

LISTA LUCRĂRILOR ȘTIINȚIFICE
șef lucr. dr. ing. Cristian Nicolae BOLDIȘOR

A. Teza de doctorat

Cercetări privind utilizarea tehnicilor neuro-fuzzy pentru controlul tensiunii arteriale și debitului cardiac

Domeniul de studii de doctorat: *Inginerie Electrică*

Conducător științific: prof. dr. ing. Iulian ȚOPA

B. Cărți, capitole de carte, lucrări didactice

1. S. Coman, C. Boldișor, *Sisteme adaptive și robuste. Îndrumar de laborator*, Editura Universității Transilvania din Brașov, 2017.
2. V. Comnac, S. Coman, C. Boldișor, *Sisteme liniare continue*, Editura Universității Transilvania din Brașov, 2009, ISBN 978-973-598-649-0.
3. C. Boldișor, V. Comnac, S. Coman, *Tehnici de inteligență artificială. Îndrumar de laborator*, Editura Universității Transilvania din Brașov, 2009.
4. S. Coman, V. Comnac, C. Boldișor, *Teoria sistemelor. Îndrumar de laborator*, Editura Universității Transilvania din Brașov, 2009.
5. V. Comnac, F. Moldoveanu, C. Boldișor, *Teoria sistemelor. Modelare, proiectare. Sisteme discrete*, Editura Lux Libris, Brașov, 2007.

C. Lucrări indexate ISI/BDI¹

Lucrări în reviste

1. Ciușdel, C.F., Coman, S., Boldișor, C., Kessler, T., Muradyan, A., Kovachev, A., Lehrach, H., Wierling, C., Itu, L.M., *Effect of Linearization in a WNT Signaling Model*, Computational and Mathematical Methods in Medicine, Hindawi, Vol. 2019, Art. ID 8461820, DOI: [10.1155/2019/8461820](https://doi.org/10.1155/2019/8461820), (ISI Web of Science, factor de impact 1.563).

Lucrări publicate în volume de conferințe

2. Coman, S., Boldișor, C., Ciușdel, C., *Combining the MIT and Lyapunov Stability Adaptive Methods for Second Order Systems*, 14th Int. Conf. on Development and Application Systems (DAS), Suceava, România, May 26-28, 2018, pp. 31-37, DOI: [10.1109/DAAS.2018.8396066](https://doi.org/10.1109/DAAS.2018.8396066) (ISI Web of Science, Scopus, IEEE Xplore).
3. Coman, S., Boldișor, C., Floroian, L., *Fractional Adaptive Control for a Fractional - Order Insulin - Glucose Dynamic Model*, 2017 Joint Int. Conf. on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Aegean Conf. on Electrical Machines and Power Electronics

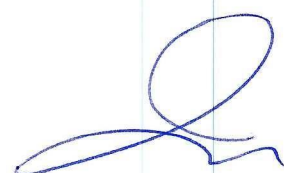
¹ Bazele de date considerate la punctul C sunt cele recunoscute de comisia CNATDCU aferentă domeniului Ingineria Sistemelor.

