

PERSONAL INFORMATION



✉ razvan.boboc@unitbv.ro

Sex Male

Date of birth

Nationality Romanian

Răzvan Gabriel BOBOC

PROFESSIONAL EXPERIENCE

25.11.2020 – present

Lecturer

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

Faculty of Mechanical Engineering

15.11.2015 – 25.11.2020

Researcher

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

Faculty of Mechanical Engineering

Research activities in the field of mechanical systems, robotics, virtual reality, human-computer interfaces

Didactic activities in the field of Mechanisms, Applied Informatics

17.07.2007 - 17.09.2007

Programmer

Siemens PSE Braşov

Telecommunications

5.08.2011 - 01.08.2012

Design engineer

SC Topoland M. A. B. SRL

EDUCATION AND TRAINING

2011 – 2015

PhD – Thesis title: Natural human-robot interaction for assistive robotics applications

Transilvania University of Braşov

Field of study: Robotics, Artificial Intelligence, Image Processing

2009 – 2011

Master's studies in the field of Electrical

Transilvania University of Braşov

Field of study: Telecommunications, Digital communication networks

2004 – 2009

Bachelor studies in Electrical Engineering and Computer Science

Transilvania University of Braşov

Telecommunications

2000 - 2004

High school

"Grigore Moisil" National College of Informatics, Braşov

PERSONAL SKILLS

Mother tongue Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	B1	B1	A2	A2	A2

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

Organizational/ managerial skills Perseverance, responsibility

Computer skills

- Programming languages: .NET (C#, Basic), C/C++, Java
- Design and simulation: Matlab – Simulink, AutoCAD, SolidWorks, V-REP, Webots, Labview
- Editing programmes: Microsoft Office, Photoshop
- Operating systems: Windows troubleshooting, Windows Server, Linux

Other skills

Graduated from the Popular School of Arts and Crafts "Tiberiu Brediceanu" Braşov, specializing in Graphics

Driving license

Category B, from 2005

ADDITIONAL INFORMATION

Relevant publications

- **Boboc, R. G.**, Dumitru, A. I. and Antonya, C., Point-and-Command Paradigm for Interaction with Assistive Robots. *Int J Adv Robot Syst*, vol 12, no. 75, 2015.
- Dumitru, A.I., Gîrbacia, **Boboc, R.G.**, Postelnicu, C.C., Mogan, G.L., Effects of smartphone based advanced driver assistance system on distracted driving behavior: A simulator study, *Computers in Human Behavior*, vol. 83, pp. 1-7, 2018.
- **Boboc, R. G.**, Duguleană, M., Voinea, G. D., Postelnicu, C. C., Popovici, D. M., Carrozzino, M., Mobile Augmented Reality for Cultural Heritage: Following the Footsteps of Ovid among Different Locations in Europe, *Sustainability*, vol. 11, nr. 4, 2019; **impact factor: 3.889**.
- Postelnicu, C.-C., Gîrbacia, F., Voinea, G. D., **Boboc, R. G.**, Towards Hybrid Multimodal Brain Computer Interface for Robotic Arm Command, Part of the 21st HCI International Conference, HCII 2019, Orlando, FL, USA, Cham, Springer International Publishing, 2019.
- **Boboc, R. G.**, Voinea, G. D., Postelnicu, C.C., Gîrbacia, F. Usability Assessment of a Multimodal Hybrid Interface for Robotic Arm Command, *Proceedings of the 14th international conference on virtual learning – ICVL 2019, Bucureşti*, 2019.
- Carrozzino, M., Voinea, G. D., Duguleană, M., **Boboc, R. G.**, Bergamasco, M. Comparing Innovative XR Systems in Cultural Heritage. a Case Study, *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLII-2/W11, GEORES 2019 – 2nd International Conference of Geomatics and Restoration, Milan, Italy, 2019.
- **Boboc, R.G.**, Gîrbacia, F., Butilă, E.V. The Application of Augmented Reality in the Automotive Industry: A Systematic Literature Review. *Appl. Sci.* 2020, 10, 4259, 2020.
- Antonya, C., **Boboc, R.G.**, Computational efficiency of multi-body systems dynamic models. *Robotica*, vol. 39, nr. 12, pp. 2333-2348, 2021.

