-Lista de lucrari TARNITA DANIELA

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1 Teza de doctorat

Teza de doctorat cu titlul "***Contribuţii la analiza şi sinteza mecanismelor acţionate cu elemente elastice"***, susţinută in 8 iulie 1996, confirmată in septembrie 1996.

2. Activitate de inovare

2.1.Brevete de inventie:

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

5.Artificial hand-forearm system used for carrying out an upper human limb prosthesis
Patent Number: **RO128911-A2, 2017**
Inventor(s): BERCEANU, C.,*; **TARNITA D.**

6. Orthotic Device used for osteoarthritic knee
Patent Assignee: **Universitatea din Craiova,**
inventatori: Catana, M.,***, Tarnita Daniela,** Tarnita Danut Nicolae**, Brevet Nr 132075/ 30.09. 2019.**

7.Tuşaliu, P.,**Tarniţă, D**.,s.a.-**Dispozitiv pentru modelarea repartiţiei tensiunilor inalte pe lanţuri de izolatoare de clasă 750KV-Certificat de inovator nr.253,** Ministerul Ed. si Invăţământului, 30 sept., 1985.

8. Modular exoskeleton for applications in recovery of human lower limb, inventatori: Geonea Ionut, Daniela Tarnita, Patent No. 132701/20/10/2024

9. **Stem modular-adaptiv pentru proteza totala de sold, bazat pe materiale inteligente,** inventatori**: Danut Nicolae Tarnita, Daniela Tarnita, Brevet 132638** din 30.01.2025
10. Procedeu de obtinere a unor structure 3D pe baza de fosfat de calciu; Inventatori: Cursaru Laura Madalina, Chiriac Stefania, Piticescu Roxana-Mioara, Stanciu Paul, Dumitrescu Victoria-Gabriela, **Tarnita Daniela**, Brevet OSIM, **Nr 137275** din 30.05.2015.
11. Dispozitiv utilizat pentru osteosinteza și compactarea fracturilor oaselor lungi, inventatori: **Daniela Tarniță**, Danut Nicolae Tarniță, cerere înregistrată la OSIM cu numărul A00162 din 14.03.2019 – notificare finală de acordare a brevetului, din data de 17 aprilie 2025, brevet OSIM.

2.2. Aplicatii pentru brevete de inventie

1. **Centromedular elastic nail, made of metallic spheres centered on a central rod, used for osteosynthesis of diaphyseal fractures of long bones,** inventatori**: Tarnita Danut-Nicolae Tarnita Daniela, Popa Dragos Laurentiu, Vaduva Razvan Cristian, Petrovici Ilaria Lorena, Tenovivi Mihai,** cerere înregistrată la OSIM cu numărul A00233/2019 din 10.04. 2019.
2. **AUTOMATIC, MODULAR ARCHITECTURE, WITH COOPERATIVE FACILITIES,** Dan Andrițoiu, Horațiu Roibu, Lidia Băzăvan, Daniela Tarniță, Nicu George Bîzdoaca, cerere înregistrată la OSIM cu numărul A00174 / din 10.03. 2019.
3. **SMART FLUID BASED SPHERICAL ARTICULATION,** Vladu Ionel Cristian, Pană Cristiana Floriana, Stoian Viorel, Pătrașcu Pană Daniela Maria, Vladu Ileana, Grecu Dan Cristian, Daniela Tarniță, Nicu George Bîzdoacă, cerere înregistrată la OSIM cu numărul A00213 din 8.04. 2019.
4. **SMART FLUID BASED VARIABLE GEOMETRY WHEEL,** Pană Cristina Floriana, Vladu Ionel Cristian, Pătrașcu Pană Daniela Maria, Manta Liviu Florin, Cojocaru Dorian, Daniela Tarniță, Nicu George Bîzdoacă, cerere înregistrată la OSIM cu numărul A00212 din 8.04. 2019.
5. **Componenta femurala a unei endoproteze de sold, modular-adaptiva, utilizand o tija centrala, elastica pe care se insiruie mai multe sfere metalice si module constructive,** Tarniță Dănuț-Nicolae, Tarniță Daniela, Ciurea Marius, Rogoveanu Otilia Constantina, Dumitru Nicolae, Popa Dragos Laurențiu, Capitanescu Bogdan, Vaduva Razvan Cristian, Ontica Vladimir, Cerere de brevet înregistrată la OSIM cu numarul Nr A00104/26.02.2020

