



PERSONAL INFORMATION



DOINA LIANA PISLA

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Gender Female | Date Of Birth 02/02/1968 | Nationality Romanian

WORK EXPERIENCE

- 2001 – Present **Director Research Center for Industrial Robots Simulation and Testing (CESTER) www.cester.utcluj.ro**
Technical University of Cluj-Napoca, Cluj-Napoca (Romania)
Management of the main research activities within CESTER concerning the development of parallel robots in with applications in various fields: medical robotics (surgery and oncology), industrial applications, reconfigurable robots, microrobots and service robots.
Founded in 2001 and re-accredited in 2010 by the Senate of the Technical University of Cluj-Napoca through the decision taken on July 22, 2010, CESTER is one of the Excellence Research Centers of the Technical University of Cluj-Napoca (<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, Memorandumului 28, RO-400114, Cluj-Napoca
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
Faculty of Machine Building
Teaching and research activities

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

EDUCATION AND TRAINING

- 2001 -2002 **Postgraduate program**
 Technical University of Cluj-Napoca, Cluj-Napoca, Romania
 Technical Informatics on Computer Assisted Technologies (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 in 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)
 Specializations 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)
 Specializations Robotics

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

TEACHING ACTIVITIES

PROFESSIONAL EXPERIENCE	courses	Specialization	YEAR
	Computer programming, I and II	Bachelor: Economic-Industrial engineering and Robotics (Romanian and English specialization)	and
	Parallel robots and applications	Bachelor : Robotics, Romanian	N
	Parallel robots and applications	Bachelor : Robotics, Romanian	N
	Medical Robotics	Master: Robotics, Romanian and English	II

MANAGEMENT ACTIVITIES

Within the University	<p>Director of the Research Center for Industrial Robots Simulation and Testing since 2001, www.cester.utcluj.ro.</p> <p>Director of CSUD (2016 – present)</p> <p>Member of the Senate of TUCN (2012- present)</p> <p>Deputy director of the Mechanical Engineering Doctoral School (2012-2016).</p> <p>Member of the Faculty of Machine Building Council 2004-2020.</p> <p>Member of the Image Committee of the Faculty of Machine Building 2004-2008.</p> <p>Vice-Dean of the Faculty of Machine Building 2012-2016.</p> <p>Erasmus/Erasmus+ Coordinator within the Faculty of Machine Building 2012-2016.</p> <p>Member of the Department Council of the Mechanical Systems Engineering 2015-2019.</p> <p>President of over 30 PhD Defense Committees within the Technical University of Cluj-Napoca.</p>
National Level	<p>CNATCDU member, Mechanical Engineering, Mechatronics and Robotics Committee (2016 – present)</p> <p>Vice-president of National Society AroTMM (IFToMM Branch Romania) (2013 – present)</p> <p>ARACIS expert and evaluator since 2010.</p> <p>INTAS expert – European Programs since 2005.</p> <p>H2020 Expert since 2014.</p> <p>CNCSIS expert since 2004.</p> <p>Expert within the Mechanical Engineering CNCSIS Committee Staff since 2008.</p> <p>Member and Expert in the national accreditation panel "National Exercise of Research Evaluation (ENEC) in the Mechanical Engineering field (2010-2011).</p> <p>UEFISCDI expert evaluator (2015-present).</p> <p>Official Reviewer of more than 50 PhD national committees.</p>
International Level	<p>President of the Technical Committee "Computational Kinematics" within the International Federation for the Promotion of Mechanism and Machine Science since 2009.</p> <p>Member of the Technical Committee "Biomechanical Engineering" within the International Federation for the Promotion of Mechanism and Machine Science since 2012.</p> <p>International expert for Research Evaluation in Italy since 2016.</p> <p>President of the "European Conference on Mechanism Science-EUCOMES 2010, Cluj-Napoca, 2010 (110 participants, over 60% foreigners).</p> <p>Co-president of "International Workshop in Medical and Service robots-MESROB 2012, Cluj-Napoca, June 2012.</p> <p>President of "International Summer School on Models and Methods in Kinematics and Robotics", July 2012, Cluj-Napoca (over 45 PhD students from all over the world).</p> <p>Co-president of "International Workshop in Medical and Service Robots-MESROB 2013, Belgard, July 2013.</p> <p>Co-president of "International Workshop in Medical and Service Robots-MESROB 2014, Lausanne, July 2014.</p> <p>President of the Awarding Committee of EUCOMES 2016, http://eucomes2016.</p> <p>President of "European Conference on Mechanism Science-EUCOMES 2020, Cluj-Napoca, 2020.</p> <p>Co-president of the conference SYROM 2022 Iasi, 2022.</p> <p>Co-president of "International Workshop in Medical and Service Robots-MESROB 2023, Craiova, 2023.</p> <p>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.</p> <p>ERASMUS+ Program Coordinator for universities in France, Germany, Austria Italy, Portugal and Spain.</p>

