

LISTĂ DE LUCRĂRI ȘTIINȚIFICE

Număr de publicații: 166

- 12 cărți;
- 1 teză de doctorat;
- 1 brevet de invenție
- 34 publicații în reviste internaționale (6 în reviste cotate ISI, 20 în reviste indexate)
- 99 lucrări în conferințe internaționale (32 în conferințe indexate în baze de date)
- 19 publicații în reviste naționale

A. LISTA CU 10 LUCRĂRI ȘTIINȚIFICE RELEVANTE:

- [1] R. Sumi, Z. Néda, A. Tunyagi, Sz. Boda, **Cs. Szász** (2009) – *Nontrivial spontaneous synchronization*, Physical Review E, American Physical Society (APS), Volume 79, E79, PACS nr. 05.45.Xt, 89.75.Fb, ISSN: 056205, pp. 056205-1-9, published 6 May 2009, IDS Number: 451WE. *Impact factor 2009: 2,4.*
- [2] **Szász Cs.**, (2018) – *Reconfigurable Hardware Technology: an Emerging paradigm for Combined Software-Hardware Fault-tolerance Implementation*, Journal of Control Engineering and Applied Informatics, Vol. 20, No. 3 (2018) pp. 99-108, ISSN: 1454-8658, *ISI Impact factor: 0.698*,
<http://www.ceai.srait.ro/index.php?journal=ceai&page=issue&op=current>.
- [3] G. Husi, **Cs. Szász**, V. H. Hashimoto (2014) – *Application of reconfigurable hardware technology in the development and implementation of building automation systems*, Environmental Engineering and Management Journal, November 2014, Vol. 13, No. 11, PrintISSN: 1582-9596, eISSN: 1843-3707, <http://omicron.ch.tuiasi/EEMJ>,
Impact factor 2014: 1,258.
- [4] **Cs. Szász**, V. Chindriș, G. Husi, (2010)- *Embryonic Systems Implementation with FPGA-based Artificial Cell Network Hardware Architectures*, Asian Journal of Control, Vol 12, No 2, FB-08-020R, pp. 1-8, March, 2010, Published in Wiley InterScience (www.interscience.wiley.com), DOI: 10.1002/asjc 166, IDS Number: 578CL.
Impact factor 2010: 0,56.
- [5] G. Husi, **Cs. Szász**, V. Chindriș (2010) – *Artificial Immune System Implementation upon Embryonic Machine for Hardware Fault-tolerant industrial Control Applications*, Global

Journal of Computer Science and Technology, Vol. 10, Issue 4, Version1.0, ISSN: 0975-4172, Print ISSN: 0975-4350, June 2010, pp. 60-66, Winston Univ, USA.

- [6] **Szász Csaba**, (2005) – *Basics of digital systems (Bazele sistemelor digitale)*, Editura U.T. PRES, Cluj-Napoca 2005, ISBN 973-662-197-9, 199 pages.
- [7] **Szász Csaba**, (2010) - *Electrotechnics*, (Electrotechnics-Electronics Series- Part I.– 2010, Faculty of Engineering, University of Debrecen, ISBN 978-963-88614-7-4, 199, 140 pages, Debrecen University Press, Hungary.
- [8] **Szász Csaba** (2010) – *Electronics*, (Electrotechnics-Electronics Series- Part II.– 2010, Faculty of Engineering, University of Debrecen, ISBN 978-963-88614-9-8, 133 pages, Debrecen University Press, Hungary.
- [9] **Szász Cs., R. Sinca** (2019) – *Transient Phenomena and Failures Analysis in Redundant Power Systems*, 8th International Conference on Modern Power Systems, Cluj-N, 21-23 May 2019, pp 1-6, DOI: 10.1109/MPS.2019.8759729, INSPEC Accession Number: 18821816, <https://ieeexplore.ieee.org/xpl/conhome/8753820/proceeding>, Indexed in IEEE Xplore, ISI Indexed.
- [10] **R. Sinca, Cs. Szász**, (2019) – *Software Redundancy Implementation Strategy in Hardware Reconfigurable Framework*, 8th International Conference on Modern Power Systems ,21-23 Cluj-N, May 2019, pp 1-6, DOI: 10.1109/MPS.2019.8759719, INSPEC Accession Number: 18821829, <https://ieeexplore.ieee.org/xpl/conhome/8753820/proceeding>, Indexed in IEEE Xplore, ISI Indexed.

