Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**BOGDAN-GEORGE / GHERMAN**
Address(es)	B-dul Muncii 103-105, C309
Telephone(s)	(+40)-264-401684 Mobile: (+40)-744-892967
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	2011- present
Occupation or position held	Lecturer at the Department of Engineering of Mechanical Systems, Technical University of Cluj-Napoca, Department of Engineering of Mechanical Systems, Researcher within the Research Center for Industrial Robots Simulation and Testing (CESTER http://www.cester.utcluj.ro/)
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

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

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	Understanding				Speaking				Writing	
European level (*)	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 in 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: 61

Published Books

1. **Bogdan-George Gherman,** Calin Liviu Vaida, Pisla Liana Doina, *Programare in limbajul C cu aplicatii in inginerie.* Vol. 2, under the series "Utilizarea si Programarea Calculatoarelor", Coordonator Doina Pisla, Mediamira, ISBN 978-973-713-305-2, 2013.
2. Calin Vaida**, Bogdan Gherman**, Pisla Doina, *Programarea avansată in Matlab cu aplicaţii in inginerie.* Band 1, under the series "Utilizarea si Programarea Calculatoarelor", Coordinator Doina Pîsla, Mediamira, 2014 (to be appeared).

Refereed Journal Papers (excerpt)

1. **Gherman Bogdan**, Pisla Doina, Vaida Calin, Plitea Nicolae: On workspace and accuracy evaluation of a parallel robot for needle placement procedures, PROCEEDINGS OF THE ROMANIAN ACADEMY, Series A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE, Volume 17, Number 4, pages 344–351, 2016, Impact factor: 1.16
2. Plitea Nicolae, **Gherman Bogdan (corresponding author)**, Cocorean Dragos, Vaida Calin, Pisla Doina: Inverse dynamics modelling of a parallel robotic system for brachytherapy, accepted for publication in PROCEEDINGS OF THE ROMANIAN ACADEMY, Series A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE on 30.03.2016, Impact factor: 1.16
3. N. Plitea, G. Kacso, D. Pisla, C. Vaida, B. Gherman, A. Szilaghyi, D. Cocorean: "Robotic Brachytherapy", Journal of Contemporary Brachytherapy, vol. 6, supplement 1, pp. 56-57, 2014
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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
12. 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.
13. 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
14. 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
15. 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
16. 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, Vol. 106, pp: 799-806
17. Pîslă, D., **Gherman, B.** (corresponding author), Vaida, C., Plitea, N.: „*Kinematic modeling of a 5 DOF Parallel Hybrid Robot designed for Laparoscopic Surgery*", Robotica, Cambridge University Press, 2011, doi:10.1017/S0263574711001299
18. **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, doi:10.1016/j.rcim.2011.11.003
19. 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:

20. Vaida, C., Plitea, N., Pisla, D., **Gherman, B**.: „Orientation module for surgical instruments—a systematical approach", Meccanica (IF: 1.558), Vol. 48(1), pp. 145-158, 2013, published online in 13 august 2012, DOI 10.1007/s11012-012-9590-x.
21. **Gherman, B.**, Vaida, C., Plitea, N., Gyurka, B., Pisla, D., The experimental modal of an active parallel surgical robot, Journal of „Quality – Access to Success", Vol. 13(S5), pp. 361-366, ISSN 1582-2559, 2012.
22. Stoica, A., Pisla, D., Szilaghyi, A., **Gherman, B.,** Plitea, N., Kinematic, Workspace and Singularity Analysis of a New Parallel Robot used in Minimally Invasive Surgery, Frontiers of Mechanical Engineering, 2013, DOI:10.1007/s11465-013-0365-4
23. 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(II), 2011, pp: 353-358
24. N. Plitea, D. Pisla, C. Vaida, B. Gherman, A. Szilaghyi, B. Galdau, D. Cocorean, F. Covaciu: "On the Kinematics of a New Parallel Robot for Brachytherapy", Proceedings of the Romanian Academy - series A: Mathematics, Physics, Technical Sciences, Information Science, Vol. 15, No. 4, pp. 354-361, 2014, (ISI Factor de impact 2013: 1.115, Scor relativ de influenta 2013: 0.114)
25. Vaida, C., **Gherman, B.**, Pisla, D., Plitea, N., A CT-Scan compatible robotic device for needle placement in medical applications, (2013) In Advanced Engineering Forum, Trans Tech Publications, pp. 574-583, DOI 10.4028/www.scientific.net/AEF.8-9.574
26. F. Covaciu**, B. Gherman**, C. Vaida, N. Plitea, D. Pisla, F. Puskas, "Control of a Medical Parallel Robot for Brachytherapy", Acta Electrotehnica, ISSN 1224-2497,Nr. 3, pp. 152-156, 2015

