PERSONAL INFORMATION

DOINA LIANA PISLA

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Sex Female | Date of birth 02/02/1968 | Nationality Romanian

WORK EXPERIENCE

2001 - present — Director of the Research Center for Industrial Robots Simulation and Testing (CESTER) www.cester.utcluj.ro
Technical University of Cluj-Napoca, Cluj-Napoca (Romania)
Coordination of the main research activities within the CESTER center. These activities focus on the development of parallel robots in various fields: robots for medicine (surgery and oncology), industrial applications, reconfigurable robots, microrobots and service robots.
International center established in 2001 and re-accredited in 2010 by the Senate of the Technical University of Cluj-Napoca through the decision of 22 July 2010. CESTER is one of the centers of excellence of TUCN (https://research.utcluj.ro/index.php/proiecte-reprezentative.html)
Research activities

2016 - present — Director of the Council of Doctoral Studies (CSUD)
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Management activities

2012 - 2016 — Deputy Director of the Doctoral Studies School of Mechanical Engineering
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Management activities

2012 - 2016 — Scientific vice-dean
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Faculty of Machine Building
Teaching and research activities

2005 - present — Full professor
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Faculty of Machine Building
Teaching and research activities

2001 - 2005 — Associate Professor
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Faculty of Machine Building
Teaching and research activities

1998 - 2001 — Lecturer
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Teaching and research activities

1991 - 1998 — Teaching Assistant
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Faculty of Machine Building
Teaching and research activities

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EDUCATION AND TRAINING

2001 -2002 — Postgraduate program
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Specialization: Technical Informatics - Computer-Aided Technologies (postgraduate specialization course, 1.5 years)

1999 — Invited researcher in postdoctoral program (financed by DAAD, Germany)
Institut für Werkzeugmaschinen und Fertigungstechnik, Technische Universität "Carolo Wilhelmina" zu Braunschweig, Braunschweig, Germany
Specialization: Robotics

1997 — PhD of Engineering — EQF level 8
Technical University of Cluj-Napoca, Cluj-Napoca, Romania
Research in Robotics and Mechanical Engineering. PhD Thesis: "Research on the graphical simulation of industrial robots based on the kinematic and dynamic modeling of spatial structures"
Specialization: Mechanical Engineering

1996 — Invited researcher during doctoral studies (financed by Technical University of Braunschweig, Germany)
Institut für Werkzeugmaschinen und Fertigungstechnik, Technische Universität "Carolo Wilhelmina" zu Braunschweig, Braunschweig, Germany
Specialization: Robotics

1993 - 1994 — Invited researcher during doctoral studies (financed by KAAD, Germany)
Institut für Werkzeugmaschinen und Fertigungstechnik, Technische Universität "Carolo Wilhelmina" zu Braunschweig, Braunschweig, Germany
Specialization: Robotics

1994 — Mechanical engineer, first in the class (Excellence diploma)
Technical University of Cluj-Napoca, Faculty of Machine Building, Cluj-Napoca, Romania
Specialization: Manufacturing Engineering

TEACHING ACTIVITY

Professional experience

COURSES TAUGHT	Program / Specialization	YEAR
Computer Programming I and II	Bachelor: Robotics, Romanian	I
Parallel robots and applications	Bachelor: Robotics, Romanian	IV
Parallel robots and applications	Bachelor: Robotics, English	IV
Medical Robotics	Master: Robotics, Romanian and English	II
Collaborative Robotic Systems	Master: Robotics, English	I

MANAGERIAL ACTIVITY

Within the University

Director of the Research Center for Industrial Robots Simulation and Testing since 2001, www.cester.utcluj.ro.
Director of CSUD (2016 - present)
Member of the TUCN Senate (2012 - present)
Deputy director of the Mechanical Engineering Doctoral School (2012-2016).
Member of the Faculty of Machine Building Council 2004-2020.
Member of the office of the Department of Mechanics and Programming during 2008-2012.
Member of the Image Committee of the Faculty of Machine Building 2004-2008.
Vice-Dean of the Faculty of Machine Building 2012-2016.
Erasmus/Erasmus+ coordinator, Faculty of Machine Building 2012-2016.

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Member of the Council of the Department of Mechanical Systems Engineering during 2015-2019.
President of over 30 PhD Defense Committees within the Technical University of Cluj-Napoca.

National Level

Associate member, Academy of Technical Sciences of Romania, Technical Mechanics section.
CNATDCU member, Mechanical Engineering, Mechatronics and Robotics Committee (2016 - present)
Vice-president of the National Society ARoTMM (IFToMM Branch Romania) (2013 - present)
ARACIS expert and evaluator since 2010.
INTAS expert - European programs since 2005.
H2020 Projects expert since 2014.
CNCSIS expert since 2004.
Expert within the Mechanical Engineering CNCSIS Commission Staff since 2008.
Member and expert in the national accreditation panel "National Research Evaluation Exercise (ENEC)" within the field of Mechanical Engineering and Mechatronics (2010-2011).
UEFISCDI expert evaluator (2015 - present).
Official referee in over 50 PhD national committees.

International Level

President of the Technical Committee "Computational Kinematics" within the international Federation for the Promotion of Mechanism and Machine Science since 2009.
Member of the Technical Committee "Biomechanical Engineering" within the International Federation for the Promotion of Mechanism and Machine Science since 2012.
International expert for Research Evaluation in Italy since 2016.
President of the "European Conference on Mechanism Science - EUCOMES 2010", Cluj-Napoca, 2010 (110 participants, of which over 60% international).
Co-president of "International Workshop in Medical and Service Robots - MESROB 2012", Cluj-Napoca, June 2012.
President of "International Summer School on Models and Methods in Kinematics and Robotics", July 2012, Cluj-Napoca (over 45 doctoral students from all over the world).
Co-president of the "International Workshop in Medical and Service Robots - MESROB 2013", Belgrade, July 2013.
Co- president of the "International Workshop in Medical and Service Robots - MESROB 2014", Lausanne, July 2014.
President of EUCOMES 2016 Awards Committee, http://eucomes2016.
President of "European Conference on Mechanism Science - EUCOMES 2020", Cluj-Napoca, 2020.
Co-president of SYROM 2022 Conference, Iasi, 2022.
Co-president of "International Workshop in Medical and Service Robots - MESROB 2023", Craiova, 2023.
President of "33rd International Conference on Robotics in Alpe-Adria-Danube Region - RAAD 2024", Cluj-Napoca, 2024.
Co-president of "9th International Workshop on New Trends in Medical and Service Robotics - MESROB 2025", Poitiers, France, 2025.
Full member for establishing strategic directions in the development of the field of Robotics at the European level within the EURobotics Society, http://eu-robotics.net.
Coordinator of ERASMUS+ programs with universities in France, Germany, Austria, Italy, Portugal and Spain.

