



## Europass Curriculum Vitae



### Personal information

**First name(s) / Surname(s)** **Gîrbacia Florin Stelian**  
**Address(es)** Eroilor 29, 50036, Brasov, Romania  
**Telephone(s)** (+40)268418967  
**E-mail** garbacia@unitbv.ro  
**Nationality** Romanian  
**Gender** Male

### Occupational field **Research and Education**

#### Work experience

<b>Dates</b>	October 2012 - Present
<b>Occupation or position held</b>	Professor at Transilvania University of Brasov , Department of Department of Automotive and Transport Engineering
<b>Main activities and responsibilities</b>	Research and Education activities in Computer Aided Design, Virtual and Augmented Reality for Industrial Application, Haptic Sytems , Design of Virtual Environments, Computer programming, 3D Modeling, Human Computer Interaction.
<b>Name and address of employer</b>	Transilvania University of Brasov, Eroilor 23, RO-500036 Brasov, Romania, www.unitbv.ro
<b>Type of business or sector</b>	Education and research
<b>Dates</b>	June 2010 –June 2013
<b>Occupation or position held</b>	Postdoctoral Researcher at Transilvania University of Brasov
<b>Main activities and responsibilities</b>	Research activities in development of VR/AR applications for industrial and medical applications
<b>Name and address of employer</b>	Transilvania University of Brasov, Eroilor 23, RO-500036 Brasov, Romania, www.unitbv.ro
<b>Type of business or sector</b>	Education and research
<b>Dates</b>	Ian. 2008 – May 2010
<b>Occupation or position held</b>	full time employee, researcher
<b>Main activities and responsibilities</b>	Research activities in national and European Projects: C++ Programmer for national project CEEX-II-03 MERVI, national project VirDent, C++ Programmer for European project 4WARD, development of a software component for pipe inspection robot, CAD modeling,.
<b>Name and address of employer</b>	Siemens PSE Romania SRL, Colina Universității Street 1, C16,500068 Braşov Romania, <a href="http://www.pse.siemens.ro">http://www.pse.siemens.ro</a>
<b>Type of business or sector</b>	Industry

## Education and training

Dates 2003-2007  
 Title of qualification awarded PhD  
 Principal subjects/occupational skills covered Research in Virtual Reality Technologies and Computer Aided Design  
 Phd thesis title: Development of a multimodal interface for virtual reality aided design  
 Name and type of organisation providing education and training Transilvania University of Brasov, Eroilor 23, RO-500036 Brasov, Romania, [www.unitbv.ro](http://www.unitbv.ro)

June 2019 Certificate of habilitation in the field of Automotive Engineering  
 Universitatea din Pitești  
 Habilitation thesis title: Realitate virtuală pentru proiectarea autovehiculelor

## Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

European level (\*)

**English**

**German**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Effective Operational Proficiency	C1	Effective Operational Proficiency	C1	Effective Operational Proficiency	C1	Effective Operational Proficiency	C1	Effective Operational Proficiency
A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(\*) [Common European Framework of Reference for Languages](http://www.cerl.eu)

Organisational skills and competences

Conferences/workshop organizing:

- The first International Workshop on Virtual Reality, Brasov, Romania, 18-19 May 2006, FP6 - SSA Project ACC, Contract no.16565, Vega project, member organizing committee. <http://www.project-vega.ro/workshop/Workshop%202nd%20call.htm>
- Advanced Summer Institute on ENGINEERING-DESIGN: Eco-design, Technologies and Green Energy, 14-21 July 2004, Sinaia, Brasov, Romania, member organizing committee. <http://www.rvv.ro/adept/ADEPT%20ANUNT%20ASI-DRAFT.htm>
- The 2nd Advanced Study Institute on "Product Engineering Tools and Methods based on Virtual Reality", Chania, Creete, 30 May - 6 June 200, member organizing committee. [http://www.project-vega.ro/news/asi\\_vega\\_2007/ASI%20site/ASI%20call.htm](http://www.project-vega.ro/news/asi_vega_2007/ASI%20site/ASI%20call.htm)
- FP6 INTUITION – VEGA joint meeting 20-21 February 2008, Brasov, Romania, member organizing committee. [http://www.project-vega.ro/news/asi\\_vega\\_2007/ASI%20site/ASI%20call.htm](http://www.project-vega.ro/news/asi_vega_2007/ASI%20site/ASI%20call.htm)

Technical skills and competences

Computer Aided Design, Virtual Reality Technologies, Augmented Reality Applications, Human Computer Interfaces, Virtual Reality Programming, 3D Programming, 3D Modeling of Virtual Environments, Design of Virtual Reality immersive systems, Development of custom haptic systems, Development of Virtual Reality medical simulators, Virtual prototyping, Interfacing various Virtual Reality devices, Image Processing, Robotics.

## Additional information

Publications in ISI Web of Science rated journals: 9  
Publications in ISI indexed journals & volumes: 43  
Publications in journals & BDI indexed volumes: 36  
Didactic materials published in national publishing houses: 8  
Chapters in books published abroad: 17 (in Springer)  
Patents granted / proposals for patents: 1 / 3  
Citations in ISI Web of Science cited/indexed journals/volumes: 85  
Citations in BDI indexed journals/volumes: over 150  
Referent for ISI Web of Science rated / indexed journals: more than 10 journals (mostly published by prestigious publishers from abroad - Elsevier, Springer, Taylor & Francis, IEEE, PlosOne)  
Prizes: Best paper award ACHI 2012 conference for the paper:  
Gîrbacia, F. Evaluation of cognitive effort in the perception of engineering drawings as 3D models, Proceedings of The Fifth International Conference on Advances in Computer-Human Interactions (ACHI 2012), Valencia, Spain.

