


PERSONAL INFORMATION

Boldișor Cristian Nicolae



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Sex M | Nationality Romanian

WORK EXPERIENCE

October 2005 - ongoing

Lecturer / Teaching assistant

Transilvania University of Brașov, Automation and Information Technology Department

- Responsible with planning lectures and laboratory experiments, syllabus preparation, grade assessment, laboratory supervision (including e-learning), for:
 - *Signal Processing* (Automation and Applied Informatics, bachelor, 2nd yr.);
 - *Control Engineering* (Automation and Applied Informatics, bachelor, 3rd yr.);
 - *Introduction in Artificial Intelligence* (Automation and Applied Informatics, bachelor, 3th yr.) – partially;
 - *Fuzzy Control Systems* (Automation and Applied Informatics, bachelor, 4th yr.);
 - *Soft-Computing* (Advanced Systems in Automation and Information Technologies, master, 1st yr.).
- Administrative and managerial activities for the Automation and Information Technology Department:
 - coordinator of *Automation and Applied Informatics* bachelor study program;
 - responsible with academic quality evaluation activity and reports.
- Student coordination for bachelor and master projects, in subjects as
 - simulation of automatic control systems for some biomedical processes,
 - numerical implementation of static and adaptive fuzzy control algorithms,
 - adaptive, self-learning or neural-networks based control models.

Research activities in subjects related to the above-mentioned courses or related to the department's research domains and projects (see the projects list below).

October 2002 - October 2005

Associated teaching assistant

Transilvania University of Brașov, Automation and Information Technology Department

- Responsible with laboratory supervision and grade assessment for:
 - *Signal Processing* (Automation and Applied Informatics, bachelor, 2nd yr.);
 - *Control Engineering* (Automation and Applied Informatics, bachelor, 3rd yr.);
 - *Fuzzy Control Systems* (Automation and Applied Informatics, bachelor, 4th yr.).

EDUCATION AND TRAINING

October 2005 – September 2010

PhD studies

Transilvania University of Brașov

- Domain: Electrical Engineering
- Title of thesis: *Research on the use of neuro-fuzzy techniques for automatic control of mean arterial pressure and heart rate*
- Main topics: models of mean arterial pressure and heart rate under sodium nitroprusside and dopamine; fuzzy and neuro-fuzzy control algorithms; design of fuzzy controllers, including neuro-fuzzy learning algorithms.

October 1997 – July 2002

Bachelor studies

- Domain: *Systems Engineering*,
- Study program: *Automation and Applied Informatics*
- Transilvania University of Brașov, Faculty of Electrical Engineering and Computer Science

PERSONAL SKILLS

Mother tongue Romanian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- Efficient communication and mediation skills, consolidated throughout my teacher career, also including administrative / managerial responsibilities.

Organizational / managerial skills

- Relevant experience and skills in administrative and managerial activities within the Department of Automation and Information Technology: member of the Department Council, member of the Faculty Council, coordinator of Automation and Applied Informatics study program.

Job-related skills

- Theoretical and practical experience in subjects related to teaching and research activities:
 - continuous / discrete control systems – model analysis, controller design, simulations, analog or numerical implementation of control algorithms;
 - fuzzy and neuro-fuzzy models and control algorithms;
 - adaptive / self-learning fuzzy control algorithms.
- Highly experienced in Matlab and Simulink.

Computer skills

- Highly experienced in using office software applications for editing documents, including figures and images: Microsoft Office package, CorelDraw, Adobe Photoshop.
- Highly experienced in websites design and programming, server-side and client-side: PHP language, MySQL databases, HTML, CSS, JavaScript.

Driving licence

- B

ADDITIONAL INFORMATIONS

ISI Web of Science indexed journal articles

- OGREZEANU, I., et al., *Privacy-Preserving and Explainable AI in Industrial Applications*, Applied Sciences-Basel, Vol. 12, Issue 13, June 2022, Art. No. 6395, <https://doi.org/10.3390/app12136395>.
- TSOPRA, R., et al., *A framework for validating AI in precision medicine: considerations from the European ITFoC consortium*, BMC Medical Informatics and Decision Making, 2021. <https://doi.org/10.1186/s12911-021-01634-3>.
- CIUSDAL, C., et al., *Effect of Linearization in a WNT Signaling Model*, Computational and Mathematical Methods in Medicine, 2019. <https://doi.org/10.1155/2019/8461820>.

