

## LISTA DE LUCRĂRI

asistent dr.ing. Mărginean Ignat-Călin

### A. Lista celor 10 lucrări relevante:

1. *Determination of the switched reluctance motor inductivity using artificial neural networks* (V. Trifa, O. Rabulea, **C. Mărginean**). Proceedings of the 4th Int. Conf. on Electromechanical and Power Systems, SIELMEN'04, Chisinau, 26-27 sept. 2003, vol. 1, pp. 19-22.
2. *Implementation of a virtual laboratory for electric reluctant motors using labview environment* (V. Trifa, **C. Mărginean**, C.Rusu). Proceedings of INTER-ING Conference, Tg. Mures, 10-11 nov. 2005.
3. *Experimental test bench for reluctance motors using ds1104 controller board* (**C. Mărginean**, V. Trifa, Ana-Maria Mărginean and E. Trifu). Annals of the University of Craiova, Electrical Engineering series, No. 33, 2009; ISSN 1842-4805, pp.122-126. (CNCSIS – CATEG. **B** cod 174, nr.crt.20 în prezent B+).
4. *Setting-up 3D-FEM analysis of an inverse reluctance motor for driving light electric vehicles* (V. Trifa, **C. Mărginean**, Olivia Trifa). The 8th Electromotion Conference, EPE Chapter “Electric Drives”, July 1-3, 2009, Lille-France. ISBN: 978-2-915913-25-5 / EAN: 9782915913255. Printed on CD. (WOS:000278587400038 – Thomson Reuters – web of knowledge)
5. *Preliminary design of Reluctance Motors for Light Electric Vehicles Driving* (V. Trifa, **C. Mărginean**). Romanian Academy of Technical Science, Stefan cel Mare University of Suceava, Advances in Electrical and Computer Engineering, no.I, 2009, pp.78-81. (WOS:000264815300015 – Thomson Reuters – web of knowledge)
6. *Simulation of Temperature Control in Fermentation Bioreactor for Ethanol Production* (Ana Maria Mărginean, **C. Mărginean**, V. Trifa). Journal of Computer Science and Control Systems, vol.5, Nr.1, May 2012, pp.55-59, Editura Universitatii din Oradea, ISSN 1844-6043.(CNCSIS CATEG. **B+**, Cod 681 și INDEX COPERNICUS, PROQUEST)
7. *Design and Implementation of a PWM Inverter for Reluctance Motors* (**C. Mărginean**, Ana-Maria Mărginean, I. Vese, V. Trifa, E. Trifu). Journal of Computer Science and Control Systems, vol.5, Nr.2, October 2012, pp.23-26, Editura Universitatii din Oradea, ISSN 1844-6043.(CNCSIS CATEG. **B+**, Cod 681 și INDEX COPERNICUS, EBSCO, PROQUEST)
8. *Analysis of an outer-rotor reluctance motor using the transient magnetic model* (C. Chertes, V. Dordea, **C. Mărginean**, V. Trifa). Buletinul AGIR nr. 4/2012, ISSN – L 1224-7928, pp. 55-60. (CNCSIS CATEG. **B+**, Cod 415)

9. *Hardware-in-the-Loop Simulation and Implementation of Direct Thrust-Force Control of Two Phase Tubular Permanent-Magnet Actuator* ( I.C. Vese, M.M. Radulescu, **I.C. Marginean**, D.P. Teodosescu). IEEE International Conference on Automation, Quality and Testing, Robotics AQTR 2012, MAY 24-27, Cluj Napoca, ROMANIA. (WOS:000400227100028-Thomson Reuters - web of knowledge)
10. *FPGA Real-Time Implementation of a Vector Control Scheme for a PMSM used to propel an Electric Scooter* (I. Gros, **C.Mărginean**, D. Fodorean), IEEE ISEEE, Galati, Romania, 20-22 October 2017. DOI: 10.1109/ISEEE.2017.8170666, Date Added to IEEE *Xplore*: 11 December 2017.

#### **B. Teza de doctorat:**

1. **Mărginean Ignat-Călin** - „Cercetări privind utilizarea motoarelor electrice reluctante în sisteme de acționare pentru transportul electric individual”, data susținerii 26.09.2015, Universitatea Tehnică din Cluj-Napoca, Domeniul de studiu Inginerie Electrică, Conducător științific- Prof.dr.ing. Viorel Trifa. Data obținerii titlului de doctor 07.12.2015.