B. TEZA DE DOCTORAT:

- [1] **Szász Cs.**, *Personal computer-based vector control systems of the hybrid stepping motors (Sisteme de comandă vectorială a motoarelor pas cu pas hibride implementate pe calculatoare personale)*, PhD Thesis, Specialization: Applied Informatics, Cluj-N, 1999.

C. BREVET:

- [1] Trifa V., Marschalko R., **Szász Cs.**, Székely A., (2003) – *Method and current-source electronic circuit for stepping motors supply (Procedeu și circuit electronic sursă de curent pentru alimentarea motoarelor pas cu pas)*. National patent, RO 118512 B1, 10 pages, 2003.

D. CĂRȚI:

- [1] **Szász Csaba**, (2004) – *Stepping motors digital control systems (Sisteme numerice de comandă și control a motoarelor pas cu pas)*, Editura U.T.PRES, Cluj-Napoca 2004, ISBN 973-662-104-9, 202 pages.
- [2] Alexandru Morar, **Szász Csaba**, (2004) – *The stepping motor in electrical drive systems (Motorul pas cu pas în acționari electrice)*, Editura Univ. Petru Maior, Târgu-Mureș 2004, ISBN 973-8084-99-7, 312 pages.
- [3] **Szász Csaba**, (2005) – *Basics of digital systems (Bazele sistemelor digitale)*, Editura U.T. PRES, Cluj-Napoca 2005, ISBN 973-662-197-9, 199 pages.
- [4] **Szász Csaba**, (2006) – *Digital control systems, applications (Sisteme numerice de comandă și control, aplicații)*, Editura U.T. PRES, Cluj-Napoca 2006, ISBN(10) 973-662-274-6, ISBN(13) 978-973-662-274-8, 116 pages.
- [5] **Szász Csaba**, Virgil Chindriș, (2009) – *Bio-inspired digital systems (Sisteme digitale de inspirație biologică)*, Ed. UTPRESS, Cluj-Napoca 2009, ISBN 978-973-662-453-7, 227 pages.
- [6] **Szász Csaba**, Virgil Chindriș, (2010) – *Programmable hardware architectures for digital control systems (Arhitecturi programabile pentru sisteme numerice de control)*, Editura UTPRESS, Cluj-Napoca 2010, ISBN 978-973-662-522-0, 248 pages.
- [7] **Szász Csaba**, (2010) - *Electrotechnics*, (Electrotechnics-Electronics Series- Part I.– 2010, Faculty of Engineering, University of Debrecen, ISBN 978-963-88614-7-4, 199, 140 pages, Debrecen University Press, Hungary.
- [8] **Szász Csaba** (2010) – *Electronics*, (Electrotechnics-Electronics Series- Part II.– 2010, Faculty of Engineering, University of Debrecen, ISBN 978-963-88614-9-8, 133 pages, Debrecen University Press, Hungary.
- [9] **Szász Csaba**, (2011) – *Programmable digital systems (Sisteme numerice programabile)*, Editura U.T. PRES, Cluj-Napoca 2011, ISBN 978-973-662-612-8, 151 pages.
- [10] **Szász Csaba**, (2012) – *Fault diagnosis in electrical and electronic systems (Diagnoza defectelor în sisteme electrice și electronice)*, Editura U.T. PRES, Cluj-Napoca 2012, ISBN 978-973-662-689-0], 124 pages.
- [11] F. Kalmár (editor), ..., **Szász Cs.**, et. all (2014) – *Fenntartható energetika megújuló energiaforrások optimalizált integrálásával (Sustainable energetic by optimized integration of renewable energy resources)*, Akadémiai kiadó (Academy Press), Budapest, Hungary, www.akademiaikiado.hu, ISBN: 978-963-05-9540-7, Author of paragraph 4.5.2.
- [12] Trifa V., **Szász Cs.**, (1997) *Microprogrammed systems (Sisteme microprogramate)*, Laboratory works, Ed. UTCN, 1997.

