Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	BOGDAN-GEORGE / GHERMAN
Address(es)	22/6, Crizantemelor Str. ,RO-400447 Cluj-Napoca, ROMANIA
Telephone(s)	(+40)-264-430922 Mobile: (+40)-744-892967
Fax(es)	(+40)-264-430929
E-mail	Bogdan.GHERMAN@mep.utcluj.ro
Nationality	Romanian
Date of birth	March, 22, 1980
Gender	male

Occupational field

EDUCATION AND RESEARCH

Work experience

Dates	2004-present
Occupation or position held	Design Engineer
Main activities and responsibilities	Designing wrought iron products and furniture accessories
Name and address of employer	S.C. CAVAL S.A., Scortarilor Str., 12, Cluj-Napoca, Romania, www.caval.ro
Type of business or sector	Design and production
Dates	2011- present
Occupation or position held	Teaching Assistant at the Department of Engineering of Mechanical Systems, Technical University of Cluj-Napoca
Main activities and responsibilities	Teaching activities in computer programming and mechanics, research activities in Robotics and Mechatronics, Computer and simulation techniques, Kinematics and dynamics of serial and parallel robots, Surgical robots, E-learning platforms and simulators for medicine
Name and address of employer	Technical University of Cluj-Napoca, Memorandumului, 28, RO-400114, Cluj-Napoca, Romania, www.utcluj.ro
Type of business or sector	Education and research

Education and training

Dates	2007-2011
Title of qualification awarded	PhD
Principal subjects/occupational skills covered	Research in Robotics and Mechanical Engineering PhD thesis title: Research on the development of kinematic, dynamic and functional models for an innovative structure of a parallel hybrid robot for minimally invasive surgery.
Name and type of organisation providing education and training	Technical University of Cluj-Napoca, Memorandumului, 28, RO-400114, Cluj-Napoca, Romania, www.utcluj.ro

Personal skills and competences

Mother tongue(s) Romanian

Other language(s)

English
French
Italian

Self-assessment

European level (*)

	Understanding			Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production		
English	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
French	B2		B2		B2		B2		B2	
Italian	B2		B2		B2		B2		B2	

(*) Common European Framework of Reference for Languages

Social skills and competences

Team spirit, communicative, solidarity, honesty, correctitude, responsibility, dynamism

Organisational skills and competences

Good organiser and manager, education and research abilities, problem-solving-attitude, ability to respect deadlines for project activities

Technical skills and competences

Ability tin kinematic and dynamic modelling of robots, programming of robots and mechanical systems, CAD of robots.
Writing many scientific papers in ISI and BDI journals
Participation at many international conferences in congresses

Computer skills and competences

C, C++, PHP, Visual Basic, Matlab, MSC Adams, MathCAD, Solid Edge, NX, SolidWorks, AutoCAD, Corel DRAW, MS Office, Latex, etc.
Easily adapts to new technologies/softwares

Artistic skills and competences

Skiing, swimming, jogging

Other skills and competences

2002 – 2007 Graduate the Faculty of Machine Building, Technical University of Cluj-Napoca – Engineer in Robotics.

2004 – 2005 Master in Economic Informatics, Babes-Bolyai University, Cluj-Napoca

1999 – 2004 Graduate the Faculty of Economic Informatics, Babes-Bolyai University, Cluj-Napoca

Driving licence

Driving licence category B since 1998

Additional information

Scientific activity (entire career)

Annexes:

Published papers in ISI journals, SCI journals, national and international conferences and congresses: 24

Refereed Journal Papers and book chapters (excerpt)