#### **C. Cărți publicate și capitole în cărți publicate:**

1. Ștefan Breban, Ioana Gros, **Călin Marginean**, Petre Teodosescu – “*Fuzzy Logic Energy Management for a Residential Power System Using Renewable Energy Sources*”, capitol în "Modern Fuzzy Control Systems and Its Applications," ISBN 978-953-51-3390-2, pp.127-137, 2017. DOI: 10.5772/intechopen.69486.

#### **D. Lucrări științifice publicate în reviste de prestigiu sau volume ale manifestărilor naționale sau internațional**

##### **I. Lucrări publicate în reviste cotate ISI:**

1. *Preliminary design of Reluctance Motors for Light Electric Vehicles Driving* (V. Trifa, **C. Marginean**). Romanian Academy of Technical Science, Stefan cel Mare University of Suceava, Advances in Electrical and Computer Engineering, no.I, 2009, pp.78-81. (WOS:000264815300015 – Thomson Reuters – web of knowledge)

##### **II. Lucrări publicate în ISI proceedings**

1. *Direct electric in-wheel driving of a bicycle using reluctant motors* (V. Trifa, M. Cistelecan, **C. Marginean**). Proceedings of the 7th Electromotion Conference, 10-12 Sept. 2007, Bodrum – Turkey, ISBN 978-975-93410-2-2, pp.17-20. **INSPEC Accession Number:** 10013922, DOI: 10.1109/ACEMP.2007.4510477 (IEEE)
2. *Contributions regarding the development of a light urban transportation vehicle – motor and PWM inverter design* (V. Trifa, **C. Marginean**, E. Trifu). Proceedings of OPTIM-2008 Conference, Brasov, 22-24 May 2008, vol. II-A, ISBN 978-973-131-030-5, pp. 307-312.(WOS:000258258700051-Thomson Reuters-web of knowledge)



3. *FEM Analysis of Reluctant Motors for Direct Driving of the Light Electric Vehicles* (V. Trifa, **C. Marginean**, Olivia Trifa). The XVIII International Conference on Electrical Machines ICEM'08, Vilamoura, Portugal, 6-9 Sept. 2008. IEEE Catalog Number CFP0890B-CDR, ISBN 978-1-4244-1736-0. Printed on CD. (WOS:000269315000190 – Thomson Reuters – web of knowledge)
4. *Setting-up 3D-FEM analysis of an inverse reluctance motor for driving light electric vehicles* (V. Trifa, **C. Marginean**, Olivia Trifa). The 8th Electromotion Conference, EPE Chapter “Electric Drives”, July 1-3, 2009, Lille-France. ISBN: 978-2-915913-25-5 / EAN: 9782915913255. Printed on CD. (WOS:000278587400038 – Thomson Reuters – web of knowledge)
5. *Hardware-in-the-Loop Simulation and Implementation of Direct Thrust-Force Control of Two Phase Tubular Permanent-Magnet Actuator* ( I.C. Vese, M.M. Radulescu, **I.C. Marginean**, D.P. Teodosescu). IEEE International Conference on Automation, Quality and Testing, Robotics AQTR 2012, MAY 24-27, Cluj Napoca, ROMANIA. (WOS:000400227100028-Thomson Reuters - web of knowledge)
6. *Implementation of SVM-based Direct Thrust Control of two-phase permanent magnet tubular synchronous actuators*(Gros I.C., Radulescu M., Teodosescu P., **Marginean C.**) 9th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2015, Bucuresti, Romania, 7-9 May, WOS:000368159800042 - Thomson Reuters - web of knowledge, INSPEC Accession Number: 15240866 DOI: 10.1109/ATEE.2015.7133771, Date Added to IEEE *Xplore*: 25 June 2015, Scopus)

### III. Lucrări publicate în volumele unor manifestări naționale sau internaționale (indexate în baze de date) și reviste naționale de prestigiu (indexate în baze de date)

