

Europass curriculum vitae

Personal information

Surname/ First name **PETCU DANIEL**
 E-mail PedorthicArt@gmail.com
 Phone +40.728.214.313
 Nationality Romanian
 Date of birth 05.07.1970
 Gender Male

Occupational field

Pedorthics / Medical footwear

Work experience

Dates	2018 to date
Occupation or position held	Footwear engineer, TPO,
Main activities and responsibilities	Providing functional foot orthoses and medical footwear related services. Designing Pedorthic Information Modeling
Name and address of employer	Pedorthic Art , www.PedorthicArt.com
Type of business or sector	Pedorthics
Dates	2008 – 2018
Occupation or position held	Scientific research: 3 rd degree scientific researcher
Main activities and responsibilities	Research in the field of medical devices: orthopedic and therapeutic footwear, foot orthosis.
	Research Projects:
	- <i>Project Director: “Nucleu” Programme “The development and preparation for certification of an excellence center for medical footwear design”, 2016-2017</i>
	- <i>Project Director: “Nucleu” Programme “The CAD-CAM design of the lasts and soles for therapeutic footwear “ 2013-2015</i>
	- <i>Scientific and technical/technological responsible for ICPI in FP7-SME-2013 “Demoultragrip - Implementation of high grip designing tools” having partners from Spain, Italy, Slovenia, 2013-2015</i>
	- <i>Project Director: “Nucleu” Programme Clinical gait analysis methodology with applications in orthopaedic shoes design , 2009-2013</i>
	Team member in research programs:
	- <i>Partnership Program PNCDI II- „SIMSANO” – „Modern Interventional Footwear Design and Rapid Prototyping System for Compensating Locomotors Deficiencies and Prophylaxis of Foot Disorders”, 2008-2010</i>
	Research activities in research projects:
	- <i>Project Co-director: Romania – Turkey Bilateral Research Cooperation: New Techniques on Prescribing, Design and Manufacture of Medical Devices for the Conservative Treatment of Foot Pathomechanics , 2010-2011</i>
	- <i>Expert: “SoHealthy – Ist European & Mediteranean Research Network on Healthy Feet”, 2015, http://www.sohealthyproject.eu/</i>
Name and address of employer	INCDTP Division ICPI
Type of business or sector	Research in Leather-Footwear-Rubber Industry
Dates	2007-2008
Occupation or position held	Engineer – quality expert
Main activities and responsibilities	-Quality assurance in the Quality Management System, manufacture of prosthesis and orthoses for lower leg amputation. -Designing and manufacturing of lower limb prosthesis and ankle-foot orthosis
Name and address of employer	SC Rosal Ortopedic Srl

Type of business or sector	-Manufacturing of prosthesis/orthosis for people with lower limb amputations and locomotors deficiencies.
Dates	1997-2007
Occupation or position held	Footwear engineer, Quality Inspector
Main activities and responsibilities	- Management of footwear manufacture process. Quality assurance - Teaching professional courses for workers in SC Antilopa SA
Name and address of employer	SC Antilopa SA, S.C Akron Invest SRL,SC Intertek SRL
Type of business or sector	Footwear production, Products quality control
Dates	1994-1997
Occupation or position held	Debutant engineer
Main activities and responsibilities	Working in 5 research projects from the field of ordinary and orthopaedic footwear. Publishing 8 specialty papers and participating at 3 conferences in the country and 1 abroad.
Name and address of employer	„Gh. Asachi” Technical University of Iassy. Research Collective.
Type of business or sector	Education - Research

Education and training

Dates	2009-2015
Title of qualification awarded	PhD in Medical Science
Principal subjects/Occupational skills covered	PhD Thesis: “ <i>Anthropological aspects of diabetes phenotypes and of foot deformities caused by this disorder. Orthotic solutions</i> ”.
Name and type of organisation providing education and training	"Francisc I. Rainer" Anthropological Institute of The Romanian Academy
Dates	2007-2008
Title of qualification awarded	Orthotic / Prosthetic Technician
Principal subjects/Occupational skills covered	Education in the field of prosthetics and orthoses. Designing and manufacturing of orthoses / prosthetics
Name and type of organisation providing education and training	„Dimitrie Leonida” Technical College Bucharest
Level in national or international classification	Postgraduate level
Dates	1989 – 1994
Title of qualification awarded	Textile engineer – Footwear Specialization
Principal subjects/Occupational skills covered	Knowledge, skills and competences according to the national and European footwear industry requirements
Name and type of organisation providing education and training	"Gheorghe Asachi" Technical University of Iasi, Faculty of Textile, Leather and Industrial Management- Footwear Design and Technology Department
Level in national or international classification	University level