Scopus indexed journal articles

- BOLDIȘOR, 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*, Proc. of the 18th World Congress of the Int. Federation of Automatic Control, Milano, Italy, Aug 28-Sep 2, 2011, Vol. 18, Part 1, pp. 2889-2894. <https://doi.org/10.3182/20110828-6-IT-1002.01592>.
- COMAN, S., BOLDIȘOR, C., *Using the Fractional Order Calculus in the Combination of the MIT and Lyapunov Stability Method*, International Review of Applied Sciences and Engineering, Vol. 11, Issue 3, Sep. 2020, pag. 220-225, <https://doi.org/10.1556/1848.2020.00073>.

ISI Web of Science indexed conference articles / proceedings

- 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

(most relevant) Equipment (OPTIM) & 2017 Aegean Conf. on Electrical Machines and Power Electronics (ACEMP), Moeciu, Brașov, România, May 25–27, 2017, pp. 594-599, <https://doi.org/10.1109/OPTIM.2017.7975082>.

- Boldișor, 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. <https://doi.org/10.1109/AQTR.2010.5520759>.
- Boldișor, C., Comnac, V., Țopa, 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, Brașov, România, May 20-22, 2010, pp. 837-842. <https://doi.org/10.1109/OPTIM.2010.5510432>.

Other relevant publications

- Coman, S., Boldișor, C. *Robust and Adaptive Systems. Laboratory manual* (in Romanian: *Sisteme adaptive și robuste. Îndrumar de laborator*), Transilvania University of Brasov Publishing House, 2018.
- Comnac, V., Coman, S., Boldișor, C., *Continuous liniar systems* (in Romanian: *Sisteme liniare continue*), Transilvania University of Brasov Publishing House, 2009.
- Boldișor, C., Comnac, V., Coman, S., *Artificial intelligence techniques. Laboratory manual* (in Romanian: *Tehnici de inteligență artificială. Îndrumar de laborator*), Transilvania University of Brasov Publishing House, 2009.
- Coman S., Comnac V., Boldișor C., *Systems theory. Laboratory manual* (in Romanian: *Teoria sistemelor. Îndrumar de laborator*), Transilvania University of Brasov Publishing House, 2009.
- Comnac, V., Moldoveanu, F., Boldișor, C., *Systems theory: modeling, design, discrete systems* (in Romanian: *Teoria sistemelor: modelare, proiectare, sisteme discrete*), Lux Libris, Brașov, 2007.

Research projects

Team member in the following research projects:

- PN II – HEART, *High PERFORMANCE Computing of PersonAlized CaRdio Component Models*, funded by UEFISCDI, Transilvania University of Brașov coordinator, 2012-2016;
- EU's Seventh Framework Programme for Research - *MD PAEDIGREE, Model-Driven European Paediatric Digital Repository*, funded by EU Commission, Transilvania University of Brașov partner, 2013-2017;
- EU's Horizon H 2020 – ICT – 18 – 2016 – *MHMD, My Health My Data*, funded by EU Commission, Transilvania University of Brașov partner, 2016-2019;
- FLAG-ERA JTC 2016 – CONVERGENCE, *Frictionless Energy Efficient Convergent Wearables for Healthcare and Lifestyle Applications*, funded by EU Commission, Transilvania University of Brașov partner, 2017-2020;
- FLAG-ERA JTC 2016 - *ITFoC, Information Technology: The Future of Cancer Treatment*, funded by EU Commission, Transilvania University of Brașov partner, 2017-2020;
- FLAG-ERA JTC 2016 – *RoboCom++*, *Rethinking Robotics for the Robot Companion of the Future*, funded by EU Commission, Transilvania University of Brașov partner, 2017-2020;
- FLAG-ERA JTC 2016 - *FuturICT2.0, Large Scale Experiments and Simulations for the Second Generation of FuturICT*, funded by EU Commission, Transilvania University of Brașov partner, 2017-2020.
- ERA -PerMeD JTC2019 - *PeCaN - Parameterisation of large scale cancer models for personalised therapy of triple negative breast cancer*, funded by EU Commission, Transilvania University of Brașov coordinator, 2020-2023.
- EU's Horizon H 2020 – SC1-DTH-06-2020, *SIMCor – In-Silico testing and validation of Cardiovascular Implantable devices*, funded by EU Commission, Transilvania University of Brașov partner, 2021-2023.
- ERA -PerMeD JTC2020 – *PROGRESS - PRecisiOn medicine in CAD patients: artificial intelliGence for integRated gEnomic, functional and anatomical aSSessment of the coronary collateral circulation*, funded by EU Commission, Transilvania University of Brașov coordinator, 2021-2023.