E. PUBLICAȚII ÎN REVISTE INTERNAȚIONALE:

- [1] R. Sumi, Z. Néda, A. Tunyagi, Sz. Boda, **Cs. Szász** (2009) – *Nontrivial spontaneous synchronization*, Physical Review E, American Physical Society (APS), Volume 79, E79, PACS nr. 05.45.Xt, 89.75.Fb, ISSN: 056205, pp. 056205-1-9, published 6 May 2009, IDS Number: 451WE. *Impact factor 2009: 2,4.*
- [2] **Cs. Szász**, V. Chindriș, G. Husi, (2010)- *Embryonic Systems Implementation with FPGA-based Artificial Cell Network Hardware Architectures*, Asian Journal of Control, Vol 12, No 2, FB-08-020R, pp. 1-8, March, 2010, Published in Wiley InterScience (www.interscience.wiley.com), DOI: 10.1002/asjc 166, IDS Number: 578CL. *Impact factor 2010: 0,56.*
- [3] É. Dulf, F. Dulf, **Cs. Szász**, (2011) –. *Fractional Model of the (13C) Isotope Separation Column*, Chemicke Listy, 2011. ISSN: 0009-2770, 105, s871 – s1072, p892. (*Impact factor 2011 = 0.620*). http://www.chemicke-listy.cz/docs/full/2011_18_s871-s1072.pdf.
- [4] L. Szabó, M. Ruba, **Cs. Szász**, V. Chindriș, G. Husi, (2013) – *Fault Tolerant Bio-inspired System Controlled Modular Switched Reluctance Machine*, Automatika – Journal for Control, Measurement, Electronics, Computing and Communications, Online ISSN: 1848-3380 Print ISSN: 0005-1144, DOI: 10.7305. *Impact Factor 2012: 0.349.*
- [5] G. Husi, **Cs. Szász**, V. Chindriș (2010) – *Artificial Immune System Implementation upon Embryonic Machine for Hardware Fault-tolerant industrial Control Applications*, Global Journal of Computer Science and Technology, Vol. 10, Issue 4, Version1.0, ISSN: 0975-4172, Print ISSN: 0975-4350, June 2010, pp. 60-66, Winston Univ., USA. *Impact Factor 2012:*
- [6] **Cs. Szász**, V. Chindriș (2010) – *Fault-tolerant embryonic network development for high reliability mechatronic applications*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng. 1 (2010) 1-2, pp. 61-66, DOI: 10.1556/IRASE 1.2010.1-2.10, ISSN 2062-0810, www.akademiai.com, Budapest, Hungary.
- [7] **Cs. Szász**, G. Husi, P.T. Szemes (2013) – *LabView Software-based Building Supervising and Events Monitor System for Net Zero-energy Strategies Implementation*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng. 4 (2013) 2, pp. 171-175, DOI: 10.1556/IRASE 1.2010.1-2.10, ISSN 2062-0810, www.akademiai.com, Budapest, Hungary.
- [8] **Cs. Szász**, (2014) – *Air-source Heat Pump LabView-based Model Development for NZEB Applications*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng. 5 (2014) 1, pp. 59-66, DOI: 10.1556/IRASE.5.2014.1.8, ISSN 2062-0810, www.akademiai.com, Budapest, Hungary.