3. Carti publicate

3.1. Cărți publicate in edituri

1. **DANIELA TARNITA,** GRIGORIE LAURA, MALCIU RALUCA, **Mecanisme plane. Teorie si aplicatii, Ed. Universitaria, 2018 (280 pag).** ISBN 978-606-14-1435-2
2. **DANIELA TARNITA,** DUMITRU BOLCU**, Elemente de mecanica si Rezistenta materialelor, Ed. Universitaria**, Craiova, 2012. ISBN 978-606-14-0516-9
3. **DANIELA TARNITA, Elemente de inginerie mecanica si rezistenta materialelor Ed. Universitaria**, Craiova, 2012. ISBN 978-606-14-0394-3
4. **DANIELA TARNIȚĂ – Mecanisme actionate de arcuri. Metode pentru analiza si sinteza dinamica, Ed. Universitaria**, Craiova, 1998 (250 pag). ISBN:973-9271-29-4.
5. DUMITRU BOLCU, **DANIELA TARNITA, Metode de analiza cintetostatica a mecanismelor plane, Editura** Didactica si Pedagogica, Bucuresti, 2009 (220 pag), ISBN 973-30-1485-0

6. Bizdoaca N, **Tarnita Daniela, s.a., Controlul si integrarea tehnologica a materialelor si structurilor inteligente-I,** Edit. Universitaria**,** ISBN 978-973-742-7, 400 pag, 2009
7. Bizdoaca N, **Tarnita Daniela,s.a., Controlul si integrarea tehnologica a materialelor si structurilor inteligente-II,** Edit. Universitaria, ISBN 978-973-742-868-4, 304 pag, 2009
8. Bizdoaca N**, Tarnita Daniela, s.a., Controlul si integrarea tehnologica a materialelor si structurilor inteligente-IV,** Edit. Universitaria, ISBN 978-606-510-749-6, 252 pag, 2009
9. Bizdoaca N**, Tarnita Daniela, s.a, Controlul si integrarea tehnologica a materialelor si structurilor inteligente-V,** Edit. Universitaria**,** ISBN 978-606-510-748-9, 438 pag, 2009
10. **DANIELA TARNITA,** GRIGORIE LAURA, MALCIU RALUCA**, Mecanisme. Indrumar de laborator, Ed. Universitaria, 2017. (190 pag)** ISBN 978-606-14-1241-9
11. **DANIELA TARNITA,** DUMITRU BOLCU**, Metode de analiza cinematica a mecanismelor plane, Editura** Didactica si Pedagogica, Bucuresti, 2005, ISBN 973-30-1485-0 ((230 pag). ISBN 973-30-1485-0.
12. **DANIELA TARNIŢĂ – Statistica. Teorie si aplicatii.** Edit. Universitaria, Craiova, 2004. 460 pag., ISBN 973-8043-162-2
13. DUMITRU BOLCU**, DANIELA TARNIŢĂ- Elemente de calcul si modelare a structurilor compozite**, Edit. Universitaria, Craiova, 2001. (180 pag) ISBN 973-8043-162-2
14. **DANIELA TARNIŢĂ- Culegere de probleme–Rezistenta materialelor, Sitech Publishing House**, Craiova, 1999. ISBN 973-9346-86-3

3.2. Carti publicate in Reprografia Universitatii

1.**DANIELA TARNITA**- Statistica aplicata. Teorie si aplicatii, Reprografia Universitatii din Craiova, 1997

2**.DANIELA TARNIŢĂ - Mecanisme, Calculul şi construcţia mecanismelor acţionate cu elemente elastice, cu aplicaţii în electrotehnică**, Reprografia Univ. din Craiova, 1996 (200 pag)

3**.**EMIL CERNĂIANU**, DANIELA TARNIŢĂ**, A. CERNĂIANU **- Rezistenţa materialelor, vol.3., -Introducere in teoria calculului barelor cu pereţi subţiri solicitate la incovoiere şi răsucire**, Reprografia Universităţii din Craiova, 1995 (180 pag).

4**.**EMIL CERNĂIANU, **DANIELA TARNIŢĂ- Rezistenţa materialelor,** vol.2., ed. a II-a, Reprogr. Universităţii din Craiova, 1995 (370 pag).