Personal skills and competences

Mother tongue(s)	Romanian									
Other language(s)										
Self-assessment										
<i>European level (*)</i>										
English	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
	(*) <i>Common European Framework of Reference (CEF) level</i>									
Social skills and competences	Team spirit, honesty, communication skills gained through my professional and personal life experience									
Organizational skills and competences	Management of production activities achieved in 14 years of activity in industrial private companies									
Technical skills and competences	Reference Management, Design and manufacturing of custom-made foot orthoses and footwear									

Computer skills and competences	CAD-CAM for footwear and foot orthoses, 3D foot scanning, Gait Analysis Systems
Other skills and competences	<ul style="list-style-type: none"> -“Evaluation and use of prosthetic foot” – Ossür Academy for Eastern Europe, 2007 -“Designing and comfort of trans-femoral prosthesis “ – Ossür Academy for Eastern Europe, 2007 -“Myoelectrical Hand Prosthesis” held by Otto Bock in S.C Rosal Ortopedic facility, Bucharest, 2007 -“New Technologies in Upper and Lower limb Prosthetics”, Otto Bock Academy, Bucharest, July 2010 -“Using New Materials and Technologies”, Otto Bock Academy in Bucharest on February 2011 -“Training of Trainers” Course, CPI Bucharest, November 2011 -“Project Manager” Course, IRECSON Bucharest, February 2012 -“Innovation Manager” Course, IRECSON Bucharest, March 2013 -Internal Auditor for Medical Devices cf. ISO 13485 carried out by TUVKarpal, Bucharest, 2017
Driving licence	Categories B, C
Additional information	<ul style="list-style-type: none"> -Contribution to the development of the “Strategic Research Agenda for the Footcare Sector (2015-2020) in the frame of SoHealthy European Project -Expert on short term, type A, Expert position for analysis to validation of professional education standards in the frame of the project „Revised Curriculum in Vocational and Technical Education - CRIPT”, strategically project financed by European Social Fund -Member of International Foot and Ankle Biomechanics Community (i-FAB) -Invited Lecturer in Foot Biomechanics Introductory Workshops organized by Fast Fizio School and Vasyli Medical in Romania -Participation at the 2nd International Seminar on Foot Pathology organized by Colegio de Podologos de Aragon, Zaragoza, Spain, 1-8 February 2014 -Participation at 19th IVO World Congress, 2015, Paris -Participation at the International Foot and Ankle Biomechanics (i-FAB) Congress, Berlin, 2016 -Participation at The College of Podiatry Annual Conference and Exhibition 2016 (Glasgow) and Liverpool (2017) -Lecture at the FOOTPRINT3D event organized by Footwearology, Barcelona, September, 2023 -Co-Chair of the session “Optimization of Sports and Orthopaedic Shoe Design”, OTWorld, May 2024, Leipzig, Germany
Annexes	Most relevant papers/articles

Annex 1

Most relevant articles

- D. Petcu et al., *Institutional framework required to obtaining footwear and foot orthoses for preventive and therapeutic purposes*, ICAMS, Bucharest, October 2008,
- D. Petcu et al., *Directions of development of systems training in the footwear field*, Presentation and training session in the VTC-Shoe Project, Iassy, 5-7 November, 2009
- Daniel Petcu, Gheorghe Berijan, *Patient’s explanatory model of disease and its influence on conservative treatment of diabetic foot*, Proc. Rom. Acad., Series B, 2010, 2, p. 149–147
- Daniel Petcu, Hüseyin Ata Karavana, Gheorghe Berijan, *Change of the Foot Morphology depending on the Plantar Surface 3D Capture Method*, Leather and Footwear Journal 10 (2010) 2
- Petcu Daniel, Pantazi Mirela, Hüseyin Ata Karavana, Berijan Gheorghe, *Reliability of the method of measuring anthropometric parameters based on three-dimensional foot scanning*, Proceedings of 3rd ICAMS, 295-300, 2010
- D. Petcu et al., *Effectiveness of accommodative individualized foot orthosis in decreasing of pathological pressures associated with development of plantar ulceration*, Proc. Rom. Acad., Series B, 2010, 3, p.193-199
- Daniel Petcu, Hüseyin Ata Karavana , Mirela Pantazi, *Method for assessing the correlation between constructive parameters of rocker sole and biomechanical parameters of gait*, Proceedings of 2nd International Leather Engineering Congress, IAFLI, Izmir, Turkey,141-149, 2011
- Hüseyin Ata Karavana, Daniel Petcu, Gheorghe Berijan, Ahmet Aslan, Buğra Ocak, Gürbüz Gülümser, *Footwear education challenges: from starting to reform. The comparative experience from Turkey and Romania*, Proceedings of 2nd International Leather Engineering Congress, IAFLI,151-159, Izmir, Turkey, 2011
- Petcu Daniel, Dana Deselnicu, Sergiu Adrian Guta, Berijan Gheorghe, *Aspects regarding the development of the medical footwear industry in Romania*, Proceedings of 4th ICAMS, 2012
- Petcu Daniel, Colda Anca, *Foot Functioning Paradigms*, Proc. Rom. Acad., Series B, 2012, 14(3), p. 212–217
- Gabriel Stan, Daniel Petcu, Gheorghe Berijan, *Stabilometric assessment: implications for the prescription of medical devices*, Leather and Footwear Journal, 13 (2013) 2, 149 – 162

