

PERSONAL INFORMATION


Florin Stelian Gîrbacia



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Sex Male | Date of birth 01/11/1979 | Nationality Romanian

WORK EXPERIENCE

01/10/2012–Present

Lecturer

Universitatea Transilvania Braşov, Braşov (Romania)

Research and Education activities in Human Computer Interaction, Virtual Reality, Augmented Reality, Computer Aided Design, Haptic Systems, Design of Virtual Environments, Computer programming, 3D Modeling, Multimodal Interfaces.

UTBV Project Responsible for PN-II-PT-PCCA-2013-4-0647 ROBOCORE - Robotic assisted prostate biopsy, a high accuracy innovative method, 2014-2017

Business or sector Research and Education

01/01/2008–30/05/2010

full time employee, researcher

Siemens PSE Romania SRL, Brasov (Romania)

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

01/06/2010–01/06/2013

Postdoctoral Researcher at Transilvania University of Brasov

Universitatea Transilvania Brasov, Brasov (Romania)

Research activities in development of VR/AR applications for industrial and medical applications

EDUCATION AND TRAINING

01/10/2003–01/10/2007

PhD

Universitatea Transilvania din Brasov, Brasov (Romania)

Research in Virtual Reality Technologies and Computer Aided Design

Phd thesis title: Development of a multimodal interface for virtual reality aided design

PERSONAL SKILLS

Mother tongue(s)

Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	A1	A1	A1	A1	A1
French	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Digital competence 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

Prizes Best paper award conference on Advances in Computer-Human Interactions 2012 :
 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, pp. 247 – 250, Iaria Press, 2012

Scientific activity (entire career) National and international research contracts: 18
 Published papers in national and international journals, conferences and congresses: over 45
 Reviewer of papers in JCAD and IJAMT journal
 Patents :1

- Research Projects**
- H2020 –TWINN- eHeritage - Expanding the Research and Innovation Capacity in CulturalHeritage Virtual Reality Application
 - FP5 IRMA: A worldwide IMS virtual reality project for the industrial enterprise, Pozitia : Membru echipa cercetare.
 - FP5, ADEPT – Advanced Computer Aided Design of Ecological Products and Tehnologies Integrating Green Energy Sources, FP5, G1MA-CT-2002-04038, 2002-2005, Pozitia : Membru echipa cercetare, valoare 198800 Euro.
 - FP6, VEGA – Virtual Reality in Product Design and Robotics, Contract FP6-IST 16565, 2004-2007, Pozitia : Membru echipa cercetare, valoare 900000 Euro.
 - FP6, INTUITION – Network of excellence on virtual reality and virtual environments applications for future workspaces, Contract FP6-IST 507248-2, 2004 -2008, Pozitia : Membru echipa cercetare, valoare 14500 Euro.
 - FP7, ARTreat - Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on traning, 2010 -2013, Pozitia : Membru echipa cercetare.
 - PN-II-PT-PCCA-2011-3.2-0414, CHANCE - Robotic assisted brachytherapy, an innovative approach of inoperable cancers, 2012 -2015, Pozitia : Membru echipa cercetare
 - PN-II-PT-PCCA-2013-4-1596, Sistem de diagnosticare și terapie a afecțiunilor coloanei vertebrale, 2014-2016, Pozitia : Membru echipa cercetare
 - PN-II-PT-PCCA-2013-4-2023, Asistent inteligent de navigare auto pentru dispozitive mobile bazat pe urmărirea privirii, 2014-2016, Pozitia : Membru echipa cercetare
 - STAR-Tehnologie Spatiale si Cercetare Avansata – *New Haptic Arm Exoskeletons for Robotics and Automation in Space- 2012- 2015.*
 - CEEX-II-03/15.08.2006 MERVI –„Mediu colaborativ de realitate virtuala pentru planificarea preoperatorie in ortopedie”,Pozitia : Membru echipa cercetare.
 - VirDenT: Tehnologii ale Realitatii Virtuale si Augmentate utilizate in simularea manoperelor prepararii dintilor in protezarea fixa,Parteneriate Nr. 1447.
 - PN, IDEI – IREAL- Interfață cu retur haptic pentru prototiparea in mediu imersiv, Contract nr 132-2007, 2007-2009, Pozitia : Membru echipa cercetare, valoare 1000000 RON.
 - PN, Parteneriate - TOMIS Utilizarea realității virtuale în reconstituirea Multimodală 3D a site-urilor Istorice, Contract 11-041 / 14.09.2007, Pozitia : Membru, valoare UnitBv 257757 RON.
 - Platforma interdisciplinară – TRIMA – Tehnici si tehnologii de realitate virtuală aplicate în inginerie, medicină si artă, cod CNCSIS 80, 2006-2008, Pozitia : Membru, valoare 2973922 RON.
 - CNCSIS tip AT nr. 170 Interfata de realitate virtuala pentru simularea mecanismelor articulate