[9] G. Husi, **Cs. Szász**, V. H. Hashimoto (2014) – *Application of reconfigurable hardware technology in the development and implementation of building automation systems*, Environmental Engineering and Management Journal, November 2014, Vol. 13, No. 11, PrintISSN: 1582-9596, eISSN: 1843-3707, <http://omicron.ch.tuiasi/EEMJ>, *Impact factor 2014: 1,258*.

[10] **Cs. Szász**, G. Husi (2014)– *LabView Software-based Building Supervising and Events Monitor System for Net Zero-energy Strategies Implementation*, Recent Innovations in Mechatronics (RIiM), International Journal of Mechatronics Science, Electrical Engineering and Mechatronics Department, Faculty of Engineering, University of Debrecen, Hungary, http://riim.lib.unideb.hu/index.php?oldal=aktualisszam&folyoirat_szam=1, Vol 1 (2014). No.1, ISSN:2064-9622.

[11] **Szász Cs.**, Fülöp Z. (2014) –*Development of a Microcontroller-based System with hardware-in-the-Loop Method for Real-time Control Algorithms Prototyping*. Recent Innovations in Mechatronics (RIiM), International Journal of Mechatronics Science, Electrical Engineering and Mechatronics Department, Faculty of Engineering, University of Debrecen, Hungary, http://riim.lib.unideb.hu/index.php?oldal=aktualisszam&folyoirat_szam=1, Vol 1 (2014). No.1, ISSN:2064-9622.

[12] **Cs. Szász** (2014) –*Intelligent Building Development and LabView-based Modeling of a net Zero-energy Strategy*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng. 5 (2014) 2, pp. 157-166, DOI: 10.1556/IRASE.5.2014.2.8, ISSN 2062-0810, www.akademiai.com, Budapest, Hungary.

[13] **Cs. Szász**, (2014) – *Store Elements LabView-based Model Design and Development for HVAC Systems implementation in Intelligent Buildings*, Transactions in Automatic Control and Computer Science Journal, BS-UPT TACCS Volume 59 (73) No. 1/June 2014, ISSN 1224-600X, pp. 33-40, <http://www.ac.upt.ro/journal>.

[14] **Cs. Szász, Éva H. Dulf** (2015) – *Fractional Fourier Transform Application in Human-Robot Multimodal Communication improvement*, Transactions in Automatic Control and Computer Science Journal, BS-UPT TACCS Volume 60 (74) Issue 1, 2015, ISSN 1224-600X, pp. 21-30, <http://www.ac.upt.ro/journal>.

[15] **Szász Cs.**, (2015) – *Fault-tolerant Mechatronic Systems Development: a Biologically-inspired Approach*, 8th Electrical Engineering and Mechatronics International Conference, March 9-10, Debrecen, Hungary, published in Recent Innovations in Mechatronics Journal, Vol. 2 No. 1-2, DOI: 10.17667/riim.2015.1-2/19.

[16] **Cs. Szász, R. Sinca** (2016) – *Fault-tolerant PWM inverter model development for safety electrical drives*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng., Vol. 7, Issue 2, (2016), pp. 77-83, DOI: 10.1556/1849.2016/7.2.3, ISSN: 2062-0810, www.akademiai.com, Budapest, Hungary.

[17] **Szász Cs.**, Páli K. D. (2016) – *LabView-based Modeling and Evaluation of Solar Photovoltaic Cells Energetic Efficiency*, Electrical Engineering and Mechatronics International Conference, March 18-19, Debrecen, Hungary, published in Recent Innovations in Mechatronics Journal, Vol. 3 No. 1-2, DOI:10.17667, ISSN 2064-9622.

[18] **Szász Cs.**, Miklós A. (2016) – *Reconfigurable Hardware technology Application in Buildings Supervising and Monitoring Systems*, Electrical Engineering and Mechatronics International Conference, March 18-19, Debrecen, Hungary, published in Recent Innovations in Mechatronics Journal, Vol. 3 No. 1-2, DOI:10.17667, ISSN 2064-9622.