-Petcu Daniel, Bucur Doina, Hüseyin Ata Karavana, Nistor Mircea, Pantazi Mirela, Mihai Georgescu, *The influence of the rocker sole profile's orientation on the sagittal ankle range of motion*, The 4th IEEE International Conference on E-Health and Bioengineering - EHB 2013, Grigore T. Popa University of Medicine and Pharmacy, Iasi, November 21-23, 2013

-Petcu Daniel, Gabriel Stan, *A Method for the Analysis of the Free Moment's Variability: A case Study*, Proc. Rom. Acad., Series B, 2013, 15(3), p. 241–249

-Daniel Petcu, Gheorghe Berijan, *General considerations on computer-assisted design of lasts for therapeutic footwear*, Leather and Footwear Journal 13 (2013) 4

-Petcu Daniel, *An application of the free moment for the diabetic patients' classification - a pilot study*, The 5th IEEE International Conference on E-Health and Bioengineering - EHB 2015 Grigore T. Popa University of Medicine and Pharmacy, Iași, Romania, November 19-21, 2015

-Petcu Daniel, *Orthotic Solution Influencing the Rotational Friction in Walking - an Experimental Model*, The 5th IEEE International Conference on E-Health and Bioengineering - EHB 2015 Grigore T. Popa University of Medicine and Pharmacy, Iași, Romania, November 19-21, 2015

-Petcu Daniel, Viorica Rosculeț, *Regulation for the prescription of footwear as medical device*, Leather and Footwear Journal 17 (2017) 1 . Republished in foot & shoe –The International Journal for Foot Orthotics, August 2017

-Petcu Daniel, *Prescription variables for the medical footwear*, December 2017 Leather and Footwear Journal 17(4):217-226, DOI: 10.24264/lfj.17.4.5

-Petcu Daniel, Viorica Rosculeț, *Practical aspects of implementation of quality management system requirements for the medical footwear design*, Leather and Footwear Journal 18(1):39-44 (2018), DOI: 10.24264/lfj.18.1.5

-Petcu Daniel, "Pedorthic Information Modeling", Proc. Rom. Acad., Series B, 2020, 22(2), p. 111–120

-Perciu ER, Petcu D. Postinterventional ultrasonographic monitoring of the diabetic Charcot neuro-osteoarthropathy. Case report. Med Ultrason. 2023 Jun 26;25(2):229-232. doi: 10.11152/mu-3734. Epub 2022 Aug 23. PMID: 36047428.

-Iacob, Mariana Cristiana, Diana Popescu, Daniel Petcu, and Rodica Marinescu. 2023. "Assessment of the Flexural Fatigue Performance of 3D-Printed Foot Orthoses Made from Different Thermoplastic Polyurethanes" Applied Sciences 13, no. 22: 12149. <https://doi.org/10.3390/app132212149>

-Posters:

-D.Petcu, *Role of individual perceptions in conservative treatment of diabetic foot*, PhD Student Section, Romanian Medical Association Congress, Bucharest, 6-10 May, 2010

-Petcu Daniel. *Using medical devices in the frame of conservative treatment of Charcot foot. Goals Setting*, PhD Student Section, Romanian Medical Association Congress, Bucharest, 14-15 April, 2011

-Dr. Groseanu Florin, Ing. Petcu Daniel, *The use of force platform in the pre and postoperative analysis of the surgical correction of hallux valgus*, Romanian Medical Association Congress, Bucharest, 26-28 April, 2012