## Relevant projects

## International Research projects

1. H2020 –TWINN- eHeritage - Expanding the Research and Innovation Capacity in Cultural Heritage Virtual Reality Applications, contract H2020-TWINN-2015 - 692103 Position : Member.
2. FP6, VEGA – Virtual Reality in Product Design and Robotics, Contract FP6-IST 16565, 2004-2007, Position : Member.
3. FP6, INTUITION – Network of excellence on virtual reality and virtual environments applications for future workspaces, Contract FP6-IST 507248-2, 2004 -2008, Position : Member.
4. FP5, ADEPT – Advanced Computer Aided Design of Ecological Products and Tehnologies Integrating Green Energy Sources, FP5, G1MA-CT-2002-04038, 2002-2005, Position : Member

## National Research projects

5. PN-II-PT-PCCA-2013-4-0647 – ROBOCORE - Robotic assisted prostate biopsy, a high precision innovative method, 2014 -2017, Position : UTBV partner leader;
6. PN-II-PT-PCCA-2011-3.2-0414, CHANCE - Robotic assisted brachytherapy, an innovative approach of inoperable cancers, 2012 -2015, Position : Member;
7. PN, TOMIS - Using virtual reality in reconstructing 3D multimode Historic sites, Contract 11-041 / 14.09.2007, Position : UTBV partner member.
8. TRIMA – Virtual reality techniques and technologies applied in engineering, medicine and art cod CNCSIS 80, 2006-2008, Position : Member.
9. PN, IDEI – IREAL- Interfata cu retur haptic pentru prototiparea in mediu imersiv, Contract nr 132-2007, 2007-2009, Position : Member.
10. CEEX –I, MERVI – Mediu colaborativ de Realitate Virtuală pentru planificare preoperatorie în ortopedie, Contract CEEX nr. 114/2006, 2006-2008, Position : Member.
11. CEEX –II, VIRPE – Virtual reality for product engineering, Contract CEEX nr.5920 /2006, 2006-2008, Position : Member.
12. CNCSIS tip AT nr. 170 Interfata de realitate virtuala pentru simularea mecanismelor articulate utilizând teoria sistemelor multicorp, proiect, director de proiect, 2004-2005, Position : Member.

## Patents

13. Talabă D., Gîrbacia Florin, Butnaru T. , Sisca S. Sistem reconfigurabil de vizualizare stereoscopica tip CAVE, Patent no. BI cbi A 00300 2010.

## Recent publications

14. Voinea, G. D., Gîrbacia, F., Duguleană, M., Boboc, R. G., & Gheorghe, C. (2023). Mapping the Emergent Trends in Industrial Augmented Reality. *Electronics*, 12(7), 1719. Link: <https://www.mdpi.com/2079-9292/12/7/1719>
15. Voinea, G. D., Gîrbacia, F., Postelnicu, C. C., Duguleana, M., Antonya, C., Soica, A., & Stănescu, R. C. (2022). Study of Social Presence While Interacting in Metaverse with an Augmented Avatar during Autonomous Driving. *Applied Sciences*, 12(22), 11804. Link: <https://www.mdpi.com/2076-3417/12/22/11804>
16. Boboc, R. G., Băutu, E., Gîrbacia, F., Popovici, N., & Popovici, D. M. (2022). Augmented Reality in Cultural Heritage: An Overview of the Last Decade of Applications. *Applied Sciences*, 12(19), 9859. Link: <https://www.mdpi.com/1860452>
17. Boboc, R.G., Gîrbacia, F. and Butilă, E.V. (2020). The Application of Augmented Reality in the Automotive Industry: A Systematic Literature Review. *Applied Sciences*, 10(12), p.4259. Link: <https://www.mdpi.com/2076-3417/10/12/4259>
18. Postelnicu, C.-C., Gîrbacia, F., Talaba, D. (2012):EOG-based visual navigation interface development. *Expert Systems with Applications*, 39 (12), pp. 10857-10866, DOI: 10.1016/j.eswa.2012.03.007
19. Gîrbacia F., Voinea G. D., Gîrbacia T. (2018): Vibrotactile Patterns for Smartphone Based ADAS Warnings. In: Burnete N., Varga B. (eds) *Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018)*. AMMA2018 2018. *Proceedings in Automotive Engineering*. pp. 122-127, Springer, Cham. Link: [https://link.springer.com/chapter/10.1007/978-3-319-94409-8\\_15](https://link.springer.com/chapter/10.1007/978-3-319-94409-8_15)
20. Gîrbacia F., (2012): Evaluation of cognitive effort in the perception of engineering drawings as 3D models, *Proceedings of The Fifth International Conference on Advances in Computer-Human Interactions*, Valencia, Spain, pp. 247 – 250, Iaria press, 2012 (Best Paper Award)

**I hereby certify that the above statements are true.**