[19] **Szász Cs.**, (2017) – *LabView-based Simulator for PW Modules Energy Efficiency Optimization*. Recent Innovations in Mechatronics (RIIM), International Journal of Mechatronics Science, Electrical Engineering and Mechatronics Department, Faculty of Engineering, University of Debrecen, Hungary, http://riim.lib.unideb.hu/index.php?oldal=aktualisszam&folyoirat_szam=1, Vol 4 (2017). No.1, DOI: 10.17667/riim.2017.1/5, ISSN:2064-9622.

[20] **Szász Cs.**, **Sinca R.**, (2017) – *High Reliability Servo Control Systems Development and Implementation*, Journal of Computer Science and Control Systems, Vol. 10. Nr. 1, May 2017, pp. 23-28, P-ISSN: 1844-6043.

[21] **Szász Cs.**, (2017) – *Optimal Control of Photovoltaic Modules Energy Efficiency*, Journal of Computer Science and Control Systems, Vol. 10. Nr. 1, May 2017, pp. 29-43, P-ISSN: 1844-6043.

[22] **R. Sinca, Cs. Szász**, (2017) – *Fault-tolerant digital systems development using triple modular redundancy*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng., Vol. 8, Issue 1, (2017), pp. 1-7, DOI: 10.1556/1849.2017/8.1.2, ISSN: 2062-0810, www.akademiai.com, Budapest, Hungary.

[23] **Szász Cs.**, (2017) – *DNA Processing and Reassembly on General Purpose FPGA-based Development Board*, Journal of Electrical and Electronics Engineering, Vol. 10, nr. 1, (May 2017), pp. 67-72, P-ISSN:1844-6035.

[24] **R. Sinca, Szász Cs.**, (2017) – *High-reliability electronic systems Development and Implementation for Safety Applications*, Journal of Electrical and Electronics Engineering, Vol. 10, nr. 1, (May 2017), pp. 73-78, P-ISSN:1844-6035.

[25] **Szász Cs.**, **R. Sinca**, (2017) – *Synchronization Strategy in Complex Digital Voter-based Systems*, Journal of Electrical and Electronics Engineering, Vol. 10, nr. 2, (Oct 2017), pp. 55-60, P-ISSN:1844-6035.

[26] **Szász Cs.**, (2017) – *Reconfigurable electronics Application in Intelligent Space Developments*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó,

Budapest, Int.Rev.Sci.Eng., Vol. 8, Issue 2, (December 2017), pp. 107-111, DOI: 10.1556/1849.2017/8.1.2, ISSN: 2062-0810, www.akademiai.com, Budapest, Hungary.

[27] **Szász Cs.**, (2017) – *Three-dimensional Artificial Organism Model Developed upon a Two-layer Coarse-fine-grid Network Approach*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng., Vol. 8, Issue 2, (December 2017), pp. 127-133, DOI: 10.1556/1849.2017/8.1.2, ISSN: 2062-0810, www.akademiai.com, Budapest, Hungary.

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[29] **Szász Cs.**, (2018) – *Reconfigurable Hardware Technology: an Emerging paradigm for Combined Software-Hardware Fault-tolerance Implementation*, Journal of Control Engineering and Applied Informatics, Vol. 20, No. 3 (2018) pp. 99-108, ISSN: 1454-8658, ISI Impact factor: 0.698, <http://www.ceai.srait.ro/index.php?journal=ceai&page=issue&op=current>.

[30] **Szász Cs.**, (2018) – *Analysis of Photovoltaic Modules Energy Efficiency in LabView Simulation Environment*, Journal of Electrical and Electronics Engineering, Vol. 11, nr. 2, (Oct 2018), pp. 31-36, P-ISSN:1844-6035.

