

Nume Prenume candidat: FLORESCU VIRGIL
Domeniul: Inginerie mecanică

L I S T A D E L U C R Ă R I

A. Teza de doctorat:

Contributii privind studiul uzarii suprafetelor plane prin modelare cu o cupla stift cilindric pe disc – Academia Romana – Institutul de Mecanica Solidelor. Anul 1999. Indrumator CPI, dr. ing. Iliuc Ivan

A. Cărți și capitole în cărți

A 1. Manuale suport de curs

Format tiparit

1. V. Florescu, F. Baușic, D. Rus - Organe de masini pentru inginerii instalatori, Ed.Matrix Rom, ISBN 978-606-25-0561-5, 158 pag. (2020).
2. F. Bausic, A. Davidescu, V. Florescu - Elements de machines – București, Editura Didactică și Pedagogică, 2014, ISBN 978-973-30-3773-6.

Format electronic disponibil pe platforma universitatii

1. V. Florescu, Tehnologia materialelor, curs pentru anul I, specializarea Utilaj tehnologic și Mecatronică, curs in format electronic, aflat pe platforma Teams –UTCB, 2019
2. V. Florescu, Ingineria reglariei. Elemente de biomecanica, curs in format electronic, aflat pe platforma Teams –UTCB, 2019

A.2. Indrumar laborator format tiparit

1. T. Zlăteanu, V. Dobre, V. Florescu, Îndrumător de proiectare pentru un sitem de acționare mecanic, pentru studenții anului III ing. Secția IMRTC și II Colegiu Tehnic și pentru un reductor de turație pentru studenții anului IV seral, multiplicare în atelierele UTCB sub comanda 69/2002
2. V. Florescu, Îndrumător pentru proiectarea unui dispozitiv de presare cu șurub, pentru studenții anului II ing. Specializarea Mecatronică, format electronic, aflat pe platforma Teams –UTCB
3. F. Baușic, D. Rus, V. Florescu - Pré-dimensionnement d'un arbre droit d'une pompe à engrenages, Ed.Matrix Rom, ISBN 978-606-25-0562-2, (2020).

A.3 Monografii/carti de specialitate – format tiparit

1. V. Florescu, L.Capitanu - An Overview of the Researches on Hip Prosthesis with Rolling Friction, LAP Lambert Academic Publishing (2015) ISBN 10: 3659797766 ISBN 13: 9783659797767
2. L. Capitanu, V. Florescu - Biotribologia protezelor de sold. Ed. BREN. Bucuresti (2002), ISBN 973 – 648 – 081- X
3. L. Capitan, L. Vladareanu, V. Florescu, LL Badita, C. Tiganesteanu - Complex procedure for evaluating and predicting the wear of a total knee prosthesis tibial tray in New Developments in Knee Prosthesis Research - Series: Medical Procedures, Testing and

Technology. Editor: Janice Stewart, NOVA science publisher Inc. New York, USA, ISBN: 978-1-63482-753-9. (2015).

B. Articole si publicatii stiintifice indexate Web of Science Thomson Reuters (WOS)

1. L. Capitanu, LL Badita, C. Tiganesteanu, V. Florescu, Influence of the taper on the fretting wear of the femoral stem-femoral head taper junction in total hip prosthesis, Industrial lubrication and tribology, DOI: 10.1108/ILT-08-2021-0320 (2021)
2. LL Badita, V. Florescu, C. Tiganesteanu L. Capitanu, Modularity of total hip prosthesis and its tribological implications, Industrial lubrication and tribology, DOI10.1108/ILT-06-2021-0219 (2021)
3. V. Florescu, S. Mocanu, A. Neagu .C. Sescu-Gal, C, Research on the parameters influencing the numerical analysis of the fatigue behaviour of a forklift-arm, Romanian journal of transport infrastructure, Volume10, Issue1, Page1-10, DOI10.2478/rjti-2021-0001, JUL 2021
4. V. Florescu,, S. Mocanu, L. Rece, D. Motounu, A. Gherghina, A, Burlacu, Design Contributions to the Elaboration of New Modeling Schemes for the Buckling Assessment of Hydraulic Actuators, METALS, Volume10, Issue9, Article Number1143, DOI10.3390/met10091143, 2020
5. V. Florescu,, S. Mocanu,, L. Rece, R. Ursache, N. Goga, C.V. Marian, Use of a Novel Resistive Strain Sensor Approach in an Experimental and Theoretical Study Concerning Large Spherical Storage Tank Structure Behavior During Its Operational Life and Pressure Tests, SENSORS, Volume 20, Issue 2, Article Number 525, DOI 10.3390/s20020525, 2020
6. L. Rece, V. Florescu, A. Modrea, V. Jeflea, M. Harnicarova, I. Valicek, M. Borzan, Optimization of the 2 1/2 D Processing Method of Complex Parts, through a Predictive Algorithm for Controlling the Geometric Shape Deviations Resulting from Processing, Mathematics, Volume 8, Issue1, Article Number 59, DOI10.3390/math8010059, 2020
7. L. Capitanu, LL Badita, V. Florescu , C. Tiganesteanu, F. Isvoranu, Fretting manifestations in total hip prosthesis, 14th International Conference on Tribology (ROTRIB) 2020 | INTERNATIONAL CONFERENCE ON TRIBOLOGY (ROTRIB'19) 724 Book Series, IOP Conference Series-Materials Science and Engineering, Volume 724, Article Number 012057, DOI 10.1088/1757-899X/724/1/012057, 2020
8. V. Florescu,, D. Rus, L. Rece, A Study of the Dry Linear Contact Between Glass Fiber-reinforced Composite Materials and Steel, Materiale plastice, Volume 56, Issue 3, Page 616-620, 2019
9. L. Capitanu, LL Badita, C. Tiganesteanu, V. Florescu, The wear of the taper junction of the stem trunnion with the femoral head of a total modular hip prosthesis, JURNAL TRIBOLOGI, Volume 23, Page 61-75, 2019
10. V. Florescu, L. Rece, S. Mocanu A. Legendi, Comparative study on the applicability of analytical and experimental methods in the analysis of the safe use of rail tankers carrying petroleum products under pressure, Romanian journal of transport infrastructure, Volume 7, Issue 1, Page 107-116, DOI 10.2478/rjti-2018-0007, 2018
11. L. Capitanu, LL Badita, V. Florescu, Initiation of fretting fatigue scar of Ti-6Al-4V alloy dependent on the influence of its surface roughness, JURNAL TRIBOLOGI, Volume 19, Page 19-38, 2018



