

Portofoliul de lucrări științifice considerate relevante pentru domeniul de studii doctorale în care solicit abilitarea

Conf. dr. ing. Lucian-Gabriel PETRESCU

1. **L. Petrescu**, M.C. Petrescu, V. Ioniță, E. Cazacu and C. D. Constantinescu, *Magnetic Properties of Manganese-Zinc Soft Ferrite Ceramic for High Frequency Applications*, Materials 2019, 12 (19), 3173, pp. 1-12, <https://doi.org/10.3390/ma12193173>, ISSN 1996-1944 (IF: 3.057), **WOS: 000493308500122**.
2. **L. Petrescu**, A. Bordianu, V. Ioniță, E. Cazacu, M.C. Petrescu, *Improved homogenization formula used for soft magnetic composite materials*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 65, no. 1-2, p. 61 - 65, Bucarest, 2020, ISSN 0035-4066 (IF: 0.760), **WOS: 000552052900010**.
3. **L. Petrescu**, V. Ioniță, E. Cazacu, M.C. Petrescu, *Power losses estimation for FeSi sheets using algebraic models*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 64, no. 1, p. 23 - 26, Bucarest, 2019, ISSN 0035-4066 (IF: 0.760), **WOS: 000464302300004**.
4. C. Constantinescu, N. Scarisoreanu, A. Moldovan, M. Dinescu, **L. Petrescu**, G. Epureanu, *Thin films of NdFeB deposited by PLD technique*, Applied Surface Science, Vol. 253, no. 19, pp. 8192-8196, ISSN: 0169-4332, 2007, DOI: 10.1016/j.apsusc.2007.02.165 (IF: 6.182), **WOS: 000249020500109**.
5. **L. Petrescu**, E. Cazacu, V. Ioniță, *High Frequencies Losses Prediction in Soft Magnetic Materials*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 60, no. 1, p. 49 - 58, Bucarest, 2015, ISSN 0035-4066 (IF: 0.760), **WOS: 000350923900006**.
6. **L. Petrescu**, V. Ioniță, E. Cazacu, C. Petrescu, *Steinmetz' parameters fitting procedure for the power losses estimation in soft magnetic materials*, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017, Pages: 208 - 213, ISBN:978-1-5090-4489-4, DOI: 10.1109/OPTIM.2017.7974972, **WOS:000426909600032**.
7. **L. Petrescu**, E. Cazacu, V. Ioniță, C. Petrescu, *Comparison between non-oriented silicon iron sheets used for electrical machines*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 524 - 528, DOI: 10.1109/ATEE.2017.7905174, **WOS:000403399400102**.
8. **L. Petrescu**, E. Cazacu, C. Petrescu, *Sigmoid Functions Used in Hysteresis Phenomenon Modeling*, The 9th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2015, 7th - 9th May 2015, Bucharest, ISBN 978-4673-8093-5, pp. 521 - 524, e-ISSN: 2068-7966, DOI: 10.1109/ATEE.2015.7133863, **WOS: 000368159800098**.

9. **L. Petrescu**, E. Cazacu, V. Ioniță, M.C. Petrescu, *An Experimental Device for Measuring the Single-Phase Transformers Inrush Current*, The Scientific Bulletin of Electrical Engineering Faculty, vol. 19, No. 1 (40), pp. 18 - 22, 2019, ISSN 2286-2455, DOI: <https://doi.org/10.1515/sbeef-2019-0004>.
(Elsevier, Scopus, Compendex, ProQuest, EBSCO, Index Copernicus)
10. **L. Petrescu**, B. Cheșca, E. Cazacu, C. Petrescu, *Planar transformer windings losses at different waveforms*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 350 - 353, DOI: [10.1109/ATEE.2017.7905163](https://doi.org/10.1109/ATEE.2017.7905163), **WOS: 000403399400068**.





Universitatea POLITEHNICA din București
Facultatea de Inginerie Electrică
Departamentul de Electrotehnică

LISTA DE LUCRĂRI

Conferențiar dr. ing. Lucian-Gabriel PETRESCU

I. TEZA DE DOCTORAT

- T1. **L. Petrescu** - *Modelarea și soluții de caracterizare a materialelor magnetice* - Universitatea "Politehnica" din București, Catedra de Electrotehnică, 140 pagini, Ianuarie 2010. (Conducător științific Prof. emerit dr. ing. Horia GAVRILĂ).

II. CĂRȚI PUBLICATE

a) Cărți/cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute (3).

- Ca1. **L. Petrescu**, M.C. Petrescu, E. Cazacu, *Bazele Electrotehnicii - Elemente de teoria circuitelor electrice*, Editura Matrix Rom, 2020, ISBN 978-606-25-0543-1, 142 pagini (Cod CNCIS Editura 39).
- Ca2. **L. Petrescu**, *Bazele electrotehnicii - Elemente de teorie a câmpului electromagnetic*, Editura Politehnica Press, 2015, ISBN 978-606-515-625-8, 220 pagini (Cod CNCIS Editura 19).
- Ca3. E. Cazacu (coordonator), O. Drosu, G. Epureanu, **L. Petrescu**, V. Mănescu, G. Păltânea, R. Costea, V. Bucată, *Chestiuni speciale de teoria circuitelor electrice; Elemente de teorie și aplicații*, vol 1, Editura Matrix Rom, 2005, ISBN 973-685-925-8, 145 pagini (Cod CNCIS Editura 39).

b) Cărți de specialitate publicate în edituri recunoscute (4).

- Cb1. **L. Petrescu**, V. Ioniță, E. Cazacu, *Materiale magnetice pentru sisteme electromagnetice*, Editura Matrix Rom, 2020, ISBN 978-606-25-0584-4, 180 pagini (Cod CNCIS Editura 39).
- Cb2. E. Cazacu, **L. Petrescu**, V. Ioniță, *Elemente de calitate și eficiență a energiei în instalațiile electrice moderne*, Editura Matrix Rom, 2020, ISBN 978-606-25-0564-6, 225 pagini (Cod CNCIS Editura 39).
- Cb3. E. Cazacu, **L. Petrescu**, *Expertiza sistemelor electrice industriale*, Editura Printech, București, 2014, ISBN 978-606-23-0231-3, 300 pagini (Cod CNCIS Editura 54).
- Cb4. V. Ioniță, V. Păltânea, Gh. Păltânea, **L. Petrescu**, G. Epureanu, A.D. Ioniță, *Caracterizarea avansată a materialelor magnetice*, Editura Politehnica Press, ISBN 978-606-515-023-2, 2009, 266 pagini (Cod CNCIS Editura 19).

III. ALTE MATERIALE PUBLICATE

a) Culegeri și îndrumare publicate (2).

- I1. G. Epureanu, **L. Petrescu**, C. Popescu, *Teoria Circuitelor Electrice - Aplicații*, Editura MatrixRom, ISBN 978-973-755-660-8, 2010, 330 pagini (Cod CNCIS Editura 39).

12. **L. Petrescu, G. Epureanu, *Probleme de Bazele Electrotehnicii (Partea I)***, Editura Printech, ISBN 978-973-718-841-0, 2007, 147 pagini (Cod CNCIS Editura 54).

b) Suport de curs în format electronic (6).

- N1. **L. Petrescu, *Electrotehnică*** - note de curs și aplicații pentru uzul studenților Facultății de Transporturi, Secția Material Rulant, U.P.B., 2020 (71 pagini).
<https://curs.upb.ro/course/view.php?id=6427>
- N2. **L. Petrescu, *Electrotehnică*** - note de curs și aplicații pentru uzul studenților Facultății de Transporturi, Secția Autovehicule Rutiere – IIA, U.P.B., 2020 (49 pagini).
<https://curs.upb.ro/course/view.php?id=6425>
- N3. **L. Petrescu, *Electrotehnică*** - note de curs și aplicații pentru uzul studenților Facultății de Transporturi, Secția Sistemelor de Propulsie pentru Autovehicule - IIB, U.P.B., 2020 (49 pagini).
<https://curs.upb.ro/course/view.php?id=6426>
- N4. **L. Petrescu, *Bazele Electrotehnicii*** - note de curs, pentru uzul studenților Facultății de Energetică, U.P.B., 2017 (117 pagini).
<https://curs.upb.ro/course/view.php?id=7586>
- N5. **L. Petrescu, *Bazele Electrotehnicii II*** - note de curs, pentru uzul studenților Facultății de Energetică – Departamentul de Electrotehnică, Universitatea POLITEHNICA din București, 2019 (65 pagini).
<https://energ.curs.pub.ro/2019/course/view.php?id=412>
- N6. **L. Petrescu, *Security and Functional Safety of Vehicle Electrical Systems (S.F.S.V.E.S.)***, pentru uzul studenților Facultății de Inginerie Electrică, Master ISEIA – Departamentul de Electrotehnică, Universitatea POLITEHNICA din București, 2018 (43 pagini).
<https://curs.upb.ro/course/view.php?id=5823>

c) Sisteme de laborator funcționale

- D1. **Sursă reglabilă de tensiune pentru obținere de semnale deformante**, 2015.

IV. ARTICOLE / STUDII IN EXTENSO PUBLIFICATE ÎN

a) Reviste de specialitate de circulație cotate / indexate ISI Clarivate Analytics (21)

- Ris1. **L. Petrescu, A. Bordianu, V. Ioniță, E. Cazacu, M.C. Petrescu, *Improved homogenization formula used for soft magnetic composite materials***, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 65, no. 1-2, p. 61 - 65, Bucarest, 2020, ISSN 0035-4066 (IF: 0.760), WOS: 000552052900010.
- Ris2. **L. Petrescu, M.C. Petrescu, V. Ioniță, E. Cazacu and C. D. Constantinescu, *Magnetic Properties of Manganese-Zinc Soft Ferrite Ceramic for High Frequency Applications***, Materials 2019, 12 (19), 3173, pp. 1-12, <https://doi.org/10.3390/ma12193173>, ISSN 1996-1944 (IF: 3.057 - cotată Q2 - MATERIALS SCIENCE, MULTIDISCIPLINARY, rang 132 din 314), WOS: 000493308500122.
- Ris3. **L. Petrescu, V. Ioniță, E. Cazacu, M.C. Petrescu, *Power losses estimation for FeSi sheets using algebraic models***, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 64, no. 1, p. 23 - 26, Bucarest, 2019, ISSN 0035-4066 (IF: 0.760), WOS: 000464302300004.

- Ris4. V. Ioniță, **L. Petrescu**, E. Cazacu, *Improved estimation of iron losses for non-sinusoidal voltages*, COMPEL - The international journal for computation and mathematics in electrical and electronic engineering, vol. 37, Iss. 5 pp. 1698 - 1706, 2018, ISSN: 0332-1649 (IF: 0.590), 10.1108/COMPEL-12-2017-0527, WOS:000448725000014.
- Ris5. V. Ioniță, M. Codescu, E. Chițanu, **L. Petrescu**, E. Cazacu, *Hysteresis modeling accuracy for soft magnetic nanopowders*, Revue Roumaine des Sciences Techniques - Série Electrotechnique et Energétique, Ed. Academiei Române, tome 63, no. 1, p. 11 - 14, Bucarest, 2018, ISSN 0035-4066 (IF: 0.760), WOS: 000430897800002.
- Ris6. E. Cazacu, V. Ionita, **L. Petrescu**, *Thermal Aging of Power Distribution Transformers Operating under Nonlinear and Balanced Load Conditions*, Advances in Electrical and Electronic Engineering, vol. 16, no.1, pp.92 - 100, 2018, DOI 10.15598/aece.v16i1.2701, ISSN: 1336-1376 (Print), 1804-3119 (Online), WOS: 000429160100009.
- Ris7. M.C. Petrescu, **L. Petrescu**, *Electrodynamic forces between two DC busbars distribution systems conductors*, U.P.B. Sci. Bull., Series C, Vol. 78, Iss. 2, 2016, ISSN 1454-234x, pp. 223 - 234, WOS: 000388733300020.
- Ris8. V. Ioniță, **L. Petrescu**, E. Cazacu, *Effect of current harmonics on the hysteresis losses in soft magnetic materials*, Revue Roumaine des Sciences Techniques - Série Electrotechnique et Energétique, Ed. Academiei Române, tome 60, no. 4, p. 366 - 375, Bucarest, 2015, ISSN 0035-4066 (IF: 0.760), WOS: 000365935800003.
- Ris9. E. Cazacu, **L. Petrescu**, *Inrush Current Investigation for Single Phase Transformers by Means of Magnetic Material Core Characterisation*, U.P.B. Sci. Bull., Series C, Vol. 77, Iss. 2, 2015, ISSN 1454-234x, pp. 193 - 204, WOS: 000421799900016.
- Ris10. **L. Petrescu**, E. Cazacu, V. Ioniță, *High Frequencies Losses Prediction in Soft Magnetic Materials*, Revue Roumaine des Sciences Techniques - Série Electrotechnique et Energétique, Ed. Academiei Române, tome 60, no. 1, p. 49 - 58, Bucarest, 2015, ISSN 0035-4066 (IF: 0.760), WOS: 000350923900006.
- Ris11. E. Cazacu, **L. Petrescu**, *On-site derating of in-service power distribution transformers supplying nonlinear loads*, Revue Roumaine des Sciences Techniques - Série Electrotechnique et Energétique, Ed. Academiei Române, tome 59, no. 3, p. 259-268, Bucarest, 2014, ISSN 0035-4066 (IF: 0.760), WOS: 000341801300004.
- Ris12. E. Cazacu, V. Ioniță, **L. Petrescu**, *Transformer inrush current predetermination for distorted waveform voltage supply*, Revue Roumaine des Sciences Techniques - Série Electrotechnique et Energétique, Ed. Academiei Române, tome 58, no. 3, pp. 342-351, Bucarest, 2013, ISSN 0035-4066 (IF: 0.760), WOS:000324447900002.
- Ris13. **L. Petrescu**, A. Bordianu, V. Ioniță, *Homogenization efficiency for composite materials in 2D magnetostatic exterior problems*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., Ed. Academiei Române, tome 58, no. 2, Bucarest 2013, ISSN 0035-4066, pp. 135 - 144 (IF: 0.760), WOS: 000320488100004.
- Ris14. V. Ioniță, **L. Petrescu**, A. Bordianu, O. Tabara, *Efficient Use of Preisach Hysteresis Model in Computer Aided Design*, Advanced in Electrical and Computer Engineering, volume 13, no. 2, 2013, ISSN 1582-7445, pp. 121 - 126, DOI: 10.4316/AECE.2013.02019 (IF: 1.102), WOS: 000322179400019.
- Ris15. V. Ioniță, I. Covaliu, **L. Petrescu**, A. Bordianu, O. Tabara, *Magnetic Characterization of the Fe₃O₄ nanoparticles used in biomaterials*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., Ed. Academiei Române, tome 57, no. 2, Bucarest 2012, ISSN 0035-4066,

pp. 154 – 161 (IF: 0.760), WOS: 000305202600005.