Papers published at international and national conferences

1. **B. Gherman**, N. Plitea, D. Pisla: "An Innovative Parallel Robotic System for Transperineal Prostate Biopsy", New Trends in Mechanism and Machine Science, Mechanisms and Machine Science, 43, 421-429, 2017
2. D. Pisla, D. Ani, C. Vaida, **B. Gherman**, P. Tucan, N. Plitea:"BIO-PROS-2: a parallel robotic structure for transperineal prostate biopsy", International Conference on Automation, Quality and Testing, Robotics AQTR, May 19-21 2016
3. C. Vaida, D. Pisla, F. Covaciu, **B. Gherman**, A. Pisla, N. Plitea: "Development of a Control System for a HEXA Parallel Robot", International Conference on Automation, Quality and Testing, Robotics AQTR, mai 19-21 2016
4. D. Pisla, F. Covaciu, **B. Gherman**, C. Vaida, N. plitea: "A NEW SERIAL COMMUNICATION PROTOCOL FOR THE CONTROL OFA MEDICAL PARALLEL ROBOT", ACTA TECHNICA NAPOCENSIS, Applied Mathematics, Mechanics, and Engineering, Vol. 59, Issue 1, 2016. pp7-16
5. F. Gîrbacia, D. Pîslă, S. Butnariu, **B. Gherman**, T. Gîrbacia, N. Plitea, "An Evolutionary Computational Algorithm for Trajectory Planning of an Innovative Parallel Robot for Brachytherapy", MTM & Robotics 2016, in New Advances in Mechanisms, Mechanical Transmissions and Robotics, Vol 46 of Mechanisms and Machine Science pp 427-435, 2016
6. **B. Gherman**, D. Pisla, G. Kacso, N. Plitea, "Kinematic Behavior of a Novel Medical Parallel Robot for Needle Placement", Advances in Intelligent Systems and Computing, Springer, Vol. 371, pp. 329-338, 2015
7. F. Covaciu, D. Ani, **B. Gherman**, N. Plitea, D. Pisla, "Design and Control System of a Modular Parallel Robot for Medical Applications", Robotica & Management, ISSN: 1453-2069, Vol. 20., Nr.1, pp. 22-27, 2015
8. **Gherman B.**, Plitea N., Galdau B., Vaida C., Pisla D.: "On the Kinematics of an Innovative Parallel Robot for Brachytherapy", Sent for peer review at the international conference: The 14th International Symposium on Advances in Robot Kinematics - ARK 2014, 29 Iunie - 3 Iulie 2014, Ljubljana, Slovenia
9. Suciu, M., **Gherman**, **B.**, Vaida, C., Plitea, N., Pîslă, D.: *On the Kinematics of a Hybrid Parallel Robot used in Minimally Invasive Surgery*, Mechanisms and Machine Science, 2012, Vol. 3, Part 4, 255-262, DOI: 10.1007/978-94-007-2727-4_23
10. Vaida C., **Gherman, B.**, Pisla, D., Plitea, N.: „A Spherical Robotic Arm for Instruments Positioning in Minimally Invasive Medical Applications"– prezentat în cadrul The 2nd IFToMM Asian Conference on Mechanism and Machine Science, November 7 -10, Tokyo, Japan (proceedings CD), 2012.
11. Pisla D., Cocorean D., Vaida C., **Gherman B.**, Pisla A., Plitea N.: "Application Oriented Design and Simulation of an Innovative Parallel Robot for Brachytherapy", Sent for peer review at the international conference: Proceedings of the ASME 2014 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference - IDETC/CIE 2014, 17 - 20 August 2014, Buffalo, New York, USA

Annexes:

12. Plitea N., Vaida C., **Gherman B.**, Szilaghyi A., Galdau B., Cocorean D., Covaciu F., Pisla D.: "Structural Analysis and Synthesis of Parallel Robots for Brachytherapy", New Trends in Medical and Service Robots - Theory and Integrated Applications, Series: Mechanisms and Machine Science, Vol. 16, ISBN 978-3-319-01591-0, DOI 10.1007/978-3-319-01592-7, 2014
13. F. Covaciu, B. Gherman, C. Vaida, N. Plitea, D. Pisla, F. Puskas, "Control of a Medical Parallel Robot for Brachytherapy", Acta Electrotehnica, ISSN 1224-2497,Nr. 3, pp. 152-156, 2015
14. B. Galdau, D. Pisla, G. Kacso, D. Cocorean, C. Vaida, B. Gherman, N. Plitea : "New design of BR-1: An innovative parallel robot for brachytherapy", 2014 International Conference on Production Research - Africa, Europe and Middle East, ISBN: 978-973-662-978-5, Technical University of Cluj-Napoca, 2014 (ISI Proceedings)
15. T. Itul, B. Gherman, D. Cocorean, D. Pisla: "Inverse Dynamics of 2-DOF Parallel Mechanism Used for Orientation", New Trends in Mechanism and Machine Science, Vol. From Fundamentals to Industrial Applications, pp. 455-462, 2015, DOI: 10.1007/978-3-319-09411-3_48
16. D. Pisla, N. Plitea, B. Galdau, C. Vaida, **B. Gherman**: "Innovative Approaches Regarding Robots for Brachytherapy", New Trends in Medical and Service Robots, Mechanisms and Machine Science, Vol. 20, pp. 63-78, ISBN: 978-3-319-05430-8, 2014
17. F. Girbacia, **B. Gherman**, S. Butnariu, N. Plitea, D. Talaba, D. Pisla: "Virtual Planning Of Needle Trajectories Using A Haptic Interface For A Brachytherapy Parallel Robot: an evaluation study", lucrare acceptata la publicare la The VIth International Conference on Robotics, Bucharest, ROBOTICS 2014 (ISI Proceedings)
18. B. Gherman, T. Girbacia, D. Cocorean, C. Vaida, S. Butnariu, N. Plitea, D. Talaba, D. Pisla: "Virtual Planning of Needle Guidance for a Parallel Robot used in Brachytherapy", International Workshop and Summer School on Medical and Service Robotics - MESROB 2014, 10-12 Iulie 2014, EPFL Lausanne, Elvetia
19. 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.
20. 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.
21. 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.
22. 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.
23. **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
24. 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

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.
2. Plitea N., Vaida C., **Gherman B**., Szilaghyi A., Galdau B., Cocorean D., Covaciu F., Pisla D.: "An innovative family of modular parallel robots for brachytherapy", The 11th IFToMM International Symposium on Science of Mechanisms and Machines - SYROM'2013, 11-12 November 2013, Brasov, Romania, published in Mechanisms and Machine Science, Vol. 18, pp. 69-79, ISBN:978-3-319-01844-7, DOI:10.1007/978-3-319-01845-4_7, 2014.
3. Itul T., **Gherman B.**, Pisla D.: "Comparative Study of Two 2-DOF Parallel Mechanisms Used for Orientation", The 11th IFToMM International Symposium on Science of Mechanisms and Machines - SYROM'2013, 11-12 November 2013, Brasov, Romania, published in Mechanisms and Machine Science, Vol. 18, pp. 145-157, ISBN:978-3-319-01844-7, DOI:10.1007/978-3-319-01845-4_7, 2014.
4. **Gherman, B.**, Pisla, D., Development of robotic systems for surgery, Int. Workshop: „From Biological Systems Inspiration To Robotic Structures", Craiova July, 5-7, 2012.

Annexes:

Relevant projects 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 Position: Member
2. Simulation and control techniques for robots used in minimally invasive surgery – SIMCOSURG, International Grant, Director: Prof. Univ. Dr.-Ing. Doina Pisla, 2011-2013, Registration Nr.: 12546/31.05.2012, Position: Member
3. MMKR 2012- International Summer School on Models and Methods in Kinematics and Robotics, Project Code: PN-II-ID-SSA-2012-2-001, 2012, Position: Member of organizing committee
4. New Trends in Medical and Service Robots, Exploratory workshop, Project Code PN-II-ID-WE-2012-4-018, 2012, Position: Member of Organizing Committee
5. Development of innovative kinematic and dynamic models for parallel robots in surgical applications - PROINS, International Grant, Director: Prof. Univ. Dr.-Ing. Doina Pisla, 2011- 2013, Registration Nr.: 12547/31.05.2012, Position: Member