12. A. Legendi, L.Rece, B. Pironea, V. Florescu, Innovative calculation method of the productivity of vibrating screens used in mineral aggregates sorting, Romanian journal of transport infrastructure, Volume 7, Issue 2, Page 1-13, DOI 10.2478/rjti-2018-0008, 2018
13. L. Capitanu, LL Badita, V. Florescu, Investigation a unique scratching of the failure mechanisms of the coatings with TiN thin layers deposited on 316L stainless steel, JURNAL TRIBOLOGI, Volume 17, Page 40-64, 2018
14. L. Capitanu, LL Badita, V. Florescu, The abrasion resistance estimation of the C120 steel by a multi-pass dual-indenter scratch test, JURNAL TRIBOLOGI, Volume 16, Page 30-41, 2018
15. L. Capitanu, LL Badita, V. Florescu, Primary stability of uncemented acetabular liner of a total hip prosthesis using an axisymmetric finite element method based on computed tomography, 8TH INTERNATIONAL CONFERENCE ON ADVANCED CONCEPTS IN MECHANICAL ENGINEERING , Book Series, IOP Conference Series-Materials Science and Engineering, Volume 444, Article Number 032001, DOI 10.1088/1757-899X/444/3/032001, 2018
16. L. Capitanu, LL Badita, V. Florescu, C. Tiganesteanu, Roughness Influence on Initiation of Fretting Fatigue Scar of Ti-6Al-4V Alloy, 9TH INTERNATIONAL CONFERENCE ON TRIBOLOGY (BALKANTRIB'17) Book Series, IOP Conference Series-Materials Science and Engineering, Volume 295, Article Number 012022, DOI 10.1088/1757-99X/295/1/012022, 2018
17. D. Rus, V. Florescu, F. Bausic, R. Ursache, A.Sasu, Graphical assessment of the linear contact steel on composite material at high temperature and pressure, 9TH INTERNATIONAL CONFERENCE ON TRIBOLOGY (BALKANTRIB'17) 295, Book Series, IOP Conference Series-Materials Science and Engineering, Volume 295, Article Number 012014, DOI 10.1088/1757-899X/295/1/012014, 2018
18. D. Rus, V. Florescu, F. Bausic, R. Ursache, A.Sasu, An analytical interpretation of the high temperature linear contact between composite materials reinforced with glass fibers and steel 9TH INTERNATIONAL CONFERENCE ON TRIBOLOGY (BALKANTRIB'17) 295, Book Series, IOP Conference Series-Materials Science and Engineering, Volume 295, Article Number 012015, DOI 10.1088/1757-899X/295/1/012015, 2018
19. L. Capitanu, V. Florescu, LL Badita, Damage estimator, a possible way to predict the failure of hip and knee endoprosthesis, INDUSTRIAL LUBRICATION AND TRIBOLOGY, Volume 69, Issue1, Page71-80, DOI10.1108/ILT-11-2015-0178, 2017
20. L. Capitanu, V. Florescu, LL Badita, New concept in durability improvement of hip total joint endoprotheses, ACTA OF BIOENGINEERING AND BIOMECHANICS, Volume16, Issue1, Page75-82, DOI10.5277/abb140110, 2014

C. Articole si publicatii stiintifice BDI [SCOPUS] neincluse la punctual B

1. V. Florescu, L. Rece, A. Gherghina, A. Tudorache, Modelling the durability of multibody total hip joint prosthesis, Surveys in Mathematics and its Applicationsthis link is disabled, 15, pp. 545–560, 2020
2. V. Florescu, F. Isvoranu, C. Tiganesteanu LL Badita, Contributions concerning the influence of the running-in on the roughness of the surfaces with plane contact of the friction couple, International Journal of Mechatronics and Applied Mechanics, Issue 7, DOI: 10.17683/ijomam/issue7.23, 2020