SCIENTIFIC ACTIVITY

Research fields

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

Publications

Synoptic analysis using the most important databases

Over 190 papers (journals and conferences)
 Over 100 papers published in ISI journals or with ISI indexed proceedings
 8 published books national publishing houses
 12 books published as editor in national and international publishing houses
 76 chapters in the books published in international publishing houses
 9 others publications at international conferences

International visibility based on data from the most important international databases

Web of Science: 1143 citations , H – index: 22
 Scopus: 1341 citations , H – index: 21
 Google Scholar: 2318 citations H – index: 27

The list of the most representative ISI papers with influence factor

1. **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 (IF **3.9**).
2. Rus, G., Andras, I., Vaida, C., Crisan, N., Gherman, B., Radu, C., Tucan, P., Iakab, S., Hajjar, N.A., Pisla, D. (c.a.) *Artificial Intelligence-Based Hazard Detection in Robotic-Assisted Single-Incision Oncologic Surgery*. Cancers (Basel). 2023 Jun 28;15(13):3387 (IF **6.575**).
3. Tohanean N, Tucan P, Vanta OM, Abrudan C, Pinteaa S, Gherman B, Burz A, Banica A, Vaida C, Neguran DA, Ordog A, Tarnita D, **Pisla D**. *The Efficacy 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 (IF **4.964**).
4. Tucan, P.; Vaida, C.; Horvath, D.; Caprariu , A.; Burz , A.; Gherman, B.; Iakab , S.; **Pisla , D. (a.c.)**. *Design and Experimental Setup of a Robotic Medical Instrument for Brachytherapy in Non-Resectable Liver Tumors* . Cancers, 2022, 14, 5841 (IF **6,575**).
5. **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 (IF **2,899**).
6. **Pisla, D.**; Birlescu, I.; Pusca , A.; Tucan , P.; German, 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 (IF **1.523**).
7. Vaida, C., Birlescu, I., Pisla , A., Ulinici, I., Tarnita, D., Carbone, G., **Pisla , D. (a.c.)**, *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, Impact Factor: 3.745 , Relative influence score : 1,529)*
8. Husty, M., Birlescu, I., Tucan, P., Vaida, C., **Pisla , D. (a.c.)** , : *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, Impact Factor: 3.312 , Relative Influence Score : 1.567)*
9. **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 (Impact Factor :4.577 Relative Influence Score : 1.602)*
10. 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, Impact Factor: 10.103, Relative influence score : 2.028)*
11. **Pisla, D.** , Gherman, B., Vaida, C., Suci, 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, Impact Factor: 10.103, Relative Influence Score : 2.028)*
12. **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, Impact Factor: 10.103, Relative Influence Score : 2.028)*
13. Plitea, N., Lese, D., **Pisla , D. (a.c.)** , 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, Impact Factor: 10.103, Relative Influence Score : 2.028)*

Grants, Research contracts

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

National and international research grants - excerpt**National grants**

Project funded through Romania's National Recovery and Resilience Plan. Financed by European Union – NextGenerationUE: New smart and adaptive robotics solutions for personalized minimally invasive surgery in cancer treatment – ATHENA, 2023-2026

Position: Scientific Director

Value: 7.000.000 RON

Project funded through Romania's National Recovery and Resilience Plan. Financed by European Union – NextGenerationUE: New frontiers in adaptive modular robotics for patient - centered medical rehabilitation – ASKLEPIOS, 2023-2026

Position: Scientific Director

Value: 7.000.000 RON

POC National Grant (Competitiveness Operational Programme 2014-2020) - ode 155988, Contract Nr.9/1.2.1 PTI ap.2/23.02.2023 Improving the life quality of patients through intelligent telerobotic systems for the personalized treatment of neuromotor deficit - APOLLO (2023)

Position: Partner responsible

Value: 3.295.500 RON

National Grant obtained in national competition– 1-PSCD/2022, Sectorial research-development plan MApN , Exoskeleton system for human augmentation (MAN-X) (2022-2025)

Position: Project Director

Value: 6.000.000 RON

National Grant obtained in national competition, grant founded by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) - PN-III-P4-ID-PCE-2020-0572-PCE-171, PCE 171 from 17/02/2021, New frontiers in robotic assisted single port surgery: a novel robotic system with dexterous instruments (CHALLENGE) (2021-2023).