3.3. Capitole de carti publicate in edituri internationale:

1. **Tarnita D.**, Tarnita D.N, Bolcu, D., **Orthopedic modular implants based on shape memory alloys**, chapter in **Biomedical Engineering – From Theory to Applications**, in **InTech Publishing House**, Viena ISBN: 978-953-307-283-8, 2011, pp.431-468,
2. **Daniela Tarnita,** C. Berceanu, **Comparison of Human and Artificial Finger Movements**, In **New Trends in Medical and Service Robots**, Mechanisms and Machine Science Volume 16, 2013, pp 221-235 editors: A.Rodic, Hannes Bleuler, Doina Pisla.
3. Bîzdoacă. N., **Tarniţă, Daniela**, et al., **Biomimetic approach to design and control mechatronics structure using smart materials**, chapter in "**Robotics, Automation and Control",** ISBN 978-953-7619-39-8, **InTech Publishing House, pp 431-465, Viena, 2009,**

3.4. Editor/coordonator cărți si Numere speciale jurnale

Editor al volumnului **Proceedings of The 8th International workshop "New Trends in Medical and Service Robots",** Springer, iunie, 2023 (42 articole, 370 pagini).

Editorul cartii **„Current Solutions in Mechanical Engineering"** (576 pagini) publicata in Trans Tech Publishing House, Elvetia, **Volume 823 of Applied Mechanics and Materials,** ISSN print 1660-9336, ISSN cd 1660-9336, ISSN web 1662-7482, 2016.

Editorul cartii**: Proceedings of First International Conference on Advanced Research in Engineering**, CARE 2020, Editura Universitaria, Craiova, 2021.

N. Dumitru, I. Dumitru, S. Crețu & **Daniela Tarniță -** Coordonatori Carte **"In Memoriam Prof. univ. Emerit Dr. Ing. Iulian Popescu, Membru titular al Academiei de Stiințe Tehnice din Romania",** Editura Universitaria, **Craiova,** ISBN- 978-606-14-2139-8 (147 pag)

Guest editor al numerelor de jurnale:

1. **Tarnita, D., Dumitru, N., Pisla, D., Paraschiv, G., Special Issue,** Vol.64, No.1- S2, 2021, ACTA Technica Napocensis, Applied Mathematics, Mechanics and Engineering
2. **Tarnita, D., Dumitru, N., Pisla, D., Paraschiv, G., Special Issue**, Vol.65, No.2, S2, 2022, ACTA Technica Napocensis, Applied Mathematics, Mechanics and Engineering
3. **Tarnita, D., Vol. 64,** No.3, 2022, The Romanian Journal of Technical Sciences. Applied Mechanics, publicat sub egida Academiei Romane.
4. **Tarnita, D**., Pisla, D., Dumitru, N., Carbone, G., Geonea, I., Special Issue, New Trends in Medical and Service Robots, jurnalul Machines (Q2), oct 2023.
5. Sorin V. Savu & **Daniela Tarniță** - Guest Editors Special Issue, Advanced Microwave Technology for Processing, *jurnalul Applied Sciences (Q2),* 2025

4. Lucrari stiintifice

(numele prevazute cu simbolul * sunt doctoranzii coordonati de subsemnata)

Peste 225 de articole publicate in jurnale WoS, proceedings-uri ale unor conferințe internaționale indexate Wos, SCOPUS si alte BDI, sau lucrări științifice susținute si/sau publicate in reviste naționale recunoscute CNCSIS, anale sau in volumele unor conferințe internaționale, in domeniile**:** Biomecanica, Robotica medicala, Analiza mersului uman, Design si optimizare de implanturi ortopedice, Utilizarea materialelor inteligente in designul protezelor si implanturilor ortopedice, Mecanisme acționate cu arcuri, dintre care**:**

4.1. Articole publicate in Jurnale WoS cu factor de impact

1. **TARNITA, D**. and CHIHAIA, C.E., 2025. **Study of stresses and vibrations of a virtual elbow orthosis model based on finite element analysis.** *ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING*, *68*(1 & 2), 373-380.
2. ONCESCU, TA, BOSTINA, St., VILCELEANU, MV., CHIHAIA, C., ALBU, CB., GEONEA, I., DUMITRU, I., and **TARNITA, Daniela**. **Analysis of seat to head transmissibility of vibrations for a tractor driver, on an uneven land, based on biometrics acquisition system.** *ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING* 68, no. 1 & 2 (2025), 239-246.
3. BERCEANU, C., CHIHAIA, C., MARGHITU, D.B. and **TARNITA, D**., 2025. **Human and robot finger kinematic analysis using wavelet theory.** *ACTA TECHNICA*

NAPOCENSIS-Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, *68*(1 & 2), 119-124.