SCIENTIFIC ACTIVITY

Research Fields

Robotics and mechatronics.
Kinematics and dynamics of parallel robots.
Development of parallel robots for medical applications (surgery, treatment, diagnosis, rehabilitation).
Modeling and simulation of parallel robots
Systems and simulation techniques for robots.
Telerobotics.
Command and actuation of intelligent robotic systems.
Development of parallel microrobots with elastic hinges.

Publications

Synoptic analysis based on data from the most important databases
Over 300 papers in total, published and presented
Over 240 scientific papers ISI-rated or ISI-indexed (published in field journals or ISI proceedings)
8 books published by national publishing houses
15 books published as editor by national and international publishing houses
76 chapters in books published by international publishing houses
9 other publications at international conferences
11 granted patents and 11 patent applications

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Visibility based on data from the most important international databases
Web of Science: H-index: 26, 1757 citations
Scopus: H-index: 26, 2062 citations
Google Scholar: H-index: 35, 3481 citations

List of the most representative ISI papers with impact factor

1. **Pisla, D.**; Pusca, A.; Gherman, B.; Pisla, A.; Birlescu, I.; Tucan, P.; Vaida, C.; Chablat, D. Modeling and Simulation of a Novel Parallel Robotic System for Minimally Invasive Pancreatic Surgery, ASME Journal of Mechanisms and Robotics, 18(2), 024501, 2026. https://doi.org/10.1115/1.4069975 (ISI Journal, IF 3.2, Relative influence score: 0.726).
2. Vaida, C.; Condurache, D.; Mihaly, V.; Gherman, B.; Cailean, A.; Chablat, D.; **Pisla, D.(corresponding author)**. On the computation of motion resolution for robotic manipulators. Mechanism and Machine Theory, Vol. 228, 106546, 2026. https://doi.org/10.1016/j.mechmachtheory.2026.106546 (ISI Journal, IF 5.9, Relative influence score: 1.2).
3. Vaida, C.; Birlescu, I.; Gherman, B.; Condurache, D.; Chablat, D.; **Pisla, D.(corresponding author)**. An analysis of higher-order kinematics formalisms for an innovative surgical parallel robot, Mechanism and Machine Theory, Vol. 209, 105986, 2025. https://doi.org/10.1016/j.mechmachtheory.2025.105986 (ISI Journal, IF 4, Relative influence score: 1.2).
4. Birlescu, I.; Tohanean, N.; Vaida, C.; Gherman, B.; Neguran, D.; Horsia, A.; Tucan, P.; Condurache, D.; **Pisla, D.(corresponding author)**. Modeling and analysis of a parallel robotic system for lower limb rehabilitation with predefined operational workspace, Mechanism and Machine Theory, Vol. 198, 105674, 2024. (ISI Journal, IF 4, Relative influence scopilotcore: 1.2).
5. **Pisla, D.;** Hajjar, N.A.; Gherman, B.; Radu, C.; Antal, T.; Tucan, P.; Literat, R.; Vaida, C. Development of a 6-DOF Parallel Robot for Potential Single-Incision Laparoscopic Surgery Application. Machines 2023, 11, 978. https://doi.org/10.3390/machines11100978 (ISI Journal, IF 2.6, Relative influence score: 0.762).
6. **Pisla, D.;** Crisan, N.; Gherman, B.; Andras, I.; Tucan, P.; Radu, C.; Pusca, A.; Vaida, C.; Al Hajjar, N. Safety Issues in the Development of an Innovative Medical Parallel Robot Used in Renal Single-Incision Laparoscopic Surgery. J. Clin. Med. 2023, 12, 4617. https://doi.org/10.3390/jcm12144617 (ISI Journal, IF 3.9, Relative influence score: 1.474).
7. Rus, G.; Andras, I.; Vaida, C.; Crisan, N.; Gherman, B.; Radu, C.; Tucan, P.; Iakab, S.; Hajjar, N.A.; **Pisla, D. (corresponding author)**. Artificial Intelligence-Based Hazard Detection in Robotic-Assisted Single-Incision Oncologic Surgery. Cancers 2023, 15, 3387. https://doi.org/10.3390/cancers15133387 (ISI Journal, ImpactFactor 5.2, Relative influence score: 1.202).
8. Covaciu, F.; Crisan, N.; Vaida, C.; Andras, I.; Pusca, A.; Gherman, B.; Radu, C.; Tucan, P.; Al Hajjar, N.; **Pisla, D. (corresponding author)**. Integration of Virtual Reality in the Control System of an Innovative Medical Robot for Single-Incision Laparoscopic Surgery. Sensors 2023, 23, 5400. https://doi.org/10.3390/s23125400 (ISI Journal, ImpactFactor 3.9, Relative influence score: 1.314).
9. Tohanean N, Tucan P, Vanta O-M, Abrudan C, Pintea S, Gherman B, Burz A, Banica A, Vaida C, Neguran DA, Ordog A, Tarnita D, **Pisla D**. The Efficacity of the NeuroAssist Robotic System for Motor Rehabilitation of the Upper Limb-Promising Results from a Pilot Study. Journal of Clinical Medicine; 2023, 12(2):425 (ISI Journal , ImpactFactor 4.964, Relative influence score: 1.474).
10. Tucan, P.; Vaida, C.; Horvath, D.; Caprariu, A.; Burz, A.; Gherman, B.; Iakab, S.; **Pisla, D. (corresponding author).** Design and Experimental Setup of a Robotic Medical Instrument for Brachytherapy in Non-Resectable Liver Tumors. Cancers, 2022, 14, 5841 (ISI Journal, ImpactFactor 6.575, Relative influence score: 1.202).
11. **Pisla, D.;** Birlescu, I.; Crisan, N.; Pusca, A.; Andras, I.; Tucan, P.; Radu, C.; Gherman, B.; Vaida, C. Singularity Analysis and Geometric Optimization of a 6-DOF Parallel Robot for SILS. Machines 2022, 10, 764 (ISI Journal, IF 2.899, Relative influence score: 0.762).
12. **Pisla, D.;** Birlescu, I.; Pusca, A.; Tucan, P.; Gherman, B.; Pisla, A.; Antal, T.; Vaida, C. Kinematics and workspace analysis of an innovative 6-dof parallel robot for SILS. Proceedings of the Romanian Academy Series A - Mathematics Physics Technical Sciences Information Science. Vol. 23(3), 277-286, 2022 (ISI Journal, IF 1.523, Relative influence score:0.158).
13. **Pisla, D.,** Vaida, C., Birlescu, I., Hajjar, N.A., Gherman, B., Plitea, N.: *Risk Management for the Reliability of Robotic Assisted Treatment of Non-resectable Liver Tumors*, Applied Sciences, vol. 10(1), 52, 2020, DOI: 10.3390/app10010052 (ISI Journal, IF: 2.474, Relative influence score: 0.992)
14. Vaida, C., Birlescu, I., Pisla, A., Ulinici, I., Tarnita, D., Carbone, G., **Pisla, D. (corresponding author)**, *Systematic Design of a Parallel Robotic System for Lower Limb Rehabilitation*, IEEE Access, vol. 8, pp. 34522-34537, 2020, DOI: 10.1109/ACCESS.2020.2974295 (ISI Journal, IF: 3.745, Relative influence score: 1.529)