3. L. Capitanu, LL Badita, V. Florescu, Stability loss of the cemented stem of hip prosthesis due to fretting corrosion fatigue, Tribology in Industry, Volume 39, Issue 4, Pages 536-546 DOI: 10.24874/ti.2017.39.04.13, 2017
4. L. Capitanu, V. Florescu, LL Badita, High precision measurement technique of very small quantities of metallic wear, Romanian Review Precision Mechanics, Optics and Mechatronics, Volume 2016, Issue 50, Pages 217-222, 2016
5. D. Rus, L. Capitanu, V. Florescu, About an experimental modeling of steel surfaces wear in injection of plastic composites with short glass fibres, Applied Mechanics and Materials, Volume 658, Pages 365-370, DOI: 10.4028 /www.scientific.net /AMM.658.365, 2014
6. V. Florescu, L. Capitanu, On the load transfer mechanism in mom total hip prostheses with self-directed balls, 5th World Tribology Congress, WTC 2013, | Conference paper, EID: 2-s2.0-84919443134 2013
7. L. Capitanu, V. Florescu, Wear prediction of acetabular inserts due to multiple human routine activities, 5th World Tribology Congress, WTC 2013, Conference paper, EID: 2-s2.0-84919438981, 2013

D Lucrari publicate in reviste neincluse la punctele B si C

1. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, F. Isvoranu, Increasing the wear resistance of hip prosthesis by laser surface microtexturing of the femoral head, Acta Electrotehnica, vol. 60, issue 1-2, pp. 43-57, ISSN 2344-5637, ISSN-L 1841-3323, 2019.
2. D. Rus, V. Florescu, A global graphical picture of the wear depth in dry contact between composite polymer and steel, International Jornal of Applications or Innovation in Engineering & Management (IJAIEM). Vol. 6, Issue 10, pp 59.. ISSN 2319-4847, octombrie 2019
3. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, F. Isvoranu, Surface microtexturing of the prosthetic femoral head to reduce friction & wear, chimera or reality?, International Journal of Application or Innovation in Engineering & Management (IJAIEM), vol. 7, no. 10, pp. 15-30, ISSN 2319-4847, 2018.
4. L. Capitanu, LL. Badita, V. Florescu, The fretting wear of the stem trunnion of the total hip prosthesis and its influence on the stability, International Journal of Application or Innovation in Engineering & Management (IJAIEM), vol. 7, no. 8, pp. 36-46, ISSN 2319-4847, 2018
5. L. Capitanu, LL. Badita, V. Florescu, C Tiganesteanu, Implications of the fretting phenomenon on the stability of the total hip prosthesis - A review, International Journal of Application or Innovation in Engineering & Management (IJAIEM), vol. 7, no. 5, pp. 28-51, ISSN 2319-4847, 2018
6. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, Friction and contact stress analysis during the fretting fatigue, Acta Electrotehnica, vol. 59, issue 1-2, pp. 51-68, ISSN 2344-5637, ISSN-L 1841-3323, 2018
7. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, F Isvoranu, The Trunnion Fretting and Wear of The Stem of Total Hip Prosthesis and Its Influence on the Prosthesis Stability, Tribological Journal BULTRIB Vol. 7, 2018
8. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, F. Isvoranu, A Great Technical Tamping Which Was Considered A Promoting Discovery. Micro-Texturing of The

- Surface of The Prosthetic Femoral Head to Reduce Friction and Wear", Tribological Journal BULTRIB, Vol. 7 2018.
9. D. Rus, V. Florescu, A point of view about dry linear contact between glass fiber reinforced thermoplastic polymers materials on steel, International Journal of Emerging Trends & Technology in Computer Science (IJETTCS). Vol. 6, Issue 5, pp. 206. ISSN 2278-6856, octombrie 2017
 10. L. Capitanu, V. Florescu, C. Tiganesteanu, LL. Badita, Adhesion of the Coatings with Thin Layers Testing by the Inclined Cyclic Impact, Acta Electrotehnica, Vol. 58, Issue 1/2, pp. 15-25, ISSN 2344-5637, ISSN-L 1841-3323, 2017
 11. L. Capitanu, V. Florescu, LL. Badita, Transfer of Plastic Materials with SGF in Linear Dry Contact on Steel Surfaces, International Journal of Emerging Engineering Research and Technology, vol. 4, issue 6, pp. 26-37, PP 1-12, ISSN 2349-4395 (Print) & ISSN 23494409 (Online). <http://www.ijeert.org/>, 2016
 12. V. Florescu, L. Capitanu, LL. Badita, A surprising tribological validation: Metal on metal total hip prosthesis with rolling friction, International Journal of Application or Innovation in Engineering and Management (IIAIEM) Volume 5, Issue 7, pp. 25-38, ISSN 2319-4847, <http://www.ijaiem.org/index.html>, July 2016
 13. V. Florescu, L. Capitanu, LL. Badita, V Filip A Novel Engineering Spherical Bearing, with Potential Application for a Hip Implant, Journal of Mechanics Engineering and Automation, vol. 6, no. 5, pp. 217-226, ISSN: 2159-5275 (print) 2159-5283 (online), doi: 11.17265/2159-5275/2016.05.001. <http://www.davidpublisher.org/Home/Journal/JMEA>, 2016
 14. V. Florescu, L. Capitanu, V Filip, Validation a novel bearing with potential application in hip replacement, ESB Annual Congress 22nd of the European Society of Biomechanics, 88/341, Lyon, France, <https://esbiomech.org/conference/index.php/.../presentations>. Journal of Biomechanics ISSN 0021-9290, 10-13 July 2016.
 15. L. Capitanu, LL. Badita, V. Florescu, Measuring technique with high accuracy of very small quantities of metallic wear, Proceedings of „7th International Conference on Innovations, Recent Trends and Challenges in Mechatronics, Mechanical Engineering and New High - Tech Products Development”, MECAHITECH'15, September 8th - 9th, 2016, Bucharest, Romania, ISSN 1584-5982, pp. 24-29. <http://incdmtm.ro/mecahitech2016/home-2/>
 16. L. Capitanu, V. Florescu, LL. Badita, High precision measurement technique of very small quantities of metallic wea", The Romanian Review Precision Mechanics, Optics & Mechatronics, issue 50, pp. 217-222, 2016.
 17. L. Capitanu, V. Florescu, The possiblity of failure prediction in hip and knee prosthesis by using a damage estimator, International Journal of Application or Innovation in Engineering and Management (IIAIEM) Volume 5, Issue 10, pp. 17-26, ISSN 2319-4847, <http://www.ijaiem.org/index.html>, October 2016.
 18. L. Capitanu, V. Florescu,, Adhesion of thin layers testing by the inclined cyclic impact, International Journal of Application or Innovation in Engineering and Management (IIAIEM) Volume 5, Issue 9, pp. 162-171, ISSN 2319-4847, <http://www.ijaiem.org/index.html>, September, 2016
 19. L. Capitanu, V. Florescu, LL. Badita, An experimental modelling of steel surfaces wear in injection manufacturing of plastics materials with SGF, International Journal of Research in Engineering and Technology (IJRET), vol.5, no. 6, pp. 261-268, eISSN: 2319-1163, pISSN: 2321-7308. 10.5923/j.mechanics.20140401.01. <http://www.ijert.org/>, 2016

20. L. Capitanu, V. Florescu, LL. Badita, Considerations on the failure of bio-materials coated with thin layers under high impact with sliding stresses, International Journal of Application or Innovation in Engineering & Management (IJAIEM), 2016.
21. L. Capitanu, V. Florescu, LL. Badita, Considerations on the failure of biomaterials thin layers under high impact stresses with sliding, Tribological Journal BULTRIB Vol. 6, pp. 168-180, 2016.
22. L. Capitanu, L. Vladareanu, V. Florescu, The knee wear prediction of UHMWPE tibial insert using VIPRO platform, Issue 11, pag 591 – 600, DOI:10.17265/2159-5275/2015.11.001, 2015
23. D. Rus, L. Capitanu, V. Florescu, C. Tiganesteanu, LL Badita An Experimental Modelling of Steel Surfaces Wear in Injection of Plastic Composites with Short Glass Fibres, International Journal of Mechanics and Applications, vol. 4, nr. 1, pp. 1-7, p-ISSN 2165-9281, e-ISSN 2165-9303, DOI: 10.5923/j.mechanics.20140401.01, 2014
24. V. Florescu, L. Capitanu, LL. Badita, Wear prediction of acetabulum and tibial tray inserts due to multiple human activities, Journal of Tribology and Surface Engineering, vol. 3, no. 3-4, pp. 161-175, ISSN 1949-4866, 2014.
25. D. Rus, L. Capitanu, V. Florescu, LL. Badita, Quantitative-qualitative correlation of steel surface friction - wear process in linear dry contact with SGF reinforced polymers", Journal of Tribology and Surface Engineering, vol. 3, no. 3-4, pp. 203-231, ISSN 1949-4866, 2014
26. V. Florescu - Studiu privind estimarea duratei de viata remanente pentru un pod rulant monogrinda conform criteriului de rezistenta la oboseala, Buletin de Informare Tehnica BIT nr.1/2014, pg 26-34, ISSN 2360-6096, 2014
27. V. Florescu, S. Mocanu, Masuratori de eforturi sub actiunea sarcinilor de incarcare, (masuratori tensometrice) si metoda elementului finit (MEF) – solutii in verificarile tehnice în utilizare pentru investigatii/examinari cu caracter tehnic, Buletin de Informare Tehnica BIT nr.2/2014, pg 17 -26, ISSN 2360-6096, 2014
28. V. Florescu, L. Capitanu, LL. Badita Failure of a total knee prosthesis tibial tray due to the fatigue wear, World Academy of Science, Engineering and Technology, vol. 83, 636-641,, pISSN 2010-376X, eISSN 2010-3778, 2013
29. L. Capitanu, V. Florescu, LL. Badita, Studies Regarding Load Transfer Mechanism in MOM Total Hip Prostheses with Self-Directed Rolling Balls, Journal of Materials Science and Engineering A, vol. 3, no. 5A, pp. 355-362, ISSN: 2161-6213, 2013
30. L. Capitanu, V. Florescu, Tribological Aspects of Wear of Polished Steel Surfaces in Dry Friction Contact on Polymer Composites with Glass Fibres. American Journal of Materials Science 2013, 3(1): 8-18. DOI: 10.5923/j.materials.20130301.02, 2013
31. L. Capitanu, V. Florescu,, Wear Aspects of Polymer Composites in Friction on Polished Steel Surfaces. Journal of Materialas Science and Engineering A&B. A3 (6), 382 - 397. ISSN 2161-6213, 2013
32. D.C. Bursuc, L. Capitanu, V. Florescu. A solution for improving seizure resistance metal on metal total hip prostheses with self directed balls. American Journal of Materials Science. Volume 3, Number 6, November 2013.
33. L. Capitanu, LL. Badita, V Florescu, D.C. Bursuc Preliminary Study on the Seizure Trend of a MOM-THP with Self-directed Balls, Journal of Mechanics Engineering and Automation, vol. 3, no. 9, pp. 566-577, ISSN 2159-5275, 2013
34. L. Capitanu, LL. Badita, V. Florescu, D. Rus, Aspects of the influence of hardness on dry friction coefficient at a Timken type couple, plastic reinforced with glass fibres/steel,

Journal of Tribology and Surface Engineering, vol. 3, issue 1-2, pp. 95-108 ISSN: 1949-4866, 2012

35. V. Florescu, L. Capitanu, LL. Badita About Loosening Dynamics of Total Hip Prostheses, Journal of Biomechanics, vol. 45, suppl. 1, S77, ISSN 0021-9290, [https://doi.org/10.1016/S0021-9290\(12\)70078-7](https://doi.org/10.1016/S0021-9290(12)70078-7) (FI 2012: 2.716), July 2012.
36. L. Capitanu, V. Florescu, LL. Badita, D.C. Bursuc, About Failure Uncemented Hip Replacements from Fracture Stem Prosthesis, ESB, Lisabona, Portugalia, Journal of Biomechanics, vol. 45, Suppl. 1, S79, ISSN 0021-9290, [https://doi.org/10.1016/S0021-9290\(12\)70080-5](https://doi.org/10.1016/S0021-9290(12)70080-5) (FI 2012: 2.716), July 2012.
37. L. Capitanu, A.Iarovici, J.Onisoru, Stress Analysis of Iliac Bone after Total Hip Arthroplasty, Politechnical Institute Iasi Bulletin, Tom L (LIV), Fasc.6B, 2004, pp. 25-30. ISSN 1011-2855, 2004
38. A.Iarovici, L. Capitanu, J.Onisoru, Finite Element Simulation of Press-fitting Fixation of Acetabular Component in Total Hip Arthroplasty, Politechnical Institute Iasi Bulletin, Tom L (LIV), Fasc.6B/ 2004, pp. 199-205. ISSN 1011-2855, 2004
39. L.Capitanu, A.Iarovici, V.Florescu, M.Baubec, F.Petrescu, T.Zlateanu, Laying Analysis of Balls in Spherical Joint with Rolling Bodies, Buletin stiintific, Universitatea Tehnica de Constructii, nr.4/ 2001, pag. 59-71, 2001
40. L.Capitanu, L.Vladareanu, L.M.Velea, G.Teodorescu, V.Florescu, F.Petrescu, R.Munteanu, Automatizari industriale complexe in structura descentralizate si distribuita, avand la baza sesizarea prin efect piezoelectric a nivelului constant al materialelor de constructie pulverulente, aflate in incinte tehnologice inchise, Buletin stiintific, Universitatea Tehnica de Constructii, Bucuresti, nr.3/2001, pag. 18-26, 2001
41. L.Capitanu, F.Petrescu, Virgil Florescu, Aspecte privind optimizarea tribologica a proceselor de aschiere, Buletin stiintific, Universitatea Tehnica de Constructii Bucuresti, XLIII, nr.2, pag. 2-6., iulie 2000

E Lucrari sustinute la conferinte internationale

Observație: lucrarile marcate cu “*” apar si la punctele anterioare

1. *L. Capitanu, LL. Badita, V. Florescu, C. Tiganesteanu, Roughness Influence on Initiation of Fretting Fatigue Scar of Ti-6Al-4V Alloy, Proceedings Book of 9th International Conference on Tribology, BALKANTRIB 2017, pp. 394-406, ISBN: 978-605-679020-1.
2. *L. Capitanu, LL. Badita, V. Florescu, C. Tiganesteanu Primary stability analysis of uncemented acetabular liner using an axisymmetric finite element method based on computed tomography, BALKANTRIB 2017, 13-15 September, Cappadocia, Turkey Abstract Book, pp. 107.
3. D. Rus, V. Florescu, A. Sasu, R. Ursache - A graphic analytical modeling linear contact between steel and composite materials reinforced with glass fibers at high pressures and temperatures. 15th CONFERENCE ON TRIBOLOGY – 17-18 MAY 2017, Kragujevac, Serbia. <http://www.serbiatrib.mfkg.rs/preliminary%20programme%202017.pdf>.
4. V. Florescu, L. Capitanu, D. Rus, A. Sasu, R. Ursache Investigation of the failure behavior of tin coating on biocompatible stainless steel applied on metal-on- metal total hip prostheses with self directed balls. 15th INTERNATIONAL CONFERENCE ON TRIBOLOGY, 17 – 19 mai 2017, Kragujevac, Serbia. <http://www.serbiatrib.mfkg.rs/preliminary%20programme%202017.pdf>.

5. L. Capitanu, LL. Badita, C. V. Florescu, Stability Loss of the Cemented Stem of Hip Prosthesis Due to Fretting Corrosion Fatigue, in SERBIATRIB Proceedings 2017, pp. 617630, ISBN 978-86-6335-041-0. 10.24874/ti.2017.39.04.13. Serbiatrib 0354-8996 (print), 2217-7965 (online).
6. *D. Rus, V. Florescu, F. Baušić, Graphical assessment of the linear contact steel on composite material at high temperature and pressure. 10.1088/1757-899X/295/1/012014. 9th International Conference on Tribology (Balkantrib). Turkey 13-15 sept 2017 vol. 5295. Art nr UNSP 012014/2018. ISSN 1757-8981. 8<https://www-w6ebofscience-com.am.e-nformation.ro/wos/woscc/fu9ll-rec7ord/ WOS:000448617300014>
7. *D. Rus, V. Florescu, F. Baušić, An analytical interpretation of the high temperature linear contact between composite materials reinforced with glass fibers and steel. 10.1088/1757-899X/295/1/012015. 9th International Conference on Tribology (Balkantrib). Turkey 13-15 sept 2017 vol. 295. Art nr UNSP 012015/2018. ISSN 1757-8981. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/ WOS:000448617300015>
8. V. Florescu, L. Capitanu, LL. Badita, Testing Adhesion of the Coating with Thin Layers by the Inclined Cyclic Impact, Proceedings of the 4th International Conference on Advances in Mechanical Engineering ISCAME 2016, pp. 178-183.
9. V. Florescu, L. Capitanu, D. Rus, Wear modeling of steel surfaces to the flow under pressure of melts polymers with SGF, The 4th/2014 International Conference on Materials and Products Manufacturing Technology MPMT 2014 China, oct. 2014
10. C. Tiganesteanu, L. Capitanu, V. Florescu, Conical Tip Wear in Transition Deformation – Wear Map Construction under Cyclic Impact of Hardness Ceramic Materials the 4th International Conference on Energy, Environment and Sustainable Development (EESD 2014) China oct. 2014
11. V. Florescu, L. Capitanu, D. Rus A Global Tribological Approach of Friction Dry Contact Polymer with SGF on Steel, in Terms of Consequences on Metallic Surface Condition (Comparative Wear Coefficients of Steel Surface) the 3rd International Conference on Applied Mechanics and Materials (ICAMM 2014), China, nov 2014
12. L. Capitanu, D. Rus, V. Florescu - A qualitative-quantitative correlation of friction and wear processes of steel surfaces in linear dry contact with SGF. The 8th International Conference on Tribology, Sinaia 30 oct – 1 nov 2014
13. L. Capitanu, V. Florescu, D. Rus, C. Tiganesteanu, An Experimental Modeling of Steel Surfaces Wear in Injection of Plastic Materials with Short Glass Fibres. The 8th International Conference on Tribology, Sinaia 30 oct - 1 nov 2014.
14. L. Capitanu, LL. Badita, V. Florescu, D.C. Bursuc, Preliminary Study on the Seizure Trend of a MOM-THP with Self-directed Balls, in SERBIATRIB Proceedings 2013, pp. 331-340, ISBN 978-86-86663-98-6.
15. V. Florescu, LL. Badita, Gh. Gheorghe, L. Capitanu, TKP Tibial Tray Failure due to the Fatigue Wear, 19th Congress of the European Society of Biomechanics (ESB2013), S 51.2 - 131, University of Patras, Greece, 25-28 August 2013.
16. *L. Capitanu, V. Florescu, Wear Prediction of Acetabulum Inserts due to Multiple Routine Activities. Proceedings of the World Tribology Congress 2013, Torino, Italy, September 8-13, 2013, pp. 907-910. ISBN 978-88-908185.
17. *V. Florescu, L. Capitanu, On the Load Transfer Mechanism in MOM Total Hip Prostheses with Self-directed Balls. Proceedings of the World Tribology Congress 2013, Torino, Italy, September 8-13, 2013, pp. 858-861. ISBN 978-88-908185.

18. L. Capitanu, V. Florescu, D.C. Bursuc, A solution for improving seizure resistance on metal on metal onmetal total hip prostheses with self directed balls. Bultrib' 13, Sofia, 24-26 October, 2013.
19. D. Rus, V. Florescu, L. Capitanu, Modeling possibilities of very high temperature and pressures at friction contact plastics filled with glass fibers on steel. Bultrib' 13, Sofia, 24-26 October, 2013.
20. L. Capitanu, V. Florescu, Wear Aspects of Polymer Composites in Friction on Polished Steel Surfaces. 39th Leeds - Lyon Symposium on Tribology, 4-7 September 2012, Leeds, UK.
21. L. Capitanu, L.L. Badita, V. Florescu, L. Duta, I.N. Mihailescu, R. Mirescu, A possible new thin coating solution for scratch resistance of femoral head of total hip prosthesis. BulTrib 2012, October 19-20, Sofia, Bulgaria.
22. L. Capitanu, V. Florescu, LL. Badita, A new concept in durability improvement of hip total endoprostheses, in BIOMECHANICS 2012, International Conference of the Polish Society of Biomechanics, Book of Abstracts 2012, pp. 47-50, Editors: Romuald Bedzinski, Eugeniusz Sajewicz, Szczepan Piszczatowski, ISBN 978-83-62582-26-6.
23. V. Florescu, L. Capitanu, LL. Badita, About Loosening Dynamics of Total Hip Prostheses", Proceedings of ESB2012 - 18th Congress of the European Society of Biomechanics, Lisbon, Portugal, 1-4 July 2012.
24. L. Capitanu, V. Florescu, LL. Badita, D.C. Bursuc, About failure uncemented hip replacements from fracture stem prosthesis", Proceedings of ESB 2012 - 18th Congress of the European Society of Biomechanics, Lisbon, Portugal, 1-4 July 2012.
25. LL. Badita, L. Capitanu, V. Florescu Coatings Durability of the Femoral Heads, in ESMC 2012 - 8th European Solid Mechanics Conference, Graz, Austria, 9-13 July 2012, Book of Abstracts, Editors: Gerhard A. Holzapfel, Ray W. Ogden, ISBN: 978-3-85125-223-1.
26. L. Capitanu, A. Iarovici, V. Florescu, M. Baubec, Contact Mechanism Estimation of an Artificial Hip Joint Prostheses with Rolling Bodies, Proceedings of Mediterranean Trib 2002, Kayseri, Turkey, pp.273-281..
27. L. Capitanu, V. Florescu, L. Vladareanu Cereal Crops Leveling Detector using Piezoelectric Effect, International Conference on Agricultural Engineering AGENG 2002, Budapest, Hungary, p.205-209, 27-28 June 2002.
28. L. Capitanu, V. Florescu, Tribological aspects of a new design of hip prosthesis with rolling bodies having, The 7th International Conference on Tribology ,Budapest , pag. 191-194, 4-5 September 2000.
29. V. Florescu, L. Capitanu, The real area and its influence on wear rate evolution for lubricated metallic friction pair, with surface contact, The 7th International Conference on Tribology, Budapest. pag. 121-123, 4-5 September 2000.
30. L. Capitanu, V. Florescu, F. Petrescu, Tribological aspects of wear of hip joints prosthesis, The First Mediterranean Tribology Conference, Jerusalem, pag. 7/1-7/5, 8-9 November 2000.
31. V. Florescu, L. Capitanu, F. Petrescu, Some aspects about the wear of hip joints prosthesis materials, The First Mediteranean Tribology Conference, Jerusalem, pag. 8/1-8/4, 8-9 November 2000.
32. D. Pavelescu, V. Florescu, The Accuracy of the Plasticity Index, publicat in Revue Roumaine des sciences techniques – serie de MECANIQUE APPLIQUEE – TOME 42 si prezentata la Balkantrib, Sinaia 02-04 iunie 1999 p.93-97.
33. V. Florescu, Experimental method for real contact area measurement - Matrib 99 - Mai 1999 Trogir Croatoatia

34. L. Capitanu, L. Popa, V. Florescu, The wear mechanism to the friction contact of thermoplastic materials on the metallic surface, Matrib 99 Trogir – Croatia, pag. 23-29, 26-27 mai 1999.
35. L. Capitanu, V. Florescu, Some aspects of wear mechanism of thermoplastic materials, Balkantrib, Sinaia, pag. 403-408, 02-04 iunie 1999.

F Lucrari sustinute la conferinte nationale

1. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, F Isvoranu, Fretting Manifestations in total Hip Prosthesis, Acta Electrotehnica, vol. 61, no 1-2, pg. 15-33 (2019), special issue Proceedings of the XXXth Annual Symposium of the Institute of Solid Mechanics and Session of the Commission of Acoustics SISOM 2019, Bucharest, Mediamira Publishing House.
2. V. Florescu, R. Ursache, A. Sasu – Total hip prostheses with self-directed balls. Al XXV-lea Simpozion National de Utilaje pentru Constructii SINUC 2019. 13 noiembrie. <http://www.sinuc.utilajutcb.ro/>. ISSN 2285-9209 ISSN-L 2285-9209.
3. L. Capitanu, LL. Badita, C. Tiganesteanu, V. Florescu, Friction and Contact Stress Analysis during the Fretting Fatigue, SISOM 2017 Proceedings, Bucharest 18-19 May, pp. 26-44.
4. D. Rus, V. Florescu – O imagine pentru uzarea de volum a suprafetelor din otel in contactul linear uscat cu polimeri armati cu fibra de sticla. Al XXIII-lea Simpozion National de Utilaje pentru Constructii SINUC 2017. 3 noiembrie. <http://www.sinuc.utilajutcb.ro/>. ISSN 2285-9209 ISSN-L 2285-9209.
5. D. Rus, V. Florescu, O imagine globală a contactului linear uscat între materialele compozite armate cu fibre de sticlă pe oțel. Al XXIII-lea Simpozion National de Utilaje pentru Constructii SINUC 2017. 3 noiembrie. <http://www.sinuc.utilajutcb.ro/>. ISSN 2285-9209 ISSN-L 2285-9209.
6. L. Capitanu, V. Florescu, LL. Badita, C. Tiganesteanu, Adhesion of the Coatings with Thin Layers Testing by the Inclined Cyclic Impact, SISOM 2016 Proceedings, Bucharest 12-13 May, pp. 92-102.
7. V. Florescu, R. Dorin - Considerații asupra dimensionării virolelor recipientelor sub presiune având destinație stocarea gazelor petroliere lichefiate. SINUC 2009, Bucuresti, decembrie 2009. Ed. CONSPRESS. ISBN-978-973-100-050-3.
8. T. Zlateanu, V. Florescu - Schelă mobilă pentru lucrări de construcții și întreținere la clădiri p + 1. proiectare și simulare cu ajutorul metodei elementului finit. SINUC 2008, Bucuresti, decembrie 2008. Ed. CONSPRESS. ISBN-978-973-100-050-3.
9. V. Florescu, R. Dorin - Aspecte privind comportamentul recipientelor sub presiune. SINUC 2008, Bucuresti, decembrie 2008. Ed. CONSPRESS. ISBN-978-973-100-050-3
10. T. Zlateanu, V. Florescu - Proiectarea în 3D și analiza stării de tensiune și deformație, utilizând metoda elementului finit, în axele mecanismului cu bare de tip pantograf din componența robotului mobil universal pentru construcții cu 7 grade de libertate. SINUC 2006, Bucuresti, decembrie 2006
11. T. Zlateanu, V. Florescu - Determinarea stării de tensiune și deformație în carcasa inferioară a unui reductor cilindric utilizând metoda elementului finit, SINUC 2005, Bucuresti, decembrie 2005

12. T. Zlateanu, V. Florescu - Determinarea stării de tensiune și deformare într-un rezervor cilindric de gaz utilizând metoda elementului finit, SINUC 2005, Bucuresti, decembrie 2005
13. L. Capitanu, A. Iarovici, J. Onisoru, Comparative Wearing Coefficient – A Possible Way For Tribological Characterization Of Frictional Couples, Proceedings of SISOM-2004, Bucharest, 20-21 May, pp.222-229. ISBN (10) 973-27-1353
14. A. Iarovici, L. Capitanu, J. Onisoru, M. Baubec, V. Florescu - Stresses and Deformations Analysis for Hip Joint Prosthesis with Rolling Bodies. The Annual Symposium of the Institute of Solid Mechanics, SISOM, Bucharest, May 16-17, pag. 263-268, 2002
15. A. Iarovici, L. Capitanu, V. Florescu, M. Baubec, F. Petrescu - Hip Joint Prosthesis with Rolling Bodies. Part I- The Balls Arrangement Analysis, The Annual Sympozion of the Institute of Solid Mechanics, SISOM, Bucharest, 24-25 May , pag. 251-258, 2001
16. A. Iarovici, L. Capitanu, V. Florescu, M. Baubec - Hip Joint Prosthesis with Rolling Bodies, Proceedings of the Romanian Academy, Series A, 2001.
17. A. Iarovici, L. Capitanu, V. Florescu, M. Baubec, F. Petrescu - Hip Joint Prosthesis with Rolling Bodeies. Part II- Numerical and Graphycal Examples, The Annual Sympozion of the Institute of Solid Mechanics, SISOM ,Bucharest, 24-25 May , pag. 259-262, 2001.
18. L. Capitanu, V. Florescu, G. Teodorescu, F. Petrescu, Pulverulent Materials constant Levelling Detector realized in Closed Vessel, using Piezoelectric Effect, The Annual Sympozion of the Institute of Solid Mechanics, SISOM ,Bucharest, 24-25 May , pag. 264-270, 2001
19. L. Capitanu, V. Florescu, F. Petrescu, Experimental Studies of hip Replacement, The Annual Sympozion of the Institute of Solid Mechanics, SISOM, Bucharest, 24-25 May , pag. 271-274, 2000.
20. L. Capitanu, V. Florescu, M. Baubec, Transfer processes by cyclic loads on composite plastic materials/steel surfaces contact, The Annual Symposium of Solid Mechanics, Bucharest, pag. 325-342, 1999.
21. L. Capitanu, V. Florescu, L. Popa, Some aspects regarding the friction contact of thermoplastic materials on steel, International Conference of Institute of Mechanical Solids, Bucharest, pag. 113-120, 26-27 november, 1998.
22. V. Florescu, The determination of the real contact area of superior couple by means of electrical method, International Conferece of Institute of Mechanical Solids SISOM 98 - Bucharest, decembrie 1998
23. L. Capitanu, V. Florescu, F. Udrescu About theoretical model of mating pressure to the total hip joints, The Annual Symposium of Solid Mechanics, Bucharest, pag. 235-242, 1997.
24. Florescu V. Reassesment of replica method. International symposium of the Romanian Academy SISOM 97, 1997
25. V. Florescu, L. Capitanu Prezentarea unei proteze totale de sold cu mișcare de rostogolire – Expunere la Academia Medicala – Asociația Ortopezilor din România, noiembrie 1997.
26. L. Capitanu, V. Florescu Asupra unor aspecte tribologice la protezele totale de sold. O posibila soluție tehnica in implanturile ortopedice cu caracteristici tribologice imbunatatite, 7-th. International Conference on Tribology, pag. 366-373, ROTRIB 96.
27. L. Capitanu, V. Florescu, F. Udrescu Some aspects concerning the straints of the pivot type articulation having rolling bodies and those influence in friction and wear process, with application in orthopedic implants , The Annual Symposium of the Institute of Solid Mechanics, Bucharest, pag. 206-211, 1996.

28. L. Capitanu, V. Florescu Articulație sferică cu corpuri de rostogolire, cu aplicație în implanturi ortopedice, Simpozionul Tehnologii speciale și neconvenționale, Galați, octombrie 1995.

G. Brevete de invenții indexate - Internațional indexate în Web of Science Derwent Innovation

1. V. Florescu, S. Mocanu, M. Savaniu, L. Rece, Multifunctional articulated medical chair used for medical transportation, has actuation system that is placed for its conversion into stretcher, and is provided four hinges with locking unit, as well as handle for transportation, Derwent Primary Accession Number 2019-40691E, International Patent Classification A61G-001/017convertible into chairs [5]A61G-001/02

conf.dr. ing. Virgil Florescu
20.12.2021