1. *Simulation, implementation and testing of a new pwm inverter for supplying reluctant motors* (**C. Marginean**, V. Trifa, E. Trifu). Proceedings of the 6th National Conference on Industrial Energetics – CNEI 2007, Univ. din Bacau, 1-3 nov. 2007, Ed. Alma Mater, Bacau 2008, ISSN 1224-7480, vol. 1, pp. 163-166.(VINITI-[http://catalog.viniti.ru/srch\\_result.aspx?IRL=FETCH+QUERY%3d2353838+OBJ%3d002zbz2y+STYLE%3dFull1&TYP=FULL1](http://catalog.viniti.ru/srch_result.aspx?IRL=FETCH+QUERY%3d2353838+OBJ%3d002zbz2y+STYLE%3dFull1&TYP=FULL1))
2. *Design and FEM analysis of a special reluctant motor for driving light electric vehicles* (V. Trifa, **C. Marginean**, Olivia Trifa). Analele Universitatii din Craiova, Seria Inginerie electrica, Anul 32, nr. 32, 2008, ISSN 1842-4805, pp. 108-111. (CNCSIS – CATEG. **B** cod 174, nr.crt.20 in prezent B+.)
3. *Experimental test bench for reluctance motors using ds1104 controller board* (**C. Marginean**, V. Trifa, Ana-Maria Marginean and E. Trifu). Annals of the University of Craiova, Electrical Engineering series, No. 33, 2009; ISSN 1842-4805, pp.122-126. (CNCSIS – CATEG. **B** cod 174, nr.crt.20 în prezent B+.)
4. *Magnetic field analysis of an inverse reluctance motor for light traction purposes* (V. Trifa, **C. Marginean**, G. Ciubuca). Annals of the University of Craiova, Electrical Engineering series, No. 33, 2009; ISSN 1842-4805, pp.198-201. (CNCSIS – CATEG. **B** cod 174, nr.crt.20 în prezent B+.)

5. *Artificial Intelligence Based Electronic Control of Switched Reluctance Motors* (Terec R., Chindriș V., Szabó L., **Mărginean C.**). Journal of Computer Science and Control Systems, Oradea (Romania), vol. 4, no. 1, 2011, pp. 193-198. ISSN: 1844-6043 (CNCSIS CATEG. **B+**, Cod 681 și INDEX COPERNICUS, PROQUEST)
6. *Axially-magnetized tubular permanent-magnet actuators for direct-drive linear motion systems - A review* (Ioana-Cornelia Vese, M.M. Radulescu, P.D. Teodosescu, **I.C. Marginean**), Electromotion Journal, nr. 4, vol 18, pp 259-267, ISSN 1223 - 057X, 2011.(Inspec UK).
7. *Simulation of Temperature Control in Fermentation Bioreactor for Ethanol Production* (Ana Maria Marginean, **C. Marginean**, V. Trifa). Journal of Computer Science and Control Systems, vol.5, Nr.1, May 2012, pp.55-59, Editura Universitatii din Oradea, ISSN 1844-6043.(CNCSIS CATEG. **B+**, Cod 681 și INDEX COPERNICUS, PROQUEST)
8. *Analysis of an outer-rotor reluctance motor using the transient magnetic model* (C. Chertes, V. Dordea, **C. Marginean**, V. Trifa). Buletinul AGIR nr. 4/2012, ISSN – L 1224-7928, pp. 55-60. .(CNCSIS CATEG. **B+**, Cod 415).
9. *Design and Implementation of a PWM Inverter for Reluctance Motors* (**C. Marginean**, Ana-Maria Marginean, I. Vese, V. Trifa, E. Trifu). Journal of Computer Science and Control Systems, vol.5, Nr.2, October 2012, pp.23-26, Editura Universitatii din Oradea, ISSN 1844-6043.(CNCSIS CATEG. **B+**, Cod 681 și INDEX COPERNICUS, EBSCO, PROQUEST)
10. *Electromagnetic and Dynamic Performance Analysis of a Two-Phase Permanent-Magnet Tubular Linear Actuator*(Gros Ioana-Cornelia, Rădulescu Mircea, **Mărginean Călin**, Teodosescu Petre). *Acta Electrotehnica*, Mediamira Science Publisher, ISSN 1841-3323, Vol. 56, No. 4, pp.171-174, 2015. .(CNCSIS CATEG. **B+**, Cod 576 și INDEX EBSCO)
11. *FPGA Real-Time Implementation of a Vector Control Scheme for a PMSM used to propel an Electric Scooter* (I. Gros, **C.Mărginean**, D. Fodorean), IEEE ISEEE, Galati, Romania, 20-22 October 2017. DOI: 10.1109/ISEEE.2017.8170666, Date Added to IEEE Xplore: 11 December 2017.