4. C. CHIHAIA**, G MARINACHE**, E. ALBU, M TEODORESCU, **Daniela TARNITA*, Experimental evaluation of the effect of shoulder position on forearm pronation and supination, Acta Technica Napocensis,** Vol 68, No.1, 2025 , 157-164.
5. Iliuta, D., **Tarnita, D**., Mesina, M., Capitanescu, B., Zlatian, O. and Tarniță, D.N., 2025. **Research regarding the subjective improvement of knee joint function after treatment with hydrolysed collagen formulation**. **Balneo & PRM Research Journal**, *16*(2):818, Q3.
6. Daniel I., **Tarnita D.*,** Zlatian O., Rogoveanu O., Petcu A., Tarniță D.N. - **Influence of treatment with a hydrolyzed collagen formulation on the movements of the human knee with early-stage gonarthrosis** Balneo and PRM Research Journal 2025, 16(2): 527, Q3.
7. Savu, Sorin Vasile; **Tarniță, Daniela***; Stefan, Iulian; Benga, Gabriel Constantin; Savu, Ionel Danut; Sîrbu, Nicușor-Alin; Dumitru, Ilie; Ciungu, Marin Andretti; Ursu, Mihai; Cosma, Cristian, **Research on the Influence of the Defects of Materials on Thermal Runaway in Microwave Hybrid Heating for Sintering Processes**, Applied Sciences, 2025, 15(8), 4115 Q2
8. Oncescu, T.A., Persu, I.C., Bostina, S., Biris, S.S., Vilceleanu, M.V., Nenciu, F., Matache, M.G. and **Tarnita, D.,** 2025. **Comparative Analysis of Vibration Impact on Operator Safety for Diesel and Electric Agricultural Tractor**s. *AgriEngineering*, *7*(2), p.40. Q2
9. Geonea, I.; Copilusi, C.; Dumitru, S.; Margine, A.; Rosca, A.; **Tarnita, D***. A New Exoskeleton Prototype for Lower Limb Rehabilitation. *Machines* **2023**, *11*, 1000. https://doi.org/10.3390/machines11111000 **(Q2)**
10. Akhan, A.F., Zhao, J., **Tarnita, D.** and Marghitu, D.B., 2023. **Repeated Collision of a Planar Robotic Arm with a Surface Using Generalized Active Forces.** *Machines*, *11*(8), p.773. **(Q2)**
11. Savu, S.V., Ghelsingher, C.D., Stefan, I., Sîrbu, N.A., **Tarniță, D.**, Simion, D., Savu, I.D., Bucșe, I.G. and Țunescu, T., 2023. **Microwave Soldering of Low-Resistance Conductive Joints—Technical and Economic Aspects.** *Materials*, *16*(9), p.3311. **Q1**
12. Tohanean, N.; Tucan, P.; Vanta, O.-M.; Abrudan, C.; Pintea, S.; Gherman, B.; Burz, A.; Banica, A.; Vaida, C.; Neguran, D.A.; 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.** *J. Clin. Med.* **2023**, *12*, 425. https://doi.org/10.3390/jcm12020425 **Q1 IF=3.1**
13. **Tarnita, D.**, Geonea, I.D., Pisla, D., Carbone, G., Gherman, B., Tohanean, N., Tucan, P., Abrudan, C. and Tarnita, D.N., **Analysis of Dynamic Behavior of ParReEx Robot Used in Upper Limb Rehabilitation**. *Appl. Sci*. **2022**, **12**(15), 7907; https://doi.org/10.3390/app12157907 IF=2.838, **Q2**
14. Cursaru, L.M.; Iota, M.; Piticescu, R.M.; Tarnita, D.; Savu, S.V.; Savu, I.D.; Dumitrescu, G.; Popescu, D.; Hertzog, R.-G.; Calin, M. **Hydroxyapatite from Natural Sources for Medical Applications.** *Materials* **2022**, *15*, 5091. https://doi.org/10.3390/ma15155091, **Q1, IF=3.748**
15. Oncescu, AT.,* Persu, C., Dumitru, I., Prunoiu, **Tarnita, D., Influence of the road type on the whole body vibrations transmitted to the driver of an electric tractor.** Acta technica napocensis-series: applied mathematics, mechanics, and engineering, 65(2s), 387-392, 2022
16. **Tarniță, D.**, Marghitu, D., Petcu A.,* Oncescu, AT.,* Prunoiu, D.,* Tarniță, D.N., Tenovici, M. and Iliuta, D., **Experimental kinematics of human and artificial finger**, Acta technica napocensis-series: applied mathematics, mechanics, and engineering, 65(2S), 471-478, 2022.