- Ris16. A. Bordianu, V. Ioniță, **L. Petrescu**, *Micro-scale Numerical Simulation of the Magnetic Recording*, Rev. Roum. Sci. Techn. – Électrotech. et. Énerg., Ed. Academiei Române, tome 57, no. 1, Bucarest 2012, ISSN 0035-4066, pp. 3 – 9 (IF: 0.760), WOS: 000303096800001.
- Ris17. V. Ioniță, **L. Petrescu**, *Magnetic Material Characterization by Open Sample Measurements*, Rev. Roum. Sci. Techn. – Électrotech. et. Énerg., Ed. Academiei Române, tome 54, no. 1, Bucarest 2009, ISSN 0035-4066, pp. 87 – 94 (IF: 0.760), WOS: 000264503000009.
- Ris18. C. Constantinescu, N. Scarisoreanu, A. Moldovan, M. Dinescu, **L. Petrescu**, G. Epureanu, *Thin films of NdFeB deposited by PLD technique*, Applied Surface Science, Vol. 253, no. 19, pp. 8192-8196, ISSN: 0169-4332, 2007, DOI: [10.1016/j.apsusc.2007.02.165](https://doi.org/10.1016/j.apsusc.2007.02.165) (IF: 6.182 - cotată Q1 - MATERIALS SCIENCE, COATINGS & FILMS, rang 1 din 20), WOS: 000249020500109.
- Ris19. **L. Petrescu**, *Comparison between frequently used Hysteresis Models*, Rev. Roum. Sci. Techn. – Électrotech. et. Énerg., Ed. Academiei Române, tome 52, no. 3, Bucarest 2007, ISSN 0035-4066, pp. 311 – 320 (IF: 0.760), WOS: 000255783700005.
- Ris20. V. Ioniță, **L. Petrescu**, A. Razicaneanu, *Adjustable device for magnetic material investigation by Kerr microscopy*, Int. Journal of Appl. Electromagnetics and Mechanics, Vol. 25, no. 1-4, ISSN 1383-5416, 2007, pp. 199 – 203. (IF: 0.684), WOS: 000248151100033.
- Ris21. V. Ioniță, **L. Petrescu**, *Numerical Advanced Characterization of Recording Magnetic Media*, JOAM, vol. 8, No. 3, June 2006, ROMSC 2005 (Iași, ROU), ISSN 1454-4164, pp. 998-1000. (IF: 0.631), WOS: 000238506500020.

b) Reviste de specialitate indexate în alte baze de date internaționale (7)

- Rio1. **L. Petrescu**, E. Cazacu, M.C. Petrescu, *Failure Mode and Effect Analysis in Automotive Industry: A Case Study*, The Scientific Bulletin of Electrical Engineering Faculty, vol. 19, No. 2 (40), pp. 10 – 15, 2019, ISSN 2286-2455, DOI: <https://doi.org/10.1515/sbeef-2019-0014>.
(Elsevier, Scopus, Compendex, ProQuest, EBSCO, Index Copernicus)
- Rio2. **L. Petrescu**, E. Cazacu, V. Ioniță, M.C. Petrescu, *An Experimental Device for Measuring the Single-Phase Transformers Inrush Current*, The Scientific Bulletin of Electrical Engineering Faculty, vol. 19, No. 1 (40), pp. 18 – 22, 2019, ISSN 2286-2455, DOI: <https://doi.org/10.1515/sbeef-2019-0004>.
(Elsevier, Scopus, Compendex, ProQuest, EBSCO, Index Copernicus)
- Rio3. M.C. Petrescu, **L. Petrescu**, E. Cazacu, *Influence of planar transformer windings interleaving on parasitic parameters*, Electrotehnică, Electronică, Automatică, EEA, vol. 66, no. 2, 2018, ISSN: 1582-5175, pp. 45 – 50.
(Elsevier, Engineering Village, Scopus, Compendex, ProQuest, ProQuest-Ulrich's Periodical Directory, EBSCO, Index Copernicus)
- Rio4. E. Cazacu, V. Ioniță, **L. Petrescu**, *Transient State Characterization of Asynchronous Motors in Modern Low-Voltage Electric Installations*, The Scientific Bulletin of Electrical Engineering Faculty, vol. 18 (1), pp. 19 – 25, ISSN 2286-2455, DOI: [10.1515/SBEEF-2017-0017](https://doi.org/10.1515/SBEEF-2017-0017).
(Elsevier, Scopus, Compendex, ProQuest, EBSCO, Index Copernicus)

- Rio5. E. Cazacu, **L. Petrescu**, M.C. Petrescu, *The Major Predictive Maintenance Actions of the Electric Equipments in the Industrial Facilities*, The Scientific Bulletin of Electrical Engineering Faculty, vol. 18 (1), pp. 26 - 33, ISSN 2286-2455, DOI: **10.1515/SBEEF-2017-0018**.
(Elsevier, Scopus, Compendex, ProQuest, EBSCO, Index Copernicus)
- Rio6. **L. Petrescu**, E. Cazacu, M.C. Petrescu, *The Nonlinear and Unbalanced Loads Quantative Impact on the Neutral Conductor Current*, Electrotehnică, Electronică, Automatică, EEA, vol. 64, no. 1, 2016, ISSN: 1582-5175, pp. 48 - 54.
(Elsevier, Engineering Village, Scopus, Compendex, ProQuest, ProQuest-Ulrich's Periodical Directory, EBSCO, Index Copernicus)
- Rio7. **L. Petrescu**, H. Gavrilă, *Modeling the soft magnetic materials with high permeability in a large range of frequencies*, U.P.B. Sci. Bull., Series C, Vol. 72, Iss. 2, 2010, ISSN 1454-234x, pp. 189 - 196.
(Ulrichs International Periodicals Directory, Inspec, Scopus, Elsevier, Engineering Village, Cambridge Scientific Abstracts, Engineered Materials Abstracts)

c) în alte reviste de specialitate de circulație națională (3)

- Rno1. **L. Petrescu**, *Modified Ossart model for magnetic characterization*, Journal of Advanced Research in Physics 1(2), 021003 (2010), ISSN (on-line): 2069-7201, pp. 1-3.
- Rno2. **L. Petrescu**, *Magnetic Model for High Frequency Experimental Data*, Journal of Advanced Research in Physics 1(2), 021004 (2010), ISSN (on-line): 2069-7201, pp. 1-3.
- Rno3. **L. Petrescu**, *The Jiles-Atherton Hysteresis Model in Electrical Engineering*, JOAM - Symposia, Vol. 1 (5), 2009, ISSN: Print: 2066 - 057X, On-line: 2066 - 0596, pp. 843 - 847.

d) Volumele unor manifestări științifice internaționale indexate ISI Clarivate Analytics (13).

- Vis1. **L. Petrescu**, E. Cazacu, V. Ioniță, C. Petrescu, *Comparison between non-oriented silicon iron sheets used for electrical machines*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 524 - 528, DOI: **10.1109/ATEE.2017.7905174**, WOS:000403399400102.
- Vis2. **L. Petrescu**, B. Cheșca, E. Cazacu, C. Petrescu, *Planar transformer windings losses at different waveforms*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 350 - 353, DOI: **10.1109/ATEE.2017.7905163**, WOS:000403399400068.
- Vis3. V. Ioniță, E. Cazacu, **L. Petrescu**, *Remarks about the magnetic characterization of magnetite nanopowders*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 369 - 372, DOI: **10.1109/ATEE.2017.7905176**, WOS:000403399400072.
- Vis4. E. Cazacu, V. Ioniță, **L. Petrescu**, *An efficient method for investigating the ferroresonance of single-phase iron core devices*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 363 - 368, DOI: **10.1109/ATEE.2017.7905167**, WOS:000403399400071.

- Vis5. **L. Petrescu**, E. Cazacu, C. Petrescu, *Sigmoid Functions Used in Hysteresis Phenomenon Modeling*, The 9th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2015, 7th - 9th May 2015, Bucharest, ISBN 978-4673-8093-5, pp. 521 - 524, e-ISSN: 2068-7966, DOI: **10.1109/ATEE.2015.7133863**, WOS: 000368159800098.
- Vis6. E. Cazacu, V. Ioniță, **L. Petrescu**, *Numerical and Experimental Investigations on the Energizing of Miniature Iron Core Transformers*, The 9th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2015, 7th - 9th May 2015, Bucharest, ISBN 978-4673-8093-5, pp. 170 - 175, e-ISSN: 2068-7966, DOI: **10.1109/ATEE.2015.7133759**, WOS: 000368159800030.
- Vis7. A. Bordianu, **L. Petrescu**, V. Ioniță, *Numerical testing of homogenization formulas efficiency for magnetic composite materials*, Journal of Physics: Conference Series **585** (2015) 012003, IOP Publishing, ISSN 1742-6588, pp. 1-8, DOI: **10.1088/1742-6596/585/1/012003**, WOS: 000352196800003.
- Vis8. **L. Petrescu**, E. Cazacu, V. Ioniță, C. Petrescu, *Characterization of Soft Magnetic Materials in a Wide Range of Frequencies*, International Symposium on Fundamentals of Electrical Engineering, ISFEE 2014, 28th-29th November 2014, Bucharest, ISBN: 978-1-4799-6820-6, pp.1-6, DOI: **10.1109/ISFEE.2014.7050630**, WOS: 000380570500098.
- Vis9. E. Cazacu, **L. Petrescu**, *Derating the three-phase power distribution transformers under nonsinusoidal operating conditions: A case study*, Proceeding on the 16th IEEE International Conference on Harmonics and Quality of Power (ICHQP), pp. 488 - 492, Bucharest 25-28 May 2014, Romania, ISBN 978-1-4673-6487-4, ISSN 2164-0610, DOI:**10.1109/ICHQP.2014.6842930**, WOS: 0003437761001001.
- Vis10. E. Cazacu, **L. Petrescu**, *Magnetising inrush current of low-voltage iron core three phase power reactors*, Proceeding on the 16th IEEE International Conference on Harmonics and Quality of Power (ICHQP), pp. 843 - 847, Bucharest 25-28 May 2014, Romania, ISBN 978-1-4673-6487-4, ISSN 2164-0610, DOI: **10.1109/ICHQP.2014.6842874**, WOS: 000343776100173.
- Vis11. E. Cazacu, V. Ioniță, **L. Petrescu**, *An Improved Method for the Inrush Current Evaluation in Single Phase Power Transformers*, Proceeding on the 8th International Symposium on Advanced Topics in Electrical Engineering, ISBN 978-1-4673-5979-5, Bucharest 23-25 May 2013, Romania, pp. 1 - 6, DOI: **10.1109/ATEE.2013.6563390**, WOS: 000332928500044.
- Vis12. E. Cazacu, **L. Petrescu**, *A Simple and Low-Cost Method for Miniature Power Transformers' Hysteresis Losses Evaluation*, Proceeding on the 8th International Symposium on Advanced Topics in Electrical Engineering, ISBN 978-1-4673-5979-5, Bucharest 23-25 May 2013, Romania, 2013, pp. 1 - 4, DOI: **10.1109/ATEE.2013.6563452**, WOS: 000332928500106.
- Vis13. V.Ioniță, **L. Petrescu**, *Computational errors in hysteresis Preisach modelling*, „Mathematics in Industry, vol.11, (Scientific Computing in Electrical Engineering)”, Editors. G. Ciuprina, D. Ioan, Springer Verlag, Berlin, ISBN 978-3-540-71979-3, 2007, pp. 317 - 322, WOS: 000250107700034.