utilizând teoria sistemelor multicorp, proiect, director de proiect, 2004-2005, Pozitia : Membru, valoare 19400 RON.

- CNCSIS A, Cod. 937, Simularea in timp real a sistemelor multicorp cu elemente rigide si deformabile, 2007-2008, Pozitia : Membru, valoare 81500 RON.
- CNCSIS A, cod 894/2007, Optimizarea constructiva si simularea virtuala a structurilor mecatronice modulare articulate utilizabile ca proteze si teleteze pentru bratul uman-OCSIMOP, 2007-2008, Pozitia : Membru, valoare 50200 RON.
- CNCSIS tip AT nr. 170 Interfata de realitate virtuala pentru simularea mecanismelor articulate utilizând teoria sistemelor multicorp, proiect, director de proiect, 2004-2005, Pozitia : Membru, valoare 19400 RON.

Patents

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

Relevant publications in the thematic of the project

- Postelnicu C-C., Gîrbacia F., Talaba D. (2012):EOG-based Visual Navigation Interface Development, Expert Systems with Applications 2012, Volume 39, Issue 12, Pages 10857–10866, ISSN 0957-4174, 10.1016/j.eswa.2012.03.007.
- Postelnicu C, Duguleana M, Gîrbacia F, Talaba D Towards P300 based brain computer interface for Computer Aided Design. In: Conference and Exhibition of the European Association of Virtual and Augmented Reality (2014), 2014. 10.2312/eurovr.20141347, pp 107-111
- Postelnicu C, Gîrbacia F, Duguleana M, Talaba D (2011) EOG-Based Teleoperation of a Mobile Robot. In: International Conference on Future Computer and Communication, 3rd (ICFCC 2011). ASME Press
- Gîrbacia F., Beraru A., Talabă D., Mogan G. (2012): „Visual Depth Perception of 3D CAD Models in Desktop and Immersive Virtual Environments”, INT J COMPUT COMMUN, ISSN 1841-9836, Volume:7(5):840-848, 2012.
- Gîrbacia F., Beraru A., Talabă D.(2012): "The influence of shape complexity in visual depth perception of CAD models", European Conference on Visual Perception , 2-6 September 2012, Alghero, Italy, abstract publicat in revista Perception 2012, volume 41, supliment, pp. 81-82 , (factor impact 1.313, SRI 0.651).
- Pîslă D, Gherman B, Gîrbacia F, Vaida C, Butnariu S, Gîrbacia T, Plitea N (2016) Optimal Planning of Needle Insertion for Robotic-Assisted Prostate Biopsy. In: Advances in Robot Design and Intelligent Control. Springer International Publishing, pp 339-346 ·
- Duguleana M, Gîrbacia F, Postelnicu C, Beraru A, Mogan G (2015) Aspects Concerning the Calibration Procedure for a Dual Camera Smartphone Based ADAS. In: Distributed, Ambient, and Pervasive Interactions. Springer International Publishing, pp 408-417
- Florin G, Tiberiu B, Cristian P, Doru T (2011) Methods for Mobile Robots Path Planning Based on Co-Located Environment. In: International Conference on Future Computer and Communication, 3rd (ICFCC 2011). ASME Press
- Toma MI, Gîrbacia F, Antonya C (2012) A comparative evaluation of human interaction for design and assembly of 3D CAD models in desktop and immersive environments.