17. ȘTEFAN, I., **TARNIȚĂ, D.,** BUCȘE, I.G., SAVU, I.D., SAVU, S.V., CURSARU, L.M. and PITICESCU, R.M., 2022. **Specific aspects in using seashell powder (rapana thomasiana) in elaboration of composites for medical purposes**. Acta technica napocensis-series: applied mathematics, mechanics, and engineering, 65(2S).
18. Geonea, I.D.; **Tarnita, D**.; Pisla, D.; Carbone, G.; Bolcu, A.; Tucan, P., Tarniță, D.N. **Dynamic Analysis of a Spherical Parallel Robot Used for Brachial Monoparesis Rehabilitation**. *Appl. Sci.* **2021**, *11*, 11849. https://doi.org/10.3390/app112411849 **IF=2.838 Q2**
19. Pisla, D.; **Tarnita, D**.; Tucan, P.; Tohanean, N.; Vaida, C.; Geonea, I.D.; et al., . A Parallel Robot with Torque Monitoring for Brachial Monoparesis Rehabilitation Tasks. *Appl. Sci.* **2021**, *11*, 9932. https://doi.org/10.3390/app11219932 **IF=2.838 Q2**
20. Savu, S.V.; Marin, R.C.; David, A.; Olei, A.B.; Dumitru, I.; **Tarnita, D.**; Maternova, A.; Savu, I.D. **Reducing NOx Emissions through Microwave Heating of Aftertreatment Systems for Sustainable Transport in the Inland Waterway Sector**. *Sustainability* **2022**, *14*, 4156. https://doi.org/10.3390/su14074156 **IF= 3.889 Q2**
21. Savu, S.V.; **Tarnita, D**.; Benga, G.C.; Dumitru, I.; Stefan, I.; Craciunoiu, N.; Olei, A.B.; Savu, I.D. **Microwave Technology Using Low Energy Concentrated Beam for Processing of Solid Waste Materials from *Rapana thomasiana* Seashells**. **Energies 2021**, **14**, 6780. https://doi.org/10.3390 /en14206780 **IF = 3.252**
22. Savu, I.D.; **Tarniță, D.**; Savu, S.V.; Benga, G.C.; Cursaru, L.-M.; Piticescu, R.M.; Tarniță, D.N. **Composite Polymer for Hybrid Activity Protective Panel in Microwave Generation of Composite Polytetrafluoroethylene - Rapana Thomasiana**. *Polymers* **2021**, *13*, 2432. https://doi.org/ 10.3390/polym13152432 **IF= 4.967 – Q1**
23. **D Tarniță**, A Petcu, N Dumitru, **Influences of treadmill speed and incline angle on the kinematics of the normal, osteoarthritic and prosthetic human knee**, *Rom J Morphol Embryol* 2020, 61(1):199–208, doi: 10.47162/RJME.61.1.22. **IF=1.033**
24. 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. **IF= 3.367 Q1**
25. Gherman, B., Birlescu, I., Plitea, N., Carbone, G., **Tarnita**, D., Pisla, D., **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. Q2 **IF= 1.294**
26. **Tarnita, D**., Pisla, D., Geonea, I., Vaida, C., I. **Tarnita D.N, Static and Dynamic Analysis of Osteoarthritic and Orthotic Human Knee**, J Bionic Eng (2019) 16(3), pp.514-525. https://doi.org/10.1007/s42235-019-0042-3 **IF=2.222, Q2**
27. **Tarnita, D.**, D-B Marghitu, Nonlinear dynamics of normal and osteoarthritic human knee, *Proceedings of the Romanian Academy*, pp. 353-360, 2017. **(IF=1,16), Q2**.
28. Geonea, I**., Tarnita, D.**, **Design and evaluation of a new exoskeleton for gait rehabilitation**, *Mechanical Sciences*, 8(2), pp 307-322. 2017 **(IF= 1,352, Q2)**
29. **Tarnita, Daniela,** Marghitu, D., **Analysis of a hand arm system**, Robotics and Computer-Integrated Manufacturing, Vol. 29, Issue 6, Pages 493–501, http://dx.doi.org/10.1016/j.rcim.2013.06.001, 2013. **IF=2.305 Q1**
30. **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, 2017, 58(3), pp.831-836* **(IF=0,912)**
31. **Tarnita, Daniela,** Wearable sensors used for human gait analysis, *Rom J Morphol Embryol* 2016, 57(2), pp 373-382 **(IF= 0.67)**
32. **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 **(IF=0.67)**
33. 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 **(IF=0.811).**