15. Husty, M., Birlescu, I., Tucan, P., Vaida, C., **Pisla, D. (corresponding author)**,: *An algebraic parameterization approach for parallel robots analysis*, Mechanism and Machine Theory, vol. 140, pp. 245-257, 2019, DOI: 10.1016/j.mechmachtheory.2019.05.024 (ISI Journal, IF: 3.312, Relative influence score: 1.567)
16. Tucan, P., Vaida, C., Plitea, N., Pisla, A., Carbone, G., **Pisla, D. (corresponding author)**,: *Risk-Based Assessment Engineering of a Parallel Robot Used in Post-Stroke Upper Limb Rehabilitation*, Sustainability, vol. 11(10), 2893, 2019, DOI: 10.3390/su11102893 (ISI Journal, IF: 2.576, Relative influence score: 0.62)
17. **Pisla**, D., Galdau, B., Covaciu, F., Vaida, C., Popescu D., Plitea N., *Safety Issues in the Development of the Experimental Model for an Innovative Medical Parallel Robot used in Brachytherapy*, International Journal of Production Research, (2016), DOI: 10.1080/00207543.2016.1200153, ISSN: 0020-7543, published online: 23 June 2016 (IF: 4.577, Relative influence score: 1.602)
18. Plitea N., Szilaghyi A., **Pisla D.**: *Kinematic Analysis of a new 5-DOF Modular Parallel Robot for Brachytherapy*, Robotics and Computer Integrated Manufacturing, vol. 31, pp: 70-80, 2015 (ISI Journal, IF: 5.057, Relative influence score: 2.028)
19. **Pisla, D.**, Gherman, B., Vaida, C., Suciu, M., Plitea, N.: *An active hybrid parallel robot for minimally invasive surgery*, Robotics and Computer-Integrated Manufacturing, 2013, 29 (4), 203-221, DOI: 10.1016/j.rcim.2012.12.004 (ISI Journal, IF: 5.057, Relative influence score: 2.028)
20. **Pisla, D.**; Szilaghyi, A.; Vaida, C.; Plitea, N.: *Kinematics and workspace modeling of a new hybrid robot used in minimally invasive surgery*, Robotics and Computer-Integrated Manufacturing, 2013, 29 (2),463-474, DOI: 10.1016/j.rcim.2012.09.016 (ISI Journal, IF: 5.057, Relative influence score: 2.028)
21. Plitea, N. , Lese, D., **Pisla, D. (corresponding author)**, Vaida, C.: *Structural design and kinematics of a new parallel reconfigurable robot*, Robotics and Computer-Integrated Manufacturing, 2013, 29 (1), 219-235, DOI: 10.1016/j.rcim.2012.06.001 (ISI Journal, IF: 5.057, Relative influence score: 2.028)
22. 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, 2012, 28 (3), 402-415, DOI: 10.1016/j.rcim.2011.11.003 (ISI Journal, IF: 5.057, Relative influence score: 2.028)

Grants, Research contracts

NATIONAL AND INTERNATIONAL RESEARCH GRANTS: OVER 30
COORDINATED RESEARCH GRANTS: 20

Representative national and international projects

NATIONAL

Project funded through the National Recovery and Resilience Plan of Romania. Funded by the European Union - NextGenerationEU, New intelligent and adaptive robotic solutions for personalized minimally invasive surgery in cancer treatment, (ATHENA), contract no. 760072/23.05.2023, code CF 116/15.11.2022, Ministry of Research, Innovation and Digitalization, Component 9, investment I8 (2023-2026)

Position: Co-director
Project value: 7.000.000 RON

Project funded through the National Recovery and Resilience Plan of Romania. Funded by the European Union - NextGenerationEU, New frontiers in adaptive modular robotics for patient-centered medical rehabilitation (ASKLEPIOS), contract no. 760071/23.05.2023, code CF 121/15.11.2022, Ministry of Research, Innovation and Digitalization, Component 9, investment I8 (2023-2026)

Position: Key member
Project value: 7.000.000 RON

National project within the "Operational Competitiveness Program 2014 - 2020" competition - code 155988, contract number 9/1.2.1 PTI ap.2/ 23.02.2023, Improving the quality of life of patients through intelligent telerobotic systems for the personalized treatment of neuromotor deficit, (APOLLO) (2023)
Position: TUCN project coordinator
Grant value: 3.295.500 RON

National grant obtained through national competitions - 1-PSCD/2022, Sectoral research-development plan of the Ministry of National Defense, Exoskeleton-type system for human augmentation (MAN-X) (2022-2025)
Position: Project director
Grant value: 6.000.000 RON

National grant obtained through national competitions, grant funded by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) - PN-III-P2-2.1-PED-2021-2790, 694PED of 24/06/2022, Innovative and safe robotic system for the improved, patient-oriented treatment of liver cancer (ENHANCE) (2022-2024)
Position: Project director
Grant value: 600.000 RON

