

FIȘA DE VERIFICARE

a îndeplinirii standardelor minime naționale pentru conferențiar universitar/ cercetător științific II

Candidat: **CÂRLESCU E. VLAD** / Data nașterii: 29.12.1983.

Funcția actuală: **CONFERENȚIAR**, Data numirii în funcția actuală: 09.02.2024

Instituția: **UNIVERSITATEA TEHNICĂ "GHEORGHE ASACHI" DIN IAȘI**

STANDARDE MINIMALE NAȚIONALE NECESARE ȘI OBLIGATORII PENTRU CONFERIREA TITLULUI DE CONFERENȚIAR ÎN ÎNVĂȚĂMÂNTUL SUPERIOR (Ordin MEC nr. 3.019/13.01.2025 publicat în Monitorul Oficial Nr.121/11.02.2025)

COMISIA 17. INGINERIE MECANICĂ , MECATRONICĂ ȘI ROBOTICĂ ȘI INGINERIE GENISTICĂ ȘI DE ARMAMENT

Nr. crt.	Criterii și condiții	Indicatori
1	Manuale/cărți suport de curs, asociate disciplinelor din postul scos la concurs, de minim 100 pagini – coordonator/prim autor (format tipărit sau electronic disponibil pe platforma universității)	1
2	Publicații (culegeri de probleme, îndrumare de proiectare și/sau laborator în format tipărit sau electronic disponibile pe platforma universității), echipamente didactice și/sau aplicații informatice pentru activități practice asociate disciplinelor din postul scos la concurs	3
3	Număr de lucrări în jurnale Web of Science (J _{WOS}), cu factor de impact $FI \geq 1$, din care în jurnale Q1 și/sau Q2 ¹ după factorul de impact (J _{TOP})	J _{WOS} – min 4 J _{TOP} – min 1
4	Număr de lucrări ca autor principal ² în publicații indexate (Web of Science, SCOPUS, IEEE Xplore), J _{PRI}	J _{PRI} – min 8
5	Număr cumulat de citări Web of Science sau SCOPUS ale publicațiilor (luate în calcul o singură dată), fără autocitări, N _C	N _C – min 30
6	Atragerea de resurse financiare prin participarea candidatului la granturi/ proiecte/ contracte cu terți de cercetare științifică și dezvoltare tehnologică, echivalent a 20 mii euro în total (cu dovada încasării de către instituția gazdă a proiectului ³), N _{INC} =1 pentru 10 mii euro. Numărul de granturi/ proiecte/ contracte cu terți câștigate prin competiție/ licitație națională/ internațională să fie director sau responsabil partener, N _{GC}	N _{INC} – min 2 N _{GC} – min 1
7	Lucrări publicate (Web of Science, SCOPUS, IEEE Xplore), cărți, tratate, monografii sau brevete acordate, selectate de către candidat, calificate de către comisia de evaluare ca fiind reprezentative pentru domeniul postului scos la concurs, L _R	L _R – min 5
8	Membru în comisiile de îndrumare sau de evaluare a tezelor de doctorat, C _{IE}	C _{IE} – min 1

Note:

¹ Se poate echivala doar o lucrare Q1 și/sau Q2 cu un brevet de invenție internațional/ național acordat. Brevetele se includ în dosarul de concurs. Quartila Q1 sau Q2 se consideră la data publicării articolului sau la data înregistrării dosarului de concurs, în funcție de cum este mai avantajos pentru candidat, cu menționarea numărului de identificare WOS.

² Prin autor principal se înțelege prim-autor sau autor corespondent.

³ Se consideră cursul mediu anual al BNR Pentru anul de derulare a proiectului.

Detaliile criteriilor privind îndeplinirea standardelor minime naționale pentru conferirea titlului didactic de Conferențiar universitar

Nr. crt.	Rezultatele activităților	Indicatori
1	Manuale/cărți suport de curs, asociate disciplinelor din postul scos la concurs, de minim 100 pagini – coordonator/prim autor (format tipărit sau electronic disponibil pe platforma universității)	3
	Vlad Cârlescu, <i>Bionica. Soluții ingineresti inspirate din natură</i> , Editura Universității Tehnice "Gheorghe Asachi" din Iași, 2023, 138 pag., ISBN 978-973-621-536-0	
	Gheorghe Prisăcaru, Vlad Cârlescu, Dumitru Olaru, <i>Actuatori neconvenționali în mecatronică. Principii de funcționare. Aplicații</i> , Editura Tehnopress, Iași, 2014, 180 pag., ISBN 973-702-142-8	
	Vlad Cârlescu, Suport de curs - pentru disciplina Bionică, master anul I, programul de studii Mecatronică Avansată (disponibil pe web), 2024, 117 pagini, https://mec.tuiasi.ro/wp-content/uploads/2024/01/Bionica_note-de-curs_Master_MCTA.pdf	
2	Publicații (culegeri de probleme, îndrumare de proiectare și/sau laborator în format tipărit sau electronic disponibile pe platforma universității), echipamente didactice și/sau aplicații informatice pentru activități practice asociate disciplinelor din postul scos la concurs	11
	Vlad Cârlescu, <i>Tribologie. Probleme rezolvate</i> , Editura Universității Tehnice "Gheorghe Asachi" din Iași, 2023, 132 pag., ISBN 978-973-621-534-6	
	Vlad Cârlescu, Prezentare Suport de curs - pentru disciplina Bionică, master anul I, programul de studii Mecatronică Avansată (disponibil pe web), 2024, 61 pagini https://mec.tuiasi.ro/wp-content/uploads/2024/01/Bionica_Master_MCTA_ppt.pdf	
	Transmisii prin lanțuri. Elemente generale de montare, întreținere și exploatare. Calculul elementelor geometrice. Determinarea turațiilor, momentelor de torsiune și puterilor. <i>Lucrare de laborator cu instalație experimentală pe stand FESTO la disciplina Organe de Mașini 1, anul II</i>	
	Transmisii prin lanțuri. Cinematica și dinamica transmisiilor prin lanțuri articulate cu role, bucle și bolțuri. Influența pretensionării lanțului asupra parametrilor de funcționare a transmisiei. <i>Lucrare de laborator cu instalație experimentală pe stand FESTO la disciplina Organe de Mașini 1, anul II</i>	
	Determinarea modului de elasticitate al pielii umane prin metoda indentării folosind echipamentul Tribometrul UMT-2. <i>Lucrare de laborator la disciplina Bionică, master anul I</i>	
	Determinarea coeficientului de frecare la nivelul pielii umane în contact cu diverse materiale sau suprafețe folosind echipamentul Tribometrul UMT-2. <i>Lucrare de laborator la disciplina Bionică, master anul I</i>	
	Testarea la frecare a unor polimeri folosind echipamentul Tribometrul UMT-2 pentru utilizarea lor ca piele artificială în structuri bionice. <i>Lucrare de laborator la disciplina Bionică, master anul I</i>	
	Evaluarea capacității de acțiune a elastomerilor stimulați în câmp electric, <i>Lucrare de laborator la disciplina Actuatori Neconvenționali, master anul I</i>	
	Testarea senzorilor de presiune pe echipamentul Tribometrul UMT-2, <i>Lucrare de laborator la disciplina Actuatori Neconvenționali, master anul I</i>	

	Modelarea răspunsurilor elastomerilor stimulați în câmp electric prin metoda identificării caracteristicilor de sistem folosind Matlab, <i>Lucrare de Laborator la disciplina Actuatori Neconvenționali, master anul I</i>	
	Proiectarea unui cric auto cu pârgă - Program de calcul numeric în Matlab, <i>Proiect la disciplina Organe de Mașini 1, anul II</i>	
	Simularea la impact a unui senzor capacitiv prin metoda elementelor finite în ANSYS Workbench, <i>Lucrare de laborator la disciplina Actuatori Neconvenționali, master anul I</i>	
	Număr de lucrări în jurnale Web of Science (J_{WOS}), cu factor de impact FI≥1, din care în jurnale Q1 și/sau Q2¹ după factorul de impact (J_{TOP})	J _{WOS} – 11 J _{TOP} – 7
3	1. Alina Corina Dumitrascu, Denis Cojocaru, Vlad Cârlescu, Andrei Zaharia and Dumitru Olaru, Influence of the Cage on the Friction Torque in Miniature Angular Contact Ball Bearings, Lubricants 2026, 14, 145 (WOS:001750708100001) FI=3,6 (2025) – Q2 https://doi.org/10.3390/lubricants14040145 2. Denis Cojocaru, Gelu Ianus, Vlad Cârlescu, Bogdan Chiriac and Dumitru Olaru, Grease Film Behavior in Ball Bearings, Lubricants 2025, 13, 429 (WOS:001603035900001) IF=3,6 (2025) – Q2 https://doi.org/10.3390/lubricants13100429 3. Sergiu Gabriel Pal, Viorel Goanta, Ciprian Ionut Moraras and Vlad Carlescu, Mechanical Behavior Analysis of Polypropylene-Based Composites and a Photopolymer Resin via Tensile and Scratch Testing, Polymers 2025, 17(16), 2180 (WOS:001557502200001) FI=5,8 (2025) – Q1 https://doi.org/10.3390/polym17162180 4. Denis Cojocaru, Gelu Ianus, Vlad Cârlescu, Bogdan Chiriac and Dumitru Olaru, Friction Torque in Miniature Ball Bearings, Lubricants 2025, 13,12 (WOS:001406656900001) FI=3,6 (2025) – Q2 https://doi.org/10.3390/lubricants13010012 5. Răzvan Constantin Brânzan, Ionut, Tărăboantă, Cristina Angela Ghiorghe, Simona Stoleriu, Vlad Cârlescu, Andra Claudia Tărăboantă-Gamen and Sorin Andrian, Evaluation of the Mechanical Properties of Different Dental Resin-Based Materials After Submersion in Acidic Beverages, Dentistry Journal 2025, 13, 4 (WOS:001405980500001) FI=3,4 (2025) – Q1 https://doi.org/10.3390/dj13010004 6. V. Bulbuc, V. Paleu, B. Pricop, M. Popa, V. Carlescu, N. Cimpoesu, and L.G. Bujoreanu, Effects of Dynamic Loading under Extreme Conditions on Wear Resistance of T105Mn120 Castings for Railway Safety Systems, Journal of Materials Engineering and Performance 30:7128-7137 (2021) (WOS:000678009000002) FI=2,036 (2021) – Q3 https://doi.org/10.1007/s11665-021-05837-7 7. CRISTINA-ANGELA GHIORGHE, VLAD CARLESCU, CLAUDIU TOPOLICEANU, IRINA NICA, GALINA PANCU, GIANINA IOVAN, SORIN ANDRIAN, COSTIN LUPU, Microhardness Investigation of Dental Composite Resins Exposed to Corrosive Environment, MATERIALE PLASTICE 56 No. 2, 2019, 434-439 (WOS:000476641000029) FI=1,517 (2019) – Q4 http://www.revmaterialeplastice.ro/article_eng.asp?ID=5202 9. Dumitru N. Olaru, Mihaela Rodica D. Bălan, Ana Tufescu, Vlad Cârlescu, Gheorghe Prisăcaru, <i>Influence of the cage on the friction torque in low loaded thrust ball bearings operating in lubricated conditions</i>, TRIBOLOGY INTERNATIONAL 107 (2017) pp. 294–305 (WOS:000393008000032) FI=3,246 (2017) – Q1 https://doi.org/10.1016/j.triboint.2016.11.042 10. CRISTINA ANGELA GHIORGHE, GIANINA IOVAN, VLAD CARLESCU, BOGDAN ISTRATE, GALINA PANCU, SORIN ANDRIAN, Comparative Evaluation of Hardness and Elasticity Modulus of Tooth-Colored Materials for Dental Restoration, REVISTA DE CHIMIE, Vol. 68, Issue 11, November 2017, pp 2623-2627 (WOS:000416751800033) FI=1,412 (2017) – Q3 11. Vlad Cârlescu, Dumitru N. Olaru, Gheorghe Prisăcaru, Cezar Opreșan and José Machado, Sensors and Actuators on Determining Parameters for Being Considered in Selection of Elastomers for Biomimetic Hands, SENSORS 2017, 17, 1190, 15 pg. (WOS:000404553900006) FI=2,465 (2017) – Q2 https://doi.org/10.3390/s17061190	
4	Număr de lucrări ca autor principal² în publicații indexate (Web of Science, SCOPUS, IEEE Xplore), J_{PRI} 1. Cârlescu, V., Ciobanu, C.G., Olaru, D. (2026). Study of Finger Skin Deformation and Friction in Contact with Smooth Glass Surface. In: Machado, J., Trojanowska, J., Ottaviano, E., Xavior, M., Valášek, P., Basova, Y. (eds), 5th International Conference on Innovation in Engineering (ICIE 2026), Lecture Notes in Mechanical Engineering, pp. 337 – 347, Springer, Cham. https://doi.org/10.1007/978-3-032-30628-9_29 2. Cârlescu Vlad, Tufescu Ana, Chiriac Bogdan, Gavril Cezara-Măriuca, Modelling of Static and Kinetic Friction Coefficient in Stick-Slip Motion, In: Machado J., Trojanowska J., Ottaviano E., Xavior M.A., Valášek P., Basova Y. (eds.) 4th International Conference Innovation in Engineering,	J _{PRI} – 14

	ICIE 2025, 18 June 2025 - 20 June 2025, Prague, Lecture Notes in Mechanical Engineering IV, pp. 329-401; https://doi.org/10.1007/978-3-031-93554-1_35	
	3. Cârlescu V., Opreșan C.M., Chiriac B., Ianuș G., Olaru D.N., Influence of Hand Sanitisers on the Friction Properties of the Finger Skin Amid the COVID-19 Pandemic, 1st International Conference on Innovation in Engineering, ICIE 2021 Guimarães 28 June 2021 through 30 June 2021, In: Innovation in Mechanical Engineering, Lecture Notes in Mechanical Engineering Pages 420 – 428 (2022) (WOS:000773476600039) https://doi.org/10.1007/978-3-030-79165-0_39	
	4. Vlad Cârlescu, Dumitru N. Olaru, Gheorghe Prisăcaru, Cezar Opreșan and José Machado, Sensors and Actuators on Determining Parameters for Being Considered in Selection of Elastomers for Biomimetic Hands, SENSORS 2017, 17, 1190, 15 pg. (WOS:000404553900006) https://doi.org/10.3390/s17061190	
	5. V Cârlescu, G Prisăcaru and D Olaru, Electromechanical response of silicone dielectric elastomers, IOP Conf. Series: Materials Science and Engineering 147 (1), 2016, 012057 (WOS:000390720200057) DOI 10.1088/1757-899X/147/1/012057	
	6. Vlad Cârlescu, Florin Breabăn, Gheorghe Prisăcaru, Gelu Ianuș, Maria Cazacu, Electromechanical Strain Response of PDMS/TiO ₂ /SiO ₂ at Variable Electric Fields, MATERIALE PLASTICE 50, No. 2, 2013, pp. 141-145 (WOS:000320842600016)	
	7. Vlad Cârlescu, Florin Breabăn, Dumitru Olaru, Gheorghe Prisăcaru, Comparative Study of Electromechanical Response in Some Dielectric Elastomers, Journal of Optoelectronics and Advanced Materials, Vol. 13, No. 8, August 2011, pp. 986-991 (WOS:000294887100049)	
	8. Vlad Cârlescu, Dumitru Olaru, Gheorghe Prisăcaru, Maria Cazacu, Transverse strain response measurements of some dielectric elastomer polymers, Proceedings of the 15 th International Conference Modern Technologies, Quality and Innovation – ModTech 2011 – New face of TMCR, 25-27 May 2011, Vadul lui Vodă – Chișinău, Republic of Moldova, pp. 177-180 (WOS:000392260500045)	
	9. Vlad Cârlescu, Florin Breabăn, Dumitru Olaru, Gheorghe Prisăcaru, A Technique for Dynamic Characterization of Dielectric Elastomers, Proceedings of 2 nd International Conference on Innovations, Recent Trends and Challenges in Mechatronics, Mechanical Engineering and New High-Tech Products Development (MECAHITECH'10), SEP 23-24, 2010, pp. 398-400 (WOS:000406710800065)	
	10. V Cârlescu, C M Opreșan, G Ianuș and D N Olaru, Evaluation of friction behaviour on human finger skin considering precision grip task, IOP Conf. Series: Materials Science and Engineering 997 (2020) 012007 DOI:10.1088/1757-899X/997/1/012007	
	11. Cârlescu V., Olaru D.N., Prisăcaru G., Opreșan C., Știrbu R.Ș., Machado J., Influence of the Indentation Speed on Viscoelastic Behavior of the Human Finger, In: Machado J., Soares F., Veiga G. (eds) Innovation, Engineering and Entrepreneurship HELIX 2018, Lecture Notes in Electrical Engineering, vol 505., 2019, pp. 143–150, Springer, Cham https://doi.org/10.1007/978-3-319-91334-6_20	
	12. Vlad Cârlescu, Mihai Adrian Rusu, Gheorghe Prisăcaru, Emanuel Miron, José Machado and Dumitru Olaru, Behavior of the Elastomers Used in Prehension Systems for Small Cylindrical Objects, CONTROL 2016, Lecture Notes in Electrical Engineering 402 (2017), 495-505 DOI 10.1007/978-3-319-43671-5_42	
	13. CARLESCU Vlad, PRISACARU Gheorghe and OLARU N. Dumitru, FEM Simulation on Uniaxial Tension of Hyperelastic Elastomers, Applied Mechanics and Materials Vol. 659 (2014) pp. 57-62 DOI 10.4028/www.scientific.net/AMM.659.57	
	14. Vlad Cârlescu, Petru Marian Cârlescu, Dumitru Olaru, Gheorghe Prisăcaru, Modeling and Simulation of The Electromechanical Response in Planar Electroactive Polymer Actuators, The Romanian Review Precision Mechanics, Optics & Mechatronics 2011, No. 40, 209-212; ISSN 1584-5982	
5	Număr cumulat de citări Web of Science sau SCOPUS ale publicațiilor (luate în calcul o singură dată), fără autocitări, N_c <u>Articol citat:</u> Vlad Cârlescu, Florin Breabăn, Dumitru Olaru, Gheorghe Prisăcaru, <i>Comparative Study of Electromechanical Response in Some Dielectric Elastomers</i> , JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, Vol. 13, No. 8, August 2011, pp. 986-991. <u>Citări: 1</u> 1. Gustavo Coelho Rezende, Brendan O'Flynn, and Conor O'Mahony, Smart Compression Therapy Devices for Treatment of Venous Leg Ulcers: A Review, Adv. Healthcare Mater. 2022, 11(17), 2200710, IF=10 (2022) https://doi.org/10.1002/adhm.202200710 <u>Articol citat:</u> C Opreșan, V Cârlescu, A Barnea, Gh Prisăcaru, D N Olaru and Gh Plesu, Experimental determination of the Young's modulus for the fingers	N _c - 78

with application in prehension systems for small cylindrical objects, IOP Conf. Series: Materials Science and Engineering 147(1), 2016, 012058 <i>Citări: 13</i> 1. Pengcheng Zhao, Yuguo Li, Modeling and Experimental Validation of Microbial Transfer via Surface Touch, Environmental Science & Technology, Vol. 55 (2021), Issue7, 4148-4161, IF=11.357 (2021) https://dx.doi.org/10.1021/acs.est.0c04678 2. Bo-Gyu Bok, Jin-Seok Jang and Min-Seok Kim, Texture Identification of Objects Using a Robot Fingertip Module with Multimodal Tactile Sensing Capability, Applied Sciences-Basel 2021, 11(11), 5256, IF=2.838 (2021) https://doi.org/10.3390/app11115256 3. Maurice D. Walker, Jack C. Vincent, Lee Benson, Corinne A. Stone, Guy Harris, Rachael E. Ambler, Pat Watts, Tom Slatter, Martín López-García, Marco-Felipe King, Catherine J. Noakes and Richard J. Thomas, Effect of Relative Humidity on Transfer of Aerosol-Deposited Artificial and Human Saliva from Surfaces to Artificial Finger-Pads, Viruses-Basel 2022, 14(5), 1048. IF=4,7 (2022) https://doi.org/10.3390/v14051048 4. Bingxu Li and Gregory Gerling, An individual's skin stiffness predicts their tactile discrimination of compliance, J Physiol-London 601.24 (2023) pp 5777–5794. DOI: 10.1113/JP285271 IF=4,7 (2023) 5. Parmis Karimpour, Redjan Ferizoli, James M. May and Panicos A. Kyriacou, Customisable Silicone Vessels and Tissue Phantoms for In Vitro Photoplethysmography Investigations into Cardiovascular Disease, Sensors 2024, 24, 1681. IF=3,5 (2024) https://doi.org/10.3390/s24051681 6. Etienne Louyot, Luc Carpentier, Eric Chatelet, Francesco Massi, Pierre-Henri Cornuault, Influence of the finger inclination on its frictional interaction with micro-textured surfaces, Tribology International 197 (2024) 109815, 12 pg. IF=6,9 (2024) https://doi.org/10.1016/j.triboint.2024.109815 7. ANDRES J. RODRIGUEZ, SANDHYA VASUDEVAN, MASOUD FARAHMAND, SANDY WEININGER, WILLIAM C. VOGT, CHRISTOPHER G. SCULLY, JESSICA RAMELLA-ROMAN, AND T. JOSHUA PFEFER, Tissue mimicking materials and finger phantom design for pulse oximetry, Vol. 15, No. 4/1 Apr 2024/ Biomedical Optics Express 2308-2327, IF=3,2 (2024), https://doi.org/10.1364/BOE.518967 8. Juyeong Lee, Haechan Park, Sehyun Kim, Chang Liu, Zhengwei Li, Kyoseung Sim, Irreproducible SEBS wrinkling based on spin evaporation enabling identifiable artificial finger pad electronics, Nature Communications (2025) 16:2225. IF=18,1 (2025) https://doi.org/10.1038/s41467-025-57498-y 9. Xia Wu, Pengfei Xu, Zefang Zhang, Qi Yang, Xi Huang, Peng Pan, and Xinyu Liu, Ultrasoft Iontronics: Stretchable Diodes Enabled by Ionically Conductive Bottlebrush Elastomers, Adv. Funct. Mater. 2025, 2503859. IF=19,9 (2024), https://doi.org/10.1002/adfm.202503859 10. Winston, Crystal E.; Choi, Hojung; Jitosho, Rianna; Zhakypov, Zhenishbek; Palmer, Jasmin E.; Cutkosky, Mark R.; Okamura, Allison M., Fourigami: A 4-Degree-of-Freedom, Force-Controlled, Origami, Finger Pad Haptic Device, IEEE Transactions on Robotics, Vol. 41 (2025), 4829 – 4842. IF=11,1 (2025), DOI: 10.1109/TRO.2025.3593084 11. Tapie, P., Scatamburlo, D. Barreiros, Chateauminois, A., Wandersman, E., Soft cavity model for touch mechanoreceptors under static and sliding contact, PHYSICAL REVIEW E 112 (3), 034407, sept 2025. IF=2,5 (2025) DOI: 10.1103/ybvc-jvhn 12. Eunsuk Choi, Hyeonjeong Sun, Seungmin Choi, Seungjae Lee, Yeoeun Yun, Kyubin Hwang and Seung-Beck Lee, Self-contained hybrid electrostatic-pneumatic actuator for portable haptic applications, Sensors and Actuators A-Physical, 396, art. no. 117202 (2025). IF=5.1 (2025) https://doi.org/10.1016/j.sna.2025.117202 13. Hanul Kim, Hyukju Go, Jinsu Yoon, Yeeun Jeong, Yongtaek Hong, A Structurally Decoupled Single-Layer Soft Electronic Skin for Fast, Reliable, and Simultaneous Temperature–Pressure Sensing, Applications of Polymer, Composite, and Coating Materials, ACS Applied Materials and Interfaces 18(16), pp. 23591-23601, 2026. IF=7,8 (2025) https://doi.org/10.1021/acsami.6c00491	
<i>Articol citat:</i> Dumitru N. Olaru, Mihaela Rodica D. Bălan, Ana Tufescu, Vlad Cârlescu, Gheorghe Prisacaru, Influence of the cage on the friction torque in low loaded thrust ball bearings operating in lubricated conditions, TRIBOLOGY INTERNATIONAL 107 (2017) 294–305 <i>Citări: 11</i> 1. V Bhardwaj, R K Pandey and V K Agarwal, Experimental exploration for the performance improvement of a thrust ball bearing using circumferential micro-grooved races, Surface Topography - Metrology and Properties 9(3) 2021, IF=2.185 (2021), DOI: 10.1088/2051-672X/ac1917	

2. Shuai Gao, Qinkai Han, Ningning Zhou, Paolo Pennacchi, Fulei Chu, Stability and skidding behavior of spacecraft porous oil-containing polyimide cages based on high-speed photography technology, Tribology International 165 (2022) 107294, IF=6.2 (2022), https://doi.org/10.1016/j.triboint.2021.107294 3. P.L. Wu, C.L. He, Z. Chang, X.L. Li, Z.Y. Ren, D.Y. Li, C.Z. Ren, Theoretical calculation models and measurement of friction torque for rolling bearings: state of the art, Journal of the Brazilian Society of Mechanical Sciences and Engineering (2022) 44: 435, IF=2.2 (2022) https://doi.org/10.1007/s40430-022-03726-1 4. Changrui Chen, Zhongmin Deng, Hong Wang and Tian He, Simulation of Friction Fault of Lightly Loaded Flywheel Bearing Cage and Its Fault Characteristics, SENSORS 2022, 22, 8346, IF=3.9 (2022) https://doi.org/10.3390/s22218346 5. Yuhao Zhao, Yanyang Zi, Zhenyi Chen, Mingquan Zhang, Yuanhang Zhu, Jianshu Yin, Power Loss Investigation of Ball Bearings Considering Rolling-Sliding Contacts, International Journal of Mechanical Sciences 250 (2023), 108318, IF=7.1 (2023) https://doi.org/10.1016/j.ijmecsci.2023.108318 6. Song Deng, Yi Jiang, Chuang Zhao, Min Wu, Dongsheng Qian, Effect of dynamic behaviors of bearing components on friction consumptions of ball bearings at various structural sizes of cage, Nonlinear Dynamics, 112 (7), 2024, pp.5177-5193, IF=6 (2024) https://doi.org/10.1007/s11071-024-09295-3 7. Du S N, Zhang C H, Luo Z. Study on the tribological properties of metal rolling bearing under lubrication with diketone lubricants. Science China - Technological Sciences, 2024, 67(7), 2003-2017, IF=4,9 (2024) https://doi.org/10.1007/s11431-024-2719-y 8. Harsh Kumar, Vaibhav Gupta, Velamala Bharath, Mayank Tiwari, Surajit Kumar Paul, Lokesh Agrawal, Arendra Pal Singh and Ayush Jain, Effect of Surface Roughness on the Friction Moment in a Lubricated Deep Groove Ball Bearing, Lubricants 2024, 12, 443, IF=2,9 (2024) https://doi.org/10.3390/lubricants12120443 9. Panlong Wu, Chunlei He, Guang Chen, Chengzu Ren, Determination of the equivalent friction coefficient of rolling bearings using the kinetic energy dissipation, Measurement (2025), 244, 116533, IF=6,1 (2025) https://doi.org/10.1016/j.measurement.2024.116533 10. Liu, J., & Li, X. (2025). A review of calculation and analysis methods of friction torques and power losses of rolling element bearings. Mechanics Based Design of Structures and Machines, 1–21, IF=3,7 (2025) https://doi.org/10.1080/15397734.2025.2500661 11. Siqi Guo, Wenzhong Wang, He Liang, Shaohua Zhang, Haibo Zhang, The effect of cage pocket shape on dynamic characteristics of angular contact ball bearing under starved lubrication, Mechanism and Machine Theory 229 (2026) 106587. IF=5,9 (2025)	
<i>Articol citat:</i> CARLESCU Vlad, PRISACARU Gheorghe and OLARU N. Dumitru, FEM Simulation on Uniaxial Tension of Hyperelastic Elastomers, Applied Mechanics and Materials Vol. 659 (2014) pp. 57-62 <i>Citări: 5</i> 1. Seid Mohammad Atifeh, Keith Davey, Hamed Sadeghi, Rooholamin Darvizeh, Abolfazl Darvizeh, Organic and inorganic equivalent models for analysis of red blood cell mechanical behaviour, Journal of the Mechanical Behavior of Biomedical Materials 124 (2021) 104868, IF=4,042 (2021) https://doi.org/10.1016/j.jmbbm.2021.104868 2. Tilwawala Gopesh and James Friend, Facile Analytical Extraction of the Hyperelastic Constants for the Two-Parameter Mooney-Rivlin Model from Experiments on Soft Polymers, Soft Robotics, Vol. 8, No. 4, 2021, pp. 365-370, IF=7,784 (2021) https://doi.org/10.1089/soro.2019.0123 3. Minsu Kim, Dokyung Kyeong, and Moon Kyu Kwak, Poisson Effect-Assisted Replication Lithography for Rapid Fabrication of Three-Dimensional Microstructures, Small Struct. 2024, 5, 2300460, IF=11,3 (2024) https://doi.org/10.1002/ssr.202300460 4. THANH-TUNG NGUYEN, SY-TUAN HOANG, THI-MINH-KIEU TRAN, IDENTIFICATION OF MATERIAL PARAMETERS OF SILICONE WITH HYPERELASTIC MATERIAL MODELS BY FEM, MM Science Journal 2025, 8773-8778. IF=0,6 (2025) DOI: 10.17973/MMSJ.2025_11_2025091 5. E. Karaseva, I.M. Gitmana, A. Blumea, T.C. Bora, D. Huang, Modelling the 3D Geometrical Structure of Carbon Black Aggregates as Filler in Rubber Compounds, Carbon Trends 24 (2026),100680. IF=5,8 (2025) https://doi.org/10.1016/j.cartre.2026.100680 <i>Articol citat:</i>	

Vlad Cârlescu, Dumitru Olaru, Gheorghe Prisăcaru, Stelian Vlad, Determining the stress-strain curve of PDMS-SiO₂-TiO₂ electroactive polymers, <i>Mechanical Testing and Diagnosis</i> 2012 (II), Volume 2, 54-61 <u>Citări: 1</u> THANH-TUNG NGUYEN, SY-TUAN HOANG, THI-MINH-KIEU TRAN, IDENTIFICATION OF MATERIAL PARAMETERS OF SILICONE WITH HYPERELASTIC MATERIAL MODELS BY FEM, MM Science Journal 2025, 8773-8778. IF=0,6 (2025) DOI: 10.17973/MMSJ.2025_11_2025091	
<u>Articol citat:</u> VLAD CÂRLESCU, MIHAI ADRIAN RUSU, GHEORGHE PRISĂCARU and DUMITRU N. OLARU, Experimental characterization and fem simulation on uniaxial tensile and compression of dielectric elastomers, <i>Buletinul Institutului Politehnic din Iași</i>, Tomul LXI (LXV), Fasc. 1, 2015, Secția Construcții de Mașini, pp. 87-100 <u>Citări: 1</u> 1. Sana Ghafarmoghadam, Alireza Seifzadeh, Ali Mokhtarian, Reza Abedinzadeh, Determining hyper-viscoelastic structural properties of UHMWPE material used in Prodisc-C prosthesis employing a finite element–optimization coupling method, Journal of the Brazilian Society of Mechanical Sciences and Engineering (2023) 45:320, IF=1,8 (2023) https://doi.org/10.1007/s40430-023-04096-y	
<u>Articol citat:</u> CRISTINA ANGELA GHIORGHE, GIANINA IOVAN, VLAD CARLESCU, BOGDAN ISTRATE, GALINA PANCU, SORIN ANDRIAN, Comparative Evaluation of Hardness and Elasticity Modulus of Tooth-Colored Materials for Dental Restoration, <i>REVISTA DE CHIMIE</i>, Vol. 68, Issue 11, November 2017, 2623-2627 <u>Citări: 3</u> 1. Meltem Mert Eren, Gunce Ozan, Zuhail Yildirim Bilmez, Aliye Tugce Gurcan, Yasemin Yucel Yucel, Comparison of restorative materials and surface alterations after prebiotic and probiotic beverages: A nanoindentation and SEM study, Microscopy Research and Technique 85(2), 2022, pp. 499–509, IF=2,5 (2022) https://doi.org/10.1002/jemt.23923 2. Jyotisman Borah and M Chandrasekaran, Development of ANN model for predicting mechanical properties of 3D printed PEEK polymer using FDM and optimization of process parameters for better mechanical properties, Physica Scripta 99 (11), 116005, 2024, IF=2,6 (2024) DOI 10.1088/1402-4896/ad7f0f 3. Jyotisman Borah, M. Chandrasekaran, and L. Selvarajan, Taguchi-Based Experimental Investigation and Modeling, of 3D-Printed PEEK Parts as Biomedical Implants using Fused Deposition Modeling for Improving Mechanical Strength and Surface Quality, Journal of Materials Engineering and Performance 2025, 34 (1), pp.195-207, IF=2,6 (2025) DOI: 10.1007/s11665-023-09036-4	
<u>Articol citat:</u> G Ianuș, A C Dumitrașcu, V Cârlescu and D N Olaru, Friction torque in thrust ball bearings grease lubricated, <i>IOP Conf. Series: Materials Science and Engineering</i> 147 (1), 2016, 012026 <u>Citări: 4</u> 1. P.L. Wu, C.L. He, Z. Chang, X.L. Li, Z.Y. Ren, D.Y. Li, C.Z. Ren, Theoretical calculation models and measurement of friction torque for rolling bearings: state of the art, Journal of the Brazilian Society of Mechanical Sciences and Engineering (2022) 44: 435, IF=2,2 (2022) https://doi.org/10.1007/s40430-022-03726-1 2. Panlong Wu, Chunlei He, Guang Chen, Chengzu Ren, Determination of the equivalent friction coefficient of rolling bearings using the kinetic energy dissipation, Measurement (2025), 244, 116533, IF=6,1 (2025) https://doi.org/10.1016/j.measurement.2024.116533 3. Zy Zy Hai Le, Bao Tri Diep, Kim Phuoc Hoang, Minh Hieu Diep, Weihua Li and Quoc Hung Nguyen, A linear damper for automotive application based on rotary magnetorheological brake, Smart Mater. Struct. 35 045053, 2026. IF=3,8 (2025) DOI 10.1088/1361-665X/ae5ee2 4. Hieu Minh Diep, Zy-Zy Hai Le, Tri Bao Diep and Quoc Hung Nguyen, Development and Performance Validation of a Magnetorheological Damper for Passenger Cars Featuring Ball Screw and MR Brake, Actuators 2026, 15(1), 17. IF=2,4 (2025) https://doi.org/10.3390/act15010017	

<u>Articol citat:</u> V Cârlescu, G Prisăcaru and D Olaru, Electromechanical response of silicone dielectric elastomers, <i>IOP Conf. Series: Materials Science and Engineering</i> 147 (1), 2016, 012057 <u>Citări: 2</u> 1. Alina Soroceanu, George T. Stiubianu, Siloxane Matrix Molecular Weight Influences the Properties of Nanocomposites Based on Metal Complexes and Dielectric Elastomer, June 2021 Materials 14(12):3352. IF=3,748 (2021) https://doi.org/10.3390/ma14123352 2. Barnabás Horváth, Sándor Guba, Diána Balogh, Miklós Jakab and István Szalai, Effect of percolation on the deformation of isotropic electrorheological elastomers under external electric fields, Journal of Molecular Liquids 390 (2023), 123046. IF=5,3 (2023) DOI: 10.1016/j.molliq.2023.123046	
<u>Articol citat:</u> SIMONA-NICOLETA MAZURCHEVICI, BOGDAN PRICOP, BOGDAN ISTRATE, ANDREI-DANUT MAZURCHEVICI, VLAD CARLESCU, CONSTANTIN CARAUSU, DUMITRU NEDELICU, Technological Parameters Effects on Mechanical Properties of Biodegradable Materials Using FDM, <i>Mater. Plast.</i> 57 (2) 2020, 215 – 227 <u>Citări: 9</u> 1. Harshit K. Dave , Ashish R. Prajapati , Shilpesh R. Rajpurohit , Naushil H. Patadiya & Harit K. Raval, Investigation on tensile strength and failure modes of FDM printed part using in-house fabricated PLA filament, Advances in Materials and Processing Technologies 8(1), 2022, IF=2,2 (2022) https://doi.org/10.1080/2374068X.2020.1829951 2. Doina Frunzaverde, Vasile Cojocaru, Nicoleta Bacescu, Costel-Relu Ciubotariu, Calin-Octavian Miclosina, Raul Rusalin Turiac, Gabriela Marginean, The Influence of the Layer Height and the Filament Color on the Dimensional Accuracy and the Tensile Strength of FDM-Printed PLA Specimens, Polymers 2023, 15(10), 2377, IF=4,7 (2023) https://doi.org/10.3390/polym15102377 3. Vasile Cojocaru , Doina Frunzaverde, Calin-Octavian Miclosina and Gabriela Marginean, The Influence of the Process Parameters on the Mechanical Properties of PLA Specimens Produced by Fused Filament Fabrication - A Review, Polymers 2022, 14(5), 886, IF=5 (2022) https://doi.org/10.3390/polym14050886 4. MOHAMMED RAFFIC N., GANESH BABU K., RAJASEKARAN SAMINATHAN, HAITHAM HADIDI, Flexural Modulus Enhancement and Minimization of Printing Time and Part Weight for PET-G, Using Taguchi-GRA-TOPSIS Techniques, Mater. Plast., 59 (3), 2022, 109-127, IF=0,8 (2022) https://doi.org/10.37358/MP.22.3.5610 5. Ivan Palinkas, Jasmina Pekez, Eleonora Desnica, Aleksandar Rajic, Dorian Nedelcu, Analysis and Optimization of UAV Frame Design for Manufacturing from Thermoplastic Materials on FDM 3D Printer, Mater. Plast., 58 (4), 2021, 238-249, IF=0,782 (2021) https://doi.org/10.37358/MP.21.4.5549 6. Cristina Valean, Marian Baban, Dipen Kumar Rajak, Emanoil Linul, Effect of multiple process parameters on optimizing tensile properties for material extrusion-based additive manufacturing, Construction and Building Materials 414 (2024) 135015, IF=8 (2024) https://doi.org/10.1016/j.conbuildmat.2024.135015 7. Émerson dos Santos Passari, Carlos Henrique Lauermann, André J. Souza, Fabio Pinto Silva, Rodrigo Rodrigues de Barros, Analysis of the influence of printing parameters on the compression resistance of PLA in the FDM process, RAPID PROTOTYPING JOURNAL, sept 2024, Vol. 31, No.1, 145-156, IF=3,6 (2024) DOI: 10.1108/RPJ-04-2024-0165 8. Émerson dos Santos Passari, Carlos Henrique Lauermann, Bruno Nonemacher, Tiago de Bortoli, Matheus Dantas Santos, Multivariate analysis of the mechanical properties of carbon fiber PLA composites using Box-Behnken design, Rapid Prototyping Journal (2025), IF=3,6 (2024) https://doi.org/10.1108/RPJ-05-2025-0203 9. Raviduth Ramful, A review on development of eco-friendly natural fiber-reinforced composite filaments for 3D printing: Fabrication and characteristics, Mater Sci Add Manuf. 2025;4(1):8533, IF=4,4 (2025) doi: 10.36922/msam.8533 <u>Articol citat:</u>	

Cârlescu V., Olaru D.N., Prisăcaru G., Opreșan C., Știrbu R.Ș., Machado J., Influence of the Indentation Speed on Viscoelastic Behavior of the Human Finger, Lecture Notes in Electrical Engineering, vol 505., 2019, pp. 143–150 <u>Citări: 1</u> 1. Saekwang Nam, Katherine J Kuchenbecker, Optimizing a Viscoelastic Finite Element Model to Represent the Dry, Natural, and Moist Human Finger Pressing on Glass, May 2021, IEEE Transactions on Haptics 14(2), 2021, pp. 303-309, IF=3,105 (2021) DOI: 10.1109/TOH.2021.3077549	
<u>Articol citat:</u> V. Bulbuc, V. Paleu, B. Pricop, M. Popa, V. Carlescu, N. Cimpoesu, and L.G. Bujoreanu, Effects of Dynamic Loading under Extreme Conditions on Wear Resistance of T105Mn120 Castings for Railway Safety Systems, Journal of Materials Engineering and Performance (2021) 30:7128–7137 <u>Citări: 3</u> 1. Alexander Balitskii et al., Influence of Hydrogen-Containing Fuels and Environmentally Friendly Lubricating Coolant on Nitrogen Steels' Wear Resistance for Spark Ignition Engine Pistons and Rings Kit Gasket Set, November 2021 Energies 14 (22) 7583, IF=3,252 (2021) https://doi.org/10.3390/en14227583 2. E. A. Pismennyi, A. M. Markov, A. I. Augstkaln, V. B. Deev, Optimization of heat treatment process for cast steel 50SL, CIS Iron and Steel Review Vol. 28 (2024), pp. 46–51, IF=0,7 (2024) DOI: 10.17580/cisisr.2024.02.08 3. Lazar, P.; Cimpoesu, N.; Istrate, B.; Cazac, A.M.; Burduhos-Nergis, D.-P.; Benchea, M.; Berbecaru, A.-C.; Badarau, G.; Vasilescu, G.D.; Popa, M.; et al. Microstructural and Mechanical Properties Analysis of Phosphate Layers Deposited on Steel Rebars for Civil Constructions. Coatings 2024, 14, 182, IF=2,8 (2024) https://doi.org/10.3390/coatings14020182	
<u>Articol citat:</u> C M Oprisan, B Chiriac, V Carlescu and D N Olaru, Friction forces on human finger skin, IOP Conf. Series: Materials Science and Engineering 724 (2020) 012059 <u>Citări: 2</u> 1. Scott T. Lovald, Maysam B. Gorji, Michelle Chen, Nikita Pak, Developing failure criteria for laceration injury of dermal tissue, Journal of the Mechanical Behavior of Biomedical Materials 144 (2023) 105986, IF=3,3 (2023), https://doi.org/10.1016/j.jmbbm.2023.105986 2. Chungue Wang, Bangbang Ma, Keke Zhang, Qianqian Wang, Ning Zhang, Rongzhi Li, Sheng Zhang, Friction Behavior of Fingers on Micro-Textured Flexible Surfaces, Journal of Tribology – Transactions of the ASME May 2024, 146(5): 052101 (12 pages), IF=3 (2024) https://doi.org/10.1115/1.4064393	
<u>Articol citat:</u> Vlad Cârlescu, Petru Marian Cârlescu, Dumitru Olaru, Gheorghe Prisăcaru, Modeling and Simulation of The Electromechanical Response in Planar Electroactive Polymer Actuators, The Romanian Review Precision Mechanics, Optics & Mechatronics 2011, No. 40, 209-212 <u>Citări: 1</u> 1. Nasim Kamely, Interaction of Light with Different Electroactive Materials: A Review, Journal of Electronic Materials (2022) 51:953–965, IF=2,1 (2022), https://doi.org/10.1007/s11664-021-09362-0	
<u>Articol citat:</u> C M Oprisan , B Chiriac , V Cârlescu and D N Olaru, Influence of the stiffness and the speed on the stick-slip process, IOP Conf. Series: Materials Science and Engineering 997 (2020) 012016 <u>Citări: 8</u> 1. P. Christian van der Sande, Claris de Vries, Evert C. Wagner, Amarenske C. Vögtlander, Gabrie M.H. Meesters, J. Ruud van Ommen, Flow behavior of polypropylene reactor powder in horizontal stirred bed reactors characterized by X-ray imaging, Chemical Engineering Journal (2024), IF=13,2 (2024) https://doi.org/10.1016/j.cej.2024.156891 2. Qixiang Zhang, Huajiang Ouyang, Hang Liu, Jiliang Mo, Bin Tang, Song Zhu, Wenwei Jin, A lumped-parameter model for stick-slip vibration	

in train brake systems considering hexagonal friction block sizes, <i>Mechanical Systems and Signal Processing</i> 228 (2025) 112486, IF=10,2 (2025), https://doi.org/10.1016/j.ymssp.2025.112486 3. Loggia, G.; Avrumova, F.; Lebl, D.R. Visuohaptic Feedback in Robotic-Assisted Spine Surgery for Pedicle Screw Placement, Journal of Clinical Medicine 2025, 14, 3804, IF=3,3 (2025) https://doi.org/10.3390/jcm14113804 4. Qingwen Dai, Lulu Hu, Carsten Gachot, Wei Huang, Xiaolei Wang, Ferrofluid-mediated active suppression methodology for stick-slip mitigation, Tribology International 211 (2025) 110920, IF=7,6 (2025) https://doi.org/10.1016/j.triboint.2025.110920 5. Jun Young Yoon, Sang Min Lee, Youjin Park, Kyung-Woo Lee, Daeun Sung, Seongho Yoon, Byoung-Ho Choi, Development of a tunable test method for characterizing friction-induced squeak noise in automotive interior plastics, Polymer Testing 152 (2025) 108991, IF=6,4 (2025) https://doi.org/10.1016/j.polymertesting.2025.108991 6. CHEN Hao, CHEN ShunYun, ZHUO YanQun. The study of fault meta-instability duration based on rate- and state-dependent friction law: Experimental research, theoretical analysis and numerical simulation. Chinese Journal of Geophysics 2025 (in Chinese), 68(11): 4303-4319. IF=1,4 (2025) doi: 10.6038/cjg2025S0366 7. Manqiang Liu, Zhiwei Wang, Jiliang Mo, Jinjie Hu, Peng Xu, Wangyi Shen, Kaiyun Wang, Effect of Brake Pad Compositional Ratios on Friction and Stick-Slip Vibration at the Train Braking Interface, Tribology International 219 (2026), 111810. IF=7,6 (2025) https://doi.org/10.1016/j.triboint.2026.111810 8. Mariusz Leus, Marta Rybkiewicz, Paweł Gutowski, Experimental tests and analytical model for stick-slip phenomenon reduction with the use of longitudinal tangential vibrations, Advances in Science and Technology - Research Journal, 2026, 20(3), 74–86. IF=1,5 (2025). https://doi.org/10.12913/22998624/213533	
<u>Articol citat:</u> Gelu Ianus, Denis Cojocaru, Vlad Carlescu, Ana Tufescu and Dumitru N. Olaru, Grease lubrication of miniature ball bearings, Proc. of 25th INNOVATIVE MANUFACTURING ENGINEERING & ENERGY, INTERNATIONAL CONFERENCE, IMANEE, 21-23 October, 2021, Iasi, IOP Conf. Series: Materials Science and Engineering 1235 (2022) 012052 <u>Citări: 1</u> 1. Yongkang An, Shijun Ji and Ji Zhao, Achieving significant burst motion based on epicycloid induction principle for stick-slip piezoelectric actuator, IEEE Transactions on Industrial Electronics, VOL. 70, NO. 9, SEPTEMBER 2023, 9301-9311, IF=7.5 (2023) https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9923584	
<u>Articol citat:</u> Cristina Angela Ghiorghe, Claudiu Topoliceanu, Sorin Andrian, Vlad Cârlescu, Galina Pancu, Andra Claudia Gamen, Irina Nica, Gianina Iovan, STUDIES ON VICKERS HARDNESS AND THE ELASTICITY MODULUS OF MATERIALS FOR DENTAL RESTORATION, <i>Romanian Journal of Oral Rehabilitation</i> Vol. 10, No. 2, April-June 2018, 38 – 44 <u>Citări: 1</u> 1. Rabeia J. Khalil and Abdulla M. W. Al-Shamma, Physicomechanical Characterization of a Novel Resin-Modified Glass Ionomer Luting Cement Functionalized with a Phosphate Functional Monomer, International Journal of Dentistry 2023, Article ID 6533954, 13 pages, IF=1,9 (2023) https://doi.org/10.1155/2023/6533954	
<u>Articol citat:</u> V Cârlescu, C M Oprisan, G Ianus and D N Olaru, Evaluation of friction behaviour on human finger skin considering precision grip task, IOP Conf. Series: Materials Science and Engineering 997 (2020) 012007 <u>Citări: 1</u> 1. Srivastava AK, Rathore J, Shrivastava S. Multidimensional outline of experimental techniques for human skin tribology: A scoping review. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science 2023; 238(10), IF=1,8 (2023) https://doi.org/10.1177/09544062231209824 <u>Articol citat:</u>	

C Stescu, D Chicet, C Munteanu, C Croitoru and V Cârlescu, Machining of thermal sprayed coatings – a case study for self fluxing powder, International Conference on Innovative Research - EUROINVENT ICIR 2019, 16–17 May 2019, Iasi, Romania, IOP Conf. Series: Materials Science and Engineering 572 (2019) 012051 <u>Citări: 1</u> 1. Shuo Fu, Yaxin Xu, Lijuan Zhu, Haifei Lu and Wenya Li, Enhanced in-situ reinforcement evolution and superior wear resistance by changing Y2O3 addition in Ti6Al4V-based WC gradient coatings through laser cladding, Tribology International 205 (2025), IF=7,6 (2025) https://doi.org/10.1016/j.triboint.2025.110524	
<u>Articol citat:</u> Denis Cojocaru, Gelu Ianus, Vlad Cârlescu, Bogdan Chiriac and Dumitru Olaru, Grease Film Behavior in Ball Bearings, <i>Lubricants</i> 2025, 13, 429. <u>Citări: 2</u> 1. Kecheng Zhou, Xuyang Jin, Xinming Li, Qinghua Bai, Xiongrong Huang, Hao Jiang, Guohui Zhang, Feng Guo, Chenglong Liu and Jinjie Li, Tailored Cage Shapes on Lubricant Migration and Friction Behaviours in Both Ball-Cage and EHL Contacts, Lubricants 2025, 13(11), 50. IF=3,6 (2025) https://doi.org/10.3390/lubricants13110501 2. Bing Xue, Yongbo Li, Zhi Zhang, Yibing Ren, Ziyi Yang, Ying Xu, Tao Zhao and Youqiang Wang, Investigation into the Impact of Water Contamination and Operating Parameters on the Lubrication Performance of Thrust Bearings, Lubricants 2026, 14, 118. IF=3,6 (2025) https://doi.org/10.3390/lubricants14030118	
<u>Articol citat:</u> Răzvan Constantin Brânzan, Ionut, Tărăboantă, Cristina Angela Ghiorghe, Simona Stoleriu, Vlad Cârlescu, Andra Claudia Tărăboantă-Gamen and Sorin Andrian, Evaluation of the Mechanical Properties of Different Dental Resin-Based Materials After Submersion in Acidic Beverages, <i>Dentistry Journal</i> 2025, 13, 4. <u>Citări: 4</u> 1. Haiying Zhang, Shen Zhao, Yaixin Wang, Mangnan Liu, Luxuan Wang, Chen Zhang, Benxiang Hou, Physicochemical and antibacterial properties of composite resin incorporating glycidyl methacrylate-chitosan derivative, Mater. Res. Express 13(2026) 085401. IF=2,5 (2025) https://doi.org/10.1088/2053-1591/ae5877 2. Md Sofiqul Islam, Smriti Aryal A C, Mohamed Ahmed Elsayed, Vivek Padmanabhan, Misbah Sultana, Nada Tawfig Hashim, Upoma Guha and Muhammed Mustahsen Rahman, In Vitro Comparison of Mechanical and Esthetic Properties of Different Universal-Shade Resin Composites After Simulated Aging, Materials 2026, 19(13), 2778. IF=3,7 (2025). https://doi.org/10.3390/ma19132778 3. İlhan Kaya, Sena Nur Yıldırım and Akif Demirel, Mechanical and Surface Behavior of Contemporary Restorative Materials Exposed to Topical Hemostatic Agents After Artificial Aging: An In Vitro Study, Polymers 2026, 18, 2111. IF=5.8 (2025) https://doi.org/10.3390/polym18172111 4. Omer Shahla Hamarasheed, Ali Zhiyar Ameen, The Influence of Different Soft Drinks on the Mechanical Properties of Acrylic Dental Resin, European Journal of Prosthodontics and Restorative Dentistry, 2026, Vol. 34, Issue 8s, 124-134. IF=1,5 (2025). DOI: 10.1922/ejprd.v34i8s.1818	
<u>Articol citat:</u> Denis Cojocaru, Gelu Ianus, Vlad Cârlescu, Bogdan Chiriac and Dumitru Olaru, Friction Torque in Miniature Ball Bearings, <i>Lubricants</i> 2025, 13, 12 <u>Citări: 3</u> 1. Hieu Minh Diep, Zy-Zy Hai Le, Tri Bao Diep and Quoc Hung Nguyen, Development and Performance Validation of a Magnetorheological Damper for Passenger Cars Featuring Ball Screw and MR Brake, Actuators 2026, 15(1), 17. IF=2,4 (2025) https://doi.org/10.3390/act15010017 2. Marek Kočiško, Dušan Paulišin and Petr Baron, Experimental Assessment of Behavior of TwinSpin Precision Reducers Under Low	

	Temperatures, Lubricants 2026, 14, 130. IF=3,6 (2025) https://doi.org/10.3390/lubricants14030130 3. Sayani Das, Tanuja Singh, Manishita Nandi, Pranab Ghosh and Susanta Sinha Roy, A systematic investigation on tribological characteristics of lubricant additives developed from liquid crystals blended in biodegradable oils co-polymerized with octyl acrylate, RSC Advances , July 2026. IF=6,1 (2025) DOI: 10.1039/d5ra09054g	
	Atragerea de resurse financiare prin participarea candidatului la granturi/ proiecte/ contracte cu terți de cercetare științifică și dezvoltare tehnologică, echivalent a 20 mii euro în total (cu dovada încasării de către instituția gazdă a proiectului³), $N_{INC}=1$ pentru 10 mii euro. Numărul de granturi/ proiecte/ contracte cu terți câștigate prin competiție/ licitație națională/ internațională să fie director sau responsabil partener, N_{GC}	$N_{INC} = 24.9$ $N_{GC} = 0$
6	Contract tip RO-MD nr. 2SOFT/1.1/64/2020 din cadrul programului "Joint Operational Programme Romania – Republic of Moldova 2014 – 2020", titlu proiect „Cross Border Cooperation in Mechatronics Engineering Education”, acronim CBCinMEE Beneficiar principal: Universitatea Tehnică a Moldovei (UTM) Beneficiar secundar: Universitatea Tehnică "Gheorghe Asachi" din Iași (TUIASI) Director proiect: conf.dr.ing. Gelu Ianus, TUIASI Perioada: 2021 - 2022 Valoare TUIASI: 804322,98 RON Echipa proiect: 9 membri; Funcția în proiect: Master Development Specialist 2 Valoare materiale+regie: 109270 Euro $N_{INC}=10,9$ Contract tip PN-III-P1-1.1-TE-2021-0156, UEFISCDI, titlu proiect Silicone-based modular artificial sensing skin for MMOD impact damage detection and evaluation system in spacecraft, acronym SiArtSkin Beneficiar: Institutul de Chimie Macromoleculară "Petru Poni" din Iași (ICMPP) Perioada: 05.2020 – 05.2024 (24 luni) Director proiect: dr. Bele Adrian Valoare proiect: 450000 RON (93750 Euro) Echipa proiect: 8 membri ; Funcția în proiect: Cercetător în mașini și instalații mecanice CSIII (cercetător postdoctoral) $N_{INC}=0$ Contract 731/10.07.2025, cod SMIS 338197 ; PR/NE/2024/P1/RSO1.1_RSO1.3/1 - PROIECTE DE CDI ȘI INVESTIȚII ÎN IMM Titlu proiect : DEZVOLTAREA ȘI REALIZAREA UNEI INSTALAȚII INOVATOARE DESTINATĂ ÎMPLENTĂRII UNEI TEHNOLOGII AVANSATE DE ACOPERIRE CU STRATURI SUBȚIRI PENTRU FABRICAREA UNOR GEAMURI CU EFICIENȚĂ ENERGETICĂ SPORITĂ – TEGAS Durata de implementare : 10.07.2025 – 09.07.2026 Budget TUIASI : 1505707.00 RON (~298751,38 Euro) ; Încasat: 221744,64 ron (2025) + 493107,61 ron (2026)= 714852,25 ron (~140167 euro) Echipa proiect: 14 membri; Director proiect: conf.dr.ing. Ana Tufescu $N_{INC}=14$	
	Lucrări publicate (Web of Science, SCOPUS, IEEE Xplore), cărți, tratate, monografii sau brevete acordate, selectate de către candidat, calificate de către comisia de evaluare ca fiind reprezentative pentru domeniul postului scos la concurs, L_R	$L_R = 15$
7	1. Gelu Ianuș, Vistrian Mătieș, Gheorghe Prisăcaru, Carmen Bujoreanu Cristel Știrbu, Mihaela Rodica Bălan, Ana Tufescu, Vasile Ciprian Stamate, Vlad Cârlescu, <i>Mecanică Fină și Mechatronică, vol. 2 Mechatronică</i> , Capitol 4. Biomecatronică. Aplicații în protezarea membrilor superioare și inferioare, pag. 127-175, Editura Tipografia Centrală, Chișinău, 2022 , 384 pg, ISBN 978-5-88554-129-9 2. Vlad Cârlescu, <i>Bionica. Soluții ingineresti inspirate din natură</i> , Editura Universității Tehnice "Gheorghe Asachi" din Iași, 2023, 138 pag., ISBN 978-973-621-536-0 3. Alina Corina Dumitrascu, Denis Cojocar, Vlad Cârlescu, Andrei Zaharia and Dumitru Olaru, Influence of the Cage on the Friction Torque in Miniature Angular Contact Ball Bearings, Lubricants 2026, 14, 145.	

	4. Denis Cojocaru, Gelu Ianus, Vlad Cârlescu, Bogdan Chiriac and Dumitru Olaru, Grease Film Behavior in Ball Bearings, Lubricants 2025, 13, 429.	
	5. Sergiu Gabriel Pal, Viorel Goanta, Ciprian Ionut Moraras and Vlad Carlescu, Mechanical Behavior Analysis of Polypropylene-Based Composites and a Photopolymer Resin via Tensile and Scratch Testing, Polymers 2025, 17(16), 2180.	
	6. Denis Cojocaru, Gelu Ianus, Vlad Cârlescu, Bogdan Chiriac and Dumitru Olaru, Friction Torque in Miniature Ball Bearings, Lubricants 2025, 13,12.	
	7. Răzvan Constantin Brânzan, Ionut, Tărăboantă, Cristina Angela Ghiorghe, Simona Stoleriu, Vlad Cârlescu, Andra Claudia Tărăboantă-Gamen and Sorin Andrian, Evaluation of the Mechanical Properties of Different Dental Resin-Based Materials After Submersion in Acidic Beverages, Dentistry Journal 2025, 13, 4.	
	8. V. Bulbuc, V. Paleu, B. Pricop, M. Popa, V. Carlescu, N. Cimpoesu, and L.G. Bujoreanu, Effects of Dynamic Loading under Extreme Conditions on Wear Resistance of T105Mn120 Castings for Railway Safety Systems, Journal of Materials Engineering and Performance 30:7128-7137 (2021).	
	9. Dumitru N. Olaru, Mihaela Rodica D. Bălan, Ana Tufescu, Vlad Cârlescu, Gheorghe Prisăcaru, Influence of the cage on the friction torque in low loaded thrust ball bearings operating in lubricated conditions, TRIBOLOGY INTERNATIONAL 107 (2017) pp. 294–305.	
	10. Vlad Cârlescu, Dumitru N. Olaru, Gheorghe Prisăcaru, Cezar Opreșan and José Machado, Sensors and Actuators on Determining Parameters for Being Considered in Selection of Elastomers for Biomimetic Hands, SENSORS 2017, 17, 1190, 15 pg.	
	11. Cârlescu, V., Ciobanu, C.G., Olaru, D. (2026). Study of Finger Skin Deformation and Friction in Contact with Smooth Glass Surface. In: Machado, J., Trojanowska, J., Ottaviano, E., Xavier, M., Valášek, P., Basova, Y. (eds) Innovations in Mechanical Engineering V. Lecture Notes in Mechanical Engineering . Springer, Cham.	
	12. Cârlescu Vlad, Tufescu Ana, Chiriac Bogdan, Gavril Cezara-Măriuca, Modelling of Static and Kinetic Friction Coefficient in Stick-Slip Motion, In: Machado J., Trojanowska J., Ottaviano E., Xavier M.A., Valášek P., Basova Y. (eds.) 4th International Conference Innovation in Engineering, ICIE 2025, 18 June 2025 - 20 June 2025, Prague, Lecture Notes in Mechanical Engineering IV, pp. 392-401.	
	13. Cârlescu V., Opreșan C.M., Chiriac B., Ianuș G., Olaru D.N., Influence of Hand Sanitisers on the Friction Properties of the Finger Skin Amid the COVID-19 Pandemic, 1st International Conference on Innovation in Engineering, ICIE 2021 Guimarães 28 June 2021 through 30 June 2021, In: Innovation in <i>Mechanical Engineering</i> , Lecture Notes in Mechanical Engineering Pages 420 – 428 (2022). (WOS:000773476600039)	
	14. Cârlescu V., Olaru D.N., Prisăcaru G., Opreșan C., Știrbu R.Ș., Machado J., Influence of the Indentation Speed on Viscoelastic Behavior of the Human Finger, Lecture Notes in Electrical Engineering , vol 505., 2019, pp. 143–150.	
	15. Vlad Cârlescu, Mihai Adrian Rusu, Gheorghe Prisăcaru, Emanuel Miron, José Machado and Dumitru Olaru, Behavior of the Elastomers Used in Prehension Systems for Small Cylindrical Objects, CONTROL 2016, Lecture Notes in Electrical Engineering 402 (2017), 495-505	
	Membru în comisiile de îndrumare sau de evaluare a tezelor de doctorat, C_{IE}	C_{IE} – 5
8	1. Membru în comisia de îndrumare, drd. Cristi Irinel Bradu, conducător de doctorat prof.dr.ing. Paleu Viorel, Facultatea de Mecanică 2. Membru în comisia de îndrumare, drd. Denisa Șmadici, conducător de doctorat prof.dr.ing. Paleu Viorel, Facultatea de Mecanică 3. Membru în comisia de îndrumare, drd. Apricopoaie Eugen, conducător de doctorat prof.dr.ing. Bujoreanu Carmen, Facultatea de Mecanică 4. Membru în comisia de îndrumare drd. Vrabie Antonia Theodora, conducător de doctorat prof.dr. Iovan Gianina (Facultatea de Stomatologie, UMF) 5. Membru în comisia de îndrumare, drd. Frumuzache Georgiana Andreea, conducător de doctorat prof.dr. Stoleriu Simona (Facultatea de Stomatologie, UMF)	

Data: 19.10.2026
Candidat
Cârlescu Vlad