#### IV. Articole publicate in cadrul conferintelor naționale sau internaționale (neindexate)

1. *Simulink models for the investigation of variable reluctance stepping motors dynamics* (V. Trifa, **C. Marginean**, O. Rabulea, L. Zarnescu). Proceedings of the 7th International Conference EMES'03, Felix-Oradea, Analele Universitatii din Oradea, fascicula Electrotehnica, ISSN – 1223-2106, pp. 334-337.(in prezent **B+**)
2. *Determination of the switched reluctance motor inductivity using artificial neural networks* (V. Trifa, O. Rabulea, **C. Marginean**). Proceedings of the 4th Int. Conf. on Electromechanical and Power Systems, SIELMEN'04, Chisinau, 26-27 sept. 2003, vol. 1, pp. 19-22.



3. *Auto-tuning of switched reluctance motor drives based on artificial neural networks* (V. Trifa, A. Graur, O. Rabulea , **C. Marginean**). Proceedings of the 12th Intern. Symposium on Power Electronics – Ee 2003, Novi Sad, Serbia&Montenegro. Printed on CD, paper no. T4-1.3, pp 1-3.
4. *Self-commissioning of switched reluctance motor drives based on artificial neural networks* (V. Trifa, O. Rabulea, **C. Marginean**). Proceedings of 5th Electromotion Conference, 26-28 nov. 2003, Marrakesh – Maroc, ISSN 1223-057X, pg. 619-622, vol.II.
5. *Investigation of variable reluctance stepping motors dynamics using Matlab-Simulink environment* (V. Trifa, **C. Marginean**, L. Zarnescu). Proceedings of the 7th International Conference on Development and Application Systems, ISBN 973-666-106-7, 27-29 May 2004, Suceava, pp. 164-166.
6. *New strategies to improve performances of the variable reluctance stepping motors based electrical drive systems* (V. Trifa, **C. Marginean**, I. Precup). Buletinul Institutului Politehnic Iasi, Tomul L(LIV), Fasc.5C, 2004, ISSN 1223-8139, pp.1099-1104.(in prezent B+)
7. *Optimal design of variable reluctance stepping motors based electrical drive systems* (V. Trifa, **C. Marginean**, I. Precup). Proceedings of papers, B. Herculane 2004, Ed. Universitaria Craiova, 2004, ISBN 973-8043-554-4, pp. 194-196.
8. *Overview on electrical drives using reluctant motors* (V. Trifa, **C. Marginean**). Colocviul de Echipamente electrice de actionari industriale, 21 sept 2005, ICPE-ACTEL S.A. Printed on CD, ISBN 973-7728-33-5.
9. *Aspects regarding reluctant motors based electrical drives* (V. Trifa, **C. Marginean**). Proceedings of ECO-EIC'05 Conference, 23-24 sept. 2005, Sibiu, ISBN 973-739-138-1, pp. 169-174.
10. *Aspects concerning the implementation of a virtual laboratory for electric reluctant motors using the internet* (V. Trifa, **C. Marginean**, C. Rusu). Proceedings of 6th Electromotion Conference, 27-29 sept. 2005, Lausanne – Switzerland. Printed on CD.
11. *Testing platform for electric reluctant motors using LabView environment* (V. Trifa, **C. Marginean**, L. Zarnescu). Proceedings of CNEI 05 Conference, 10-12 nov. 2005, Bacau, ISSN 1224-7480, vol. III, pp. 180-185.
12. *Implementation of a virtual laboratory for electric reluctant motors using labview environment* (V. Trifa, **C. Marginean**, C.Rusu). Proceedings of INTER-ING Conference, Tg. Mures, 10-11 nov. 2005.
13. *Digitally controlled driver for supplying electric reluctant motors* (V. Trifa, **C.Marginean**, L. Zarnescu). Proceedings of the 8th International Conference on Development and Application Systems, ISBN 973-666-106-7, 25-27 May 2006, Suceava, pp. 160-163.