National grant obtained through national competitions, grant funded by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) - PN-III-P2-2.1-PED-2021-3430, 608PED of 24/06/2022, Innovative modular rehabilitation robot for the effective treatment of lower limb motor deficit (HOPE2WALK) (2022-2024)
Position: Scientific director
Grant value: 600.000 RON

Exploratory-type national grant funded by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) - PN-III-P4-ID-PCE-2020-0572, PCE 171 of 17/02/2021, New frontiers in robotic-assisted uniport surgery: an innovative robotic system with instruments with enhanced dexterity (Challenge) (2021-2023)
Position: Project director
Grant value: 1.198.032 RON

National POC-type grant (Operational Competitiveness Program) - ID P_37_215, No. 20 of 01.09.2016, Innovative development of robotic systems for rehabilitation and assistance in healthy ageing (AgeWell) (2016-2020)
Position: Deputy director / Scientific director
Grant value: 8.000.000 RON

Complex national research, development and innovation grant, funded by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), Director, Prof. Dr. Eng. Doina Liana Pîslă, Project code: PN-III-P1-1.2-PCCDI2017-0221, Contract number: 59/1 March 2018, High-precision innovative approach to the robotic-assisted intraoperative treatment of liver tumors based on integrated imaging-molecular diagnosis - IMPROVE, Project duration: 2018-2020
Position: Project director;
Grant value: 5.287.500 RON

National Partnerships-type grant - PN-II-PT-PCCA-2011-3.2-0414, no. 173/2012, Robotic-assisted brachytherapy, an innovative approach in the treatment of inoperable cancers (CHANCE) (2012-2016)
Position: Scientific director
Grant value: 3.000.000 RON

National Partnerships-type grant PN-II-PT-PCCA-2013-4-0647, no. 247/2014, Robotic-assisted prostate biopsy, an innovative high-precision method - ROBOCORE
Position: Project director
Grant value: 2.500.000 RON

National Partnerships-type grant PN-II-PT-PCCA-2013-4-1596, no. 227/2014, System for the diagnosis and therapy of spinal column conditions - SPINE
Position: Scientific director
Grant value: 200.000 RON

National Young Research Teams-type grant, Project no. 59/2015, code PN-II-RU-TE-2014-4-0992, Multifunctional system for needle insertion in cancer diagnosis and treatment - ACCURATE
Position: Scientific director
Grant value: 550.000 RON

National Partnerships-type grant: Innovative development of a virtual e-learning system in hepatic laparoscopic surgery - HEPSIM, Duration: 2008-2011, Funded by ANCS

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Position: Partner coordinator
Grant value: 500.000 RON

National grant: "International summer school on models and methods in kinematics and robotics", No. PN-II-ID-SSA-2012-2-001, 2012, funded by ANCS
Grant value: 70.000 RON

National grant: New Trends in Medical and Service Robots - MeSRob National grant IDEAS - Exploratory Workshop, PN-II-ID-WE-2012-4-018, 2012
Grant value: 30.000 RON

National grant: Contract no. 10086/24.06.2010 for: 3rd European Conference on Mechanism Science, Technical University of Cluj-Napoca, 14-18 Sep 2010, ANCS
Grant value: 34.000 RON

National Partnerships-type grant: Multidisciplinary development of surgical robots based on parallel structures - PARMIS, Duration: 2007-2010, 11016/2007, Funded by ANCS
Position: Project director
Grant value: 1.600.000 RON

National CEEX/M3 grant: Promotion of research and participation in European programs in the field of parallel robots for surgery - PARASURG, Duration: 2006-2008, 184/2006, Funded by ANCS
Position: Project director
Grant value: 300,000 RON

National CEEX-M1-type grant: Advanced structural, geometric, kinematic and dynamic research on the design of an open flight simulator adapted to special requirements - ASKOT, Duration: 2006-2008, Funded by ANCS (2006-2008)
Position: Scientific director
Grant value: 1.500.000 RON

National A-type grant: Analysis and development of microrobot structures with parallel kinematics and implementation of algorithms for testing their performance, Funded by CNCSIS (2005-2007)
Position: Project director
Grant value: 96.500 RON

National At-type grant 244: Development of a high-performance dynamic simulation system for parallel robot structures (2003-2004). Funded by CNCSIS
Position: Project director

INTERNATIONAL

International project AAL-CP-AAL-2020-7-83-CP-WisdomOfAge, 234 of 01/05/2021, Digital platform for elderly people for the transfer of knowledge to the industrial environment (WisdomOfAge) (2021-2023)
Position: Project director
Project value: 236.590 Euro

International project funded by the European Space Agency (ESA): Manipulation Systems for Sample Handling in a Sample Receiving Facility, TASUK/16/11305/NBO/1424 (2016-2018)
Position: Project director
Project value: 400.000 Euro

International IP SCOPES grant Switzerland-Romania-Serbia, Creative Alliance in Research and Education focused on Medical and Service Robotics, IZ74Z0_13736, 2011-2014, (funded by SNF Switzerland) (2011-2014)
Position: Director for Romania
Project value: 300.000 CHF

International grant: Mathematische Modellierung und experimentelle Untersuchungen eines modular aufgebauten Parallelroboters in der minimal invasiven Chirurgie - Mathematical modeling and experimental researches for the development of a modular parallel robot for minimally invasive surgery. Duration: 2006-2011, Financed by: Alexander von Humboldt Foundation
Position: Key member

Project value: 50.000 Euro

International grant: Simulation and control techniques for robots used in minimally invasive surgery - SIMCOSURG - Slovenia - Romania international collaboration project with University of Maribor (2013-2014)
Position: Member

International grant: Developing methods to evaluate the accuracy of potential parallel robots for medical applications - PAROMED, Austrian - Romanian research project in cooperation with the University of Innsbruck, (2014-2015)
Position: Director for Romania

International grant: Development of kinematic and dynamic innovative models for parallel robots with applications in surgery - PROINS, Austrian - Romanian research project in cooperation with the University of Innsbruck, (2012-2013)
Position: Director for Romania

International grant: The setup of a laboratory for microrobots and micro grippers using advanced materials within the Center for Industrial Robots Simulation and Testing. Duration: 2004-2005, Funded by DAAD (German Academic Exchange Service).