Position: Project Director

Value: 1.198.032 RON

National Grant obtained in national competition, grant FUNDED by the Unit Executive for funding of Higher Education, Research, Development and Innovations (UEFISCDI) - PN-III-P2-2.1-PED-2021-2790, 694PED of 24/06/2022, Innovative safe robotic system for enhanced patient-centered treatment of liver cancers. (ENHANCE) (2022-2024)

Position: Project Director

Value: 600.000 RON

National Grant obtained in national competition, grant funded by the Unit Executive for funding Higher Education, Research , Development and Innovations (UEFISCDI) - PN- III -P2-2.1-PED-2021-3430, 608PED from 24/06/2022, An innovative modular rehabilitation robot for the efficient therapy of lower limb motor deficit (HOPE2WALK) (2022-2024)

Position: Scientific director

Value: 600.000 RON

National Exploratory Project, financed 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 single port surgery: a novel robotic system with dexterous instruments (Challenge) (2021-2023)

Position: Project Director

Value: 1.198.032 RON

POC National Grant (Competitiveness Operational Programme 2014-2020) - ID P _37_215, No. 20 of 01.09/2016, Innovative Approaches Regarding Rehabilitation and Assistive Robotics for Healthy Ageing (AgeWell) (2016-2020)

Position: Deputy Director/ Scientific Director

Value: 8.000.000 RON

National Complex Project for Research, Development and Innovation, financed by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), Director, Prof. dr. ing. Doina Liana Pîslă, Project code : PN-III-P1-1.2-PCCDI2017-0221, Contract number : 59/1 March 2018, High accuracy innovative approach for the robotic assisted intraoperative treatment of hepatic tumors based on imagistic-molecular diagnosis - IMPROVE, term of the project : 2018-2020

Position: Project Director

Value: 5.287.500 RON

National project PCCA TIP 2, financed by Executive Unit for High Education Financing, Research, Development and Innovations (UEFISCDI) - PN-II-PT-PCCA-2011-3.2-0414, no. 173/2012 Robotic assisted brachytherapy, an innovative approach of inoperable cancers (CHANCE) (2012-2016)

Position: Scientific director

Value: 3.000.000 RON

National project PCCA TIP 2, financed by Executive Unit for High Education Financing, Research, Development and Innovations (UEFISCDI) PN-II-PT-PCCA-2013-4-0647, no. 247/2014, Robotic assisted prostate biopsy, a high precision innovative method - ROBOCORE

Position: Project Director

Value: 2.500.000 RON

National project PCCA TIP 2, financed by Executive Unit for High Education Financing, Research, Development and Innovations (UEFISCDI) PN-II-PT-PCCA-2013-4-1596, no. 227/2014, Diagnosis and therapy system for spine disorders - SPINE

Position: Scientific director

Value: 200.000 RON

National project PCCA TIP 2, financed by Executive Unit for High Education Financing, Research, Development and Innovations (UEFISCDI), Project no. 59/2015, code PN-II-RU-TE-2014-4-0992, A multi-purpose Needle Insertion device for the diagnosis and treatment of cancer - ACCURATE

Position: Scientific director

Value: 550.000 RON

National Partnership type grant: Innovative development of an innovative virtual system for e-learning in hepatic surgery - HEPSIM, Duration: 2008-2011, Financed by ANCS

Position: Partner responsible

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

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

Value: 30.000 RON

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

Value: 34.000 RON

National Partnership type grant: Multidisciplinary development of surgical robots based on parallel structures – PARMIS, Duration: 2007-2010, 11016/2007, Financed by ANCS

Position: Project Director

Value: 1.600.000 RON

CEEX/M3 National Grant: Promotion researchers and participation in programs European in the field the robots parallel for Surgery – PARACHUTE, Duration : 2006-2008, 184/2006 Funded by ANCS

Position: Project Director

Value: 300.000 RON

CEEX-M 1 National Grant: investigation structure geometrically CINEMATIC and dynamics advance looking design an open flight simulator _ adapted to special requirements – ASKOT, Duration: 2006-2008, Funded by ANCS (2006-2008)