14. *Remote controlled test benching for reluctant motor based electric drives* (V. Trifa, **C. Marginean**, L. Zarnescu). Proceedings of the 37th International Symposium of the Military Equipment & Technologies Research Agency, 25-27 May 2006, Bucharest, ISBN 973-0-03501-6, Vol. II, Ships and Board Installations, Printed on CD.
15. *Simulation, implementation and testing of a PWM inverter for reluctant motors* (V. Trifa, **C. Marginean**, L. Zarnescu). The 6th International Conference on Renewable Sources and Environmental Electro-technologies, 8 - 10 June 2006, Oradea, pp.
16. *Aspects concerning the implementation of electric bikes in the urban transportation of Cluj-Napoca City* (V. Trifa, M.M. Radulescu, **C. Marginean**, Carmen Ciurtin). Buletinul Univ. Petrol-Gaze din Ploiesti, Seria Tehnica, vol. LVII, no. 2 bis/2006, ISSN: 1224-8495, pp. 281-288. (CNCSIS CATEG. C, COD 37/2006 în prezent **B+**)
17. *A case study concerning the implementation of electric bicycles using reluctant motors* (V. Trifa, **C. Marginean**). Buletinul Institutului Politehnic Iasi, tomul LII (LIV), fasc 5/2006.
18. *Preliminary study of the in-wheel drive of electric bike* (V. Trifa, **C. Marginean**, L. Zarnescu). First Intern. Symp. on Electric and Electronic Engineering, Galati, Editura Fundatiei Universitare "Dunarea de jos", pp. 179-182. (Editura recunoscuta CNCSIS 2006).
19. *Aspects concerning the design of a special reluctant motor for direct electrical drive of a bicycle* (V. Trifa, **C. Marginean**, C. Truta), First Intern. Symp. on Electric and Electronic Engineering, Galati, Editura Fundatiei Universitare "Dunarea de jos", pp. 183-186. (Editura recunoscuta CNCSIS 2006)
20. *A case study regarding the implementation of an electric bicycle using reluctant motors* (V. Trifa, **C. Marginean**, L. Zarnescu). Analele Univ. Craiova, Seria Inginerie electrica, anul 30, nr. 30, 2006, pp. 153-156. (CNCSIS CATEG. C)
21. *Design and field simulation of a reluctant motor for in-wheel driving electric bikes* (V. Trifa, **C. Marginean**, M. Albu). Annals of the University of Petrosani, Electrical Engineering, 8(2006), ISSN 1454-8518, pp. 226-231. (CNCSIS CATEG. C, Cod 24)
22. *Study and design of a special reluctant motor for direct electrical drive of a bicycle* (V. Trifa, C. Rusu, **C. Marginean**). Sielmen Conference, Chisinau, 2007. Analele Universitatii din Craiova, seria: Inginerie electrica, anul 31, nr. 31, 2007, vol I, ISSN 1842-4805, pp. 25-30 (CNCSIS CATEG. C, Cod 174/2007 în prezent **B+**)
23. *Consideratii privind actionarea electrica a bicicletei folosind motoare reluctante* (V. Trifa, **C. Marginean**). Simpozionul SME'07, ICPE-ME Bucuresti, 16-17 oct. 2007, ISSN 1843-5912. Publicat pe CD.
24. *Studiu comparativ privind actionarea electrica a bicicletelor folosind motoare electrice reluctante de constructie speciala* (V. Trifa, **C. Marginean**). Simpozionul SME'08, ICPE-ME Bucuresti, 2-3 sept. 2008, ISSN 1843-5912. Publicat pe CD.