International grant: DAAD project: The setup of a CAD laboratory for parallel robots development within the Research Center for Industrial Robots Simulation and Testing (CESTER), Technical University of Cluj-Napoca, (2001-2002), Funded by DAAD Germany.

Outstanding research results

As a result of the projects carried out within the CESTER research center, a series of national firsts should be mentioned, which attest to the value and importance of the research conducted:

1. Athena parallel robot for personalized minimally invasive surgery for pancreatic cancer, 2025.
2. Parallel robot for lower limb rehabilitation - Hope2Walk, 2024.
3. PARA-SILSROB robotic system for uniport surgery - CHALLENGE, 2023.
4. Spherical robot for manipulating instruments used in robotic-assisted surgery - CHALLENGE, 2023.
5. Robotic system for lower limb rehabilitation - RECOVER, 2022.
6. Innovative robotic system for liver cancer therapy - PROHEP-LCT, 2020.
7. Parallel robot for lower limb rehabilitation - RAISE, 2020.
8. Parallel robot for upper limb rehabilitation - ASPIRE, 2019.
9. Parallel robot for upper limb rehabilitation - PAREEX, 2019.
10. Robotic system with parallel architecture for transperineal prostate biopsy, the RIO-PROS1 robot, 2015.
11. Robotic system with parallel architecture for the minimally invasive treatment of cancer through brachytherapy, the PARA-BRACHYROB robot, 2014.
12. Robotic system with parallel architecture for guiding active instruments in minimally invasive surgery, PARASURG-9M, integrating the PARASURG-5M robotic arm and the PARASIM active instrument, 2011.
13. Parallel robotic system for minimally invasive surgery, in the form of a parallel structure that allows positioning of the laparoscopic camera using voice commands, 2009.

Grants, Institutional projects

1. Erasmus academic program with the University of Cassino, Italy
2. Erasmus academic program with the Technical University of Braunschweig, Germany
3. Erasmus academic program with the Technical University of Bilbao, Spain.
4. Erasmus academic program with the Technical University of Hannover, Germany
5. Erasmus academic program with RWTH Aachen University, Germany
6. Erasmus academic program with the University of Minho, Portugal
7. Erasmus academic program with the University of Nantes, France

Mentor and tutor in the POSDRU programs of the Technical University of Cluj-Napoca - SIDOC, Q-DOC, 4D-POSTDOC, PARTING - in which all assumed objectives were met above the thresholds imposed by the program.

Patents

1. Plitea, N., **Pisla, D.,** Vaida, C., Gherman, B.: Surgical Robot RO 126271, Romania (2012).
2. Vaida, C., Plitea, N., **Pisla, D.,** Gherman, B., Suciu, M.: Orientation module with modular structure and multiple belts, RO-129923, Romania (2019).
3. Vaida, C., Plitea, N., **Pisla, D.,** Gherman, B., Ulinici, I., Pisla, A., Carbone, G.: Spherical Robot for the Medical Rehabilitation of the Proximal Area of the Upper Limb, RO-13233/30.03.2020.
4. Gherman, B., **Pisla, D.,** Plitea, N., Vaida, C., Pisla, A., Banica, A., Carbone, G.: Parallel Robotic System for the Medical Rehabilitation of the Upper Limb, RO-132234/30.03.2020.
5. Plitea, N., **Pisla, D.,** Vaida, C., Gherman, B., Ulinici, I., Carbone, G., Robot sferico per il recupero riabilitativo della

spalla, International Patent, classification A61H1, No. 102018000006216, Italian Office of Patents and Trademarks, 13.07.2020.
6. **Pisla, D.,** Birlescu, I., Vaida, C., Gherman, B., Tucan P., Plitea, N., Parallel robot for the recovery of lower limb mobility, RO-133814/29.10.2021.
7. **Pisla, D,** Gherman, B., Nadas, I., Pop, N., Craciun, F., Tucan, P., Vaida, C., Carbone, G, Birlescu, I., Plitea, N., Innovative parallel robot for the medical rehabilitation of the lower limbs, RO-133815/29.10.2021.
8. Plitea, N, **Pisla, D,** Vaida, C, Gherman, B, Tucan, P, „Parallel robot for the laparoscopic treatment of liver cancer", RO 134189 B1/30.10.2024.
9. Gherman, B, Birlescu, I, Burz, A, **Pisla, D,** „Automated medical instrument for the insertion of multiple needles along linear and parallel pathways in the treatment of cancer using interstitial brachytherapy", RO 134941 B1/30.10.2024.
10. Birlescu, I, Gherman, B, Burz, A, **Pisla, D,** „Automated medical instument with multiple needles inserted along parallel trajectories for interstitial brachytherapy", RO 134940 B1/30.10.2025.
11. **Pisla, D,** Vaida, C, Birlescu, I, Craciun, C, Gherman, B, Graur, F, Plitea, N, „Automated medical instrument for radiofrequency ablation", RO 132965 B1/28.11.2025.

Patent Applications

1. N. Plitea, **D. Pisla,** C. Vaida, B. Gherman, P. Tucan, C. Govor, F. Covaciu: Family of parallel robots for transperineal prostate biopsy, Patent pending: A/00191/13.03.2015.
2. C. Vaida, **D. Pisla,** P. Tucan, N. Plitea, B. Gherman: Parallel robot for transperineal prostate biopsy. Patent pending: 00761/26.10.2015.
3. **D. Pisla,** C. Vaida, I. Birlescu, F. Graur, B. Gherman, P. Tucan, N. Plitea: "Automated medical instrument for radiofrequency ablation" Patent pending: A00379/10.06.2017.
4. **D. Pisla,** C. Vaida, I. Birlescu, F. Graur, B. Gherman, P. Tucan, N. Plitea: "Automated medical instrument with multiple needles for brachytherapy" Patent pending: A00431/12.09.2017.
5. **Pisla Doina**, Birlescu Iosif, Vaida Calin, Tucan Paul, Gherman Bogdan, Plitea Nicolae: "Family of modular parallel robots with active translational joints for uniport surgery", OSIM patent application A00733/03.12.2021.
6. Vaida Calin, **Pisla Doina,** Birlescu Iosif, Gherman Bogdan, Tucan Paul, Plitea Nicolae: "Family of modular robots for uniport surgery with kinematic constraint of the insertion point into the body", OSIM patent application A00734/03.12.2022.
7. **Doina Pisla**, Damien Chablat, Iosif Birlescu, Calin Vaida, Alexandru Pusca, Paul Tucan, Bogdan Gherman: „Automated instrument for robot-assisted minimally invasive surgery", OSIM patent application: A00142/29.03.2024.
8. Calin Vaida, Bogdan Gherman, Paul Tucan, Iosif Birlescu, Damien Chablat, **Doina Pisla**: „ Parallel robotic system for minimally invasive pancreatic surgery ", OSIM patent application: A00522/11.09.2024.
9. **Doina Pisla**, Iosif Birlescu, Calin Vaida, Paul Tucan, Bogdan Gherman, Jose Machado: „ Parallel robot for the rehabilitation of lower limb joints in two planes", OSIM patent application: A00116/20.03.2024.
10. Calin Vaida, Ionut Zima, Dragos Sebeni, Bogdan Gherman, Paul Tucan, Jose Machado, **Doina Pisla**: „Personalized flexible robot for human hand rehabilitation", OSIM patent application: A00047/04.02.2025.
11. Pierre Mougenot , Pusca Alexandru, Vaida Liviu Calin, Chablat Damien, **Pisla Doina**: „Innovative surgical retractor for minimally invasive surgery",OSIM patent application: A00439/03.10.2025.