Relevant publications

- Chiriac, R.-L., Chiru, A., **Boboc, R.G.**, Kurella, U., Advanced Engine Technologies for Turbochargers Solutions, Applied Sciences, vol. 11, nr. 21, 10075, 2021.
- **Boboc, R.G.**, Chiriac, R. L., Antonya, C. How Augmented Reality Could Improve the Student's Attraction to Learn Mechanisms, Electronics, 10(2), 175, 2021.
- **Boboc, R.G.**, Băutu, E., Gîrbacia, F., Popovici, N., Popovici, D.-M. Augmented Reality in Cultural Heritage: An Overview of the Last Decade of Applications. Applied Sciences 2022, 12, 9859.
- Burlacu, M., **Boboc, R.G.**, Butilă, E.V. Smart Cities and Transportation: Reviewing the Scientific Character of the Theories. Sustainability, 14, 8109m, 2022.
- Butilă, E.V., **Boboc, R.G.** Urban Traffic Monitoring and Analysis Using Unmanned Aerial Vehicles (UAVs): A Systematic Literature Review. Remote Sensing, 14, 620, 2022.
- Burlacu, M., **Boboc, R.G.**, Butilă, E.V. Smart Cities and Transportation: Reviewing the Scientific Character of the Theories. Sustainability, vol. 14, 8109, 2022.
- **Boboc, R.G.**, Voinea, G.D., Buzdugan, I.-D., Antonya, C. Talking on the Phone While Driving: A Literature Review on Driving Simulator Studies. International Journal of Environmental Research and Public Health, vol. 19, 10554, 2022.
- Sbanca, M. P., **Boboc, R. G.** and Mogan, G. L. Fiber Tensioning Systems in a Robotized Winding Procedure for Composite Materials Building Processes. Electronics, vol. 12, no. 2, 254, 2023.
- Voinea, G.-D., **Boboc, R. G.**, Buzdugan, I.-D., Antonya, C. and Yannis, G. Texting While Driving: A Literature Review on Driving Simulator Studies. International Journal of Environmental Research and Public Health, vol. 20, no. 5, 4354, 2023.
- Voinea, G.-D., Gîrbacia, F., Duguleană, M., **Boboc, R. G.** and Gheorghe, C. Mapping the Emergent Trends in Industrial Augmented Reality. Electronics, vol. 12, no. 7, 1719, 2023.
- **Boboc, R. G.**, Butilă, E. V., & Butnariu, S. Leveraging Wearable Sensors in Virtual Reality Driving Simulators: A Review of Techniques and Applications. Sensors, 24(13), 4417, 2024.
- **Boboc, R. G.**, Damaševičius, R. Confronting bullying in the digital age: Role of Extended Reality. Education and Information Technologies, 29(14), 1-30, 2024.
- **Boboc, R. G.**, Voinea, G. D., & Butnariu, S. Investigating Tourist Acceptance of a VR Multisensory System in a Public Weapons Exhibition. In L. T. De Paolis, P. Arpaia, & M. Sacco, Extended Reality Cham, 2024.
- Gheorghe, C., **Boboc, R. G.**, Gîrbacia, F., & Șoica, A. Above the roads: Unleashing unmanned aerial vehicles and image processing for traffic analysis. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2024.
- Gheorghe, C., Duguleana, M., **Boboc, R.-G.**, & Postelnicu, C.-C. Analyzing Real-Time Object Detection with YOLO Algorithm in Automotive Applications: A Review. Computer Modeling in Engineering & Sciences, 141(3), 1939-1981, 2024.

Research projects

International research projects

- eHERITAGE - Expanding the Research and Innovation Capacity in Cultural Heritage Virtual Reality Applications, grant no. 692103, PN-III-P3-3.6-H2020-2016, 2015 – 2018; position: member.

National research projects

- SPINE - A System for the Diagnosis and Therapy of Spinal Disorders, contract nr. 227/2014, PN-II-PT-PCCA-2013-4-1596, 2014 – 2016, position: member.
- ROBOCORE - Robotic Prostate Biopsy, an Innovative Method of High Precision, contract nr. 247, PN-II-PT-PCCA-2013-4-0647, 2014 – 2016, position: member.
- NaviEyes – Intelligent Car Navigation Assistant for Mobile Devices Based on Eye Gaze Tracking and Head Pose, contract nr. 240/ 2014, PN-II-PT-PCCA-2013-4-2023, 2014 – 2016, position: member.
- BRAINSPACE - Multimodal Machine Interaction for Space Applications Based on Human Biopotentials, Proiect de cercetare finanțat de ROSA, 2017 – 2019, position: member.
- DiSimEv - Driver-In-the-Loop SIMulation for safety-critical testing scenarios of Electric Vehicles, 2020-2022, position: member.
- iDRIVE - Intelligent Connected Vehicle Cooperative System for Enhanced Driving Experience, 2025-2026, position: member.

Third-party projects

- KetSim – KetSim Animator Interface, contract nr. 4029/2008/Aad 6/2016, funder: Schaeffler Technologies AG & Co., position: member.
- Realizarea unui agent inteligent conversational in limbaj natural vorbit cu interfata avatar, contract nr. 6780/25.06.2019, funder: Muzeul "Casa Muresenilor", position: member.