Position: Scientific director

Value: 1.500.000 RON

National Grant type A: Analysis and development microrobot structures with parallel kinematics and implementation of performance testing algorithms, Financed by CNCSIS (2005-2007)

Position: Project Director

Value: 96.500 RON

National Grant type At 244: Development of a powerful dynamic simulation system for parallels robotic structures (2003-2004). Funded by CNCSIS

Position: Project Director

International grants

International grant AAL-CP-AAL-2020-7-83-CP-WisdomOfAge, 234 of 01/05/2021, A Seniors Digital Platform for Knowledge Transfer towards Industrial Companies (WisdomOfAge) (2021-2023)

Position: Project Director

Value: 236.590 Euros

International grant funded by the Agency space European Commission (ESA): Manipulation Systems for Sample Handling in a Sample Receiving Facility, TASUK/16/11305/NBO/1424 (2016-2018)

Position: Project Director

Value: 400.000 Euros

International Grant IP Scopes Switzerland -Romania-Serbia Creative Alliance in Research and Education focused on Medical and Service Robotics, IZ74ZO_13736, 2011-2014, (financed by SNF Switzerland) (2011-2014)

Position: Director Romania

Value: 300.000 CHF

International Grant: Mathematische Modeling and experimentation Investigations eines modular aufbuchungen Parallel robots in minimally invasive der Surgery – 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

Value: 50,000 Euros

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 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 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 Exchange Service academics)

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** Following the grants developed within the CESTER research center, a series of outstanding national awards that attest the value and importance of the research are:
1. Robotic system for the rehabilitation of the lower limb RECOVER, 2022
 2. Innovative robotic system for the of therapy liver cancer PROHEP -LCT, 2020
 3. Parallel robot for the rehabilitation of the lower limb - RAISE, 2020
 4. Parallel robot for the rehabilitation of the upper limb – ASPIRE, 2019
 5. Parallel robot for the rehabilitation of the upper limb – PARREEX, 2019
 6. Robotic system with parallel architecture for the transperineal biopsy of the prostate , the BIO-PROS1 robot , 2015
 7. Robotic system with parallel architecture for minimally invasive cancer treatment through brachytherapy, the PARA-BRACHYROB robot , 2014
 8. Robotic system with parallel architecture for the manipulation of active instruments in minimally invasive surgery, PARASURG -9M, this integrating the PARASURG-5M robotic arm and the active instrument PARASIM, 2011
 9. Parallel robotic system for minimally invasive surgery with a parallel structure for the manipulation 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 University Technical from Braunschweig, Germany
 3. Erasmus academic program with the University Technical from Bilbao, Spain.
 4. Erasmus academic program with the University Technique from 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 University Techniques from Cluj-Napoca, SIDOC, Q-DOC, 4D-POSTDOC, PARTING, in which all assumed objectives were surpassed the values imposed by the program.

- Patents**
1. Plitea , N., **Pisla , D.**, Vaida, C., Gherman, B.: Robot Chirurgical RO 126271, Romania (2012).
 2. Vaida, C., Plitea , N., **Pisla , D.**, Gherman, B., Suci, M.: Orientation module with modular structure and multiple bends , RO-129923, Romania (2019) .
 3. Vaida, C., Plitea , N., **Pisla , D.**, Gherman, B., Ulinici , I., Pisla , A., Carbone, G.: Spherical robot for medical recovery of the proximal area in the upper limb , RO-13233/30.03.2020.
 4. Gherman, B., **Pisla , D.**, Plitea , N., Vaida, C., Pislă , A., Banica, A., Carbone, G.: Parallel robotic system for upper limb medical recovery , RO-132234/30.03.2020.
 5. Plitea , N., **Pisla , D.**, Vaida, C., Gherman, B., Ulinici , I., Carbone, G., Spherical robot for the rehabilitative recovery of the shoulder , 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., Innovative parallel robot for medical rehabilitation of the lower limb , 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., Parallel robot for mobility rehabilitation of the lower limb, RO-133815/29.10.2021.

- Patent Applications**
1. N. Plitea , **D. Pisla** , C. Vaida, B. Gherman, P. Tucan , C. Govor , F. Covaciu: Family of robots parallel for the transperineal biopsy of the prostate , Pending patenting : A/00191/13.03.2015.
 2. C. Vaida, **D. Pisla** , P. Tucan , N. Plitea , B. Gherman: Parallel robot for the transperineal biopsy of the prostate . 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 robots parallel modules with active translational couplings 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 robots modular for uniport surgery with constraint kinematics of the insertion point in the body, Patent Application OSIM A00734/03.12.2022.