34. **Tarnita, D,** 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, http://www.rjme.ro/RJME/resources/files/ 540213309313.pdf. **(IF=0.723)**
35. **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, http://www.chalcogen.ro/35_ Tarnita.pdf. **(IF=0.945)**
36. **Tarnita, D.,** Tarnita, D.N., Tarnita, R., Berceanu, C.*, Cismaru, F.***, Modular adaptive bone plate connected by Nitinol staple**, Materialwissenschaft und Werkstofftechnik, Materials Science and Engineering Technology, Special Edition Biomaterials, Willey-Vch, Matwer 41, No.12, pp.1070-1080, DOI 10.1002/mawe .201000711, 2010, http://onlinelibrary.wiley.com/doi/10.1002 /mawe. 201000711/abstract**. (IF=0.43)**
37. **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, www.**joam**.inoe.ro/index.php. **(IF=0.429)**
38. **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, www.rev**materialeplastice**.ro**. (IF=0.824)**
39. **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, http://www.rjme.ro/ RJME/ resources/files/510110145150.pdf. **(IF=0.381).**
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5. Proiecte de cercetare dezvoltare

5.1. Contracte de cercetare caştigate prin competiţie la nivel internaţional

	Programul/Proiectul	Funcţia	Perioada
1	**Creation of New generation Titanium Diboride composite armour material** NATO Science for Peace and Security Programme (SPS), G5580 Partner: Georgian Technical University; 225000 Euro	Membru	2019-2022
2	**Reverse Engineering in Cognitive Recognition And Control of Biomimetics Structures**	Membru	2010-2011

	Capacităţi /Modul III – Cooperare bilaterală Nr ANCS 476/27.XI. 2009, Nr. UCv: 53C/19.XI.2009 Partea coreana: Seoul National University, Prof. Dr. Frank Chongwoo Park 2010:50966,68 Euro 2011:36531,14 Euro		
3	**Development of biomimetic design methodology with reverse engineering in cognitive recognition and control of biomimetic robots** Capacităţi /Modul III – Cooperare bilaterală**,** Nr ANCS 477/27.XI.2009, Nr. UCv: 54C/19.XI.2009 Partea turca: Atılım Üniversity, Ankara, Prof. Dr. Abdülkadir ERDEN 2010:17988 Euro 2011:17988 Euro	Membru	2010-2011
4	**Strainghting Basic and engineering science -capacities in South-Eastern Europe -map of excellence for physics and mathematics** contract 14 C/16.06.2010 2400 Euro	Membru	2009-2010
5	***Memory: from individual to Society, from Quantum to Cosmos,*** *Program:* METANEXUS GLOBAL NETWORK INITIATIVE Catalyst Grant, **Financed by John Templeton Foundation,** USA, 30000 USD Nr.42C/22 iun 2009	Responsabil tema	2009-2012
6	**The knowledge of Univers: from reality to mental models**. **Program**: **Global perspective in Science and Spirituality** **Financed by John Templeton Foundation from USA, Partners**: Elon University, USA; Universite Interdisciplinaire de Paris, France. ID:15655	**Responsabil local**	2006-2009

5.2. Contracte de cercetare câştigate prin competiţie la nivel naţional sau incheiate cu terti (agenti economici)

	Programul/Proiectul	**Funcţia**	**Perioada**
7	**Sistem robotic modular inovativ pentru recuperarea medicală a monoparezei brahiale,** 2019, PN-III-P2-2.1-PED-2019-3022, CO – Universitatea Tehnica din Cluj -Napoca Partener P1 - Universitatea din Craiova; Partener P2 - UMF Iuliu Hateganu, Cluj Napoca	**Responsabil P2-UCv**	2020-2022
8	**Produs nou fabricat prin imprimare 3D pe bază de extrudare din biodeseuri marine- Experimental model of a 3D product based on advanced materials with improved biomechanical properties, Acronym: 3D BIO PRO,** 2019, **PN-III-P2-2.1-PED-2019-3090** CO- Institutul national de cercetare - dezvoltare pentru metale neferoase si rare -INMR Bucuresti, Partener P1- Universitatea din Craiova; Partener P2- Unitatea militara 02433 Bucuresti	**Responsabil P1-UCv**	2020-2022
9	**Cercetări privind comportamentul biomecanic al mersului uman in urm tratamentului cu Muvon Plus**, Contract UCv No 8C/2021, cu Ascendis Wellnes SRL	**Director**	2021
10	**Evaluări biomecanice ale mersului uman pentru un eşantion de pacienţi trataţi cu Muvon Plus**, Contract UCv No 6C/2021, cu Ascendis Wellnes SRL	**Director**	2021
11	**SISTEME DE PROTECȚIE INDIVIDUALĂ ȘI COLECTIVĂ PENTRU DOMENIUL MILITAR PE BAZĂ DE ALIAJE CU ENTROPIE RIDICATA- HEAPROTECT** Cod identificare: PN-III-P1-1.2-PCCDI-2017-0875	Membru	2019-2020