1. Pisla, D., B. Gherman, N. Plitea, B. Gyurka, C. Vaida, L. Vlad, F. Graur, C. Radu, M. Suciu, A. Szilaghi, A. Stoica: *PARASURG Hybrid Parallel Robot for Minimally Invasive Surgery*, Chirurgia (Bucur), 106(5), pp. 619-625, 2011.
2. Pisla, D., Plitea, N., Vaida, C., Hesselbach, J., Raatz, A., Vlad, L., Graur, F., Gyurka B., Gherman B., Suciu M., *PARAMIS Parallel Robot for Laparoscopic Surgery*, Chirurgia 105(5), pp. 677-683, 2010.
3. Pisla, D., Plitea, N., Gherman B., Vaida, C., Suciu, M., *Kinematics and Design of a 5-DOF Parallel Robot used in Minimally Invasive Surgery*, Advances in Robot Kinematics: Motion in Man and Machine, 2010, Part 2, pp. 99-106, Springer, 2010.
4. Pisla, D., B.G. Gherman, N. Plitea, M. Suciu, C. Vaida, *On the Dynamics of a 5 DOF Parallel Hybrid Robot used in Minimally Invasive Surgery*, New Trends in Mechanism Science. Analysis and Design, pp. 691-699, 2010.
5. Vaida, C., Pisla, D., Plitea, N., Gherman, B., *Development of a Voice Control Surgical robot*, New Trends in Mechanism Science. Analysis and Design, pp. 567-574, 2010.
6. Plitea, N., Hesselbach, J., Pisla, D., Raatz, A., Gherman, B.; Vaida, C., *Dynamic Analysis and Design of a Surgical Parallel Robot Used in Laparoscopy*, Journal of Vibroengineering, Vibromechanika, 2009, Ausgabe 11 / 2, Seite 215-225.
7. Pisla, D., Plitea Nicolae, Gherman Bogdan, Pisla, Adrian, Vaida Calin, *Kinematical Analysis and Design of a New Surgical Parallel Robot*, Computational Kinematics 2009, Seite 273-282, Springer Verlag, 2009, Seite 273-281.
8. Pîslă, D., Plitea, N., Ispas, V., Itul, T., Vaida, C., Vidrean, A., Prodan, B., Gherman, B., Deteşan, O., *Innovative Development of Parallel Microrobots With Six Degrees of Freedom and Three Guiding Kinematic Chains of the Platform*, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics and Mechanics 51, Vol. II, 2008, pp. 27-32
9. Plitea, N., Vidrean, D., Pisla, D., Vaida, C., Gherman, B., Prodan, B., *Modeling and Design of a Min Parallel Robot with four Degrees of Freedom*, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics and Mechanics 51, Vol. II, 2008, pp. 39-44.
10. Carbone G., Gherman B.G., Ceccarelli M., Pisla D., Itul T.P., "*A Robotization for Packaging of Horticulture Products*", The International Journal Robotica & Management, Vol.12, N.2, 2007, pp.13-20
11. Pîslă, D., Plitea, N., Prodan, B., Vaida, C., Gherman, B., Vidrean, A., et all, „*Modeling and Design of a Parallel Robot with Five Degrees of Freedom*", Applied Mathematics and Mechanics, Acta Technica Napocensis, 51, vol. II, 2008
12. Vaida, C., Pisla, D., Plitea, N., Gherman, B., Gyurka, B., Stancel, E., Hesselbach, J., Raatz, A., Vlad, L., Graur, F.: *Development of a Control System for a Parallel Robot Used in Minimally Invasive Surgery*, International Conference on Advancements of Medicine and Health Care through Technology IFMBE Proceedings,Vol. 26, pp. 171-176, DOI: 10.1007/978-3-642-04292-8_38, 2009
13. Furcea, L., Graur, F., Scurtu, L., Gherman, B., Plitea, N., Pîslă, D., Vaida, C., Deteşan, O., Szilaghy, A., Neagoş, H., Mureşan, A., Vlad, L.: *Avantajele implementării unei platforme de e-learning pentru chirurgia laparoscopică hepatică asistată robotic*, Chirurgia, 2011, to be published
14. Vaida, C., Plitea, N., Pîslă, D., Gherman, B., Suciu, M.: *Design and Analysis of a module for instrument tip orientation in minimally invasive surgery procedures*, Acta Technica Napocensis, 54(1), 2011, to be published
15. Pîslă, D., Gherman, B. (corresponding author), Vaida, C.: „*Kinematic modeling of a 5 DOF Parallel Hybrid Robot designed for Laparoscopic Surgery*", Robotica, Cambridge University Press, 2011, accepted for publication
16. Gherman, B., Pîslă, D. (corresponding author), Vaida, C., Plitea N., "*Development of Inverse Dynamic Model for a Surgical Hybrid Parallel Robot with Equivalent Lumped Masses*", Robotics and Computer-Integrated Manufacturing, 2011, accepted for publication
17. Pîslă, D., Suciu, M., Vaida, V., Gherman, B., Plitea, N.: "*An active hybrid parallel robot for minimally invasive surgery*", Robotics and Computer-Integrated Manufacturing, 2011, to be published