Member in commissions at national/international level

Member of the dissertation committee of the MaviM Master program, 2011.

Member of the bachelor thesis committee of the Robotics program (2013-present).
Official reviewer in the defence committee of over 50 doctoral theses in national universities (Brasov, Cluj, Craiova, Iasi, Timisoara).
Chair of the defense committee for over 30 doctoral theses at the Technical University of Cluj-Napoca.
Member in the competition commissions for didactic positions for professor, associate professor, lecturer, and teaching assistant.
Reviewer of over 400 papers in international journals, national and international conferences.
Member of the scientific committees of numerous prestigious international conferences (CK 2009, EUCOMES 2008, 2010, 2012, 2014, 2016, 2018, 2020, RAAD 2009-2023, IFToMM 2011, 2015 World Congress, NaCoMM 2011, Metrapp 2011, MTM-Robotics 2012, CK 2013, MESROB 2012-2023, etc.).
Topical Editor of the Journal of Mechanical Sciences (http://www.mechanical-sciences.net/editorial_board.html).
Member of the scientific board of the Journal of Technical Sciences, Applied Mechanics https://rjts-applied-mechanics.ro/index.php/rjts/boards).
Associate editor of the journal Robotica (Cambridge University Press) since 2020

ACTIVITY WITHIN THE DOCTORAL

SCHOOL:

Finished PhD theses

1. **Gherman Bogdan**, Research on the development of kinematic, dynamic and functional models for an innovative hybrid parallel robot structure for minimally invasive surgery, 2011.
2. **Suciu Marius**, Contributions to the development of a new active parallel robot for minimally invasive surgery, 2011.
3. **Stoica Alin**, Contributions to the modeling and constructive design of a parallel robot for minimally invasive surgery, 2012.
4. **Szilaghyi Andras**, Research on the modeling, simulation and control of a surgical hybrid-parallel robot, 2012.
5. **Gyuko Bela**, Research on the simulation, control and actuation of parallel robotic systems, 2013.
6. **Galdau Bogdan**, Research on the development of a modular parallel robot for brachytherapy treatment, 2015.
7. **Covaciu Florin**, Simulation, control and actuation of parallel robots for brachytherapy, 2015.
8. **Cocorean Dragos**, Development of new parallel robots for brachytherapy, 2016.
9. **Tucan Paul**, Development of new parallel robots for prostate biopsy, 2018.
10. **Birlescu Iosif**, Studies regarding the safe operation of innovative medical parallel robots, 2019 (thesis in cotutelle with Prof. Giuseppe Carbone, University of Calabria, Italy).
11. **Pop Nicoleta**, Researches regarding the modelling, simulation and experimental evaluation of medical parallel robots for rehabilitation, 2021 (thesis in cotutelle with Prof. Giuseppe Carbone, University of Calabria, Italy).
12. **Nadăș Iuliu,** Development of medical parallel robots for lower limb rehabilitation, 2022 (thesis in cotutelle with Prof. Giuseppe Carbone, University of Calabria, Italy).
13. **Banica Alexandru-Vlad** , Development of parallel robot command and control systems for medical applications, 2023.
14. **Burz Alin-Dorin**, Development of parallel robot command and control systems for medical applications, 2023 (thesis co-supervised with Prof. dr. Nadim Al Hajjar).
15. **Ulinici Ionut**, Researches regarding the modelling, simulation and development of a medical robotic system for Single Incision Laparoscopic Surgery, 2023.
16. **Pusca Alexandru**, Research on the development of robots for surgical applications, 2026.

Post- doctoral programs COMPLETED

1. **Vaida Calin, Development of intelligent robotic systems with enhanced dexterity with applications in surgery**, post-doctoral fellowship within the POSDRU project - 4D-POSTDOC 2010-2012
2. **Gherman Bogdan, Innovative development of a parallel robotic system for the curative and palliative treatment of cancer through brachytherapy** within the POSDRU project - PARTING, 2014-2015

Ongoing PhD theses

There are currently eight doctoral students in training, all having met all objectives at the current stage of their doctoral thesis.

All supervised doctoral and post-doctoral students benefited, in addition to their doctoral fellowships, from financial and logistical support from the ongoing projects within the CESTER research center.

Member of professional associations

Member of the Romanian Robotics Society since 2002.
Member of GAMM - the German Society of Applied Mathematics and Mechanics (Gesellschaft fur Angewandte Mathematik und Mechanik) since 1995.
Member of the Romanian Association for the Theory of Machines and Mechanisms (ARoTMM) and of the International Federation for the Promotion of Mechanism and Machine Science - IFToMM since 1998.
Member of the "Computational Kinematics" technical committee of the international IFToMM organization since 2007.
Member of the "Biomechanical Engineering" technical committee of the international IFToMM organization since 2011.
Member of the Romanian Association for the Theory of Machines and Mechanisms (ARoTMM) and of the International Federation for the Promotion of Mechanism and Machine Science - IFToMM since 1998.
Member of the "Computational Kinematics" technical committee of the international IFToMM organization since 2007.
Member of the "Biomechanical Engineering" technical committee of the international IFToMM organization since 2007.
Chair of the "Computational Kinematics" technical committee of the international IFToMM organization since 2009.
Member of the EURobotics society, http://eu-robotics.net.