National Research Grants (excerpt)

1. Innovative Approaches Regarding Rehabilitation and Assistive Robotics for Healthy Ageing (AgeWell), Project code: ID P_37_215, MySMIS 2014 Code: 103415, Project Co-financed through the European Fund for Regional Development, Competitiveness Operational Programme 2014-2020, Project manager: Assoc. Prof. Dr. Ing. Carbone GIUSEPPE, Position: key member
2. Robotic assisted brachytherapy, an innovative approach of inoperable cancers (CHANCE), PCCA TIP 2, Project Nr.: PN-II-PT-PCCA-2011-3.2-0414, Director: Prof. Univ. Dr.-Ing. Nicolae PLITEA, 2012-2016, Position: key member
3. Robotic assisted prostate biopsy, a high precision innovative method (ROBOCORE), PN-II-PT-PCCA-2013-4-0467, Director: Prof. Univ. Dr.-Ing. Doina PISLA, 2014-2016, Position: key member
4. A multi-purpose needle insertion device for the diagnosis and treatment of cancer (ACCURATE), PCCA TIP 2, Project Nr.: PN-II-RU-TE- 2014-4-0992, Director: Conf. Dr.-Ing. Calin VAIDA, 2015-2017, Position: key member
5. Diagnosis and therapy system for spine disorders – SPINE, PCCA TIP 2, Project Nr.: PN-II-PT-PCCA-2013-4-1596, Director: Associated Prof. Dr.-Ing. Calin VAIDA, 2014-2016, Position: key member
6. New Trends in Medical and Service Robots, Exploratory workshop, Project Code PN-II-ID-WE-2012-4-018, 2012, Position: Member of Organizing Committee
7. Multidisciplinary development of surgical robots based on parallel structures – PARMIS, Duration: 2007-2010, 11016/2007, Financed by: National Authority for Scientific Research, Position: member
8. 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: key member

Patents (excerpt)

1. Plitea, N., Pisla, D., Vaida, C., **Gherman, B**.: Surgical Robot. Patent: RO126271, Romania (2012).
2. N. Plitea, D. Pisla, C. Vaida, **B. Gherman**, P. Tucan, C. Govor, F. Covaciu: Family of innovative parallel robots for transperineal prostate biopsy, Patent pending: A/00191/13.03.2015
3. C. Vaida, D. Pisla, P. Tucan, N. Plitea, **B. Gherman**: Parallel robot for transperineal prostate biopsy. Patent pending 00761/26.10.2015
4. Vaida, C., Pisla, D., Plitea, N., Birlescu, I., Tucan, P., **Gherman, B.**: Automated medical instrument for robotic assisted prostate biopsy. Pending no. A/00048/2016
5. Vaida C., Plitea, N., Pisla, D., **Gherman, B.**, Suciu, M.: Orientation module with modular structure and multiple bends. Patent pending no. A10113/2001, Romania (2011).
6. Plitea, N., Pîslă, D., Vaida, C., **Gherman, B.**, Szilághyi, A., Galdău, B., Cocorean D.: Parallel robot for brachytherapy with two kinematic chains of 2CRRU and CRU type for needle guidance. Pending no. A/10004/2013, Romania (2013).
7. Plitea, N., Pîslă, D., Vaida, C., **Gherman, B.**, Szilághyi, A., Galdău, B., Cocorean D.: Parallel robot for brachytherapy with two kinematic chains of 2CRRU and CYL-U type for platform (needle) guidance. Pending no. A/10005/2013, Romania (2013).
8. Plitea, N., Pîslă, D., Vaida, C., **Gherman, B.**, Szilághyi, A., Galdău, B., Cocorean D.: Parallel robot for brachytherapy with two kinematic chains of CYL-U type for platform (needle) guidance. Pending no. A/10006/2013, Romania (2013).
9. Plitea, N., Pîslă, D., Vaida, C., **Gherman, B.**, Szilághyi, A., Galdău, B., Cocorean D.: Parallel robot for brachytherapy with two parallel modules, one for positioning and one for orientation. Pending no. A/10007/2013, Romania (2013).

Date 22.01.2017