

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.

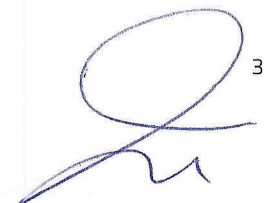


- (ACEMP), Moeciu, Braşov, România, May 25–27, 2017, pp. 594–599, DOI: [10.1109/OPTIM.2017.7975082](https://doi.org/10.1109/OPTIM.2017.7975082) (ISI Web of Science, Scopus, IEEE Xplore).
4. Coman, S., Comnac, V., Boldişor, C., *Robust control of a permanent magnet synchronous machine*, Proc. of the 13th 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., Suci, 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., Ryvkin, 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 Diabetes*, 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.

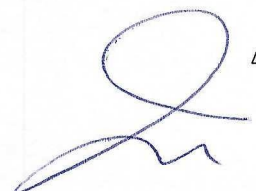


3

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.

Lucrări publicate în volume de conferințe

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., Ioanidou, 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 FuturICT*, 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).

7 martie 2024

Ș.I. dr. ing. Cristian Nicolae BOLDIȘOR