- (ACEMP), Moeciu, Braşov, România, May 25–27, 2017, pp. 594–599, DOI: [10.1109/OPTIM.2017.7975082](https://doi.org/10.1109/OPTIM.2017.7975082) (ISI Web of Science, Scopus, IEEE Xplore).
4. Coman, S., Comnac, V., Boldişor, C., *Robust control of a permanent magnet synchronous machine*, Proc. of the 13th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM 2012, Braşov, România, May 24–26, 2012, pp. 594–599, DOI: [10.1109/OPTIM.2012.6231909](https://doi.org/10.1109/OPTIM.2012.6231909). (ISI Web of Science, Scopus, IEEE Xplore)
 5. Boldişor, C., Comnac V., Coman, S., Grigorescu, S., *A Combined Experience and Model Based Design Methodology of a Fuzzy Control System for Mean Arterial Pressure and Cardiac Output*, IFAC Proceedings Volumes (IFAC–PapersOnline), vol. 44, issue 1, part 1, 2011, pp. 2889–2894, DOI: [10.3182/20110828-6-IT-1002.01592](https://doi.org/10.3182/20110828-6-IT-1002.01592). (Scopus)
 6. Acreală, A.-M., Comnac, V., Boldişor, C., *Networked Control Systems: Network Delay Compensation with Play-back Buffers*, Proc. of the 10th Int. Symp. on Signals, Circuits and Systems – ISSCS 2011, Iaşi, România, Jun 30 – Jul 1, 2011, art. no. 5978755, pp. 442–446, DOI: [10.1109/ISSCS.2011.5978755](https://doi.org/10.1109/ISSCS.2011.5978755). (IEEE Xplore, Scopus)
 7. Boldişor, C., Comnac, V., Ţopa, I., Coman, S., *A Comparative Analysis of Two Self-learning Based Strategies for Fuzzy Controller Design*, Proc. of the 12th Int. Conf. on Optimization of Electrical and Electronic Equipment – OPTIM 2010, Braşov, România, May 20–22, 2010, pp. 837–842, DOI: [10.1109/OPTIM.2010.5510432](https://doi.org/10.1109/OPTIM.2010.5510432) (ISI Web of Science, Scopus, IEEE Xplore)
 8. Moldoveanu, F., Boldişor, C., Floroian, D., Suliman, C., Suciu, C., *Intelligent Active Vision System for Autonomous Robots*, Proc. of the 12th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM 2010, Braşov, România, May 20–22, 2010, pp. 746–753, DOI: [10.1109/OPTIM.2010.5510500](https://doi.org/10.1109/OPTIM.2010.5510500) (ISI Web of Science, Scopus, IEEE Xplore).
 9. Coman, S., Comnac, V., Boldişor, C., Dumitrache, D., *Fractional Order Control for DC Electrical Drives in Networked Control Systems*, Proc. of the 12th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM 2010, Braşov, România, May 20–22, 2010, pp. 858–863, DOI: [10.1109/OPTIM.2010.5510503](https://doi.org/10.1109/OPTIM.2010.5510503) (ISI Web of Science, Scopus, IEEE Xplore)
 10. Boldişor, C., Comnac, V., Coman, S., *Using the Iterative Learning Algorithm as Data Source for ANFIS Training*, Proc. of the 2010 IEEE Int. Conf. on Automation, Quality and Testing, Robotics – AQTR 2010, Cluj-Napoca, România, May 28–30, 2010, pp. 354–359, DOI: [10.1109/AQTR.2010.5520759](https://doi.org/10.1109/AQTR.2010.5520759) (ISI Web of Science, Scopus, IEEE Xplore)
 11. Moldoveanu, F., Floroian, D., Boldişor, C., *Nonlinear Control System for a θ -r Manipulator: A Sliding Mode Strategy Approach*, Proc. of the 2008 IEEE-TTTC Int. Conf. on Automation, Quality & Testing, Robotics – AQTR 2008, Cluj-Napoca, România, May 22÷25, 2008, Tome III, pp. 503÷508, DOI: [10.1109/AQTR.2008.4588973](https://doi.org/10.1109/AQTR.2008.4588973), (ISI Web of Science, Scopus, IEEE Xplore)
 12. Moldoveanu, F., Vittek, J., Ryykin, S., Floroian, D., Boldişor, C., *Control of a Dynamic Nonlinear/Uncertain System via a Variable Structure System Approach*, Proc. of the 11th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM '08, Braşov, România, May 22÷23, 2008, Vol. III, , pp. 45÷54, DOI: [10.1109/OPTIM.2008.4602456](https://doi.org/10.1109/OPTIM.2008.4602456) (ISI Web of Science, Scopus, IEEE Xplore).
 13. Comnac, V., Cernat, M., Boldişor, C., Vittek, J., Rabinovici, R., *A New 42 V Automotive Supply System Based on Conventional 14 V Alternator*, Proc. of the 11th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM '08, Braşov, România, May 22÷24, 2008, vol.

