Prof. dr. eng. DANIELA TARNITA
Curriculum vitae

Professor of Mechanisms Theory; Strength of Materials; Biomechanics;

Head of Doctoral School in Mechanical Engineering, University of Craiova;

Head of Biomechanics Research Laboratory, INCESA Research Centre, University of Craiova;

Head of Research Centre in Mechanical Engineering, University of Craiova;

Fields and research topics:

- Biomechanics;
- Biomedical engineering;
- Robotics;
- Numerical Simulations and Analysis of stresses and deformations for human musculoskeletal system using Finite Element Method;
- Intelligent materials and their applications in medical field;
- Design and optimization for orthopedic devices and implants and for rehabilitation devices.
- Human gait analysis (normal and pathological)
- Nonlinear dynamics applied in biomechanics

1. Studies:

Institution	Period	Obtained degree
”Carol I” High school Craiova	Sept. 1973-June 1977	Baccalaureate diploma
Faculty of Mechanics, Univ. of Craiova	Sept. 1977-July 1982	Mechanical engineer
Faculty of Mechanics, Univ. of Craiova	Dec.1990- June 1996	Ph.D. diploma in Technical Sciences
Faculty of Economic Science, Univ. of Craiova	Sept. 1990-July 1995	Economic informatics diploma

2. Professional Experience:

Institution	Period	Function
University of Craiova	Sept. 1984-Sept. 1991	Assist.
University of Craiova	Sept. 1991-Jan. 1997	Lecturer
University of Craiova	Jan.1997-Sept. 2001	Assoc. Prof.
University of Craiova	Sept.2001-present	Professor

Professional mobilities:

Institution	Period	Activity
Princeton University, SUA	1 week, 2016	Visiting Professor
Princeton University, SUA	3 weeks, 2015	Visiting Professor
Harvard University, SUA	3 weeks, 2009	Documentation-research
Harvard University, SUA	3 weeks, 2008	Documentation-research
Duisburg-Essen University, Germany	3 weeks, 2007	Documentation-research
Duisburg -Essen University, Germany	1 week, 2005	Visiting Professor
Germany	1 week, 2004	Socrates Mobility

3. Patents:

1.**System of modular plates for the osteosynthesis of long bone fractures and method for using the same**
Patent Number: **RO126084-A2; RO126084-B1, 2013**
Patent Assignee: UNIV CRAIOVA
Inventor(s): **Tarnita, D**., Tarnita, D.N., Bizdoaca, N G.

2.**Modular-adaptive central-medullary orthopaedic nail to be used in treatment of diaphyseal fractures of long bones**
Patent Number: **RO127375-A2; RO127375-B1, 2013**
Patent Assignee: UNIV CRAIOVA
Inventor(s): **Tarnita, D.,** Cismaru F., Tarnita, D.N.; et al.

3.**Adaptive modular lattice based on intelligent materials such as nitinol, used for the reduction of a fracture and proper immobilization of osseous fragments in the case of long bone fractures**
Patent Number: **RO127483-A2 din 30.12. 2013**
Patent Assignee: UNIV CRAIOVA
Inventor(s): Bizdoaca, N G; Tarnita, D.; Danoiu S; et al.

4.**Artificial hand-forearm system used for carrying out an upper human limb prosthesis**
Patent Number: RO128911-A2
Inventor(s): BERCEANU C R; **TARNITA D.**

5.Ball and socket type joint for elbow prosthesis,
Patent Number: RO129147-A0, /2018
Inventor(s): TARNITA D N; **Tarnita Daniela**, BOBORELU C; POPA D L.

6.Orthotic device used for osteoarthritic knee joint
Patent Nr 132075/ 30.09. 2019.
Patent assignee: **University of Craiova,**
Inventors: **Catana Marius, Tarnita Daniela, Tarnita Danut Nicolae,**
Application number A00821 /2013.

7.Tuşaliu, P.,**Tarniţă, D**.,s.a.- Device for Modeling High Voltage Distribution on 750KV Class Insulation Chains -**Certificat de inovator nr.253,** Ministry of Education, 30 sept., 1985.

