

PERSONAL INFORMATION

Buzdugan Ioana-Diana


✉ ioana.buzdugan@unitbv.ro

Sex Female | Date of birth _ | Nationality Romanian

PROFESSIONAL EXPERIENCE

17.02.2025 - present

Assistant Lecturer

Transilvania University of Brasov
29 Eroilor, 500036 Braşov (România)
www.unitbv.ro
Faculty of Mechanical Engineering

01.09.2019 - 01.11.2021

Mechanical Design Engineer

S.C.RASKO ENGINEERING S.R.L., Braşov. România

01.10.2016 – 01.10.2018

BLUESTREAMLINE – The racing team of Transilvania University of Brasov

Transilvania University of Brasov
29 Eroilor, 500036 Braşov (România)
www.unitbv.ro
Team member

25.04.2017 – 28.04.2017

Participant, MOTORSPORT ACADEMY - SCHAEFFLER

SCHAEFFLER – Herzogenaurach, Germania

Marketing and Public Relations Department - BLUESTREAMLINE

EDUCATION AND TRAINING

2024 - present

Early Education and Primary School Psychopedagogy

Transilvania University of Brasov

2022

POLITICI REGIONALE EUROPENE course

Transilvania University of Brasov
Co-funded by the Erasmus+ Programme of the European Union

2021 - present

PhD – Thesis title: Driver-in-the-loop simulations for safety-critical situations of autonomous vehicles

Transilvania University of Brasov
Faculty of Mechanical Engineering

2019 - 2021

Master's studies in the field of Automotive Engineering

Transilvania University of Braşov
Field of study: Virtual Engineering in Automotive Design

2015 - 2019

Bachelor studies in the field of Automotive Engineering

Transilvania University of Braşov, România
Mechanical Engineering

2011 - 2015

High school

„Grigore Antipa” College of Science, Braşov, România

PERSONAL SKILLS

Mother tongue Romanian

Other language(s)

English

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

Communication skills Good interpersonal skills, ability to actively listen and be empathic

Organizational/ managerial skills Leadership, perseverance, responsibility

Computer skills

- Editing programmes: Microsoft Office™;
- Design and simulation: Matlab-Simulink, ADAMS, Labview, Ansys, CATIA V5 (Part Design, Generative Shape Design), NX Siemens, Solidworks, AutoCAD;

Driving license B

ADDITIONAL INFORMATION

Relevant publications

- Antonya, C., Buzdugan, I.D. (2021). Multimodal Environment for Studying the Behavior of Autonomous Vehicles in Traffic Situations. In: Auer, M.E., Centea, D. (eds) Visions and Concepts for Education 4.0. ICBL 2020. Advances in Intelligent Systems and Computing, vol 1314. Springer, Cham. https://doi.org/10.1007/978-3-030-67209-6_37
- Organe de Masini. Reductoare Conico-Cilindrice. Îndrumar de proiectare Editura:Editura Universitatii Transilvania (2022). ISBN 978 - 606 - 19 - 1490 – 6
- Organe de Masini. Reductoare Cilindrice. Îndrumar de proiectare Editura:Editura Universitatii Transilvania (2022). ISBN 978 - 606 - 19 - 1611 - 5
- Boboc, R.G.; Voinea, G.D.; **Buzdugan, I.-D.**; Antonya, C. Talking on the Phone While Driving: A Literature Review on Driving Simulator Studies. Int. J. Environ. Res. Public Health 2022, 19, 10554. <https://doi.org/10.3390/ijerph191710554>
- Voinea, G.-D.; Boboc, R.G.; **Buzdugan, I.-D.**; Antonya, C.; Yannis, G. Texting While Driving: A Literature Review on Driving Simulator Studies. Int. J. Environ. Res. Public Health 2023, 20, 4354. <https://doi.org/10.3390/ijerph20054354>
- **Buzdugan, I.-D.**; Butnariu, S.; Roşu, I.-A.; Pridie, A.-C.; Antonya, C. Personalized Driving Styles in Safety-Critical Scenarios for Autonomous Vehicles: An Approach Using Driver-in-the-Loop Simulations. Vehicles 2023, 5, 1149-1166. <https://doi.org/10.3390/vehicles5030064>
- **Buzdugan, I.D.**, Roşu, I.A., Antonya, C. (2023). Development of a Simulator Tool for Teaching the Autonomous Vehicles Behavior. In: Auer, M.E., El-Seoud, S.A., Karam, O.H. (eds) Artificial Intelligence and Online Engineering. REV 2022. Lecture Notes in Networks and Systems, vol 524. Springer, Cham. https://doi.org/10.1007/978-3-031-17091-1_8
- I. A. Roşu, **I. D. Buzdugan**, L. Carabulea, C. Antonya, 'Simulation of a pedestrian collision avoidance using Pedestrian Protection System', 9th International Congress Motor Vehicles & Motors 2022
- I. A. Roşu, **I. D. Buzdugan**, L. Carabulea, C. Antonya, 'Time-to-collision for the Pedestrian Protection System simulation, TRANSCOM 2023: 15th International Scientific Conference on Sustainable, Modern and Safe Transport, 2023
- A. -C. Pridie, **I. -D. Buzdugan** and C. Antonya, "Study on the Impact of Physical Parameters on the Performance of a Vehicle with an Interconnected Suspension System," 2023 IEEE 28th International Conference on Emerging Technologies and Factory Automation (ETFA), Sinaia, Romania, 2023, pp. 1-8, doi: 10.1109/ETFA54631.2023.10275555.

Relevant publications

- **Buzdugan, ID.**, Roșu, IA., Scurt, F.B., Antonya, C. (2025). Adaptive Decision-Making Framework for Autonomous Vehicles: A Reinforcement Learning Approach to Urban Traffic Safety. In: Chiru, A., Covaciu, D. (eds) CONAT 2024 International Congress of Automotive and Transport Engineering. CONAT 2024. Proceedings in Automotive Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-77635-9_12
- Roșu, IA., **Buzdugan, ID.**, Antonya, C. (2025). Collision Avoidance System Simulation for Occluded Pedestrian. In: Chiru, A., Covaciu, D. (eds) CONAT 2024 International Congress of Automotive and Transport Engineering. CONAT 2024. Proceedings in Automotive Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-77635-9_13
- Girbacia, F., Voinea, G.D., Danu, M.D., **Buzdugan, ID.**, Duguleana, M. (2025). Detection of Phone Distraction While Driving Using Open Visual-Language Models. In: Chiru, A., Covaciu, D. (eds) CONAT 2024 International Congress of Automotive and Transport Engineering. CONAT 2024. Proceedings in Automotive Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-77627-4_24
- Voinea, G.D., Boboc, R.G., Danu, M.D., **Buzdugan, ID.**, Butila, E.V., Postelnicu, C.C., Girbacia, F. (2025). The Emergence of the Vehicular Metaverse: A Scoping Review. In: Chiru, A., Covaciu, D. (eds) CONAT 2024 International Congress of Automotive and Transport Engineering. CONAT 2024. Proceedings in Automotive Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-77635-9_11

Honors and Awards

- AMMA 2018 Congress – „Vehicle Dynamics” student competition
- First Place at the International Student Automotive Engineering Competition, Automotive CAD – CATIA V5, third edition, 2019

Research projects

- Second Place - “**Reinvent the Twizy Concept 2018**”, Groupe Renault and Segula Technologies
- Volunteer – INFOCAR RACING
- Fii in Centru 2021
- Fii in Centru 2023
- Fii in Centru 2024
- DILSimEV - PN-III-P2-2.1-PED-2019-4366