e) Volumele unor manifestări științifice internaționale indexate BDI (15)

- Vio1. E. Cazacu, S. Pușcașu, A. Bordianu, **L. Petrescu**, *The ferroresonance computation of single-phase small power transformers encountered in low-voltage electric installations*, 2020 IEEE 21st International Conference on Computational Problems of Electrical Engineering (CPEE), Pińczów, Poland, 2020, pp. 1-4, doi: **10.1109/CPEE50798.2020.9238728**.
(IEEEExplore, Scopus)
- Vio2. M. Bucur, G. Rosu, A. Bordianu, **L. Petrescu**, V. Ioniță, O. Baltag, *Simplified Design of a Low Frequency Search Coil Magnetometer*, 11th International Symposium on Advanced Topics in Electrical Engineering 11th ATEE 2019, 28th - 30th March 2019, Bucharest, ISBN 978-1-7281-0101-9, Pages: 1-6, DOI: **10.1109/ATEE.2019.8724978**.
(IEEEExplore, Scopus)
- Vio3. C. Vinga, S. Musuroi, F. M. Frigura-Iliasa, E. Cazacu, **L. Petrescu**, F. Dan Surianu, *Computational Study About the Active Power and Energy Losses of a 40 MVA 110/6 kV Transformer*, 2018 IEEE 22nd International Conference on Intelligent Engineering Systems (INES), Las Palmas de Gran Canaria, Spain, 21-23 June, 2018, pp. 000077-000080, ISSN: 1543-9259, doi: **10.1109/INES.2018.8523961**.
(IEEEExplore, Scopus)
- Vio4. V. Ioniță, **L. Petrescu**, E. Cazacu, *Impact of Steinmetz Coefficients Variance for FeSi Laminate Magnetic Cores*, 2018 International Symposium on Fundamentals of Electrical Engineering (ISFEE), Bucharest, Romania, 1-3 Nov. 2018, Electronic ISBN: ISBN: 978-1-5386-7212-9, USB ISBN: 978-1-5386-7211-2, Print on Demand(PoD) ISBN: 978-1-5386-7213-6, pp. 1-4, doi: **10.1109/ISFEE.2018.8742477**.
(IEEEExplore, Scopus)
- Vio5. E. Cazacu, M.C. Petrescu, V. Ionita, **L. Petrescu**, *Nonsinusoidal load current effect on the electrical and thermal operating parameters of oil filled power distribution transformers*, Proceeding on the 18th IEEE International Conference on Harmonics and Quality of Power (ICHQP), pp. 1 - 6, Ljubljana, 13-16 May 2018, Slovenia, e-ISBN 978-1-5386-0517-2, e-ISSN: 2164-0610, DOI: **10.1109/ICHQP.2018.8378838**.
(IEEEExplore, Scopus)
- Vio6. V. Ionita, E. Cazacu, **L. Petrescu**, *Effect of voltage harmonics on iron losses in magnetic cores with hysteresis*, Proceeding on the 18th IEEE International Conference on Harmonics and Quality of Power (ICHQP), pp. 1 - 5, Ljubljana, 13-16 May 2018, Slovenia, e-ISBN 978-1-5386-0517-2, e-ISSN: 2164-0610, DOI: **10.1109/ICHQP.2018.8378843**.
(IEEEExplore, Scopus)
- Vio7. A. Paun, C. M. Vinga, F. M. Frigura-Iliasa, D. Vatau, E. Cazacu, **L. Petrescu**, *Study about the active power and energy losses of a 400V 57 kW asynchronous motor*, 19th International Scientific Conference on Electric Power Engineering (EPE), Brno, Czech Republic, 2018, 16-18 May 2018, pp. 1-4, E-ISBN: 978-1-5386-4612-0, e-ISSN: 2376-5631, DOI: **10.1109/EPE.2018.8395951**.
(IEEEExplore, Scopus)
- Vio8. M. Frigura-Iliasa, **L. Petrescu**, E. Cazacu, F.M. Frigura-Iliasa, *Computer aided study of the hard-magnetic materials anisotropy*, 2017 IEEE 21st International Conference on Intelligent Engineering Systems (INES), pp. 109 - 112, ISBN: 978-1-4799-7678-2, DOI: **10.1109/INES.2017.8118538**.
(IEEEExplore, Scopus)



- Vio9. V. Ioniță, E. Cazacu, **L. Petrescu**, E.-A. Pătroi, E. Manta, *Improved prediction of hysteresis losses in electrical machine cores*, 2017 International Conference on Modern Power Systems (MPS), 2017, Pages: 1 - 4, ISBN:978-1-5090-6565-3, DOI: **10.1109/MPS.2017.7974403**.
(IEEEXplore, Scopus)
- Vio10. E. Cazacu, **L. Petrescu**, V. Ioniță, *Flux-current description of some particular iron core devices*, 2017 International Conference on Modern Power Systems (MPS), 2017, Pages: 1 - 4, ISBN:978-1-5090-6565-3, DOI: **10.1109/MPS.2017.7974373**.
(IEEEXplore, Scopus)
- Vio11. E. Cazacu, **L. Petrescu**, V. Ioniță, *Derating of power distribution transformers serving nonlinear industrial loads*, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017, ISBN:978-1-5090-4489-4, Pages: 90 -95, DOI: **10.1109/OPTIM.2017.7974953**.
(IEEEXplore, Scopus)
- Vio12. **L. Petrescu**, V. Ioniță, E. Cazacu, C. Petrescu, *Steinmetz' parameters fitting procedure for the power losses estimation in soft magnetic materials*, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017, Pages: 208 - 213, ISBN:978-1-5090-4489-4, DOI: **10.1109/OPTIM.2017.7974972**.
(IEEEXplore, Scopus)
- Vio13. E. Cazacu, **L. Petrescu**, V. Ioniță, *Ferroresonance modes determination of single-phase toroidal transformers*, 2017 15th International Conference on Electrical Machines, Drives and Power Systems (ELMA), Sofia, Bulgaria, 2017, pp. 358 - 361, ISBN: 978-1-5090-6691-9, DOI: **10.1109/ELMA.2017.7955463**.
(IEEEXplore, Scopus)
- Vio14. E. Cazacu, **L. Petrescu**, V. Ioniță, *Losses and temperature rise within power transformers subjected to distorted currents*, 2017 15th International Conference on Electrical Machines, Drives and Power Systems (ELMA), Sofia, Bulgaria, 2017, pp. 362 - 365, ISBN: 978-1-5090-6691-9, DOI: **10.1109/ELMA.2017.7955464**.
(IEEEXplore, Scopus)
- Vio15. V. Ioniță, **L. Petrescu**, E. Cazacu, *Influence of Harmonics' Initial Phases on Magnetic Losses in Non-Oriented Grains FeSi Sheets*, International Symposium on Fundamentals of Electrical Engineering, ISFEE2016, 30th June - 1st July 2016, Bucharest, pp. 1-5, ISBN: 978-1-4673-9575-5, DOI:**10.1109/ISFEE.2016.7803213**.
(IEEEXplore, Scopus)

f) Volumele unor manifestări științifice naționale sau internaționale recunoscute, organizate în țară și străinătate neindexate BDI (24).

- Vn1. E. Cazacu, **L. Petrescu**, *Aspecte calitative și cantitative ale fenomenul de ferorezonanță în instalațiile electrice de joasă tensiune*, Electric Machines, Materials And Drives Present And Trends, ISSN / ISSN-L: 1843-5912, pp. 1 - 14, 2020.
- Vn2. E. Cazacu, L.M. Dumitran, **L. Petrescu**, *Evaluarea Solicitărilor Termice și a duratei de viață a Transformatoarelor de Distribuție aflate în regim periodic nesinusoidal*, Electric Machines, Materials And Drives Present And Trends, ISSN / ISSN-L: 1843-5912, pp. 1 - 13, 2020.

- Vn3. E. Cazacu, **L. Petrescu**, V. Ioniță, *Inrush Current Investigation for Single Phase Power transformers by Means of Magnetic Materials Core Characteristics*, ISTET 2013, ISBN 978-80-261-0246-5, pp. 37-38.
- Vn4. **L. Petrescu**, A. Bordianu, V. Ioniță, *Efficiency of 2D homogenization formulas for magnetic nanocomposite materials*, SNET'12, ISSN (on-line) 2067 - 4147, Bucharest, 2012, Editor: Mihai Maricaru (UPB), vol. 3, no. 1, pp. 270-275.
- Vn5. **L. Petrescu**, A. Chirilă, *Modeling of an electromagnetic device with hysteretic materials*, Proc. Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'09, Bucuresti, 2009, pp. 197 - 201, ISSN 2067 - 4147.
- Vn6. V. Ioniță, **L. Petrescu**, *Magnetic Material Characterization by Open Sample Measurements*, Proc. Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'08, Bucuresti, 2008, ISBN 978-606-521-045-5, pp. 85 - 90, Editor: Mihai Maricaru (UPB).
- Vn7. M. Rebican, R.C. Popa, G. Preda, V. Ionita, **L. Petrescu**, *Numerical Characterisation Method for Magnetic Materials with Vector Hysteresis*, Proc. Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'08, Bucuresti, 2008, ISBN 978-606-521-045-5, pp. 444 - 449, Editor: Mihai Maricaru (UPB).
- Vn8. M. Rebican, R.C. Popa, G. Preda, V. Ionita, **L. Petrescu**, E.A. Patroi, *Numerical Model of Vector Hysteresis for Magnetic Materials*, Proceedings of 13th Biennial IEEE Conference on Electromagnetic Field Computation, 11 - 15 May 2008, pp. 275, Athens, Greece.
- Vn9. **L. Petrescu**, *The behavior of the soft magnetic materials with high permeability in large range of frequencies*, The 5th International Conference "NEW RESEARCH TRENDS IN MATERIAL SCIENCE" ARM-5, pp. 910-9113, 5-7 Septembrie 2007, Sibiu.
- Vn10. **L. Petrescu**, *Comparison between amorphous and nanocrystalline materials used in high frequencies*, Proceeding Conference, Simpozionul Național de Elth Teoretică, SNET'07, Bucuresti, 2007, pp. 417-422, ISBN 978-973-718-899-1.
- Vn11. R. C. Popa, M. Rebican, G. Preda, **L. Petrescu**, *Numerical Characterization Method for Magnetic Materials with Hysteresis*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'07, Bucuresti, 2007, pp. 371-375, ISBN 978-973-718-899-1.
- Vn12. C. Constantinescu, A. Purice, N. Scarisoreanu, A. Moldovan, M. Dinescu, **L. Petrescu**, G. Epureanu, *Thin films of NdFeB deposited by PLD technique*, E-MRS 2006 Spring Meeting, Nice (France), 29 May - 2 June, pp. 1-9.
- Vn13. V. Ioniță, **L. Petrescu**, *Data Processing in Preisach Model Identification*, Abstract - The 12th Inter. IGTE Symp. On Num. Field Calculation in Electr. Eng. 2006, Graz, Austria, ISBN 3-902464-56-5, pp. 87-90.
- Vn14. V. Ioniță, **L. Petrescu**, *Numerical and experimental errors in classical Preisach modelling*, Book of Abstract and Programme, III Joint International Magnetic Symposia - JEMS 2006, San Sebastian, Spania, pp. 63.
- Vn15. **L. Petrescu**, V. Ioniță, *Experimental Difficulties in Hysteresis Model Identification*, Proceedings of the Inter. Joint Conference Mmde & ROMSC IEEE 2006, Bucharest, 2006, ISN 973-718-503-X, pp. 91 - 94.
- Vn16. V. Ioniță, **L. Petrescu**, *Preisach modelling accuracy for magnetic recording materials*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'05, Bucuresti, 2005, pp. 1-4, ISBN 973-618-268-5.