Applications for patents:

1. Device for progressive rehabilitation of human joints used in orthotic systems,
Inventors**: Petcu Alin Ionel, Tarniță Daniela, Tarniță Dănuț Nicolae,**
Application Patent Number OSIM: A0081/ 14.02.2017.

2.Modular-adaptiv stem for total hip prosthesis, based on intelligent materials
Inventors: Tarnita Danut Nicolae, **Daniela Tarnita,**
Application Patent Number: A01023 / 2016

3.Modular exoskeleton for applications in recovery of human lower limb,
Inventors**:** Geonea Ionut, **Daniela Tarnita**,
Application Patent Number. A00047/30.01. 2017

4. Awards for patents:

1. **42 gold medals** for patents in the medical field obtained at **International Exhibitions of Creativity and Innovation in period 2013-2020**.
2. **The Best International Invention of Social and Quality of Life - Salon International de inventii, IPITEX, Bangkok, feb. 2018**
3. **Special Honour of Invention** – awarded by **Toronto International Society of Innovation & Advanced Skills,** Canada, 2018;
4. **Genius Award & Gold medal** – awarded by **Citizen Innovation Association, Singapore**, 2018.

5. **British Innovation Award** – awarded by **Association of British Inventors and Innovations, Great Btitain,** 2018;
6. **Special Award and Gold Medal** – awarded by **Malaysian Research & Innovation Society, Malaezia**, 2018.
7. **Honor of Invention and Gold Medal** – awarded by **World Invention Intellectual Property Associations**, 2018;
8. **Award for International Innovation Achievements** - awarded by **Haller Pro Invention Foundation, Polonia,** 2018.
9. **Medicine Award - EUROINVENT-** European Exhibition of Creativity and Innovation -May 2014
10. **Woman Inventor Award - EUROINVENT-** European Exhibition of Creativity and Innovation -May 2013
11. **Grand Prize "Eliza Leonida Zamfirescu - A Romanian woman - the first engineer woman in the world" -** International Exhibition of Creativity and Innovation PROINVENT - March 2013
12. **Cyber Future Award –EUROINVENT, may, 2017**
13. **Trophy "Academician Ana Aslan" – Inventions Exhibition** CADET 2017.
14. **Great Trophy awarded by Inventors Forum of Irak, 2017.**
15. **First prize and Gold Medal awarded by the Polytechnic University of Bucharest, 2017.**
16. **Three Excellence Awards for patents at International Salons of Creativity and Innovation**
17. **Gold Medal- China International Exhibition of Inventions – China (Shanghai) -may 2017**
18. **Gold Award- Malaysia Research and Innovation Society- Kuala Lumpur, Malaysia, april 2017**
19. **Gold Medal – Salon of Inventions Katowice, INTARG 2017,Katowice, Poland, iunie, 2017**
20. **Gold Medal – Salon of Inventions, Croatia, nov 2017.**
21. **Gold Medal – Salon of Inventions INFOINVENT, Chisinau, Moldova, nov. 2017**

Awards for papers:

1.The Industrial Robot Innovation Award 2008 Highly Commended, 2008 for the paper: *Bîzdoacă, N., Tarniţă, D.N.,* ***Tarniţă, Daniela****,* ***Application of smart materials: bionics modular adaptive implants,*** *Advances in Mobile Robotics, ISBN-10 981-283-576-8* ***World Scientific Publishing Co.Pte.Ltd,*** *pag 190-198.*

2.Award of Excellence for the paper, *Catana M.,* ***Tarnita Daniela****., Tarnita D.N.,* ***Modeling, Simulation and Optimization of a Human Knee Orthotic Device,*** *Applied Mechanics and Materials, Vol. 371 (2013), pp 549-553, Trans Tech Publications, Switzerland.*

3.*Certificate of Excellence* *awarded for the paper Numerical simulations and Finite Element Analysis of Contact Stresses in Normal, Osteoarthritic and Orthotic Knee, International Seminar on Biomaterials and* ***Regenerative medicine, BIOREMED 2019,*** *Craiova, 2019.*