D. Lucrări în reviste și volume de conferințe (neindexate sau indexate în alte BDI decât cele de la punctul C)

Lucrări în reviste

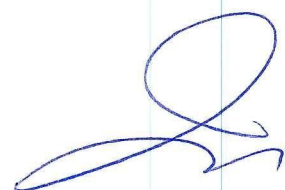
1. Coman, S., Boldișor, C., *Model Reference Adaptive Control for Multi-Input-Multi-Output First Order System*, Bulletin of Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 10(2), No. 59, 2017, pp. 155-160, ISSN 2065-2119.
2. Boldișor, C., Coman, S., *Simulations of a Numerical Implementation Friendly Adaptive Fuzzy Control System*, Bulletin of Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 10(2), No. 59, 2017, pp.149-154, ISSN 2065-2119.
3. Coman, S., Boldișor, C., *Fractional Adaptive Control for a Fractional-Order DC Electrical Drive*, Bulletin of Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 9, No. 58, 2016, pp. 23-28, ISSN 2065-2119.
4. Boldișor, C., Coman, S., *A Takagi-Sugeno Fuzzy Model of the Insulin to Glucose System Based on the Minimal Model*, Bulletin of Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 9, No. 58, 2016, pp.17-22, ISSN 2065-2119.
5. Coman, S., Boldișor, C., *Simulation of an Adaptive Closed Loop System for Blood Glucose Concentration Control*, Bulletin of Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 8, No. 57, 2015, pp. 107-112, ISSN 2065-2119.
6. Boldișor, C., Coman, S., *Simulations of a Model-Based Fuzzy Control System for Glycemic Control in Diabets*, Bulletin of Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 6, No. 55, 2015, pp.79-86, ISSN 2065-2119.
7. Boldișor, C., Coman, S., *H-Inf Controller Design to Control the Mean Arterial Pressure and Cardiac Output*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 7. No. 56, 2014, pp. 61-68, ISSN 2065-2119.
8. Coman, S., Boldișor, C., *Adaptive PI Controller Design to Control a Mass-Damper-Spring Process*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 7, No. 56, 2014, pp. 69-74, ISSN 2065-2119.
9. Coman, S., Boldișor, C., *Model Reference Adaptive Control for a DC Electrical Drive*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 6, No. 55, 2013, pp. 33-38, ISSN 2065-2119.
10. Floroian, D., Boldișor, C., *Robotic Vision System Based on Intelligent Agents*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 5 (54), No. 1, 2012, pp. 63-70, ISSN: 2065-2119.
11. Boldișor, C., Comnac, V., Coman, S., *A Practical Review of a Design Method for Fuzzy Controllers Based on Self-learning Algorithm*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 4 (53), No. 1, 2011, pp. 93-98, ISSN: 2065-2119.
12. Suliman, C., Boldișor, C., Băzăvan, R., Moldoveanu, F., *A Fuzzy Logic Based Method for Edge Detection*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 4 (53), No. 1, 2011, pp. 159-164, ISSN: 2065-2119.



13. Boldișor, C., Comnac, V., Țopa, I., Coman, S., *A Self-learning Based Fuzzy Controller for DC Drive Control*, Bulletin of the Transilvania University of Brașov, Series I: Engineering Sciences, Vol. 3 (52), 2010, pp. 221-226, ISSN: 2065-2119.

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14. Acreală, A.-M., Comnac, V., Boldișor, C., *Virtual Laboratories: Setup of a Networked Control Laboratory*, Proc. of the 8th Int. Conf. on Remote Engineering and Instrumentation – REV2011, Brașov, România, Jun 28 - Jul 1, 2011, pp. 313-308, ISBN: 978-3-89958-555-1.
15. Acreală, A.-M., Comnac, V., Boldișor, C., *Networked Control Systems: Random Delay Compensation with Play-back Buffers and Smith Predictor*, Proc. of the 18th Int. Conf. on Control Systems and Computer Science – CSCS18, București, România, May 24-27, 2011, Vol. 1, pp. 169-173, ISSN: 2066-4451.
16. Comnac, V., Boldișor, C., Cernat, M., Coman, S., Ioannides, M., *Control System For 42 V Automotive Supply Based On Conventional 14 V Alternator*, Proc. of the 6th Int. Conf. on Interdisciplinarity in Education ICIE'11, Karabuk/Safranbolu, Turkey, Apr 14-16, 2011, pp. 325-334, ISBN: 978-960-9556-00-2, ISSN: 1790-661X.
17. Acreală, A.-M., Comnac, V., Boldișor, C., Cernat, M., DeKeyser, R., *Set-up and Study of a Networked Control System*, Proc. of the 6th Int. Conf. on Interdisciplinarity in Education ICIE'11, Karabuk/Safranbolu, Turkey, Apr 14-16, 2011, pp. 287-292, ISBN: 978-960-9556-00-2, ISSN: 1790-661X.
18. Acreală, A.-M., Comnac, V., Boldișor, C., Cernat, M., DeKeyser, R., *Random Delay Compensation in Networked Control Systems using an Improved Smith Predictor*, Proc. of the 6th Int. Conf. on Interdisciplinarity in Education ICIE'11, Karabuk/Safranbolu, Turkey, Apr 14-16, 2011, pp. 279-286, ISBN: 978-960-9556-00-2, ISSN: 1790-661X.
19. Acreală, A.-M., Comnac, V., Boldișor, C., Cernat, M., Ioannides M. G., *Educational Virtual Laboratories*, Proc. of the 6th Int. Conf. on Interdisciplinary in Education ICIE'11, Part B: Interdisciplinary Research, Athens, Greece, Sep 14-17, 2011, pp. 14-18, ISBN: 978-960-9556-00-2, ISSN: 1790-661X.
20. Boldișor, C., Comnac, V., Coman, S., Cernat, M., Ioannidou, F., *A Survey on Cardiovascular Modelling Efforts for Simulation Experiments in Biomedical Engineering: A Control Engineering Viewpoint*, Proc. of the 6th Int. Conf. on Interdisciplinary in Education ICIE'11, Part B: Interdisciplinary Research, Athens, Greece, Sep. 14-17, 2011, pp. 93-99, ISBN: 978-960-9556-00-2, ISSN: 1790-661X.
21. Boldișor, C., Comnac, V., Țopa, I., *Experience-Based Design and Simulations of a Fuzzy Control System for Cardiovascular Variables*, Proc. of the 10th Int. Conf. on Development and Application Systems – DAS 2010, Suceava, România, May 27-29, 2010, pp. 73-79, ISSN: 1844-5039.
22. Boldișor, C., Comnac, V., Cernat, M., Coman, S., Ioannidou, F., *On Pharmacodynamics Modeling for Fuzzy Control of Hemodynamic Variables Through Non-Square Drug Infusion*, Proc. of the 5th Int. Conf. on Interdisciplinarity in Education ICIE'10, Tallin, Estonia, May 6-8, 2010, pp. 351-357, ISBN: 978-960-89028-9-3, ISSN: 1790-661X.
23. Comnac, V., Coman, S., Boldișor, C., Cernat, M., Ioannides, M., *Sensorless State-Space Control of Elastic Two-Inertia Drive System Using a Complete State Order (Luenberger) Observer*,