-Petcu Daniel, Berijan Gheorghe, *Biomechanical principles applied to the design of orthopedic shoe last - A practical approach*, 19th IVO World Congress, 2015, Paris

-Daniel Petcu, Roxana Adriana Stoica, Roxana Mitulescu, Constantin Ionescu-Tîrgoviște, *Aspects of diabetic patients' classification according to foot type and biomechanical parameters*, 4th International Symposium on Adipobiology and Adipopharmacology (ISS), Romanian Academy, Bucharest, Romania

-Petcu Daniel, *Analysis of the effectiveness of an orthotic solution for the diabetic foot*, Foot International 2016, organized by EFAS-DAF i-FAB, Berlin 2016. Abstract published in Foot and Ankle Surgery, June 2016, Volume 22, Issue 2, Supplement 1, Pages 109–110. Impact Factor 1.092

-Petcu Daniel, *Pedorthic Information Modeling*, OTWorld -2022-eposter, June 2022, OTWorld 2022, Leipzig, Germany, DOI: 10.13140/RG.2.2.26876.00647/1

- Lectures/Presentations :

-D. Petcu et al., *Utilization of Rocker Soles in Making Footwear Intended for Diabetics* , Workshop Program, ICPI Bucharest 18-20 June, 2008,

-D. Petcu et al., *Methods of tri-dimensional surface capturing with applications in designing and manufacturing of foot orthoses* . First ISPO Conference, May, Bucharest, 2009

-Daniel Petcu- *"Actualities in the diagnosis and therapy of children and adolescents' flat-foot"*, UMF "Carol Davila" – Rehabilitation Department. INRMFB, Monthly proceedings meeting, Bucharest, February, 2010

- Petcu Daniel, Constantin Ionescu Targoviste, *"Functional Principles used in the conservative treatment of diabetic foot"*, Romanian Medical Association Congress, Bucharest, 14-15 April, 2011

- Daniel Petcu - *"Aspects of foot orthosis prescription"*, UMF "Carol Davila" – Rehabilitation Department, INRMFB, Monthly proceedings meeting, Bucharest, April, 2011

-Petcu Daniel, *Biomechanical evaluation of the diabetic foot*, World Diabetes Day, News in addressing patient with diabetic foot, 13 – 14 November 2013, Oradea, Romania

-Petcu Daniel, *"Footwear is your job! The role of medical devices in podiatric practice"*, The 1st National Congress, The Association for Podiatry, Bucharest 1-3 June, 2017.

-Petcu Daniel, Oran Sheinman, *Pedorthic Information Modeling - Digital processing of the aesthetic, physical and functional characteristics of orthopedic devices*, October 2022, ORTHOPÄDIE SCHUH TECHNIK & IVO CONGRES 2022, DOI: 10.13140/RG.2.2.12610.25289

-Petcu Daniel, *Fully 3D-Printed Orthopedic Footwear for a Patient with Bilateral Ankle Rigid Equinus - a Case study based on Pedorthic Information Modeling Concept*, OTWorld, May 2024, Leipzig, Germany

-Petcu Daniel, *3D-Printed Orthopedic Shoes and Parametric Thinking*, 7 Iunie 2024, International Rhino User Meeting Wrocław, Poland

-Petcu Daniel, *Thinking outside of the box through Pedorthic Information Modeling*, Pedorthic Conference 2024 Moonee Valley Racing Club, Vic, Australia, 12-14 September 2024

-Social Media:

-*The First Fully 3D-Printed Orthopaedic Shoe Worn at OTWorld in Leipzig*, White Paper, BASF FORWARD AM, <https://forward-am.com/use-cases-and-whitepapers/the-first-fully-3d-printed-orthopaedic-shoe-worn-at-otworld-in-leipzig/>
-*#Working3D: Six Questions for a Footwear Engineer*, 3DNatives - your source for 3dprinting, Published online October 3, 2024, <https://www.3dnatives.com/en/working3d-six-questions-for-a-footwear-engineer-031020245/>

-Patents:

- Co-author of patent no. 201100934 of 23-02-2015: Method for the manufacture of orthopaedic stockings

-Awards :

- Diploma of Excellence, Third place in the "PhD Student" Section at the Romanian Medical Association Congress, with "*The role of personal perceptions in the conservative treatment of diabetic foot*", Bucharest, 6-10 May, 2010

Signature,

Petcu Daniel

A handwritten signature in black ink, appearing to read 'Petcu Daniel', written in a cursive style.