4.The Bronze Best Research Paper Award *for the paper:* ***Tarnita D****., Georgescu, M, Geonea, I, Petcu, A., Tarnita, D.-N.,* ***Nonlinear Analysis of Human Ankle Dynamics –*** *awarded by* ***IFToMM and International Committee Award for MESROB 2018, Cassino, Italy, 2018.***

5. Papers (selection)

Papers in ISI journals

1. C. Vaida, I. Birlescu, A Pisla, I. Ulinici, **D. Tarnita,** G. Carbone, D. Pisla., **Systematic Design of a Parallel Robotic System for Lower Limb Rehabilitation,** in *IEEE Access*, vol. 8, pp. 34522-34537, 2020.
2. Bogdan GHERMAN, Iosif BIRLESCU, Nicolae PLITEA, Giuseppe CARBONE, **Daniela TARNITA**, Doina PISLA, **On the singularity-free workspace of a parallel robot for lower-limb rehabilitation,** *Proceedings of the Romanian Academy*, Vol 20, Nr. 4, pp. 383-391, 2019.
3. **Tarnita, D**., Pisla, D., Geonea, I. et al. **Static and Dynamic Analysis of Osteoarthritic and Orthotic Human Knee**, J Bionic Eng (2019) 16:514-525. https://doi.org/10.1007/s42235-019-0042-3
4. **Tarnita**, D., D Marghitu, **Nonlinear dynamics of normal and osteoarthritic human knee**, Proceedings of the Romanian Academy, pp. 353-360, 2017.