Member in commissions at national / international level

Member in the dissertation committee of the 2011 MaviM Master's program .
Member in the licensing board of the Robotics program (2013-present).

Official reviewer in the defence committee of over 50 doctoral theses in national universities (Braşov, Cluj, Craiova, Iasi, Timișoara).

Chairman of the defence committee for more than 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 300 papers in the international journals, and national and international conferences.

Member of the Scientific Committee of 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 magazine Robotics (Cambridge University Press) from 2020

ACTIVITY WITHIN THE DOCTORAL SCHOOL:

Finished PhD theses

1. **Gherman Bogdan**, Researches regarding the development of kinematic, dynamic and functional models for a hybrid innovative parallel robot structure for minimally invasive surgery , 2011.
2. **Suciu Marius**, Contributions regarding the development of a new active parallel robot for minimally invasive surgery , 2011.
3. **Stoica Alin**, Contributions regarding the modelling and the design of a parallel robot for minimally invasive surgery , 2012.
4. **Szilaghyi Andras**, Researches regarding the modelling , simulation and control of a hybrid parallel surgical robot , 2012.
5. **Gyuko Bela** , Researches regarding the simulation, control and actuation systems for parallel robots, 2013.
6. **Galdau Bogdan**, Researches regarding 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**, The development by new parallel robots for brachytherapy , 2016.
9. **Tucan Paul**, The development of new parallel robots for prostate biopsy, 2018.
10. **Birlescu Iosif**, Studies regarding the safe operation of innovative medical parallel robots, 2019 (thesis co -supervised 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 under the supervision of Prof. Giuseppe Carbone, University of Calabria, Italy).
12. **Nadăș Iuliu**, Development of medical parallel robots for lower limb rehabilitation, 2022 (thesis co -supervised 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.

Post- doctoral programs COMPLETED

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

Ongoing PhD theses In the present there are seven PhD theses, all of them with all objectives met in their completion stage of the doctoral thesis.

All coordinated PhD and post- doctoral students have benefited, in addition to the doctoral scholarships from the financial and logistics of the ongoing research projects within the CESTER research center.

Member of professional associations: Member of the Romanian Robotics Society since 2002.
 Member of GAAM - German Society of Mathematics and Applied Mechanics (Gesellschaft für Angewandte Mathematik und Mechanik) from 1995.
 Member of the Romanian Association for the Mechanisms and Machine Theory (ARoTMM) - and of the International Society for the Theory of Mechanisms and of Machines -IFTOMM since 1998.
 Member in the Technical Committee of "Computational Kinematics" of IFTOMM since 2007.
 Member in the Technical Committee "Biomechanical Engineering" of IFTOMM since 2011.
 Chairman of the Technical Committee "Computational Kinematics" of IFTOMM since 2009 .
 Member in the society EURobotics society, <http://eu-robotics.net>.
 Vice-president of the National Society AroTMM since 2013.

- Keynote speaker**
1. Pisla D., Advances in Medical Robotics, 32nd International Conference on Robotics in Alpe-Adria-Danube Region (RAAD 2023), <https://raad.ijs.si/keynote-speakers/>
 2. Pisla D., Recent Advances in Robotic Surgery for Cancer Treatment, 8th International Workshop on New Trends in Medical and Service Robots (MESROB 2023), <http://mecnica.ucv.ro/MESROB2023>
 3. 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
 4. 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
 5. 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>
 6. Pisla, D., Surgery Robotics, October 19, 2022, XIVth edition of the Course Initiation in the the history and philosophy science and techniques , Academy Houses Romanians .
 7. 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>
 8. Pisla, D., New Challenges in Medical Robotics, CARE 2020, Craiova, http://mecnica.ucv.ro/CARE2020/KeynoteSpeakers_f.html
 9. Pisla D., Innovative approaches in medical robotics, CK 2017, Futurocope Poitiers, France
 10. Pisla, D., Innovative Approaches in Medical Robotics, ICOME 2015, Craiova, 2015, <http://www.mecnica.ucv.ro/ViataAcademica/Conferinte/ICOME2015/index.html>
 11. Pisla, D., Research Challenges in Robotic Assisted Brachytherapy, MESROB 2014, Lausanne, Switzerland, 2014, <http://mesrob.epfl.ch/page-104220-en.html>
 12. 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
 13. 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 cooperations Collaboration with the Technical University from Braunschweig, Germany
 Collaboration with the University of Innsbruck, Austria
 Collaboration with the University of Cassino, Italy
 Collaboration with the Research Institute Johanneum, Klagenfurt, Austria
 Collaboration with the University of Hanover, Germany
 Collaboration with EPFL Lausanne, Switzerland
 Collaboration with the Mihajlo Pupin Research Institute, Belgrade, Serbia