[31] **Szász Cs., R. Sinca**, (2019) – *The Nontrivial Problem of Matching in Redundant Digital Systems*, Journal of Electrical and Electronics Engineering, Vol. 12, nr. 1, (May 2019), pp. 51-56, P-ISSN:1844-6035.

[32] **Szász Cs.**, (2019) – *Solar Tracker Platform Development for Energy Efficiency Improvement of Photovoltaic Panels*, International Review of Applied Sciences and Engineering, Akadémiai Kiadó, Budapest, Int.Rev.Sci.Eng., Vol. 10, Issue 3, (December 2019), pp. 267-273, DOI: 10.1556/1848.2019.0031, <https://akjournals.com/view/journals/1848/10/3/article-p267.xml>, Budapest, Hungary, Indexed Scopus.

[33] **Szász Cs.**, (2020) – *Modeling and Simulation of FPGA-based Redundant Systems*, International Review of Applied Sciences and Engineering Journal, Akadémiai Kiadó Budapest, Vol 11. (2020), Nr, 1, DOI: 10.1556/1848.2020.00010, pp. 73-79, Hungary, Indexed Scopus.

[34] **Szász Cs.**, (2020) – *Cyber-physical Platform Development and Implementation for Industry 4.0*, International Review of Applied Sciences and Engineering Journal, Akadémiai Kiadó Budapest, Vol 11. (2020), Nr, 1, DOI: 10.1556/1848.2020.00010, pp. 66-72, Hungary, Indexed Scopus.

F. PUBLICAȚII ÎN CONFERINȚE INTERNAȚIONALE

Indexate în baze de date internaționale:

[1] **Szász Cs.**, Marschalko R., Trifa V., Székely A., (1998) - *Data acquisition and signal processing in vector control of PM-hybrid stepping motor*. Proceedings of 6-th OPTIM'98 International Conference, Braşov, DOI: 10.1109/OPTIM.1998.707973, pp. 447-450.

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[3] **Szász Cs.**, (2007) - *Fuzzy Strategy-based Position Control of Field-oriented PM-hybrid Stepping Motor*, IEEE International Conference on Fuzzy Systems, FUZZ-IEEE2007, 32-26 July, London, United Kingdom, IEEE Catalog Number: 07CH37904C, ISBN: 1-4244-1210-2, ISSN: 1098-7584, pp. 951-955.

[4] **Szász Cs.**, Chindris V., (2007) - *Artificial Life and Communication Strategy in Bio-inspired Hardware Systems with FPGA-based Cell Networks*, 11th IEEE International Conference on Intelligent Systems, 29 June – 1 July, Budapest Hungary, IEEE Catalog Number: 07EX1751C, ISBN: 1-4244-1148-3, pp. 77-82.

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[6] **Szász Cs.**, Chindris V., (2007) - *Development Strategy and Implementation of a Generalized Model for FPGA-based Artificial Cell in Bio-inspired Hardware Systems*, 5th IEEE International Conference on Industrial Informatics, July 23-27, Vienna, Austria, IEEE Catalog Number: 07EX1642, ISBN: 1-4244-0864-4, ISSN: 1935-4576, Vol. 2, pp. 639-643.

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[8] **Szász Cs.**, Chindriş V., (2008) - *Communication Strategy and Fault-tolerance Abilities Development in Bio-inspired hardware Systems with FPGA-based Artificial cell network*, IEEE 11th International Conference on Optimization of Electrical and Electronic Equipment, May 22-24, 2008 Brasov, Romania, IEEE Catalog Number: 08EX1966C, Vol. 4, ISBN: 1-4244-1545-4, Library of the Congress: 2007905111.

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[14] **Szász Cs.**, Chindriş V., Szabó L., (2009) – *Modeling and Simulation of Embryonic Hardware Structures Designed on FPGA/based Artificial Cell Network Topologies*, 23rd European Conference on Modeling and Simulation, ECMS 2009, June 9th – 12th, Madrid, Spain, ISBN: 0-9553018-8-2, 978-0-9553018-8-9, pp. 613-617.