5. Geonea, I., **Tarnita, D**., **Design and evaluation of a new exoskeleton for gait rehabilitation**, Mechanical Sciences, 8(2), pp 307-322, 2017.
6. **Tarnita, D.,** Calafeteanu, D., Geonea, I., Petcu, A., Tarnita, D.N., **Effects of malalignment angle on the contact stress of knee prosthesis components, using finite element method**, Rom J Morphol Embryol, 58(3), pp. 831-836, 2017.
7. **Tarnita, Daniela,** Wearable sensors used for human gait analysis, Rom J Morphol Embryol 2016, 57(2), pp 373-382.
8. **Tarnita, Daniela,** Tarnita, D.N., **Experimental measurement of flexion-extension movement in normal and corpse prosthetic elbow joint,** *Rom J Morphol Embryol* 2016, 57(1):145–151.
9. DN Tarniţă, **Daniela Tarniţă**, D Grecu, D Calafeteanu, B Căpitănescu, **New technical procedure involving Achilles tendon rupture treatment through transcutaneous suture,** *Rom J Morphol Embryol* 2016, 57(1):211–214.
10. **Tarnita, Daniela,** Marghitu, D., **Analysis of a hand arm system**, Robotics and Computer-Integrated Manufacturing, Vol. 29, Issue 6, Pages 493–501, 2013.
11. **Tarnita, Daniela,** Catana, M., Tarnita, D.N., **Experimental measurement of flexion-extension movement in normal and osteoarthritic human knee**, Romanian Journal of Morphology and embryology, 54(2):309–313, 2013,
12. **Tarnita, D.**, Tarnita, D.N., Oprea, B., Samide A., **Electrochemical study on corrosion resistance in physiological media of nitinol wire used as bioimplant,** Digest Journal of Nanomaterials and Biostructures, Vol. 8, No. 1, 2013, p. 35 – 41,
13. **Tarnita, D.**, Berceanu, C., Tarnita, C., **The three-dimensional printing–a modern technology used for biomedical prototypes,** Materiale plastice**,** no.47, nr.3, pp 328-334, 2010.
14. **Tarnita, D.,** Tarnita, D.N., Tarnita, R., Berceanu, C., Cismaru, F.**, Modular adaptive bone plate connected by Nitinol staple**, Materials Science and Engineering Technology, Special Edition Biomaterials, Willey-Vch, 41 (12), 1070-1080, DOI 10.1002/mawe .201000711, 2010,
15. **Tarnita D.,** Bolcu, D., Berceanu, C., Cismaru, F., **Theoretical and experimental studies for an orthopedic staple made up Nitinol**, Journal of Optoelectronics and Advanced Materials, Vol.12, No.11, pp. 2323– 2332, 2010.
16. **Tarnita D.,** Boborelu, C., Popa, D., Rusu, L., **The three-dimensional modeling of the complex virtual human elbow joint**, Romanian Journal of Morphology and embryology, Vol 51, No.3, pp 489-495, 2010.
17. **Tarnita, D.,** Tarnita, D.N., Popa D., Grecu, D., Niculescu, D., **Numerical simulations of human tibia osteosynthesis using modular plates based on Nitinol staples,** Romanian Journal of Morphology and embryology, Vol 51, No.1, pp 145-150, 2010.
18. **Tarnita, D**., Tarnita, D.N., Hacman, L., Copilusi, C., Berceanu, C., Cismaru, F., **In vitro experiment of the modular orthopedic plate based on Nitinol, used for human radius bone fractures,** Romanian Journal of Morphology and embryology, Vol 51, No2, pp. 315-320**, 2010,**.
19. **Tarnita, D.,** Tarnita, D.N., Bizdoaca, N., Popa, D., **Contributions on the dynamic simulation of the virtual model of the human knee joint,** Materials Science and Engineering Technology, Special Edition Biomaterials, Willey-Vch., ISSN 0933-5137, Vol.40, No.1-2, 2009, pp73-81,
20. **Tarnita, D.,** Tarnita, D.N., Bizdoaca, N.,C Tarnita, C. Berceanu, C. Boborelu, **Modular adaptive bone plate for humerus bone osteosynthesis**, Romanian Journal of Morphology and embryology, Vol. 50(3**),** pp. 447-452 ISSN 1220-0522, 2009, http://www.rjme.ro/RJME/resources/files/500309447452.pdf.
21. **Tarnita, D**., Tarnita, D. N., et al., **Properties and Medical Applications of Shape memory Alloys;** Romanian Journal of Morphology and embryology, Vol. 50. No.1, pp.15-22, 2009 (40 citations),.
22. **Tarnita, D.,** Popa, D., Tarnita, D. N., Grecu, D., **CAD method for 3D model of the tibia bone and study of stresses using the finite element method**, Romanian Journal of Morphology and Embryology, Vol. 47. No.2, pp.181-186, ISSN 1220-0522, 2006,
23. Bizdoaca, N., **Tarnita, D**., Tarnita, D. N., **Modular adaptive implant based on smart materials,** Romanian Journal of Morphology and embryology, Vol.49. No.4, pp.507-512, 2008,
24. **Tarniţă**, D., Popa, D., Tarniţă, D.N., Grecu, D., Negru, M., **The virtual model of the prosthetic tibial components,** Romanian Journal of Morphology and embryology, 2006, 47(4):339–344,
25. Tarniţă, D.N., **Tarniţă, D.,** Popa, D., **Analysis of stress and displacements of phalanx bone with the finite element method,** in Romanian Journal of Morphology and embryology, vol. 46 no. 3, pp 189-192, 2005,

26. Popa, D., Tarnita, D.N., **Tarnita, D.,** Grecu, D., **The generation of the three-dimensional model of the human knee joint**, in Romanian Journal of Morphology and embryology, vol.46 no.4, pp.3-6, 2005.