- Vn17. D. Băzăvan, **L. Petrescu**, *Studiul asupra unui mediu dur de înregistrare magnetică*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'05, Bucuresti, 2005, pp. 1-6, ISBN 973-618-268-5.
- Vn18. V. Ioniță, **L. Petrescu**, A. Razicaneanu, *Magnetic Material Investigation by Kerr Microscopy*, Proceeding Conference, ISEM 2005, Bad Gastein, Austria, ISBN 3-902105-00-1, pp. 88-89.
- Vn19. **L. Petrescu**, *The Investigation of the Anisotropy for the magnetic materials*, Proceedings of The 7th Inter. Conf. of App. and Theoretical Elect., ICATE 2004, Baile Herculane, 2004, ISBN 973-8043-554-4, pp. 441-444.
- Vn20. G. Epureanu, **L. Petrescu**, *Investigarea structurii de domenii magnetice a unei tole de transformator prin microscopie Kerr*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'04, Bucuresti, 2004, pp. 1-5, ISBN 973-718-096-8.
- Vn21. **L. Petrescu**, G. Epureanu, *The Study of the Magnetic Characteristics for Magnetic Thin Films*, Proceeding Conference, Simpozionul Național de Elth Teoretică, SNET'04, Bucuresti, 2004, pp. 1-5, ISBN 973-718-096-8.
- Vn22. **L. Petrescu**, G. Epureanu, H. Gavrila, *Influence of Damages to the Magnetic Recording Media*, Proceedings of The 4th Inter. Workshop, Materials for Electrotechnics, Bucharest, 2004, ISBN 973-718-006-2, pp. 150 - 153.
- Vn23. V. Ioniță, **L. Petrescu**, G. Epureanu, *Numerical Difficulties of Preisach Model Identification*, Proceedings of The 4th Inter. Workshop, Materials for Electrotechnics, Bucharest, 2004, ISBN 973-718-006-2, pp. 89 - 92.
- Vn24. V. Ioniță, H. Gavrila, V. Alecu, C. Banica, C. Dima, G. Epureanu, **L. Petrescu**, D. Serdaru *Experimental Investigation of Permanent Magnets*, Proceedings of The 3rd International Workshop, Materials for Electrotechnics, Bucharest, 2001, ISBN 973-652-361-6, pp. 121 - 124.

V. BREVETE DE INVENȚIE (1 brevet + 3 cereri)

- E1. G. Stamatescu, E. Cazacu, **L. Petrescu**, V. Ionita, A.I. Chirila, M.C. Petrescu, D. Deaconu, *Sistem inteligent de monitorizare continuă și denominare a parametrilor transformatoarelor de distribuție în regim nesinusoidal* (OSIM A/00953 - 26.11.2018)
- E2. D.I. Manea, **L. Petrescu**, E. Cazacu, M.C. Petrescu, V. Ionita, O. Ghita, A.I. Chirila, D. Deaconu, *Sistem inteligent de evaluare, prelucrare și analiză a curenților de conectare a echipamentelor electrice* (OSIM A/00951 - 26.11.2018)
- E3. A. Bosneaga, E. Cazacu, **L. Petrescu**, V. Ionita, A.I. Chirila, M.C. Petrescu, D. Deaconu, *Sistem inteligent de mentenanță predictivă a unor echipamente electrice industriale critice* (OSIM A/00952 - 26.11.2018)
- E4. Brevet RO132277-A2/29.11.2016 - H. Gavrila, A. Iorga, W. Kappel, E. Manta, A. Mija, G. Paltanea, V. Paltanea, D. Patroi, E.A. Patroi, I. Peter, **L. Petrescu**, G. Scutaru, *Method for estimating the effect of sheet-metal cutting manner upon iron losses (Metoda de estimare a efectului modului de taiere prin stantare a tolelor asupra pierderilor in fier a masinilor electrice)*, Derwent Primary Accession Number: 2017-820437 (OSIM A/00335 - 11.05.2016)

VI. CONTRACTE ȘI RAPORTE ȘTIINȚIFICE

- a) Proiecte de cercetare-dezvoltare-inovare obținute prin competiție națională/internațională - DIRECTOR (2)

- Pn1. Proiect POC / Proiect Tehnologic Inovativ – Cercetare – Sistem Inovativ de Protecție Anticorozivă Activă a Metalelor Alimentat de la Surse Regenerabile de Energie – SIPAMASRE, cod proiect SMIS 121611 (Contractor ICPE ACTEL) – Responsabil Partner P1 – U.P.B. (iunie 2020 – iunie 2023) (sumă U.P.B. – 541.788 lei).

<http://www.poc.research.gov.ro/ro/articol/4322/evaluare-tehnico-financiara-pentru-proiectele-depuse-pe-actiunea-1-2-1-stimularea-cererii-intreprinderilor-pentru-inovare-tip-proiect-tehnologic-inovativ-coduri-apel-poc-163-1-3-i-poc-222-1-3>

- Pn2. Proiect de cercetare CEC de Inovare 203CI/25.07.2018 (PN-III-P2-2.1-CI-2018-1217) (ET.02.18.03) - *Sistem Inteligent de Evaluare, Prelucrare și Analiză a Curentilor de Conectare a Echipamentelor Electrice* (SIEPACEE) autoritatea contractantă UEFISCDI, Contractor – UPB (iulie 2018 – decembrie 2018) (sumă U.P.B. – 50.000 lei).

<https://uefiscdi.ro/resource-84309?&wtok=d333aea2ae60cd5f1408583469228c983ff3e80c&wtkps=XY1BDolwEEXvMmvFDqWfDncwlp4AadXGSe0FamK8uwUWRlfzM/nv/YYkyQlJgIcXIDaEirOulKyDsQlgtWQUoEERSkNmulaBtdHdlIP70L002XYytXQZkt3mznxXUGlt/ONycQCIZXq9cBYnailND60R200y5ZXuUYE9VCIPT72eSigjNy51rWLNt+J0FG8FtMu9EsuyndvR6dyXx/yUzZtqHVNpusiVnTD7b1Dur3Bw==&wchk=cac5ac9eb12058d580d94688c374d821cfe7c7d5>

b) Proiecte de cercetare-dezvoltare-inovare obtinute prin competiție națională/internațională – MEMBRU (17 / 1)

- Pn1. *Nanostructured and amorphous magnetic alloys for high-frequency applications* – Bilateral (Italo-Romanian) (2006–2009) (Director de proiect: prof. Horia GAVRILĂ).
- Pn2. *Sistem Inteligent de Mentenanță Predictivă a unor Echipamente Electrice Industriale Critice* (CEC Inovare 204CI / 25.07.2018 – Director de Proiect – prof. Emil CAZACU) (2018)
- Pn3. *Sistem Inteligent de Monitorizare Continuă și Denominare a Parametrilor Transformatoarelor de Distribuție în Regim Nesinusoidal* (CEC Inovare 187CI / 25.07.2018 – Director de Proiect – prof. Emil CAZACU) (2018)
- Pn4. *Predeterminarea pierderilor de energie pentru proiectarea îmbunătățită a miezurilor nanocompozite magnetice moi în aplicații având game extinse de frecvențe* (ELIDEF) – Proiect Experimental Demonstrativ – PED70 (2017 – 2018) (Director de proiect: prof. Valentin IONIȚĂ).
- Pn5. *Mașini electrice cu eficiență sporită, prin utilizarea unor soluții tehnice avansate, bazate pe predeterminarea proprietăților magnetice ale tolelor* (MEF-MAG) – Parteneriate (2012 – 2016) (Director de proiect: prof. Horia GAVRILĂ).
- Pn6. *Sistem micro - electro - mecanic cu aplicații în reconstrucția microchirurgicală a nervilor periferici* (RECONNECT) – Parteneriate (2008 – 2011) (Director de proiect: prof. Horia GAVRILĂ).
- Pn7. *Biochip microfluidic pentru caracterizarea reologica a fluidelor biologice newtoniene cu aplicații în diagnoza și tratament medical* (MELANOCHIP) – Parteneriate (2008 – 2011) (Director de proiect: prof. Horia GAVRILĂ).
- Pn8. *Dezvoltarea unor modele experimentale și numerice de caracterizare a materialelor magnetice cu histerezis* (MATHYS) – proiect Ceex (2006 – 2008) (Director de proiect: prof. Valentin IONIȚĂ).
- Pn9. *Aprofundarea cunoștințelor de spintronică prin dezvoltarea fizicii compușilor Heusler ajustabili* (ASPIDHA) – proiect Ceex (2005 – 2008) (Director de proiect: prof. Horia

GAVRILĂ).

- Pn10. *Metoda experimentală pentru studiul materialelor cu proprietăți magnetice prin efect magneto-optic KERR (MAGNE-KERR) – proiect Ceex (2005 – 2008) (Director de proiect: prof. Valentin IONIȚĂ).*
- Pn11. *Sistem microfluidic integrat pentru analiza în vitro a fluidelor biologice cu aplicații în diagnostic și tratament medical (MICRODIAG) – proiect Ceex (2005 – 2008) (Director de proiect: prof. Horia GAVRILĂ).*
- Pn12. *Cercetări fundamentale și aplicative integrate în domeniul materialelor multifuncționale nanostructurate (NANOCONS) – grant CNCIS (2005 – 2007) (Director de proiect: prof. Horia GAVRILĂ).*
- Pn13. *Analiza configurațiilor statice și dinamice de magnetizație în materiale magnetice prin efect magneto optic - proiect CERES (2004 – 2006) (Director de proiect: prof. Valentin IONIȚĂ).*
- Pn14. *Mijloace de protecție complexă la interferența electromagnetică pe nave militare – proiect CERES (2004 – 2006) (Director de proiect: prof. Horia GAVRILĂ).*
- Pn15. *Reducerea amprentei magnetice a navei militare în scopul protecției împotriva câmpurilor de mine marine – proiect CERES (2003 – 2005) (Director de proiect: prof. Horia GAVRILĂ).*
- Pn16. *Instalații de conversie energetică neconventională de mică putere, bazată pe integrarea unor materiale avansate și soluții tehnologice noi – proiect RELANSIN (2003 – 2005) (Director de proiect: prof. Valentin IONIȚĂ).*
- Pn17. *Soluții noi de optimizare a ecranelor de protecție pentru radiații electromagnetice neionizate în gamă extinsă de frecvență 500 kHz – 10GHz – proiect CERES (2002 – 2004) (Director de proiect: prof. Horia GAVRILĂ).*

c) Alte tipuri de proiecte (POSDRU, mobilități, consultanță) (2Dir / 3 Membru)

- Pa1. Proiect de cercetare Mobilități Cercetători MC56/2017 (ET.02.17.10) (autoritatea contractantă UEFISCDI, Contractor – UPB), **Director proiect: Lucian Petrescu.** (sumă U.P.B. – 7.932,38 lei)
<https://uefiscdi.ro/resource-831397&wtok=9bd1bc40e7bed375a1e6390cd4e39a1fd315530a&wtkps=XY9bDolwEEX3Mt+CTB+Awx6MISiAWqGhUkN5mBj3bkESo383k3PuzZSU0dOTJjH1nnoDCHjKYocC0+cwBsFIQkkEGmmUU9N6m0/15fDw1k/u6kelkx74Q86wtZ0TjaLEHgDnwouxZYqtS0s5ZgRKHxvTuc9zxKWszyR+QKy4H4vQ4YvQSIHrvbK1Tr+OZgQ/llsvKTX3ZBuTo1Wx66v41Ffia+UjSej57jsB1M5C8XrD0==&wchlc=87437ff4b8113d60235a6af5e78fc69056a5a7e5>
- Pa2. *Analiza regimului termic al dispozitivelor electromagnetice ce funcționează în regim periodic nesinusoidal - 79 / 26.09.2016 (GEX-UPB) (autoritatea contractantă UPB – Contractor/**Director proiect: Lucian Petrescu**, tip proiect: Grant Intern de Cercetare UPB) (sumă U.P.B. – 22.000 lei)*
http://www.old.upb.ro/files/evenimente/cercetare/2016/Rezultate_finale_granturi_UPB.pdf
- Pa3. *Analiza numerică a miezului nanocompozit al unui transformator planar (proiect Gex-UPB 3/26.09.2017) (2017 – 2018) (Director de proiect: Ș.l. Maria-Cătălina PETRESCU).*
http://www.old.upb.ro/files/evenimente/cercetare/2017/Rezultate_Finale_UPB-GEX2017-final.pdf
- Pa4. Bursă postdoctorală în cadrul U.P.B. în cadrul proiectului "ExcelDOC – Excelență în cercetare prin burse doctorale și postdoctorale", POSDRU/159/1.5/S/132397.

"Influența materialelor magnetice în creșterea calității și eficienței utilizării energiei electrice"

<http://cempdi.pub.ro/excel/doc/>

- Pa5. Program strategic pentru promovarea inovării în servicii prin educație deschisă, continuă (INSEED) - POSDRU/86/1.2/S/57748 (2011 - 2013) - Expert pe termen lung.

<http://www.inseed.cimr.pub.ro/>

d) alte lucrări de cercetare-dezvoltare

VII. Creații artistice prezentate la manifestări recunoscute (A1, A2 etc.), precum și, după caz, alte lucrări similare - articole/studii publicate în volumele unor manifestări științifice naționale, lucrări prezentate la diferite seminarii/expoziții și nepublicate.

VIII. Citări (ISI+BDI) (64+53):

- 1 V. Ioniță, L. Petrescu, A. Bordianu, O. Tabara, *Efficient Use of Preisach Hysteresis Model in Computer Aided Design*, Advanced in Electrical and Computer Engineering, volume 13, no. 2, 2013, ISSN 1582-7445, pp. 121 - 126.
 - ISI1 Dimian, M, Andrei, P, *Scalar and vector hysteresis simulations using HysterSoft*, Journal of Physics Conference Series, vol. 585, Art.No. 012002, 2015, DOI: 10.1088/1742-6596/585/1/012002, **WOS: 000352196800002**.
 - ISI2 R. Campeanu, M. Cernat, *Two Speed Single Phase Induction Motor with Electronically Controlled Capacitance*, Advanced in Electrical and Computer Engineering, volume 14, no. 3, 2014, ISSN 1582-7445, pp. 137 - 140, **WOS: 000340869800018**.
- 2 V. Ioniță, L. Petrescu, *Magnetic Material Characterization by Open Sample Measurements*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., 54, 1, Bucharets 2009, ISSN 0035-4066, pp. 87 - 94.
 - ISI3 G. Rosu, G. Samoilescu, O. Baltag, *Statistical approach of underwater magnetic field measurements of the naval magnetic signature*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., 63, 2, Bucharest 2018, ISSN 0035-4066, pp. 132- 137, **WOS: 000438662400004**.
 - ISI4 A.D. Ionita, A. Olteanu, *Domain Specific Models, Knowledge and Tools to Support Multiple Learning Styles for Engineering Students*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., 59, 4, Bucharest 2014, ISSN 0035-4066, pp. 423- 432, **WOS: 000346950200009**.
 - ISI5 I.V. Nemoianu, E. Cazacu, *Quasi-vertical permanent magnet levitation - analytical model and characterization*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., 59, 1, Bucharest 2014, ISSN 0035-4066, pp. 13- 24, **WOS: 000333440000002**.
 - ISI6 A. Olteanu, G. Stamatescu, A.D. Ionita, V. Sgarciu, *Enhanced Data Integration for LabVIEW Laboratory Systems*, 2013 8th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2013, ISSN 978-1-4673-5980-1; 978-1-4673-5979-5, **WOS: 000332928500189**.
 - BDI1 V. Nemoianu, E. Cazacu, *Particle swarm optimization algorithm for diamagnetically stabilized horizontal permanent magnet levitation*, Scientific Bulletin of Electrical Engineering Faculty, Nr. 2, 2013, pp. 31- 35, ISSN 1843-

6188 (BDI - Index Copernicus).

- ISI7 G. Kustler, I.V. Nemoianu, E. Cazacu, *Theoretical and Experimental Investigation of Multiple Horizontal Diamagnetically Stabilized Levitation with Permanent Magnets*, IEEE Trans Mag, 12(48), 2012, DOI: 10.1109/TMAG.2012.2204273, **WOS: 000311793000013**.
- 3 C. Constantinescu, A. Purice, N. Scarisoreanu, A. Moldovan, M. Dinescu, L. Petrescu, G. Epureanu, *Thin films of NdFeB deposited by PLD technique*, Applied Surface Science, Vol. 253 (19), 2007, ISSN: 0169-4332
- ISI8 M. Nakano, K. Takashima, A. Yamashita, T. Yanai, H. Fukunaga, *Relationship between target materials and various properties of PLD-made isotropic Nd-Fe-B films*, Journal of Magnetism and Magnetic Materials, 2020, pp. 1-19, <https://doi.org/10.1016/j.jmmm.2020.166557>, **WOS: 000521826900075**.
- ISI9 K. Patel, J. Zhang, S. Ren, *Rare-earth-free high energy product manganese-based magnetic materials*, Nanoscale. 2018 Jul 5;10(25):11701-11718. doi: 10.1039/c8nr01847b, **WOS: 000437761500001**.
- ISI10 Liu Wf, Zhang MG, Zhang KW, Chai, YS, *Microstructure and Magnetic Properties of NdFeB Films through Nd Surface Diffusion Process*, Advances in Condensed Matter Physics Volume 2017 (2017), Article ID 4296243, 5 pages, DOI: 10.1155/2017/4296243, **WOS: 000394013100001**.
- ISI11 W.-F. Liu, M.-G. Zhang, K.-W. Zhang, H.-J. Zhang, X.-H. Xu, Y.-S. Chai, *Effects of thickness and annealing condition on magnetic properties and thermal stabilities of Ta/Nd/NdFeB/Nd/Ta sandwiched films*, Chinese Physics B, Volume 25 (11), 2016, DOI: 10.1088/1674-1056/25/11/117506, **WOS: 000390376900076**.
- ISI12 Zhou, D., Zhang, YF., Ma, XB., Liu, SQ., Han, JZ., Zhu, MG., Wang, CS., Yang, JB., *Preparation of Highly Textured Bi and MnBi Films by the Pulsed Laser Deposition Method*, CHINESE PHYSICS LETTERS, Vol. 32(2), Dec 2015, DOI: 10.1088/0256-307X/32/12/127502, **WOS: 000366615500034**.
- ISI13 Fu, YD, Wang, SY, Zhu, XS, Fang, B, Yan, F, *Influence of modulated structure on magnetic properties of NdFeB/Co multilayer thin films*, Journal of Central South University, vol. 22(9), pp. 3282-3286, Sep 2015, **WOS: 000360934000003**, DOI: 10.1007/s11771-015-2867-1.
- ISI14 Shiva, S., Shiva, S., Mishra, S. K., Paul, C. P., Kukreja, L. M., *Investigations on the influence of composition in the development of Ni-Ti shape memory alloy using laser based additive manufacturing*, OPTICS AND LASER TECHNOLOGY, vol. 69, pp. 44-51, June 2015, DOI: 10.1016/j.optlastec.2014.12.014, **WOS: 000350521400008**.
- ISI15 H. Fukunaga, T. Kamikawatoko, M. Nakano, T. Yanai, F. Yamashita, *Effect of laser beam parameters on magnetic properties of Nd-Fe-B thick-film magnets fabricated by pulsed laser deposition*, Journal of Applied Physics, Vol. 109(7), ISSN: 0021-8979, 2011, DOI: 10.1063/1.3566080, **WOS: 000289949000276**.
- ISI16 Jo Ann Gan, C. C. Berndt, *Design and manufacture of Nd-Fe-B thick coating by thermal spray process*, Surface & Coating Technology, Vol. 205 (19), ISSN 0257-8972, <http://dx.doi.org/10.1016/j.surfcoat.2011.04.034>, 2011, **WOS: 000291897900051**.

- BDI2 Wang, J., Gan, J.A., Wong, Y.C., Berndt, C.C., *A review of preparation, properties and applications of rare earth magnetic thin films (Book Chapter)*, Nova Science Publishinhers, INC., ISBN: 978-161209302-4, pp. 1-69, April 2011 **(BDI - Scopus)**.
- ISI17 Q. Li, S.Y. Zhang, J.P. Wang, H. Gao, *Process analysis of MgO film on NdFeB magnet by sol-gel method*, *Surface Engineering*, Vol. 25 (8), ISSN: 0267-0844, 2009, DOI: 10.1179/026708408X334131, **WOS: 000269757600006**.
- ISI18 Q Li, H. Gao, J.P. Wang, S.Y. Zhang, *Effect of pretreatment on anticorrosive phosphating conversion coating of sintered NdFeB magnets*, *Transactions of the Institute of Metal Finishing*, Vol. 87 (1), ISSN: 0020-2967, 2009, **WOS: 000265316300008**.
- 4 **L. Petrescu**, *Comparison between frequently used Hysteresis Models*, *Rev. Roum. Sci. Techn. – Électrotech. et. Énerg.*, 52, 3, Bucharest 2007, ISSN 0035-4066, pp. 311 – 320.
- ISI19 A. Ladjimi, A. Babouri, *Modeling of frequency effects in a Jiles-Atherton magnetic hysteresis model*, *Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique*, Ed. Academiei Române, tome 61, no. 3, p. 217 - 220, Bucarest, 2016, ISSN 0035-4066, **WOS: 000389158700002**.
- ISI20 V. Ionita, *Computation of Non-Sinusoidal Hysteresis Losses Using Standardized Measured Data*, *International Symposium on Fundamentals of Electrical Engineering, ISFEE 2014, 28th-29th November 2014*, Bucharest, ISBN: 978-1-4799-6820-6, pp.1-6, **WOS:000380570500078**.
- ISI21 E. Cazacu, I.V. Nemoianu, *Transient state characterization of small power transformers*, *Rev. Roum. Sci. Techn. – Électrotech. et. Énerg.*, 58, 4, Bucharest 2013, ISSN 0035-4066, pp. 385 – 394, **WOS: 000329262100006**.
- 5 V. Ioniță, V. Păltânea, Gh. Păltânea, **L. Petrescu**, G. Epureanu, A.D. Ioniță, *Caracterizarea avansată a materialelor magnetice*, Editura Politehnica Press, ISBN 973-606-515-023-2, 2009, 266 pagini
- ISI22 A. Nicolaide, S. Oner, *Consideration on the Magnetisation Characteristics of the Soft Magnetic Materials*, *Rev. Roum. Sci. Techn. – Électrotech. et. Énerg.*, 56, 4, Bucharest 2011, ISSN 0035-4066, pp. 349– 358, **WOS: 000297602500001**.
- ISI23 A. Nicolaide, S. Oner, *Determination of the Hysteresis Loop and Losses by the D.C. Testst and Programing Facilities*, *Rev. Roum. Sci. Techn. – Électrotech. et. Énerg.*, 56, 1, Bucharest 2011, ISSN 0035-4066, pp. 25 – 35, **WOS: 000289219900003**.
- 6 E. Cazacu, **L. Petrescu**, *A Simple and Low-Cost Method for Miniature Power Transformers' Hysteresis Losses Evaluation*, *Proceeding on the 8th International Symposium on Advanced Topics in Electrical Engineering*, ISBN 978-1-4673-5979-5, Bucharest Bucharest 23-25 May 2013, Romania, 2013, pp. 1 – 4.
- BDI3 S. Kaur, D. Kaur, *3D Finite Element Analysis for Core Losses in Transformer*, *International Journal of Computer Applications*, ISSN: 0975 – 8887, *International Conference on Advancements in Engineering and Technology (ICAET 2015)*, pp. 27-30 **(BDI – ProQuest, Ebsco)**.
- ISI24 V. Ionita, *Computation of Non-Sinusoidal Hysteresis Losses Using Standardized Measured Data*, *International Symposium on Fundamentals of Electrical Engineering, ISFEE 2014, 28th-29th November 2014*, Bucharest, ISBN: 978-1-4799-6820-6, pp.1-6, **WOS:000380570500078**.

- 7 E. Cazacu, V. Ioniță, **L. Petrescu**, *Transformer inrush current predetermination for distorted waveform voltage supply*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 58, no. 3, pp. 342-351, Bucarest, 2013, ISSN 0035-4066.
- BDI4 D. Yarymbash, S. Yarymbash, M. Kotsur, T. Divchuk, *Analysis of inrush currents of the unloaded transformer using the circuit-field modelling methods*, Eastern-European Journal of Enterprise Technologies, 3/5 (93), pp.6-11, 2018, DOI: 10.15587/1729-4061.2018.134248, ISSN (print) 1729-3774, ISSN (on-line) 1729-4061 (**BDI – Scopus, IndexCopernicus**)
- BDI5 O.N.H. Areu, J.R. Guardarrama, R.P. Escobar, *Measurement of inrush current in distribution transformers*, Revista de Ingeniería Energética, 2017, mayo/agosto, vol XXXVIII, n. 2, p. 132-142, ISSN 1815-5901(**BDI – UlrichWeb**).
- ISI25 I.V. Nemoianu, *Study of the voltage frequency doubler with nonlinear iron core magnetic characteristic*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 60, no. 2, pp. 123-132, Bucarest, 2015, ISSN 0035-4066, **WOS: 000355067400002**.
- 8 E. Cazacu, **L. Petrescu**, *Magnetising inrush current of low-voltage iron core three phase power reactors*, Proceeding on the 16th IEEE International Conference on Harmonics and Quality of Power (ICHQP), pp. 843 - 847, Bucharest 25-28 May 2014, Romania, ISBN 978-1-4673-6487-4, ISSN 2164-0610.
- BDI6 Tolibjonovich, D.S., Islomovna, T.M., Saidulloevna, M.D. (2020), *Modeling of starting transition processes of asynchronous motors with reduced voltage of the supply network*, European Journal of Electrical Engineering, Vol. 22, No. 1, pp. 23-28, 2020, ISSN: 2103-3641 (print); e-ISSN: 2116-7109 (online), DOI:<https://doi.org/10.18280/ejee.220103>. (**BDI: SCOPUS, EBSCO**).
- ISI26 XX. Zhang, *Transient Calculation of Electric Power Circuits with Special Reference to Magnetizing Nonlinearity*, J CIRCUIT SYST COMP, 25, 1650054 (2016). DOI: <http://dx.doi.org/10.1142/S0218126616500547>, **WOS: 000377027200005**.
- ISI27 V. Ionita, *Computation of Non-Sinusoidal Hysteresis Losses Using Standardized Measured Data*, International Symposium on Fundamentals of Electrical Engineering, ISFEE 2014, 28th-29th November 2014, Bucharest, ISBN: 978-1-4799-6820-6, pp.1-6, **WOS:000380570500078**.
- 9 **L. Petrescu**, E. Cazacu, V. Ioniță, *High Frequencies Losses Prediction in Soft Magnetic Materials*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 60, no. 1 p. 49 - 58, Bucarest, 2015, ISSN 0035-4066
- ISI28 L. Mandache, A. Marinescu, I. Dumbravă, *A High Frequency Current Transformer with Improved Low Frequency Current Capability*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 65, no. 1-2, p. 53 - 59, Bucarest, 2020, ISSN 0035-4066, **WOS: 000552052900009**.
- ISI29 Bhattacharya, A., Sadhu, PK., Bhattacharya, A., Pal, N., *Voltage controlled hybrid resonant inverter-an essential tool for induction heated equipment*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 61, no. 3, p. 273 - 277, Bucarest, 2016, ISSN 0035-4066, **WOS: 000389158700013**.

- ISI30 Andrei, P.C., Caciula, I., Stanculescu, M., Vasilescu, G.-M., *FEM analysis of the magnetic field for B-H relationship evaluation*, International Symposium on Fundamentals of Electrical Engineering, ISFEE 2014, 28th-29th November 2014, Bucharest, ISBN: 978-1-4799-6820-6, pp.1-6, **WOS: 000380570500060**.
- 10 E. Cazacu, V. Ioniță, **L. Petrescu**, *An Improved Method for the Inrush Current Evaluation in Single Phase Power Transformers*, Proceeding on the 8th International Symposium on Advanced Topics in Electrical Engineering, ISBN 978-1-4673-5979-5, Bucharest 23-25 May 2013, Romania, pp. 1 - 6.
- BDI7 O.N.H. Areu, J.R. Guardarrama, R.P. Escobar, *Measurement of inrush current in distribution transformers*, Revista de Ingeniería Energética, 2017, mayo/agosto, vol XXXVIII, n. 2, p. 132-142, ISSN 1815-5901(**BDI - UlrichWeb**).
- ISI31 V.V. Rajagopal Peesapati, Vinod Kumar Yadav, Niranjan Kumar, *Assessment of Temporary Overvoltages During Network Lines Re-Energization*, Advances in Electrical and Electronic Engineering, ISSN 1336-1376, Volume 14 - No. 3, September 2016, pp. 227 - 235, **WOS: 000409032300002**.
- ISI32 X. Zhang, *Transient Calculation of Electric Power Circuits with Special Reference to Magnetizing Nonlinearity*, J CIRCUIT SYST COMP, 25, 1650054 (2016). DOI: <http://dx.doi.org/10.1142/S0218126616500547>, **WOS: 000377027200005**.
- BDI8 E. Alibašić , P. Marić , S. Nikolovski, *Transient Phenomena during the Three-Phase 300MVA Transformer Energization on the Transmission Network*, International Journal of Electrical and Computer Engineering (IJECE), Vol. 6, No. 6, December 2016, pp. 2499-2505, ISSN: 2088-8708, DOI: 10.11591/ijece.v6i6.11406 (**BDI - Scopus**).
- ISI33 K. Deželak, J. Pihler, *Artificial Neural Network as Part of a Saturation Level Detector within the Transformer's Magnetic Core*, IEEE Trans Mag, 99(PP), 1, 2015, DOI: 10.1109/TMAG.2015.2512442, **WOS: 000375026600046**.
- BDI9 A. A. Hany; A. Abdelsalam; Y. A., Almoataz, *Mitigation of Transformer Inrush Current Using PV Energy*, Recent Advances in Communications and Networking Technology (Formerly Recent Patents on Telecommunication), Volume 4, Number 2, August 2015, pp. 95-102(8), DOI: 10.2174/2215081104666150822001924 (**BDI - Ebsco**).
- BDI10 V.V. Rajagopal Peesapati, Niranjan Kumar, Vinod Kumar Yadav, *Judgment of Temporary over Voltages during Transformer Refurbishment*, International Journal of Computer Applications (0975 - 8887), Volume 108 - No. 2, December 2014, pp. 39 - 42 (**BDI - ProQuest, UlrichWeb, Ebsco**).
- 11 V. Ioniță, **L. Petrescu**, E. Cazacu, *Effect of current harmonics on the hysteresis losses in soft magnetic materials*, Revue Roumaine des Sciences Techniques - Série Electrotechnique et Energétique, Ed. Academiei Române, tome 60, no. 4, p. 366 - 375, Bucarest, 2015, ISSN 0035-4066.
- ISI34 S. Boutora, H.D Bentarzi, *Study of ferroresonance favorable cases in electric substations*, Rev. Roum. Sci. Techn. - Électrotech. et. Énerg., 63, 4, Bucharest 2018, ISSN 0035-4066, pp. 359- 364, **WOS: 000459843500002**.

- ISI35 G. Rosu, G. Samoilescu, O. Baltag, *Statistical approach of underwater magnetic field measurements of the naval magnetic signature*, Rev. Roum. Sci. Techn. – Électrotech. et. Énerg., 63, 2, Bucharest 2018, ISSN 0035-4066, pp. 132– 137, **WOS: 000438662400004**.
- ISI36 A. Ladjimi, A. Babouri, *Modeling of frequency effects in a Jiles-Atherton magnetic hysteresis model*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 61, no. 3, p. 217 - 220, Bucarest, 2016, ISSN 0035-4066, **WOS: 000389158700002**.
- 12 **L. Petrescu**, E. Cazacu, C. Petrescu, *Sigmoid Functions Used in Hysteresis Phenomenon Modeling*, The 9th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2015, 7th – 9th May 2015, Bucharest, ISBN 978-4673-8093-5, pp. 521 – 524.
- ISI37 A. Bhardwaj, *Health Insurance Claim Prediction Using Artificial Neural Networks*, International Journal of System Dynamics Applications, vol. 9, Iss. 3, pp. 40 – 57, DOI: 10.4018/IJSDA.2020070103, **WOS:000546345800003**.
- ISI38 S. Dautovic, N. Samardzic, A. Juhas, *Takacs Model of Hysteresis in Mathematical Modeling of Memristors*, Radioengineering, Vol. 29, NO. 1, pp. 147-158, April 2020, ISSN 1210-2512 (Print), ISSN 1805-9600 (Online), DOI: 10.13164/re.2020.0147, **WOS: 000530038600018**.
- ISI39 M. Jesenik, M. Mernik and M. Trlep, *Determination of a Hysteresis Model Parameters with the the Use of Different Evolutionary Methods for an Innovative Hysteresis Model*, MDPI Mathematics, 8, 201, 2020, pp. 1 – 27, doi:10.3390/math8020201, **WOS: 000519234000056**.
- BDI11 J. Takács, *Equivalent Analytical Functions of Sums of Sigmoid like Transcendental Functions*, Applied Mathematics and Nonlinear Sciences, vol. 3, Iss. 2, p. 403 – 408, <https://doi.org/10.21042/AMNS.2018.2.00030> (**BDI – Scopus, Inspec, Ebsco**).
- BDI12 Markus Riepold, Semir Maslo, Ge Han, Christian Henke, Ansgar Trächtler, *Open-loop linearization for piezoelectric actuator with inverse hysteresis model*, Vibroengineering PROCEDIA, Vol. 22, pp. 47-52, March 2019, <https://doi.org/10.21595/vp.2019.20565>, ISSN Print 2345-0533, ISSN Online 2538-8479 (**BDI – Scopus, Inspec, Ebsco**).
- ISI40 Zhi-Yuan Si, Xian-Xu Bai, Li-Jun Qian, Wei-Min Zhong, *An enhanced Duhem model of magnetostrictive material-based actuators*, Proc. SPIE 10968, Behavior and Mechanics of Multifunctional Materials XIII, 1096818 [29 March 2019], <https://doi.org/10.1117/12.2513583>, **WOS: 000482016700033**.
- ISI41 G. Glehn, S. Steentjes, K. Hameyer, *Pulsed-Field Magnetometer Measurements and Pragmatic Hysteresis Modeling of Rare-Earth Permanent Magnets*, IEEE Trans on Mag., 54(3), pp. 1-4, DOI: 10.1109/TMAG.2017.2766839, **WOS: 000426003900008**.
- ISI42 J.P.A. Bastos, K. Hoffmann, J.V. Leite, N. Sadowski, *A new and Robust Hysteresis Model Based on Simple Equations*, IEEE Trans on Mag, 54(3), pp.1-4, DOI: 10.1109/TMAG.2017.2769961, **WOS: 000426003900102**.
- ISI43 D. Herceg, K. Kasaš-Lažetić, D. Antić, J. Bjelica and M. Prša, *Application of current transformer for normal magnetization curve determination*, 2016 International Symposium on Industrial Electronics (INDEL), Banja Luka, Bosnia and Herzegovina, 2016, pp. 1-4, DOI: 10.1109/INDEL.2016.7797816,

WOS: 000391953900046.

- 13 A. Bordianu, L. Petrescu, V. Ioniță, *Numerical testing of homogenization formulas efficiency for magnetic composite materials*, Journal of Physics: Conference Series 585 (2015) 012003, IOP Publishing, ISSN 1742-6588, pp. 1-8.
- ISI44 C.E. Ávila-Crisóstomo, U. Pal, F. Pérez-Rodríguez, M.G. Shelyapina, A.A. Shmyreva, *Local-field effect on the hybrid ferromagnetic-diamagnetic response of opals with Ni nanoparticles*, Journal of Magnetism and Magnetic Materials, 167102, 2020, pp. 1-25, vol. 514, <https://doi.org/10.1016/j.jmmm.2020.167102>, WOS: 000572829300009.
- BDI13 C. Morari, M. Badic, *Composite Materials with Electric/Magnetic Properties for Electromagnetic Shielding*, Electrotehnica, Electronica, Automatica . oct-dec2019, Vol. 67 Issue 4, p41-49, ISSN 1582-5175. (BDI - Scopus, INSPEC, Index Copernicus International, ProQuest).
- ISI45 T. Xiang, R-N. Zhong, B. Yao, S-J. Qin, Q-H., Zheng, *Particle Size Influence on the Effective Permeability of Composite Materials*, Commun. Theor. Phys. 69 (5), May 2018, pp. 598-604, DOI: 10.1088/0253-6102/69/5/598, WOS: 000433074400013.
- 14 L. Petrescu, E. Cazacu, V. Ioniță, C. Petrescu, *Characterization of Soft Magnetic Materials in a Wide Range of Frequencies*, International Symposium on Fundamentals of Electrical Engineering, ISFEE 2014, 28th-29th November 2014, Bucharest.
- ISI46 L.A. Costa, M.A. Vitorino, M.B.R. Correa, *Single-Phase AC-DC-AC Current Source Converter With Reduced DC-Link Oscillation*, Annual IEEE Applied Power Electronics Conference and Exposition (APEC) 2017, pp. 480-487, DOI: 10.1109/APEC.2017.7930737, WOS: 000403242800072.
- 15 L. Petrescu, E. Cazacu, M.C. Petrescu, *The Nonlinear and Unbalanced Loads Quantative Impact on the Neutral Conductor Current*, Electrotehnică, Electronică, Automatică, EEA, vol. 64, no. 1, 2016, ISSN: 1582-5175, pp. 48 - 54.
- BDI14 Lingvay I., Oprina G., Voina A., Borș A.-M., Ungureanu L.-C., *Contributions to development and functional characterization of electro-insulating vegetable oil*, Electrotehnica, Electronica, Automatica (EEA), 2018, vol. 66, no. 2, pp. 31-36, ISSN 1582-5175. (BDI - Scopus).
- BDI15 Spafiu P.C., Lingvay D., Matei Gh., *Influența unor consumatori uzuali asupra calității energiei electrice" (Influence of some Ordinary Electric Consumers on Power Quality)*, EEA, 2017, vol. 65, no. 1, pp.24-30, ISSN 1582-5175 (BDI - Scopus).
- BDI16 Matei Gh., Lingvay D., Spafiu P.C., Tudosie L.M., *Influența consumatorilor asupra calității energiei electrice - analiză de caz (Electric Consumers Influence on Power Quality - Case Analysis)*, EEA, 2016, vol. 64, no. 4, pp. 52-58, ISSN 1582-5175 (BDI - Scopus).
- 16 E. Cazacu, L. Petrescu and V. Ionita, *Derating of power distribution transformers serving nonlinear industrial loads*, 2017 OPTIM & ACEMP, Brasov, Romania, 25 May - 27 May 2017, pp. 90-95.
- ISI47 G. Santos, B.M. Laurindo, M. Z. Fortes, B.W. Franca, F.G.R. Martins, *A model for calculating losses in transformer related to orders and harmonic amplitude under analysis of joule effect, eddy current and hysteresis*, International Journal of Emerging Electric Power Systems, vol. 21, Iss. 4, pp. 1 - 14, 2020,

<https://doi.org/10.1515/ijeeps-2020-0006>, **WOS: 000568366500001**.

- ISI48 K.D. McBee, J.Chong, P. Rudraraju, *Demand Side Management Effects on Substation Transformer Capacity Limits*, Appl. Sci. 2019, 9(16), 3266, pp. 1-19, <https://doi.org/10.3390/app9163266>, **WOS:000484444100060**.
- BDI17 A. Fakhrian, B. Ganji, H.R. Mohammadi, H. Samet, *De-rating of Transformers under Non-sinusoidal Loads: Modeling and Analysis*, 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), 11-14 June 2019, pp. 1-5, DOI: 10.1109/EEEIC.2019.8783508 (**BDI - IEEEExplore**)
- ISI49 B. Das and Z. R. Radakovic, *Is Transformer kVA derating always required under harmonics? A Manufacturer's Perspective*, in IEEE Transactions on Power Delivery, 33 (6), dec 2018, doi: 10.1109/TPWRD.2018.2815901, Print ISSN: 0885-8977, Electronic ISSN: 1937-4208, **WOS:000451230500012**.
- BDI18 J. M. Yadav, S. Reddy, *Performance Study of Transformers under Non-linear Load Conditions without and with Active Filter*, International Journal of Electrical Engineering & Technology (IJEET), ISSN 0976-6553, Volume 9, Issue 2, March- April 2018, pp. 115-122. (**BDI - Index Copernicus International, Ebsco**)
- 17 **L. Petrescu**, H. Gavrilă, *Modeling the soft magnetic materials with high permeability in a large range of frequencies*, U.P.B. Sci. Bull., Series C, Vol. 72, Iss. 2, 2010, ISSN 1454-234x, pp. 189 - 196.
- BDI19 N. Ben Aoun, A. Kouki, N. Aouina, A. Ben Haj Amara, *Radial Electrical Resistivity Measurements of Rocks on Laboratory Core Samples Using an Electromagnetic Sensor: Macro and Micro Eddy Currents*, Journal of Sensors, Volume 2018, Article ID 6435070, pp. 1 - 12, DOI: <https://doi.org/10.1155/2018/6435070>. (**BDI - Ebsco, ProQuest, INSPEC**).
- 18 G. Epureanu, **L. Petrescu**, C. Popescu, *Teoria Circuitelor Electrice - Aplicatii*, Ed. MatrixRom, Bucuresti, 2010.
- BDI20 C.I. Dumitrescu, M.O. Popescu, *UPS Voltage Stabilization by Boost Converter Implementation*, Electrotehnica, Electronica, Automatica (EEA); Bucharest Vol. 64, no. 2, pp. 71-75, Apr-Jun 2016, ISSN 1582-5175. (**BDI - Scopus, INSPEC, Index Copernicus International, ProQuest**)
- BDI21 C.I. Dumitrescu, M.O. Popescu, *Characteristics of Different UPS Topologies*, in Electrotehnica, Electronica, Automatica (EEA), 2016, vol. 64, no. 4, pp. 102-105, ISSN 1582-5175. (**BDI - Scopus, INSPEC, Index Copernicus International, ProQuest**)
- 19 E. Cazacu, **L. Petrescu**, V. Ioniță, *Losses and temperature rise within power transformers subjected to distorted currents*, 2017 15th International Conference on Electrical Machines, Drives and Power Systems (ELMA), Sofia, Bulgaria, 2017, pp. 362 - 365.
- BDI22 B. A. Thango, J. A. Jordaan, A. F. Nnachi, *Stray Gassing of Transformer Oil in Distributed Solar Photovoltaic (DSPV) Systems*, 2020 6th IEEE International Energy Conference (ENERGYCon), pp. 484 - 488, Tunisia, 2020, DOI: 10.1109/ENERGYCon48941.2020.9236522 (**BDI - IEEEExplore**).
- BDI23 D. Paul, A. K. Goswami, S. Kumar, S. Jain, A. Pandey, *Propagation of Voltage Sag considering different Winding Connections: Impact on the Healthiness of Transformers*, IEEE Trans on Industry Applications, IEEE Transactions on

- Industry Applications, vol. 56, no. 6, pp. 6186-6196, Nov.-Dec. 2020, Print ISSN: 0093-9994, Electronic ISSN: 1939-9367, DOI: 10.1109/TIA.2020.3016618 (BDI - IEEExplore).
- ISI50 E. A. Juarez-Balderas, J. Medina-Marin, J. C. Olivares-Galvan, N. Hernandez-Romero, J. C. Seck-Tuoh-Mora, A. Rodriguez-Aguilar, *Hot-Spot Temperature Forecasting of the Instrument Transformer Using an Artificial Neural Network*, IEEE Access, vol. 8, pp. 164392 - 164406, 2020, DOI: 10.1109/ACCESS.2020.3021673, WOS: 000572897900001.
- ISI51 G. Santos, B.M. Laurindo, M. Z. Fortes, B.W. Franca, F.G.R. Martins, *A model for calculating losses in transformer related to orders and harmonic amplitude under analysis of joule effect, eddy current and hysteresis*, International Journal of Emerging Electric Power Systems, vol. 21, Iss. 4, pp. 1 - 14, 2020, <https://doi.org/10.1515/ijeeps-2020-0006>, WOS: 000568366500001.
- BDI24 S. Nisworo, D. Pravitasari and L. Pukasari, *The Effect of Harmonics on Purification Scheduling of Transformer Oil to Restrain The Degradation Rate*, 2020 Intern. Conf. on Smart Technology and Applications (ICoSTA), Surabaya, Indonesia, 2020, pp. 1-4, DOI: 10.1109/ICoSTA48221.2020.1570614589 (BDI - IEEExplore).
- BDI25 A. Tjahjono, W.A. Septian, Rosmaliati, N.W. Rika, T. Taufik, *Modeling the Temperature of the Distribution Transformer Oil Using Transformer Body Temperature and Power Quality Parameters Based on Artificial Neural Network*, International Conference on Technologies and Policies in Electric Power & Energy, 2019, DOI: 10.1109/IEEECONF48524.2019.9102485 (BDI - IEEExplore).
- BDI26 S.S. Kostinskiy, D.V. Shaykhutdinov, E.V. Kirievskiy, Y.M. Manatskov, N.D. Narakidze, *Realisation and Approbation of Conditionally Constant Coefficients Method for Loss Counter Measuring Tools*, IOP Conf. Ser.: Mater. Sci. Eng. 665 (2019), 012004, pp. 1-6, doi:10.1088/1757-899X/665/1/012004 (BDI - Scopus).
- BDI27 T. Chagsakul, T. Tayjasant, *An impact of harmonic currents, load levels and ambient temperatures on transformer loss of life*, 2019 2nd International Conference on Clean Energy and Electrical Systems, IOP Conf. Series: Journal of Physics: Conf. Series 1311 (2019) 012047, doi:10.1088/1742-6596/1311/1/012047 (BDI - Scopus).
- ISI52 K.D. McBee, J.Chong, P. Rudraraju, *Demand Side Management Effects on Substation Transformer Capacity Limits*, Appl. Sci. 2019, 9(16), 3266, pp. 1-19, <https://doi.org/10.3390/app9163266>, WOS:000484444100060.
- BDI28 C.-I. Nicola, M. Nicola, D. Sacerdotianu, M. Duță, I. Hurezeanu, *Automatic System for Temperature Rise Test in Power Transformers*, International Journal on Engineering Applications (I.R.E.A.), Vol. 7, N. 2, ISSN 2281-2881, March 2019, pp. 40 - 51, <https://doi.org/10.15866/irea.v7i2.17002> (BDI - Scopus, Index Copernicus, Ebsco)
- BDI29 V. Mokhov, S. Kostinskiy, D. Shaykhutdinov, A. Lankin, Y. Manatskov, *On the Task of Multi-objective Dynamic Optimization Power Losses*. In: Murgul V., Pasetti M. (eds) International Scientific Conference Energy Management of Municipal Facilities and Sustainable Energy Technologies EMMFT 2018. EMMFT-2018 2018. Advances in Intelligent Systems and Computing, vol 983,

- pp. 611-619, Springer, Cham, https://doi-org.am.e-information.ro/10.1007/978-3-030-19868-8_58, Print ISBN 978-3-030-19867-1, Online ISBN 978-3-030-19868-8, eBook Packages Intelligent Technologies and Robotics **(BDI - Springerlink)**.
- BDI30 S. S. Kostinskiy, V. A. Mokhov, T. N. Kruglova, D. V. Shaikhutdinov, A. S. Vlasov, *Agent-based approach for analysis of electricity distribution technological processes in power systems*, IOP Conference Series: Materials Science and Engineering, Volume 483, Number 1, paper ID 012080 pp.1-7, 2019, <https://doi:10.1088/1757-899X/483/1/012080>, Print ISSN: 1757-8981, Online ISSN: 1757-899X **(BDI - Scopus)**.
- BDI31 H. Zulkarnaen, S. Hasan, Suherman, *Condition Monitoring of Distribution Transformers*, 2nd Nommensen International Conference on Technology and Engineering, IOP Conf. Series: Materials Science and Engineering, 19-20 July 2018, Medan, Indonesia, 420 (2018) ID012049, doi:10.1088/1757-899X/420/1/012049 **(BDI - Scopus)**.
- BDI32 J. M. Yadav, S. Reddy, *Performance Study of Transformers under Non-linear Load Conditions without and with Active Filter*, International Journal of Electrical Engineering & Technology (IJEET), ISSN 0976-6553, Volume 9, Issue 2, March- April 2018, pp. 115-122 **(BDI - Index Copernicus International, Ebsco)**
- 20 E. Cazacu, M.C. Petrescu, V. Ionita, **L. Petrescu**, *Nonsinusoidal load current effect on the electrical and thermal operating parameters of oil filled power distribution transformers*, Proceeding on the 18th IEEE International Conference on Harmonics and Quality of Power (ICHQP), 2018.
- BDI33 B. A. Thango, J. A. Jordaan, A. F. Nnachi, *Contemplation of Harmonic Currents Loading on Large-Scale Photovoltaic Transformers*, 2020 6th IEEE International Energy Conference (ENERGYCon), pp. 479 - 483, Tunisia, 2020, DOI: 10.1109/ENERGYCon48941.2020.9236514. **(BDI - IEEEExplore)**.
- BDI34 A. Laso, R. Martínez, M. Manana, D. Cervero, J.A. Sáez, *A comparative between IEEE and EN in the transformer derating when supplying nonsinusoidal load current. A practical case*, Renewable Energy and Power Quality Journal (RE&PQJ), Vol. No.18, June 2020, pp. 747 - 752, <https://doi.org/10.24084/repqj18.487> **(BDI - Scopus)**.
- BDI35 D. Paul, A. K. Goswami, S. Kumar, S. Jain, A. Pandey, *Propagation of Voltage Sag considering different Winding Connections: Impact on the Healthiness of Transformers*, IEEE Trans on Industry Applications, IEEE Transactions on Industry Applications, vol. 56, no. 6, pp. 6186-6196, Nov.-Dec. 2020, Print ISSN: 0093-9994, Electronic ISSN: 1939-9367, DOI: 10.1109/TIA.2020.3016618. **(BDI - IEEEExplore)**.
- ISI53 Y. Yaghoobi, A. Alduraibi, D. Martin, F. Zare, D. Eghbal, R. Memisevic, *Impact of high-frequency harmonics (0-9 kHz) generated by grid-connected inverters on distribution transformers*, Electrical Power and Energy Systems, 106177, Iss. 122, 220, pp. 1-9, <https://doi.org/10.1016/j.ijepes.2020.106177>, **WOS:000541086900014**.
- BDI36 P. Harahap, B. Oktrialdi, *Harmonisa in defibrillator equipment (DC Shock)using simulink Matlab*, 2020 IOP Conf. Ser.: Mater. Sci. Eng., 821, 012025, doi:10.1088/1757-899X/821/1/012025 **(BDI - Scopus)**.

- ISI54 J. S. Maan, S. Singh, A. Singh, *Impact of Harmonics on Power Transformer Losses and Capacity Using Open DSS*, International Journal of Emerging Electric Power Systems, vol. 20, iss. 4, pp. 1 - 11, Online ISSN 1553-779X, DOI: 10.1515/ijeeps-2018-0349, **WOS:000488249700009**.
- BDI37 A. Fakhrian, B. Ganji, H.R. Mohammadi, H. Samet, *De-rating of Transformers under Non-sinusoidal Loads: Modeling and Analysis*, 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), 11-14 June 2019, pp. 1-5, DOI: 10.1109/EEEIC.2019.8783508 (**BDI - IEE Explore**)
- ISI55 C.G. Saracin, A. Voinea, *Educational Platform Used to Smart Metering and Metering of Electricity*, U.P.B. Sci. Bull., Series C, Vol. 81, Iss. 1, 2019, ISSN 2286-3540, pp. 147 - 158, **WOS: 000459478000012**.
- BDI38 L. Kovernikova, N. Van Cuong, *Evaluation of the Influence of Non-sinusoidal Conditions on Power Transformers*, E3S Web of Conferences vol. 58, article no. 03012, no. Of pages. 5, 2018, eISSN: 2267-1242, <https://doi.org/10.1051/e3sconf/20185803012>, Section Energy Security, Reliability and Quality of Energy Consumption, Modeling and Information Technology RSES-2018 (**BDI - Scopus, Ebsco, ProQuest**)
- 21 **L. Petrescu**, V. Ioniță, E. Cazacu, C. Petrescu, *Steinmetz' parameters fitting procedure for the power losses estimation in soft magnetic materials*, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017, Pages: 208 - 213.
- ISI56 S. Quondam Antonio, G.M. Lo Zito, A.M. Ghanim, A. Laudani, H. Rimal, A. Faba, F. Chilosi, E. Cardelli, *Analytical formulation to estimate the dynamic energy loss in electrical steels: Effectiveness and limitations*, Physica B: Physics of Condensed Matter, vol. 579, Febr 2020, pp. 1-18, <https://doi.org/10.1016/j.physb.2019.411899>, **WOS: 000510638200002**.
- ISI57 L. Dumitru, G. Paltanea, V. Paltanea, H. Gavrilă, *Analysis of Non-oriented Electrical Steel Cores in Electrical Machines*, U.P.B. Sci. Bull., Series C, Vol. 80, Iss. 4, 2018, ISSN 1454-234x, pp. 107 - 116, **WOS: 000452434900010**.
- 22 E. Cazacu, V. Ionita, **L. Petrescu**, *Thermal Aging of Power Distribution Transformers Operating under Nonlinear and Balanced Load Conditions*, Advances in Electrical and Electronic Engineering, vol. 16, no.1, pp.92 - 100, 2018, DOI 10.15598/aeer.v16i1.2701, ISSN: 1336-1376 (Print), 1804-3119 (Online), WOS: 000429160100009.
- BDI39 B. A. Thango, J. A. Jordaan, A. F. Nnachi, *A Weighting Factor for Estimating the Winding Eddy Loss in Transformers for High Frequencies*, 2020 6th IEEE International Energy Conference (ENERGYCon), pp. 489 - 493, Tunisia, 2020, DOI: 10.1109/ENERGYCon48941.2020.9236472. (**BDI - IEEEExplore**).
- BDI40 Z. I. M. Yassin, D. M. Said, N. Ahmad, NN Nik Abd Malik, H. Abdullah, *Impact of unbalanced harmonic loads towards winding temperature rise using FEM modeling*, Indonesian Journal of Electrical Engineering and Informatics (IJEI), Vol. 8, No. 2, June 2020, pp. 409~418 ISSN: 2089-3272, DOI: 10.11591/ijeii.v8i2.1283 (**BDI - Scopus**).

- BDI41 P. Harahap, B. Oktrialdi, *Harmonisa in defibrillator equipment (DC Shock)using simulink Matlab*, 2020 IOP Conf. Ser.: Mater. Sci. Eng., 821, 012025, doi:10.1088/1757-899X/821/1/012025 (BDI - Scopus).
- BDI42 H. Nafisi, *Investigation on Distribution Transformer Loss of Life due to Plug-In Hybrid Electric Vehicles Charging*, 2018, International Journal of Ambient Energy, pp. 1-19, DOI: 10.1080/01430750.2018.1563816. (BDI - Scopus, Inspec)
- 23 E. Cazacu, L. Petrescu, *Expertise for industrial electrical systems (Expertiza sistemelor electrice industriale)*, Bucharest, Printech, 2014.
- ISI58 M. Stanculescu, C.A. Badea, I. Marinescu, P. Andrei, O. Drosu, H. Andrei, *Vulnerability of SCADA and Security Solutions for a Waste Water Treatment Plant*, 11th ATEE 2019, 28th - 30th March 2018, Bucharest, ISBN 978-1-7281-0101-9, Pages: 1-6, DOI: 10.1109/ATEE.2019.8724889, WOS:000475904500046.
- ISI59 S. Costinas, I. Tristiu, G. N. Sava, I. Opris and V. Tanasiev, *A new mathematical model for assessing optimization decisions of the loading factor flowing through substation transformers*, 2015 IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC), Rome, 2015, pp. 2109 - 2114, ISBN:978-1-4799-7992-9, doi: 10.1109/EEEIC.2015.7165503, WOS:000366654400356.
- 24 E. Cazacu, V. Ioniță, L. Petrescu, *An efficient method for investigating the ferroresonance of single-phase iron core devices*, 10th International Symposium on Advanced Topics in Electrical Engineering ATEE 2017, 23th - 25th March 2017, Bucharest, ISBN 978-1-5090-5160-1, Pages: 363 - 368, DOI: 10.1109/ATEE.2017.7905167, WOS:000403399400071.
- BDI43 Klimas, Maciej, Majka, Łukasz, *Enhancing the possibilities in visualisation of the ferroresonance phenomenon*, Poznan University of Technology Academic Journals. Electrical Engineering (Zeszyty Naukowe Politechniki Poznańskiej. Elektryka), No 98, pp. 115-124, 2019, DOI 10.21008/j.1897-0737.2019.98.0010, ISSN 1897-0737 (BDI - Scopus, WordCAT, Index Copernicus).
- ISI60 Łukasz Majka, Maciej Klimas, *Diagnostic approach in assessment of a ferroresonant circuit*, Electrical Engineering, (Archiv für Elektrotechnik), 2019, <https://doi.org/10.1007/s00202-019-00761-5>, vol. 101, iss. 1, pp. 149-164, ISSN: 0948-7921 (Print) 1432-0487 (Online), WOS:000468966400013.
- 25 E. Cazacu, L. Petrescu, *Derating the three-phase power distribution transformers under nonsinusoidal operating conditions: A case study*, Proceeding on the 16th IEEE International Conference on Harmonics and Quality of Power (ICHQP), pp. 488 - 492, Bucharest 25-28 May 2014, Romania, ISBN 978-1-4673-6487-4, ISSN 2164-0610, DOI:10.1109/ICHQP.2014.6842930, WOS: 0003437761001001.
- BDI44 S.S. Kostinskiy, D.V. Shaikhutdinov, Nu.D. Narakidze, *Loss counter in power double winding transformers implementing the method of conditionally constant coefficients in online mode using the information platform*, Russian Electromechanics, vol. 63, no. 5, pp. 79-85, 2020, ISSN 0136-3360, DOI:10.17213/0136-3360-2020-5-79-85 (BDI - ESCOhost).
- BDI45 B. A. Thango, J. A. Jordaan, A. F. Nnachi, *On the Impact of Solar Photovoltaic Generation on the Thermal Ageing of Transformers*, 2020 6th IEEE

- International Energy Conference (ENERGYCon), pp. 356 – 359, Tunisia, 2020, DOI: 10.1109/ENERGYCon48941.2020.9236471. **(BDI - IEEEExplore)**.
- BDI46 A. Laso, R. Martínez, M. Manana, D. Cervero, J.A. Sáez, *A comparative between IEEE and EN in the transformer derating when supplying nonsinusoidal load current. A practical case*, Renewable Energy and Power Quality Journal (RE&PQJ), Vol. No.18, June 2020, pp. 747 – 752, <https://doi.org/10.24084/repqj18.487> **(BDI - Scopus)**.
- BDI47 S.S. Kostinskiy, D.V. Shaykhtudinov, E.V. Kirievskiy, Y.M. Manatskov, N.D. Narakidze, *Realisation and Approbation of Conditionally Constant Coefficients Method for Loss Counter Measuring Tools*, IOP Conf. Ser.: Mater. Sci. Eng. 665 (2019), 012004, pp. 1-6, doi:10.1088/1757-899X/665/1/012004 **(BDI - Scopus)**.
- ISI61 K.D. McBee, J.Chong, P. Rudraraju, *Demand Side Management Effects on Substation Transformer Capacity Limits*, Appl. Sci. 2019, 9(16), 3266, pp. 1-19, <https://doi.org/10.3390/app9163266>, **WOS:000484444100060**.
- BDI48 V. Mokhov, S. Kostinskiy, D. Shaykhtudinov, A. Lankin, Y. Manatskov, *On the Task of Multi-objective Dynamic Optimization Power Losses*. In: Murgul V., Pasetti M. (eds) International Scientific Conference Energy Management of Municipal Facilities and Sustainable Energy Technologies EMMFT 2018. EMMFT-2018 2018. Advances in Intelligent Systems and Computing, vol 983, pp. 611-619, Springer, Cham, https://doi-org.am.e-information.ro/10.1007/978-3-030-19868-8_58, Print ISBN 978-3-030-19867-1, Online ISBN 978-3-030-19868-8, eBook Packages Intelligent Technologies and Robotics **(BDI - Springerlink)**.
- BDI49 S. S. Kostinskiy, V. A. Mokhov, T. N. Kruglova, D. V. Shaikhutdinov, A. S. Vlasov, *Agent-based approach for analysis of electricity distribution technological processes in power systems*, IOP Conference Series: Materials Science and Engineering, Volume 483, Number 1, paper ID 012080 pp.1-7, 2019, <https://doi:10.1088/1757-899X/483/1/012080>, Print ISSN: 1757-8981, Online ISSN: 1757-899X **(BDI - Scopus)**.
- 26 E. Cazacu, L. Petrescu, V. Ioniță, *Ferroresonance modes determination of single-phase toroidal transformers*, 2017 15th International Conference on Electrical Machines, Drives and Power Systems (ELMA), Sofia, Bulgaria, 2017, pp. 358 - 361, DOI: **10.1109/ELMA.2017.7955463**, WOS: 000413685000074.
- BDI50 S. Boutora, H. Bentarzi, *Ferroresonance Study Using False Trip Root Cause Analysis*, Energy Procedia, volume 162, pp. 306-314, April 2019, <https://doi.org/10.1016/j.egypro.2019.04.032>. ISSN 1876-6102. **(BDI - Scopus, Elsevier)**.
- BDI51 S. S. Kostinskiy, V. A. Mokhov, T. N. Kruglova, D. V. Shaikhutdinov, A. S. Vlasov, *Agent-based approach for analysis of electricity distribution technological processes in power systems*, IOP Conference Series: Materials Science and Engineering, Volume 483, Number 1, paper ID 012080 pp.1-7, 2019, <https://doi:10.1088/1757-899X/483/1/012080>, Print ISSN: 1757-8981, Online ISSN: 1757-899X **(BDI - Scopus)**.

- 27 E. Cazacu, L. Petrescu, *On-site derating of in-service power distribution transformers supplying nonlinear loads*, Revue Roumaine des Sciences Techniques – Série Electrotechnique et Energétique, Ed. Academiei Române, tome 59, no. 3, p. 259-268, Bucarest, 2014, ISSN 0035-4066, WOS: 000341801300004.
- ISI62 S. Boutora, H.D Bentarzi, *Study of ferroresonance favorable cases in electric substations*, Rev. Roum. Sci. Techn. – Électrotech. et. Énerg., 63, 4, Bucharest 2018, ISSN 0035-4066, pp. 359- 364, **WOS: 000459843500002**.
- 28 E. Cazacu, L. Petrescu, M.C. Petrescu, *The Major Predictive Maintenance Actions of the Electric Equipments in the Industrial Facilities*, The Scientific Bulletin of Electrical Engineering Faculty, vol. 18 (1), pp. 26 - 33, ISSN 2286-2455, DOI: **10.1515/SBEEF-2017-0018**.
- ISI63 M. Stanculescu, C.A. Badea, I. Marinescu, P. Andrei, O. Drosu, H. Andrei, *Vulnerability of SCADA and Security Solutions for a Waste Water Treatment Plant*, 11th ATEE 2019, 28th - 30th March 2019, Bucharest, ISBN 978-1-7281-0101-9, Pages: 1-6, DOI: 10.1109/ATEE.2019.8724889, **WOS:000475904500046**.
- 29 V. Ionita, E. Cazacu, L. Petrescu, *Effect of voltage harmonics on iron losses in magnetic cores with hysteresis*, Proc. ICHQP, Ljubljana, Slovenia, 2018, pp. 1-5.
- BDI52 J. Ou, Y. Liu and M. Doppelbauer, *Comparison Study of a Surface-mounted PM Rotor and an Interior PM Rotor Made from Amorphous Metal of High-speed Motors*, in IEEE Transactions on Industrial Electronics, pp. 1 - 11, doi: 10.1109/TIE.2020.3026305. (**BDI - IEEEExplore**).
- BDI53 A. Çiçek, A. K. Erenoglu, O. Erdiñç, A. Bozkurt, A. Tascıkaraoglu, J. P.S. Catalao, *Implementing a demand side management strategy for harmonics mitigation in a smart home using real measurements of household appliances*, International Journal of Electrical Power & Energy Systems, Volume 125, 2021, 106528, pp. 1-10, ISSN 0142-0615, <https://doi.org/10.1016/j.ijepes.2020.106528>. (**BDI - IEEEExplore**).
- ISI64 Lucas F. J. Meloni, Fernando L. Tofoli, Ângelo J. J. Rezek and Enio R. Ribeiro, *Modeling and Experimental Validation of a Single-Phase Series Active Power Filter for Harmonic Voltage Reduction*, IEEE Access (Early Access), Date of Publication: 17 October 2019, Electronic ISSN: 2169-3536, DOI: 10.1109/ACCESS.2019.2947917, **WOS:000497163000127**.

Conf.dr.ing. Lucian PETRESCU

12 ianuarie 2021