	Contract: 20 PCCDI / 2018 ,		
12	**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,** contract cu Nr. 92 BG/2016, de tip PN-III-P2-2.1-BG-2016-0123,	Membru	2016-2018
13	**Implanturi ortopedice modular adaptive bazate pe materiale inteligente –PNCDI Idei_92 640 000 RON**	**Director**	2007-2010
14	International Exploratory Workshop **"From Biological Systems Inspiration to Robotic Structures",**	**Director**	2012
15	**Ingineria inversa in modelarea cognitiva si controlul structurilor biomimetice, PNCDI, Idei_289/2008**	Membru	2009-2011
16	**Sistem parametrizat CAD/CAE pentru determinarea prin simulare si analiza a caracteristicilor articulatiei cotului uman, in vederea optimizarii protezelor de cot, Contract Nr. 13335 DIN 12.12.2008** Incheiat cu S.C. Artego S.A,	Responsabil Stiintific	2009-2012
17	**Solutii optimizate de implanturi ortopedice**. Contract nr.743/18.07.2013 intre UMF Craiova si Sc. ARTEGO SA. Tg. Jiu.	Responsabil Stiintific	2013-2016
18	**Cercetari, studii, analize in vederea determinarii carcateristicilor unor componente ale echipamentelor electrice din fabricatia Cummins Generator Technologies,** Contract 3C/04.04.2016.	Membru	2016-2018
19	**Abordarea concurentiala a modularizarii sistemelor robotice,** Grant CNCSIS Cod 62/2007	Membru	2007-2008
20	**Cercetări privind determinarea unor caracteristici pentru sistemele de izolaţie ale generatoarelor electrice din fabricaţia CUMMINS GENERATOR TECHNOLOGIES.** Părţi contractante: CUMMINS GENERATOR TECHNOLOGIES, Craiova (beneficiar) şi Universitatea din Craiova (executant).Contract 9C/2012.	Membru	2012-2013
21	**Cercetări privind proprietăţile fizico-mecanice ale produselor din cauciuc şi modernizarea metodelor şi echipamentelor de încercare a acestora.** SC ARTEGO SA Tg. Jiu, (beneficiar) şi Universitatea din Craiova (executant). Contract 19C/2011	Membru	2011-2013
22	**Cercetări privind analiza conţinutului de gaze dizolvate în uleiurile industriale din transformatoarele de mare putere la care HIDROSERV SLATINA SA asigură mentenanţa.**HIDROSERV SLATINA SA, Slatina (beneficiar) şi Universitatea din Craiova, Contract 10C/29.06.2012.	Membru	2012
23	**Controlul si Integrarea Tehnologica a Materialelor si Structurilor Inteligente CEEX –259–CITMSI**, 2007, incheiat de CCMR- UCv,	Responsabil dept.Biomecatronica	2006-2008
24	**Platforma tehnologică naţională de dinamică spaţială; CEEX-Etapa a III-a** PC-D09-PT22-652, incheiat de Institutul national de cercetare dezvoltare pentru fizica laserilor, plasmei si radiatiei – INFLPR,	Membru	2005-2007
25	**Contribuţii la analiza şi sinteza mecanismelor acţionate cu arcuri** Nr.14C/C12/1994. Contract cu Ministerul Educatiei si Invatamantului,	**Director**	1994
26	**Introducerea tehnicii de calcul în proiectarea echipamentelor electroenergetice** (Contract cu ANSTI), Nr.663/1996, act adiţional 333/1999, faza III -Analiza modal-dinamică a angrenajelor, Coord. Conf.dr. ing.D. Nicolae, membru, 1996.	Membru	1996
27	**Sistem parametrizat CAD/CAE pentru determinarea prin**	**Director**	2004-2006

	simulare si analiza a caracteristicilor mecanice si cinematice ale genunchiului uman in vederea protezarii, Director Grant CNCSIS, cod CNCSIS 282,		
28	**Calculul cinematic şi cinetostatic al mecanismelor de la linia de îmbuteliere la S.C. EXALCOM SRL.** Nr. 11 /2000. Valoare: 3.000.000 lei. Încheiat cu S.C. EXALCOM SRL	**Director**	2000
29	**Dispozitiv automat de protecţie a motoarelor electrice trifazate**.Nr.822/1988; Finalizare în 1989; Coord: Conf.dr.ing. Dan Nicolae; Încheiat cu Trustul de Antrepriză Generală de Construcţii Industriale Craiova.	Membru	1988-1989

6. Proiecte Erasmus +

	Programul/Proiectul	**Funcţia**	**Perioada**
1	Logistics Technologist (LOT) – new harmonized qualification to unify, regulate and optimize in an innovative concept the disparate logistics activities from a fabrication system - **LOGIN, Erasmus+**, ANP_CD- EFPComisia europeana, Cod identificare: 2018-1-RO01-KA202-049371	Membru	2018-2020
2	**DTP-SMF1-95** Transnational Cooperation in Higher Education in the Danube Region, programul **Danube-INTERREG**, acronim EDUMARKT,	Membru	2018-2019
3	Logistics Master Degree to set specialists for Supply Chain Management and Logistics KA Cooperation Partnerships for Higher Education, Comisia europeana, prin ANPCDEFP Nr. Proiect 2022-1-RO01-KA220-HED-000088037 Universita Cattolica del Sacro Cuore (Franco Anelli) European Logistics Association (Markus Mau) University of Heilbronn (Oliver Lenzen) University of Applied Sciences of Upper Austria (Gerald Reisinger) Budapest University of Technology and Economics (Tibor CZIGANY) Asociatia Romana de Logistica (Paul Nita) Universidade de Lisboa (Luís Manuel dos Anjos FERREIRA)		2022-2025
4	**Digital Manufacturing Master Degree - to set specialists for the dawn of the Industry 4.0 DIGIMAN,** Strategic Partnerships, Key Action 2 **PR. NUMBER – 2019-1-RO01-KA203-063486, ERASMUS +,** Partners: **UNIVERSITATEA DIN CRAIOVA** HOCHSCHULE HEILBRONN UNIVERSIDADE DE LISBOA AUGMENTED TRAINING SERVICES, S.L. UNIVERSITATEA TEHNICA CLUJ-NAPOCA BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM EUROPEAN FEDERATION FOR WELDING JOINING AND CUTTING	Membru	2019-2022
5	**DIGITAL TRAINIG TOOLS IN STEEL STRUCTURE INTEGRITY** (acronim ALLIES) Erasmus+ KA220-HED Acțiunea cheie 2 - Parteneriate pentru cooperare pe domeniul formare	Membru	2022-2024

	profesională - Parteneriate de cooperare KA220 **2021-1-RO01-KA220-HED-000032181** **Partners:** AUGMENTED TRAINING SERVICES S.L. UNIVERSIDADE DE LISBOA EUROPEAN FEDERATION FOR WELDING JOINING AND CUTTING POLITECNICO DI BARI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM ITALIANO DELLA SALDATURA – ENTE MORALE		
6	ITitlu**: Improved workforce to set transition from manufacturing to digital green fabrication** Acronim: **DIGIGREEN** Acțiunea cheie 2 - Parteneriate pentru cooperare pe domeniul formare profesională - Parteneriate de cooperare KA220 Project number: **2021-1-RO01-KA220-VET-000028028** **Parteneri:** Universitatea din Craiova European Federation for Welding Joining and Cutting University of Lisbon University of Ljubljana Asociația de Sudură din România Danmar Computer SP Z.O.O.	Membru	2022-2023
7	**Academic Network for Green and Innovative Europe** **Program ERASMUS +, KA220-HED** **2023-1-RO01-KA220-HED-000158031** ACEEU GmbH () UNIVERSIDADE DE LISBOA () UNIVERZA V LJUBLJANI () ZILINSKA UNIVERZITA V ZILINE () POLITECNICO DI BARI () UNIVERSIDAD DE MALAGA () FH OO FORSCHUNGS & ENTWICKLUNGS GMBH () UNIVERSITATEA BABES BOLYAI ()	Membru	2023-2026

Proiect POSDRU ID 62485

Sistem de formare și evaluare centrat pe student, online, la discipline fundamentale de licență și masterat din invățământul superior tehnic,
Universitatea POLITEHNICA din București, Universitatea Tehnică din Cluj-Napoca,
Universitatea Tehnică "Gheorghe Asachi" din Iași, Universitatea din Craiova
Proiect strategic cofinantat din Fondul Social European,
Programul Operațional Sectorial pentru Dezvoltarea Resurselor Umane 2007-2013
Axa prioritară 1 "Educația și formarea profesională în sprijinul creșterii economice și dezvoltării societății bazate pe cunoaștere"
Domeniul major de intervenție 1.2 "Calitate în învățământul superior"
-Expert in domeniul Mecanica.

Oct. 2025