Annexes: Papers published at international and national conferences

1. Plitea, N. Hesselbach, J., Vaida, C., Raatz, A., Pisla, D., Gyurka, B., Gherman, B., Design and Control of a Parallel Robot for Laparoscopic Surgery, The 1st Joint International Conference on Multibody System Dynamics, May 25-27, 2010, Lappeenranta, Finland, 2010.
2. Pisla, D., Plitea Nicolae, Vidrean Anneline, Prodan Bogdan, Gherman, Bogdan, Lese Dorin, *Kinematics and Design of Two Variants of a Reconfigurable Parallel Robot*, ASME/IFToMM International Conference on Reconfigurable Mechanisms and Robots (ReMAR 2009), Seite 565-572978-88-89007-37-2, IEEE Catalog Number: CFP0943G-PRT.
3. Pisla, D., T.P. Itul, A. Pisla, and B. Gherman, *Dynamics of a Parallel Platform for Helicopter Flight Simulation Considering Friction*, SYROM 2009, Springer Verlag, Seite 365-378, 2009.
4. N. Plitea, D. Pisla, C. Vaida, B. Gherman, A. Pisla, *Dynamic Modeling of a Parallel Robot Used in Minimally Invasive Surgery*, EUCOMES 2008, Editura Springer, ISBN 978-1-4020-8914-5.
5. Gherman, B., Vaida, C., Pisla, D., Plitea, N., Gyurka, B., Lese, D., Glogoveanu, M., Singularities and workspace analysis for a parallel robot for minimally invasive surgery, 2010 IEEE International Conference on Automation Quality and Testing Robotics (AQTR), Cluj-Napoca, Romania, DOI: 10.1109/AQTR.2010.5520866
6. Gyurka, B., Pisla, D., Stancel, E., Vaida, C., Gherman, B., Lese, D., Suciu, M., Plitea, N.: The control of the PARAMIS parallel robot using a haptic device, aqtr, vol. 1, 2010 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), 2010, pp.1-6
7. Suciu, M., Gherman, B., Vaida, C., Plitea, N., Pîslă, D.: *On the Kinematics of a Hybrid Parallel Robot used in Minimally Invasive Surgery*, The First Workshp on Mechanisms, Transmissions and Applications, Timişoara, 2011 – accepted for publication

Annexes: Seminars and Workshops (excerpt)

1. Pisla, D., T.P. Itul, A. Pisla, and B. Gherman, *Dynamics of a Parallel Platform for Helicopter Flight Simulation Considering Friction*, SYROM 2009, Springer Verlag, Seite 365-378, 2009.

Relevant projects (Remove heading if not relevant, see instructions)
International Research projects (excerpt)

1. Creative Alliance in Research and Education focused on Medical and Service Robotics, IZ74Z0_13736, Scopes International IP Grant,: Prof. Univ. Dr.-Ing. Doina,Pisla 2011-2014, http://www.snf.ch/SiteCollectionDocuments/int_sco_pro_romania0912.pdf Poition: Member

National Research Grants (excerpt)

1. *Multidisciplinary development of surgical robots based on parallel structures – PARMIS*, Duration: 2007-2010, 11016/2007Financed by: National Authority for Scientific Research, Position: Member
2. *Innovative development of an innovative virtual system for e-learning in hepatic surgery – HEPSIM,* Duration: 2008-2011, Financed by: National Authority for Scientific Research, Position: Member

Patents

1. Plitea, N., Pisla, D., Vaida, C., Gherman, B.: Surgical Robot. Patent pending no. a00525/7.07.2009, Romania (2009).
2. Vaida C., Plitea, N., Pisla, D., Gherman, B., Suciu, M.: Orientation module with modular structure and multiple bends, Cerere de brevet nr. A10113/2001, Romania (2011)

I hereby certify that the above statements are true.

Date 20.12.2011

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