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[16] **Szász Cs.**, Chindriş V., (2010) – *Development of Hardware Redundant Embryonic Structure for High Reliability Control Applications* 12th International Conference on Optimization of Electrical and Electronic Equipment, May 20-21, OPTIM 2010 Brasov, Romania, ISSN: 1842-0133, ISBN: 978-973-131-080-0, IEEE 978-1-4244-7020-4, pp. 728-733.

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H. PROIECTE DE CERCETARE (naționale și internaționale)

Director de proiect (câștigător granturi naționale și internaționale):

1. *Theoretical and experimental researches regarding the fault-tolerance and self-organizing behaviors implementation in bio-inspired analogical and digital systems.* CNCSIS project, Code CNSIS 1571, Grant type A, Phases 2007-2008, Grant amount: 49.000 lei, Project manager: **Szász Cs.**
2. *Fault-tolerant equipments controlled by bio-inspired electronic architectures.* CNMPI2-Partnership project, Acronym: ElBioArch, Project Nr. 12121/2008, Phases 2008-2011, Grant amount (2008-2011): 1.875.000 lei, Project manager: **Szász Cs.**

Membru în proiecte de cercetare naționale și internaționale:

3. *Research and development of a modularized hybrid stepping motor-based positioning system. Phase 1: Design and experimentation of the stepping motor.* Research project with the Research and Technology Ministry. Grant nr. 907/1995, Theme B1.
4. *Research and development of a switched reluctance servomotor-based positioning system. Phase 1: Design and experimentation of the switched reluctance motor.* CNCSU research project, theme B21, Grant nr. 4003/1995.
5. *Control and positioning equipment of the antenna system.* Research project Nr. 28/11.04.1995, Beneficiary: Marine Institute Constanta.
6. *Research and development of a switched reluctance servomotor-based positioning system. Phase 2: Design and experimentation of the PWM inverter for the motor drive.* CNCSU project, code 107/1996, Grant nr. 5003/1996. Grant amount: 3.000.000 lei.
7. *Ac/dc pulse width modulate ecological converter (0-3kW). Phase 1: Design and experimentation of the 250 W power electronic module.* CNCSU research project, code 106, Grant nr. 5003/1996. Grant amount: 4.000.000 lei.
8. *Research and implementation of ac/dc pre-converters with power factor correction and converters with high energetic efficiency.* Phase 1: Research by modeling, simulation and experimentation of a novel power converter circuits with high energetic efficiency. CNCSIS project. Grant 33830/1999, Theme nr. 55, CNCSIS code 625, Grant amount (phase_1): 17.500 000 lei.
9. *HuComTech project – Human-Machine the Theoretical Fundamentals of Human-Computer Interaction Technologies,* Faculty of Engineering, University of Debrecen, Department of Electrical Engineering and Mechatronics. Research supported by the HuComTech TÁMOP

4.2.2-08/1/2008-0009 project, founded by the European Union, the European Regional Development Fund, and the European Social Fund. The granted amount is 282.458.349 HUF supported by the European Union and the Hungarian Government.

10. *Improved performances switched reluctance machine for critical industrial applications.* Romanian-Slovak bilateral research project between Zilina University and Technical University of Cluj. Founded by the Education Ministry from Romania and Slovakia. 2011-2012, Capacities module III research project. Grant nr. 472/07.03.2011.
11. *DENzero (Debrecen University Net Zero-Energy Buildings) project,* Faculty of Engineering, University of Debrecen, Department of Electrical Engineering and Mechatronics, 2013 - TÁMOP-4.2.2.A-11/1/KONV-2012-0041 project. The project is co-financed by the European Union and the European Social Fund, and the Hungarian Government.

Conf.dr.ing. **SZÁSZ Csaba**