25. *Design and analysis of a reluctant motor for driving the electric bicycle* (V. Trifa, **C. Marginean**). Scientific Bulletin of the Politehnica University of Timisoara, Romania, Transaction of Power Engineering, Tom 53(67), 2008, ISSN 1582-7194, pp.279-282.
26. *Integrated design approach for energy-efficient brushless DC motors* (M.M. Radulescu, V. Trifa, Ioana Vese, C. Simon, Carmen Ciurtin and **C. Marginean**). Proceedings of the 2nd International Symposium on Electrical and Electronics Engineering. Sept. 12-13, Galati, Romania, ISSN 1844-8054, pp. 332-335.
27. *General study of reluctance motors for driving light electric vehicles* (V. Trifa, **C. Marginean**). Buletinul Institutului Politehnic Iasi tomul LIV (LVIII), fasc. 4, 2008, Electrotehnica, Energetica, Electronica, ISSN 1223-8139, pp. 645-650. CNCSIS CATEG. C, Cod 87/2008 în prezent B+ și INDEX COPERNICUS)
28. *Evaluarea electromagnetica a motorului electric reluctant inversat, folosind mediul flux 3D* (V. Trifa, **C. Marginean**, G. Ciubuca). Simpozionul de masini electrice SME'09, Oct. 2009. ISSN 1843-5912. Printed on CD.
29. *3D Graphical Investigation of an Inverse Reluctance Motor for Driving Light Electric Vehicles* (V. Trifa, A. Graur, **C. Marginean**). The 15th Intern. Symposium on Power Electronics – Ee 2009, Novi Sad, Serbia, 28-30 Oct. 2009. Printed on CD.
30. *Computer Controlled Experimental Equipment for Reluctance Motors* (**C. Marginean**, V. Trifa, Ana-Maria Marginean). The 15th Intern. Symposium on Power Electronics – Ee 2009, Novi Sad, Serbia, 28-30 Oct. 2009. Printed on CD.
31. *Simulation of Fermentation Bioreactor Control for Ethanol Production* (Ana Maria Marginean, V. Trifa, **C. Marginean**). Proceedings of 11th International Conference on DEVELOPMENT AND APPLICATION SYSTEMS, Suceava, Romania, May 17-20, 2012, pp.17-20, on CD, ISSN 1844-5039 <http://www.dasconference.ro/cd2012/>

#### **E. Lucrări de laborator nou introduse, redactate și realizate practic:**

1. Laborator 1 – Circuite logice fundamentale I;
2. Laborator 2 – Introducere în OrCAD Capture și PSpice;
3. Laborator 3 - Circuite logice fundamentale II.

#### **F. Lista contractelor de cercetare:**

#### **I. Responsabil al unor proiecte și contracte de cercetare câștigate prin competiție**

1. Contract nr. 526/2007, cu titlul: CERCETARI PRIVIND UTILIZAREA MOTOARELOR ELECTRICE RELUCTANTE IN SISTEME DE ACTIONARE PENTRU TRANSPORTUL ELECTRIC INDIVIDUAL, COD CNCSIS TD-282.-director proiect cercetare.

## II. Membru în echipa unor proiecte și contracte de cercetare naționale și internaționale câștigate prin competiție

1. Contract nr. 2930/07.06.2006, cu titlul: CERCETARI PRIVIND IMPLEMENTAREA UNUI LABORATOR VIRTUAL PENTRU MOTOARE ELECTRICE RELUCTANTE FOLOSIND RETEAUA INTERNET, având datele: Tema A47, cod CNCISIS 1045. – membru echipă proiect cercetare.
2. Contract CEEEX nr. 291/13.09.2006, cu titlul: CRESTEREA EFICIENȚEI CONVERSIIEI ELECTRO-MECANICE A ENERGIEI PRIN MASINI ELECTRICE CU EXCITATIE HIBRIDA.– membru echipă proiect cercetare.
3. Contract nr. 2930/07.06.2006, cu titlul: CERCETARI PRIVIND DEZVOLTAREA TEHNICILOR COMPUTERIZATE DE SCREENING CITOLOGIC SI ASISTARE A DIAGNOSTICULUI HISTOPATOLOGIC, având datele: Tema A52, cod CNCISIS 885. – membru echipă proiect cercetare.
4. Proiect PN II Capacitati, Proiect de cooperare bilaterala China-Romania, Nr.inregistrare UTCN 9944/30.09.2009, 314/2009-ANCS,CERCETARI ASUPRA ACTIONARILOR CU MOTOARE CU RELUCTANTA AUTOCOMUTATE IN MINELE DE CARBUNI, perioada derulare 2009-2010, Director proiect:Viorel TRIFA – internațional, membru echipă proiect cercetare.

Cluj – Napoca

10.01.2018

Călin Mărginean