Vice-president of the National Society ARoTMM since 2013.

Keynote speaker

1. Pisla D., Advanced Technologies for Medical Robotics, THE 4 th INTERNATIONAL SCIENTIFIC CONFERENCE EMERGING AND DISRUPTIVE TECHNOLOGIES' IMPACT ON GLOBAL SECURITY (EDT 2025), https://www.armyacademy.ro/engleza/cercetare/EDT/2025/Programme_EDT_2025.pdf
2. Pisla D., Advances in Medical Robotics, 32nd International Conference on Robotics in Alpe-Adria-Danube Region (RAAD 2023), https://raad.ijs.si/keynote-speakers/
3. Pisla D., Recent Advances in Robotic Surgery for Cancer Treatment, 8th International Workshop on New Trends in Medical and Service Robots (MESROB 2023), http://mecanica.ucv.ro/MESROB2023.
4. Pisla D., Innovations in Medical Robotics, EMERALD Multiplier Event on: EMERALD Applied Research Teaching Methods for 3D printing in bio-mechatronics, www.utcluj.ro/media/documents/2023/EMERALD
5. Pisla D., Innovations in Medical Robotics, 8th International Conference on Advancements of Medicine and Health Care through Technology, https://snimtb.ro/usurduds/2022/10/Final_Programme_MediTech-2022-2.pdf
6. Pisla D., Advances in Medical Robotics, SYROM & Robotics 2022, Iasi, Romania, https://syrom-robot.upt.ro/wp-content/uploads/2022/11/Keynote-Speakers-for-SYROM-ROBOTICS-2022.pdf
7. Pisla D., Robotic Surgery, 19 October 2022, 14th edition of the Course "Introduction to the history and philosophy of science and technology", Houses of the Romanian Academy.
8. Pisla, D., New Trends in Medical Robotics, Excellence in Doctoral Studies through Innovation, Convergence and Interdisciplinarity, Iasi Romania, http://www.csd2021.tuiasi.ro/program.php
9. Pisla, D., New Challenges in Medical Robotics, CARE 2020, Craiova, http://mecanica.ucv.ro/CARE2020/KeynoteSpeakers_f.html
10. Pisla D., Innovative approaches in medical robotics, CK 2017, Futurocope Poitiers, France
11. Pisla, D., Innovative Approaches in Medical Robotics, ICOME 2015, Craiova, 2015, http://www.mecanica.ucv.ro/ViataAcademica/Conferinte/ICOME2015/index.html
12. Pisla, D., Research Challenges in Robotic Assisted Brachytherapy, MESROB 2014, Lausanne, Switzerland, 2014, http://mesrob.epfl.ch/page-104220-en.html
13. Pisla, D., Trends And Technological Innovations In Surgical Robotics, VIth International Conference on Robotics, Robotics 2014, Bucharest, Romania, 2014, http://www.cester.utcluj.ro/chance/realizari/robotics_2014.pdf
14. Pisla, D., Innovative Approaches in Surgical Robotics - Past, Present and Future , The 2nd IFToMM Asian Conference on Mechanism and Machine Science, Tokyo, Japan, 2012, http://www.jc-iftomm.org/Asian-MMS2012/

National and International collaborations

Collaboration with the Technical University of Braunschweig, Germany
Collaboration with the University of Innsbruck, Austria
Collaboration with the University of Cassino, Italy
Collaboration with the University of Calabria, Italy
Collaboration with the University of Minho, Portugal
Collaboration with Ecole Centrale de Nantes, France
Collaboration with the Joanneum Research Institute, Klagenfurt, Austria
Collaboration with the University of Hannover, Germany
Collaboration with EPFL Lausanne, Switzerland
Collaboration with the Mihajlo Pupin Research Institute, Belgrade, Serbia

Editor of book published in international publishing houses

1. Pisla, D., Carbone, G., Condurache, D., & Vaida, C. (Eds.). (2024). Advances in Service and Industrial Robotics: RAAD 2024 (Vol. 157). Springer Nature.
2. Tarnita, D., Dumitru, N., Pisla, D., Carbone, G., Geonea, I., (Eds.), New Trends in Medical and Service Robotics, MESROB 2023, Springer , 2023.
3. Doroftei, I., Nitulescu, M., **Pisla, D.,** Lovasz, E. (Eds.), Proceedings of SYROM 2022 & ROBOTICS 2022, 13th IFToMM International Symposium on Science of Mechanisms and Machines & XXV International Conference on Robotics, Springer, 2023.
4. Rauter, G., Cattin, P., Zam, A., Riener, R., Carbone, G**., Pisla, D.** (Eds.), New Trends in Medical and Service Robotics, MESROB 2020, Springer , 2021.
5. Rauter, G., Carbone, G., Cattin, P., Zam, A., **Pisla, D.**, Riener, R. (Eds.), New Trends in Medical and Service Robotics, MESROB 2021, Springer , 2022.

6. **Pisla**, **D.,** Corves**,** B., Vaida**,** C. (Eds.), New Trends in Mechanism and Machine Science. Eucomes, Springer, 2020.
7. Carbone, G., Ceccarelli, M., **Pisla, D.** (Eds.), New Trends in Medical and Service Robotics. Advances in Theory and Practice, Springer, 2019.
8. Doroftei**,** I., Oprisan**, C., Pisla, D.,** Lovasz**, E.-**C. (Eds.), New Advances in Mechanism and Machine Science, Proceedings of The 12th IFToMM International Symposium on Science of Mechanisms and Machines (SYROM 2017), Springer, 2019
9. Wenger, P., Chevallereau, C., **Pisla, D.**, Bleuler, H., Rodić, A. (Eds.), *New Trends in Medical and Service Robots, Human Centered Analysis, Control and Design*, Springer, 2016, 310 pp.
10. Bleuler, H., Bouri, M., Mondada, F., Pisla, D., Rodic, A., Helmer, P., New Trends in Medical and Service Robots Assistive, Surgical and Educational Robotics, Vol. 38, 2016 ISBN: 978-3-319-23831-9 (Print) 978-3-319-23832-6 (Online)
11. **Pisla, D.**, Bleuler, H., Rodic, A., Vaida, C., Pisla, A. New Trends in Medical and Service Robots, Theory and Integrated Applications, Mechanisms and Machine Science Volume 16 2014, ISBN: 978-3-319-01591-0 (Print) 978-3-319-01592-7 (Online)
12. Rodic, A., **Pisla, D.**, Bleuler, H., New Trends in Medical and Service Robots, Challenges and Solutions, Mechanisms and Machine Science, Volume 20 2014, ISBN: 978-3-319-05430-8 (Print) 978-3-319-05431-5 (Online)
13. **Pisla, D.**, Husty, M., Romanian Journal of Technical Sciences Applied Mechanics, Special Issue "New Trends in Advanced Robotics", Vol. 58, 1-2, jan-aug. 2013
14. **Pisla, D.**, Ceccarelli, M., Husty, M., Corves, B. (Eds) , New Trends in Mechanism Science. Analysis and Design, 2010, Springer, ISBN: 978-90-481-9688-3 (Print) 978-90-481-9689-0 (Online)

