

#### PERSONAL INFORMATION

# Cristian Nicolae Boldișor



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Sex M | Nationality Romanian

#### **WORK EXPERIENCE**

#### October 2005 - ongoing

#### Lecturer / Teaching assistant

Transilvania University of Braşov,

Faculty of Electrical Engineering and Computer Science (IESC), Department of Automation and Information Technology (ATI)

- Teaching and applied teaching activities (laboratory and projects) in subjects from the curriculum of the bachelor study program Automatic Control and Applied Informatics:
- Signal Processing 2nd year,
- Automatic Control Engineering 3<sup>rd</sup> year,
- Introduction in Artificial Intelligence (partially) 3rd year,
- Fuzzy Control Systems 4th year

and from the master's study program in *Advanced Systems in Automatic Control and Information Technologies:* 

- Computational Intelligence Techniques in Process Control 1st year)
- Administrative and managerial activities for the faculty and for the department:
- secretary of the Department of Automation during 2007-2010;
- member of the ATI Department Council from 2015;
- coordinator of Automation and Applied Informatics bachelor study program from 2018;
- member of the ATI Department's committee for quality assessment from 2015;
- member of the IESC Faculty Council from 2020;
- vicedean of IESC Faculty from October 2022;
- member of the Senate of Transilvania University of Braşov since March 2024;
- 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 Braşov,

Faculty of Electrical Engineering and Computer Science (IESC), Department of Automation and Information Technology (ATI)

- Responsible with laboratory supervision and grade assessment for courses from the curriculum of the bachelor study program Automatic Control and Applied Informatics:
- Signal Processing 2<sup>nd</sup> year,
- Automatic Control Engineering 3rd year,
- Fuzzy Control Systems 4th year.

#### **EDUCATION AND TRAINING**

## October 2005 – September 2010

#### PhD studies

Transilvania University of Braşov



#### Curriculum Vitae

- Domain: Electrical Engineering
- Title of thesis: Research on the use of neuro-fuzzy techniques for automatic control of mean arterial pressure and heart rate
- PhD supervisor: prof. dr. ing. Iulian ŢOPA
- 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 neurofuzzy learning algorithms.

#### October 1997 - July 2002

#### Bachelor studies

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

#### September 1992 - July 1997

# High school

Braşov Informatics High School ("Grigore Moisil" National College of Informatics, Braşov), Informatics profile

#### PERSONAL SKILLS

#### Mother tongue

#### Romanian

#### Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B1	B1	B1

English

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:
- countinous / 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.

#### 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.
- Highly experienced in Matlab and Simulink.

#### **Driving licence**

#### B

#### ADDITIONAL INFORMATIONS

# ISI Web of Science indexed journal articles

- Tsopra, R., et al, A framework for validating Al 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.
- Ciusdel, C., et al, Effect of Linearization in a WNT Signaling Model, Computational and Mathematical Methods in Medicine, 2019. <a href="https://doi.org/10.1155/2019/8461820">https://doi.org/10.1155/2019/8461820</a>.



# Scopus indexed journal articles

 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, 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. <a href="https://doi.org/10.3182/20110828-6-IT-1002.01592">https://doi.org/10.3182/20110828-6-IT-1002.01592</a>.

# ISI Web of Science indexed conference articles / proceedings (most relevant)

- Coman, S., Boldişor, 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 (ACEMP), Brasov, România, May 25–27, 2017, pp. 594-599, https://doi.org/10.1109/OPTIM.2017.7975082.
- 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. https://doi.org/10.1109/AQTR.2010.5520759.
- 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. <a href="https://doi.org/10.1109/OPTIM.2010.5510432">https://doi.org/10.1109/OPTIM.2010.5510432</a>.

#### Other relevant publications

- Coman, S., Boldisor, C. Robust and Adaptive Systems. Laboratory manual (in Romanian Sisteme adaptive şi robuste. Îndrumar de laborator), Transivlania University of Brasov Publishing House, 2018.
- Comnac, V., Coman, S., Boldisor, C., Continuous liniar systems (in Romanian: Sisteme liniare continue), Transilvania University of Brasov Publishing House, 2009.
- Boldişor, 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., Boldişor C., Systems theory. Laboratory manual (in Romanian: Teoria sistemelor. Îndrumar de laborator), Transilvania University of Brasov Publishing House, 2009.
- Comnac, V., Moldoveanu, F., Boldişor, C., Systems theory: modeling, design, discrete systems (in Romanian: Teoria sistemelor: modelare, proiectare, sisteme discrete), Lux Libris, Braşov, 2007.
  Team member in the following research projects:

#### Research projects

- PN II HEART, High PErformance Computing of PersonAlized CaRdio ComponenT Models, funded by UEFISCDI, Transilvania University of Braşov 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 Braşov partner, 2013-2017;
- EU's Horizon H 2020 ICT 18 2016 MHMD, My Health My Data, funded by EU Commission, Transilvania University of Braşov 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 Braşov partner, 2017-2020;
- FLAG-ERA JTC 2016 *ITFoC, Information Technology: The Future of Cancer Treatment*, funded by EU Commission, Transilvania University of Braşov partner, 2017-2020;
- FLAG-ERA JTC 2016 RoboCom++, Rethinking Robotics for the Robot Companion of the Future, funded by EU Commission, Transilvania University of Braşov 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 Braşov 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 Braşov 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 Braşov 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 Braşov coordinator, 2021-2023.