Papers in Proceedings ISI, Scopus, and other BDI Journals

1. **Daniela Tarnita**, I Geonea, A. Petcu, D.N. Tarnita, Numerical Simulations and Experimental Human Gait Analysis Using Wearable Sensors, **New Trends in Medical and Service Robots, Springer Publishing House,** DOI:10.1007/978-3-319-59972-4_2, pp.289-304**, 2018.**
2. **Tarniţă, Daniela**, I Geonea, A. Petcu, D.N. Tarnita, Experimental Characterization of Human Walking on Stairs Applied to Humanoid Dynamics, **Advances in Robot Design and Intelligent Control, Springer**, 293-301, 2016.
3. **Daniela Tarnita**, Marius Georgescu, Dan Tarnita, **Applications of Nonlinear Dynamics to Gait Analysis on Plane & Inclined Treadmill,** New Trends in Medical and Service Robots, Springer Publishing House, Vol 39, pp. 59-73, 2016.
4. **Daniela Tarnita**, M Catana, D.N. Tarnita, **Design and Simulation of an Orthotic Device for Patients with Osteoarthritis,** pp. 61-77, New Trends in Medical and Service Robots, Springer Publishing House, ISBN 978-3-319-23832-6, pp 61-77, 2016
5. **Daniela Tarnita,** D. Popa, C. Boborelu, N. Dumitru, D. Calafeteanu, D.N. Tarnita**, Experimental Bench Used to Test Human Elbow Endoprosthesis,** New Trends in Mechanism and Machine Science, Vol 24 (2015), pp. 669-677, Springer International Publishing, Editor: Paulo Flores
6. N. Dumitru, C. Copilusi, I. Geonea, **D. Tarnita**, I. Dumitrache, **Dynamic Analysis of an Exoskeleton New Ankle Joint Mechanism,** New Trends in Mechanism and Machine Science Mechanisms and Machine Science Vol 24, 2015, Springer International Publishing, pp 709-717,.
7. **Daniela Tarnita,** Marius Catana, Dan Tarnita**, Contributions on the modeling and simulation of the human knee joint with applications to the robotic structures, I**n **"New Trends on Medical and Service Robotics: Challenges and Solutions",** Mechanisms and Machine Science 20, DOI: 10.1007/978-3-319-05431-5_19, pp. 283-297, Springer Verlag, 2014.
8. **Daniela Tarnita,** C. Berceanu, **Comparison of Human and Artificial Finger Movements**, **New Trends in Medical and Service Robots**, Mechanisms and Machine Science Vol 16, 2013, pp221-235
9. **Tarnita, Daniela,** Popescu, I., Dan Marghitu**, Creating Artistic Curves with Planar Mechanisms, ISI** Proceedings of **SYROM 2013, ed. Springer, 2013** pp.233-240, Mechanisms and Machine Science, Vol. 18, ISBN:978-3-319-01844-7.
10. **Daniela Tarnita,** Marius Catana, Dan Tarnita**, Nonlinear Analysis of Osteoarthritis Process in Virtual Human Knee Joint, ISI** Proceedings of **SYROM 2013, ed. Springer,** pp. 225-232, **2013,** Mechanisms and Machine Science, Vol.18, ISBN:978-3-319-01844-7, ISBN 978-3-319-01845-4.
11. **Tarnita**, **Daniela**, Popa, D., Dumitru, N., Tarnita, D.N., Mărcuşanu, V., Berceanu, C*, **Numerical Simulations of the Human Knee Joint, chapter** in "**New Trends in Mechanisms Science: Analysis and Design"**, pp 309-317, Springer Publishing House, 2010.
12. Berceanu, C., **Tarnita, Daniela,** Dumitru, S., Filip, D., **Forward and Inverse Kinematics Calculation for an Anthropomorphic Robotic Finger**, in "**New Trends in Mechanisms Science: Analysis and Design"**, pp 335-342, **Springer Publishing House**, 2010.
13. Bîzdoacă, N., Tarniţă, D.N., **Tarniţă**, **Daniela**, **Application of smart materials: bionics modular adaptive implants,** Advances in Mobile Robotics, ISBN-10 981-283-576-8 **World Scientific Publishing Co.Pte.Ltd,** pp. 190-198**.**
14. **Tarnita, Daniela,** Tarnita, D.N., Bizdoaca, N., Cismaru, F., **Modular orthopedic devices based on shape memory alloys**, ISI Proceedings Ed. Springer, The 10th IFToMM International Symposium on Science of Mechanisms and Machines, SYROM'09, pp.709-721, 2009.
15. Degeratu, S., **Tarnita, D.,** et al, **Experimental investigation of a barrier structure based on a Shape Memory Alloy actuator**, OPTIM 2017 IEEE Conference, 102-108, mai 2017.
16. D. Calafeteanu, **Daniela Tarnita**, D. N. Tarnita, **Numerical Simulations of 3D Model of Knee-prosthesis Assembly with Antero-posterior Tibial Slope, IFToMM Congres, Taipei, 2015, oct,** DOI Number: 10.6567/IFToMM.14TH.WC.OS1.008
17. **Tarnita, Daniela,** Catana, M., Tarnita, D.N., **Modeling and Finite Element Analysis of the Human Knee Joint Affected by Osteoarthritis**, Key Engineering Materials Vol. 601 (2014) pp 147-150,.
18. **Daniela Tarnita,** Marius Catana, Dan Tarnita, **Modeling and Finite Element Analysis of the Human Knee Joint Affected by Osteoarthritis**, in Key Engineering Materials, vol. 601, pp. 147-150, 2014.