Proc. of the 5th Int. Conf. on Interdisciplinarity in Education ICIE'10, Tallin, Estonia, May 6-8, 2010, pp. 311-318, ISBN: 978-960-89028-9-3, ISSN: 1790-661X.

24. Comnac, V., Moldoveanu, F., Boldișor, C., Floroian, D., *State Controller Design for Elastic Two-mass Drive Systems*, Proc. of the 10th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM'06, Brașov, România, May 18÷19, 2006, Vol. III, pp. 45÷52.
25. Moldoveanu, F., Comnac, V., Floroian, D., Boldișor, C., *Variable Structure Control and Observation for a θ - r Manipulator*, Proc. of the 10th Int. Conf. on Optimization of Electrical and Electronic Equipments – OPTIM '06, Brașov, România, May 18÷19, 2006, Vol. III, pp. 119÷128.

E. Brevete obținute în întreaga activitate

F. Granturi și contracte de cercetare științifică

1. Contr. nr. 11/2017-2020, FLAG – ERA JTC 2016, *Large Scale Experiments and Simulations for the Second Generation of Future ICT*, finanțat de EU Commission, UTBv partener (membru în echipa proiectului).
2. Contr. nr. 10/2017-2020, FLAG – ERA JTC 2016, *Frictionless Energy Efficient Convergent Wearables for Healthcare and Lifestyle Applications*, finanțat de EU Commission, UTBv partener (membru în echipa proiectului).
3. Contr. nr. 8/2017-2020, FLAG – ERA JTC 2016, *Information Technology: The Future of Cancer Treatment*, finanțat de EU Commission, UTBv partener (membru în echipa proiectului).
4. Contr. nr. 6/2017-2020, FLAG – ERA JTC 2016, *Rethinking Robotics for the Robot Companion of the Future*, finanțat de EU Commission, UTBv partener (membru în echipa proiectului).
5. Contr. nr. 732907/2016-2019, H2020 ICT-18-2016, *My Health My Data*, finanțat de EU Commission, UTBv partener (membru în echipa proiectului).
6. Contr. nr. 600932/2013-2017, FP7 – EU's Seventh Framework Programme for Research: *MD PAEDIGREE – Model-Driven European Paediatric Digital Repository*, finanțat de EU Commission, UTBv partener (membru în echipa proiectului).
7. Contr. nr. 130/2012-2016, PN II – Parteneriate – Proiecte Colaborative de Cercetare Aplicativă (PCCA): *HEART – High PERFORMANCE Computing of Personalized CaRdio Component Models*, finanțat de UEFISCDI, UTBv coordonator (membru în echipa proiectului).

17.10.2022

Ș.I. dr. ing. Cristian BOLDIȘOR