Editor of book published in international publishing houses

1. Tarnita, D., Dumitru, N., Pisla, D., Carbone, G., Geonea, I., (Eds.), *New Trends in Medical and Service Robotics*, MESROB 2023, Springer, 2023.
2. 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.
3. Rauter, G., Cattin, P., Zam, A., Riener, R., Carbone, G., **Pisla, D.** (Eds.), *New Trends in Medical and Service Robotics*, MESROB 2020, Springer, 2021.
4. Rauter, G., Carbone, G., Cattin, P., Zam, A., **Pisla, D.**, Riener, R. (Eds.), *New Trends in Medical and Service Robotics*, MESROB 2021, Springer, 2022.
5. **Pisla, D.**, Corves, B., Vaida, C. (Eds.), *New Trends in Mechanism and Machine Science*. Eucomes, Springer, 2020.
6. Carbone, G., Ceccarelli, M., **Pisla, D.** (Eds.), *New Trends in Medical and Service Robotics. Advances in Theory and Practice*, Springer, 2019.
7. 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
8. 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.
9. 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)
10. **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)
11. 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)
12. **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
13. **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
(those May representative)

Gold Medal from the World Invention Intellectual Property Associations – Japonia 2023.
 Gold prize at the International Invention and Trade Expo London 2023 (Patent: Spherical robot for the rehabilitation of the proximal area of the upper limb).
 Gold Medal from the INNOVERS Innovation & Invention Expo 2023-USA (Patent: Spherical robot for the rehabilitation of the proximal area of the upper limb).
 Gold Medal from the International Invention Innovation Competition, iCAN 2023, Toronto, Canada (Patent: Parallel robotic system for the medical rehabilitation of the upper limb)
 Award Academy Romanian "Traian Vuia " for year 2020 - The group of works " Robots parallel innovation for applications medical ", (Awarded December 7, 2022).
 Golden 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) .
 great prize of the 8th edition of the Salon International of Inventions and Innovations "Traian Vuia " from Timisoara , 2022 (Patent: "Robot parallel for recovery mobility the lower limb ").
 Golden 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 Honor of Innovation – IPITEx 2019 Bangkok, Thailand.
 Certificate of Appreciation from the Indian Innovators 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 Awards important in the THE salons international invention fairs PROINVENT, EUROINVENT, INVENTICA etc. organized at the level national, for invention patents _ achieved (2010-2023).
 Excellence Award _ PROVIDED Research Center _ for Simulation and tESTING Robots (CESTER), in THE EVENT Conference Research in UTCN (director Prof. Pislă D.) and nomination the center as one of the 5 centers of excellence of the University Techniques from Cluj-Napoca (2012).
 OSIM (Romanian Office for Inventions and Trademarks) special award (Surgical Robot patent, 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

Maternal language

ROMANIAN

Other foreign languages known

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Participating in the conversation	Oral speech	
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: Experienced user
 the European common reference _ for foreign languages

Communication skills

- Team spirit, communicative , solidary , honest , fair , responsible , dynamic .

Organizational / managerial competences

- Good organizer and manager, educational and research skills, problem-solving attitude, the ability to meet the deadlines in research projects.

Work related competences

- Kinematic and dynamic modelling of parallel robots, robots and mechanical systems programming, graphical modelling of robots, design, control of industrial robots.

Digital competences

- Programming : C, C++, Matlab .
- CAD/ CAM: Siemens (Solid Edge, NX) AutoCAD.
- Office: MS Office, Corel DRAW, Latex.
- Automation: B&R Automation Studio.

Other skills

Competences in kinematic and dynamic modelling 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

Driver 's license

- B

I hereby certify that the information provided in this CV is true
Cluj-Napoca,
16.02.2024

Univ. Prof. Dr. Eng . Doina Liana PISLA