Awards, distinctions, invitations (the most representative)

The "Constantin C. Teodorescu Award" received at the Romanian Academy of Technical Sciences in 2025 for books "Innovative Medical Parallel Robots for Oncology" and "Innovative Parallel Robots for Medical Rehabilitation".

The "IFToMM Dedicated Service Award" received at the IFToMM World Congress 2023, held in Tokyo, Japan.

The "Gold Best Research Paper Award" received at the MESROB 2023 conference for the paper entitled "STRUCTURAL STUDY OF A ROBOTIC SYSTEM FOR SILS SURGERY".

The "Gold Medal" awarded at the "Traian Vuia" Invention and Innovation Salon, for "Group of patents for the medical rehabilitation of the upper limb".

The "Gold Medal" awarded at the "Traian Vuia" Invention and Innovation Salon, for the invention "Parallel robotic system for bilateral shoulder medical rehabilitation".

Gold medal received at the international salon "World Invention Intellectual Property Associations - Japan 2023".

Gold award received at the "International Invention and Trade Expo London" salon for the invention: "Spherical robot for the rehabilitation of the proximal area of the upper limb".

Gold award received at the "International Invention Show-Inova 2023" salon for the patent "Spherical robot for the rehabilitation of the proximal area of the upper limb".

Gold medal received at the international salon "INNOVERS Innovation & Invention Expo 2023-USA" for the invention "Spherical robot for the rehabilitation of the proximal area of the upper limb".

Special Canadian award for excellence received at the international salon iCAN 2023 for the invention "Parallel robotic system for the medical rehabilitation of the upper limb".

Gold medal received at the international salon "iCAN 2023" for the invention "Parallel robotic system for the medical rehabilitation of the upper limb".

Gold medal received at the international salon "ARUA INTERNATIONAL CREATIVITY EXHIBITION 2023" for the invention "Spherical robot for the rehabilitation of the proximal area of the upper limb".

Silver award received at the "International Intellectual Property, Invention, Innovation and Technology Exposition-IPITEx 2023" salon for the invention "Parallel robot for the recovery of lower limb mobility".

The "Traian Vuia" Award of the Romanian Academy for the year 2020 - the group of works "Innovative parallel robots for medical applications", (awarded 7 December 2022).

Gold Medal from the Toronto International Society of Innovation & Advance Skills within the International Invention Innovation Competition, iCAN 2022, Toronto, Canada (Patent: Parallel robot for the recovery of lower limb mobility).

The Grand Prize of the 8th edition of the "Traian Vuia" International Salon of Inventions and Innovations in Timisoara, 2022 (Patent: "Parallel robot for the recovery of lower limb mobility").

Gold Medal from the Toronto International Society of Innovation & Advance Skills within the International Invention Innovation Competition, iCAN 2021, Toronto, Canada (Patent: Spherical robot for the rehabilitation of the proximal area of the upper limb).

Gold Medal at the Singapore International Invention Show - AsianInvent, 2020 (Patent Orientation module with modular structure and multiple bends).
WIIPA Special Award – IPITEx 2019 Bangkok, Thailand.
TISIAS Special Honour of Innovation – IPITEx 2019 Bangkok, Thailand.
Certificate of Appreciation from the Indian Inovators Association – IPITEx 2019 Bangkok, Thailand.
Gold Medal from the National Research Council of Thailand - IPITEx 2019 Bangkok, Thailand.
The Grand prize of the Romanian Inventors Forum – PROINVENT 2019, Cluj-Napoca.
Over 30 Gold Medals and important awards at the international invention salons PROINVENT, EUROINVENT, INVENTICA, etc., organized at national level, for the patents developed (2010-2023).
The Excellence Award granted to the Research Center for Robots Simulation and Testing (CESTER), during the TUCN Research Conference event (director Prof. Pisla D.) and the nomination of the center as one of the 5 centers of excellence of the Technical University of Cluj-Napoca (2012).
OSIM Special Award (Romanian Office for Inventions and Trademarks) (patent Surgical Robot, no. RO-126271), Iasi, 2014.
Special prize of the Romanian Ministry of National Education for the patent Parallel robot for brachytherapy with two kinematic guiding chains of the platform (the needle) type CYL-U, October 2014.

PERSONAL SKILLS

Mother tongue(s): Romanian

Other foreign languages known

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	C1	C1	C1	C1	C1
French	A2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2: Proficient user
Common European Framework of Reference for Languages

Communication competences
- Team spirit, communicative, supportive, honest, fair, responsible, dynamic.

Organizational/managerial competences
- Good organizer and manager, educational and research skills, problem-solving-oriented attitude, ability to meet project deadlines.

Work related competences
- Kinematic and dynamic modeling of robots, programming of robots and mechanical systems, graphical modeling of robots, design, command and control of industrial robots.

Digital competences
- Programming: C, C++, Matlab.
- CAD/CAM: Siemens (Solid Edge, NX), AutoCAD.
- Office: MS Office, CorelDRAW, LaTeX.
- Automation: B&R Automation Studio.
- Easy adaptability to new technologies.

Other competences: Competences in kinematic and dynamic modeling of robots, programming of robots and mechanical systems, intelligent systems, advanced control systems, scientific coordinator and manager of research projects, coordinator of international conferences and workshops

Driving licence
- B

ANNEXES

I hereby certify the accuracy of the data above
Cluj-Napoca,
27.07.2026

Prof. Dr. Eng. Doina Liana PISLA