103-108, 2023, DOI: 10.36801/apme.2023.1.13;
7. D.G. Stănescu, M. C. Buse, **I. G. Sirbu**, L. Mandache, R. C. Dinu, Aspecte privind simularea funcționării partii de comanda pentru un invertor trifazat de tensiune utilizand instrumente software de tip open source, Simpozionul SME'22 – Actualitati si perspective in domeniul masinilor electrice, ediția a XVIII-a, UPB, Bucuresti, 09 decembrie 2022, Revista “Actualități și Perspective in Domeniul Mașinilor Electrice”, vol. 18, nr. 1 (2022), pp74-79;

8. M.-E. Ardeleanu; A. Scornea; D.-G. Stănescu; **I.-G. Sîrbu**, A. Buligoiu, Analysis of the Influence of Environmental Factors on the Properties of Cellulosic Electrical Insulating Materials, XVIII International Scientific Congress – Machines, Technologies, Materials 2021, 08-11.09.2021, Varna, Bulgaria, volume II – Machines, Materials, year IV, issue 2 (19), pp. 203-206; International Scientific Journals of Scientific Technical Union of Mechanical Engineering "Industry 4.0", Machines. Technologies. Materials. Vol. 15 (2021), Issue 6, pg(s) 244-247;

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F. Brevete obținute în întreaga activitate

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G. Participare la proiecte de cercetare și în interesul învățământului

1. Schema de Granturi pentru Universități –SGU-PV, ROSE, beneficiar: Universitatea din Craiova, Școala de vară "FIE: o vară în studenție" (FIE-VaSt) , 2021-2024- membru
2. Schema de Granturi pentru Universități -SGU-PV, ROSE, beneficiar: Universitatea din Craiova, Școala de vară " Pot mai mult, deci NU renunt!" (FACE) , 2020-2022- membru
3. Schema de Granturi pentru Universități -SGU-PV, ROSE, beneficiar: Facultatea de Inginerie electrică, "Fără Frontiere în Educație", 2021- membru

Data:

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Semnătura: