

LISTA DE LUCRĂRI

Șef lucrări dr. Ing. Lucian-Gabriel PETRESCU

I. TEZA DE DOCTORAT

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

II. CĂRȚI PUBLICATE

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

- Ca1. **L. Petrescu** - *Bazele electrotehnicii - Elemente de teorie a campului electromagnetic*, Editura Politehnica Press, 2015, ISBN 978-606-515-625-8, 220 pagini (Cod CNCSIS Editura 19).
- Ca2. 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 CNCSIS Editura 39).

b) Cărți de specialitate publicate în edituri recunoscute.

- Cb1. E. Cazacu, **L. Petrescu** – *Expertiza sistemelor electrice industriale*, Editura Printech, București, 2014, ISBN 978-606-23-0231-3, 300 pagini (Cod CNCSIS Editura 54).
- Cb2. 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 (Cod CNCSIS Editura 19).

III. ALTE MATERIALE PUBLICATE

a) Culegeri și îndrumare publicate.

- I1. G. Epureanu, **L. Petrescu**, C. Popescu, *Teoria Circuitelor Electrice - Aplicații*, Editura MatrixRom, ISBN 978-973-755-660-8, 2010, 330 pagini (Cod CNCSIS Editura 39).
- I2. **L. Petrescu**, G. Epureanu, *Probleme de Bazele Electrotehnicii (Partea I)*, Editura Printech, ISBN 978-973-718-841-0, 2007, 147 pagini (Cod CNCSIS Editura 54).

b) Suport de curs în format electronic

- N1. **L. Petrescu**, *Electrotehnică* - note de curs și aplicații pentru studiul individual, pentru uzul studenților Facultății de Transporturi, Secția Material Rulant – Departamentul de Electrotehnică, Universitatea POLITEHNICA din București, 2014 (52 pagini).
- N2. **L. Petrescu**, *Informatică Aplicată I* - note de curs, pentru uzul studenților Facultății de Inginerie Electrică – Departamentul de Electrotehnică, Universitatea POLITEHNICA din București, 2012 (82 pagini).

c) Sisteme de laborator funcționale

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

IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE

a) în reviste de specialitate de circulație internațională recunoscute cotate sau indexate ISI –Thomson (13).

- Ris1. 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 (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000365935800003**).
- Ris2. **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 (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000350923900006**).
- Ris3. 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 (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS:000341801300004**).
- Ris4. 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. (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS:000324447900002**).
- Ris5. **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 (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000320488100004**).
- Ris6. 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** (cotat ISI –Thomson Master Journal List – **IF 2013: 0.642, WOS: 000322179400019**).
- Ris7. 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, (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000305202600005**).
- Ris8. 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. (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000303096800001**).
- Ris9. 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 (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000264503000009**).
- Ris10. 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** (cotat ISI –Thomson Master Journal List – **IF 2013: 2,538, WOS: 000249020500109**).
- Ris11. **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 (cotat ISI –Thomson Master Journal List – **IF 2013: 0.368, WOS: 000255783700005**).
- Ris12. V. Ioniță, **L. Petrescu**, A. Razicheanu, *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. (cotat ISI –Thomson Master Journal List – **IF 2013: 0.737, WOS: 000248151100033**).

- Ris13. 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. (cotat ISI –Thomson Master Journal List – **IF 2013: 0.563, WOS: 000238506500020**).

b) în alte reviste de specialitate de circulație internațională (indexate BDI) (5).

- Rio1. **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)
- Rio2. 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.
(ULRICHS INTERNATIONAL PERIODICALS DIRECTORY, INSPEC, SCOPUS, ELSEVIER SCIENCES BIBLIOGRAPHIC DATABASES, metadex, ENGINEERING VILLAGE, CAMBRIDGE SCIENTIFIC ABSTRACTS, ENGINEERED MATERIALS ABSTRACTS)
- Rio3. **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 SCIENCES BIBLIOGRAPHIC DATABASES, metadex, ENGINEERING VILLAGE, CAMBRIDGE SCIENTIFIC ABSTRACTS, ENGINEERED MATERIALS ABSTRACTS)
- Rio4. **L. Petrescu**, *Modified Ossart model for magnetic characterization*, Journal of Advanced Research in Physics 1(2), 021003 (2010), ISSN (on-line): 2069-7201
(GOOGLE SCOLAR)
- Rio5. **L. Petrescu**, *Magnetic Model for High Frequency Experimental Data*, Journal of Advanced Research in Physics 1(2), 021004 (2010), ISSN (on-line): 2069-7201.
(GOOGLE SCOLAR)

c) în alte reviste de specialitate de circulație național (1).

- Rno1. **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) Articole/studii publicate în volumele unor manifestări științifice indexate ISI Thomson (9)

- Vis1. **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, DOI:10.1109/ATEE.2015.7133863 (Indexări BDI: ISI – Thomson **WOS: 000368159800098**, IEEE Explore)
- Vis2. 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, DOI: **10.1109/ATEE.2015.7133759** (Indexări BDI: ISI – Thomson **WOS: 000368159800030**, IEEE Explore)
- Vis3. 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, DOI: **10.1088/1742-6596/585/1/012003**, WOS: 000352196800003.
- Vis4. 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 (Indexări BDI: ISI – Thomson **WOS:0003437761001001**, IEEE – Catalog Number: CFP14CHP-

ART, INSPEC – Accession Number: 14399062, SCOPUS).

- Vis5. 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** (Indexări BDI: ISI – Thomson **WOS:000343776100173**, IEEE Catalog Number: CFP14CHP-ART, INSPEC – Accession Number: 14399079, SCOPUS).
- Vis6. 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** (Indexări BDI: ISI – Thomson **WOS:000332928500044**, IEEE – Catalog Number: CFP1314P-CDR, INSPEC – Accession Number: 13778453).
- Vis7. 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** (Indexări BDI: ISI – Thomson **WOS:000332928500106**, IEEE – Catalog Number: CFP1314P-CDR, INSPEC – Accession Number: 13778540).
- Vis8. C. Constantinescu, N. Scarisoreanu, A. Moldovan, M. Dinescu, M. Miron, **L. Petrescu**, *Thin films of NdFeB deposited by PLD technique - art. no. 660619*, Proceedings of the society of photo-optical instrumentation engineers (SPIE), 14th International Conference on Advanced Laser Technologies, Brașov, 2006, **DOI: 10.1117/12.729509**, (Indexat ISI – Thomson **WOS:000246689900044**).
- Vis9. 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, (Indexat ISI – Thomson **WOS:000250107700034**).

e) Articole/studii publicate în volumele unor manifestări științifice indexate în BDI (5)

- Vi1. **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 (IEEE Explore)
- Vi2. **L. Petrescu**, A. Bordianu, V. Ioniță, *Efficiency of 2D homogenization formulas for magnetic nanocomposite materials*, SNET'12, ISSN (on-line) 2067 – 4147, Bucharest, 2012. (GOOGLE SCOLAR)
- Vi3. Radu C. Popa, Mihai Rebican, Gabriel Preda, **L. Petrescu**, *Numerical Characterization Method for Magnetic Materials with Vector Hysteresis*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'08, Bucuresti, 2008, ISBN 978-606-521-045-5. (GOOGLE SCOLAR)
- Vi4. 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. (GOOGLE SCOLAR)
- Vi5. V. Ioniță, **L. Petrescu**, *Preisach modelling accuracy for magnetic recording materials*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET'05, Bucuresti, 2005, ISBN 973-618-268-5. (GOOGLE SCOLAR)

f) Articole/studii publicate în volumele unor manifestări științifice internaționale neindexate BDI (11).

- Vin1. 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.
- Vin2. 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, Athens, Greece.
- Vni3. **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, 5-7 Septembrie 2007, Sibiu.
- Vin4. 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. 20.
- Vin5. 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.
- Vin6. **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.
- Vin7. V. Ioniță, **L. Petrescu**, A. Razicheanu, *Magnetic Material Investigation by Kerr Microscopy*, Proceeding Conference, ISEM 2005, Bad Gastein, Austria, ISBN 3-902105-00-1, pp. 88-89.
- Vin8. **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.
- Vin9. **L. Petrescu**, G. Epureanu, H. Gavrilă, *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.
- Vin10. 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.
- Vin11. V. Ioniță, H. Gavrilă, 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.

g) Articole/studii publicate în volumele unor manifestări științifice naționale neindexate BDI (7).

- Vn1. **L. Petrescu**, A. Chirilă, *Modeling of an electromagnetic device with histeretic materials*, Proc. Conference, Simpozionul Național de Electrotehnică Teoretică, SNET’09, Bucuresti, 2009, ISSN 2067 - 4147.
- Vn2. **L. Petrescu**, *Comparison between amorphous and nanocrystalline materials used in high frequencies*, Proceeding Conference, Simpozionul Național de Elth Teoretică, SNET’07, Bucuresti, 2007, ISBN 978-973-718-899-1.
- Vn3. Radu C. Popa, Mihai Rebican, Gabriel Preda, **L. Petrescu**, *Numerical Characterization Method for Magnetic Materials with Hysteresis*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET’07, Bucuresti, 2007, ISBN 978-973-718-899-1.
- Vn4. V. Ioniță, **L. Petrescu**, *Preisach modelling accuracy for magnetic recording materials*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET’05, Bucuresti, 2005, ISBN 973-618-268-5.
- Vn5. D. Băzăvan, **L. Petrescu**, *Studiul asupra unui mediu dur de înregistrare magnetică*, Proceeding Conference, Simpozionul Național de Electrotehnică Teoretică, SNET’05, Bucuresti, 2005, ISBN

973-618-268-5.

- Vn6. 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, ISBN 973-718-096-8.
- Vn7. **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, ISBN 973-718-096-8.

V. BREVETE DE INVENȚIE

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VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE

a) Proiecte de cercetare-dezvoltare -inovare obtinute prin competitie

- Pi1. Nanostructured and amorphous magnetic alloys for high-frequency applications – Bilateral (Italo-Romanian) (2006 – 2009)
- Pn1. *Mașini electrice cu eficiență sporită, prin utilizarea unor soluții tehnice avansate, bazate pe predeterminarea proprietăților magnetice ale tolelor (MEF-MAG) – Parteneriate (2012 – 2016)*
- Pn2. *Program strategic pentru promovarea inovării în servicii prin educație deschisă, continuă (INSEED) - POSDRU/86/1.2/S/57748 (2011 – 2013) – Expert pe termen lung*
- Pn3. *Sistem micro - electro - mecanic cu aplicatii in reconstructia microchirurgicala a nervilor periferici (RECONNECT) – Parteneriate (2008 – 2011)*
- Pn4. *Biochip microfluidic pentru caracterizarea reologica a fluidelor biologice ne-newtoniene cu aplicatii in diagnoza si tratament medical (MELANOCHIP) – Parteneriate (2008 – 2011)*
- Pn5. *Impactul câmpurilor electromagnetice de natură antropică asupra ecosistemelor (ICEMECOS) – proiect Ceex (2006 – 2008)*
- Pn6. *Dezvoltarea unor modele experimentale si numerice de caracterizare a materialelor magnetice cu histerezis (MATHYS) – proiect Ceex (2006 – 2008)*
- Pn7. *Aprofundarea cunoștințelor de spintronică prin dezvoltarea fizicii compușilor Heusler ajustabili (ASPIDHA) – proiect Ceex (2005 – 2008)*
- Pn8. *Metoda experimentală pentru studiul materialelor cu proprietăți magnetice prin efect magneto-optic KERR (MAGNE-KERR) – proiect Ceex (2005 – 2008)*
- Pn9. *Sistem microfluidic integrat pentru analiza în vitro a fluidelor biologice cu aplicații în diagnoză și tratament medical (MICRODIAG) – proiect Ceex (2005 – 2008)*
- Pn10. *Cercetări fundamentale și aplicative integrate în domeniul materialelor multifuncționale nanostructurate (NANOCONS)” – grant CNCSIS (2005 – 2007)*
- Pn11. *Analiza configurațiilor statice și dinamice de magnetizație în materiale magnetice prin efect magneto-optic - proiect CERES (2004 – 2006)*
- Pn12. *Mijloace de protecție complexă la interferența electromagnetică pe nave militare – proiect CERES (2004 – 2006)*
- Pn13. *Reducerea amprentei magnetice a navei militare în scopul protecției împotriva câmpurilor de mine marine – proiect CERES (2003 – 2005)*
- Pn14. *Instalații de conversie energetică neconventională de mica putere, bazată pe integrarea unor materiale avansate și soluții tehnologice noi” – proiect RELANSIN (2003 – 2005)*
- Pn15. *Soluții noi de optimizare a ecranelor de protecție pentru radiații electromagnetice neionizate în gama extinsă de frecvență 500 kHz – 10GHz – proiect CERES (2002 – 2004)*

b) 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 (E1, E2 etc.) etc.

VIII. Citări (ISI+BDI) (18+7):

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

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.

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.

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Ș.I.dr.ing. Lucian PETRESCU

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