19. Catana M., **Tarnita Daniela**, Tarnita D.N., **Modeling, Simulation and Optimization of a Human Knee Orthotic Device,** Applied Mechanics and Materials, Vol. 371 (2013), pp 549-553, Trans Tech Publications, Switzerland, doi:10.4028 /www.scientific.net/AMM.371.549
20. **Tarnita Daniela,** Catana, M., Tarnita, D.N., **Nonlinear Analysis of Normal Human Gait for Different Activities with Application to Bipedal Locomotion**, Ro. J. Tech. Sci. Appl. Mech., Volume 58, Nº 1-2, pp. 177–192, Bucharest, 2013,
21. Berceanu, C., **Tarnita, D.,** Filip, D., **Exteroceptive sensor system of a new developed artificial hand,** Journal of the Solid State Phenomena, Robotics and Automation Systems, Vol. 166-167, pp. 51-56, 2010,
22. Berceanu, C., **Tarnita, D.,** Filip, D., **About an experimental approach used to determine the kinematics of the human finger,** Journal of the Solid State Phenomena, Robotics and Automation Systems, Vol. 166-167, pp. 45-50, 2010.
23. Berceanu, C., **Tarnita, D., Aspects Regarding the Fabrication Process of a New Fully Sensorized Artificial Hand**, MODTECH 2010: New face of TMCR, Proceedings of the International Conference ModTech, pp 123-126, 2010.

Editor of the book „Current Solutions in Mechanical Engineering" (576 pages) published in Trans Tech Publishing House, Suizzerland, Volume 823 of Applied Mechanics and Materials, ISSN print 1660-9336, ISSN cd 1660-9336, ISSN web 1662-7482

Chapters in books edit in International Publishing Houses:

1. **Tarnita D.**, Tarnita D.N, Bolcu, D., **Orthopedic implants based on shape memory alloys**, chapter in **Biomedical Engineering – From Theory to Applications**, in **InTech Publishing House**, Viena, pp.431-468.
2. Bîzdoacă. N., **Tarniţă, Daniela**, et al., **Biomimetic approach to design and control mechatronics structure using smart materials**, chapter in "**Robotics, Automation and Control",** , **InTech Publishing House, pp 431-465, Viena, 2009**.

6. Member of the following professional associations:

Romanian Association of Mechanism and Machine Theory;
Romanian Association of Tensometry;
Romanian Society of Biomaterials;
Romanian Society of Theoretic and Applied Mechanics;
Romanian Society of Robotics;
Romanian Inventors Forum;

Member of the scientific and/or organizing committee for:

- IFToMM International Symposium on Science of Mechanisms and Machines, SYROM 2017
- President of International Conference of Mechanical engineering, 2015, Craiova;
- President of International Workshop "From Biological Systems to Robotic Structures" 2012
- Congress of Automotive, SMAT 2008, Craiova
- Advanced Concepts on Mechanical Engineering - ACME 2010, 2012, 2014, 2016, 2018, 2020, Iasi
- International Conference of Mechanical engineering, ICOME 2010, 2013, 2015, 2017, Craiova
- International Conference on Advancements of Medicine and Health Care through Technology, 2011
- MESROB -Medical and Service Robotics International Workshop–Lausanne 2014
- MESROB -Medical and Service Robotics International Workshop–Nantes 2015
- MESROB -Medical and Service Robotics International Workshop–Graz 2016
- MESROB -Medical and Service Robotics International Workshop–Casino 2018
- MESROB -Medical and Service Robotics International Workshop–Basel 2020
- 21st Congress of the European Society of Biomechanics, July 5 - 8 2015, Prague, Czech Republic
- 1st Central &Eastern European Conference on Thermal Analysis and Calorimetry, 2011, Craiova

Member of Biomechanical Engineering Technical Committee of International Federation of Mechanism and Machines.

Member of **Editorial Board** for **Journal of Rheumatic Diseases and Treatment-** ClinMed International Library

Member of Editorial Board of Bulletin of The "Transilvania" University of Brasov, Series I Engineering Sciences.

7.Reviewer for the journals: Robotics and Computer-Integrated Manufacturing, Transactions on Mechatronics-IEEE, IEEE Access, Australasian Physical & Engineering Sciences in Medicine Journal, Annals of Biomedical engineering, Sensors, Symmetry, Computer Methods in Biomechanics and Biomedical Engineering, Industrial Robot Journal, Proceedings of the Romanian Academy- Part A; Mechanical Sciences; Journal of Bionic Engineering; Mechanism and Machine Theory, Journal of ASME; Key Engineering Materials, Applied Mechanics and Materials.

8. Experience in national or international projects:

Program / Project	Function	Period
Partner-ship Ford Romania – University of Craiova for transfer and implementation of Ford Eco-Technologies to realise of EcoSport model in Craiova- PN III Bridge Grant_BG92	Member	2016-2018
INDIVIDUAL AND COLLECTIVE PROTECTION SYSTEMS FOR THE ENTRY-BASED ALLOY MILITARY FIELD HIGH- HEAPROTECT Identification code: PN-III-P1-1.2-PCCDI-2017-0875	Member	2019-2020
International Workshop " From Biological Structures Inspiration to Robotic Structures"	Director	5-6 July 2012
Development of biomimetic design methodology with reverse engineering in cognitive recognition and control of biomimetic robots/ International Bilateral Project with Atilim University - Ankara – Turkey	member	2010-2011
Reverse Engineering in Cognitive Recognition And Control Of Biomimetics Structures, International Bilateral Project with Seoul National University	member	2010-2011
The knowledge of Universe: from reality to mental models. Program: Global perspective in Science and Spirituality Financed by John Templeton Foundation from USA, Partners: Elon University from USA; Universite Interdisciplinaire de Paris,	Local responsible in field	2006-2009
Memory: from individual to Society, from Quantum to Cosmos Program: METANEXUS GLOBAL NETWORK INITIATIVE Catalyst Grant Financed by John Templeton Foundation from USA	member	2009-2012
Modular adaptive orthopaedic implants based on smart materials –PNCDI Idei_92	director	2007-2010
The control and technological integration of the intelligent materials and structures CEEX –259–CITMSI, 2007, signed by CCMR- UCv,	Responsible in field	2006-2008
National technologic platform of spatial dynamics; CEEX- Stage III PC-D09-PT22-652, signed by National Institute of research and development for laser, plasma and radiation physics – INFLPR,	member	2005-2007
Parametric CAD/CAE system for simulation and analysis of the mechanical an kinematical characteristics of the human knee (CNCSIS)	director	2004-2005
Contribution on the analysis and synthesis of the mechanisms actuated by springs. No.14C/C12/1994. Contract signed with Education Ministry	director	1994

Grants in research-development of infrastructure - Structural Funds from EU

Program/Project	Responsibility	Period
Research Infrastructure for Applied Sciences –INCESA, University of Craiova	Head of Biomechanics Research Laboratory	2010-2015