

Universitatea Tehnică din Cluj-Napoca
Facultatea de Autovehicule Rutiere, Mecatronică și Mecanică
Departamentul Inginerie Mecanică

Șef lucr.Dr.Ing. BOTEAN Adrian-Ioan

LISTA

lucrărilor științifice în domeniul disciplinelor din postul didactic

A – Teza de doctorat

Titlul tezei de doctorat: *Cercetări privind solicitările mecanice și termice în chiulasa motorului cu aprindere prin scanteie*

Conducător științific: *Prof.dr.ing. Hărdău Mihail*

Universitatea Tehnică din Cluj-Napoca

Susținere publică: 17.11.2009

B – Cărți și capitole în cărți publicate în ultimii 10 ani

CĂRȚI

1. **Adrian-Ioan BOTEAN**, *Osul femural uman din perspectiva Rezistenței materialelor*, Editura U.T.PRESS, Cluj-Napoca, 2023, 143 pagini, A4, ISBN 978-606-737-609-8.
2. **Adrian-Ioan BOTEAN**, *Rezistența Materialelor. Solicitări simple. Editia aII-a revizuită și adăugită*, Editura U.T.PRESS, Cluj-Napoca, 2019, 454 pagini, A4, ISBN 978-606-737-407-0.
3. **Adrian-Ioan BOTEAN**, *Rezistența Materialelor. Solicitări simple*, Editura U.T.PRESS, Cluj-Napoca, 2017, 388 pagini, A4, ISBN 978-606-737-228-1.
4. **Adrian-Ioan BOTEAN**, *Metode numerice de calcul în rezistența materialelor. Îndrumător*, Editura U.T.PRES, Cluj-Napoca, 2006, 206 pagini A4, ISBN (10) 973-662-232-0, ISBN (13) 978-973-662-232-8.

C – Lucrări indexate ISI/BDI publicate în ultimii 10 ani

C1) Articole / studii publicate în reviste de specialitate de circulație internațională recunoscute (cotate ISI)

1. **Adrian - Ioan BOTEAN**, *Approximation of the elastic curve differential equation by trigonometric series for an isotropic beam with a constant moment of inertia, complexly loaded, according to the Euler-Bernoulli theory*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.67, Issue I, pp.55-68, 2024
2. Dan Marius GHERASIM, **Adrian - Ioan BOTEAN**, Mariana ARGHIR, *Photoelasticimetry method used to highlight deformations on the left deltoid of the human body. Model creation*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.66, Issue III, pp.407-412, 2023

3. **Adrian - Ioan BOTEAN**, *Evaluation of the potential deformation energy from the elastic element of a bionic displacement system*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.65, Issue IV, pp.459-470, 2021
4. **Adrian- Ioan BOTEAN**, *Solutions to improve mobility of the plaster walking boot in patients with pathologies of the lower limb*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.64, Issue III, pp.415-422, 2021
5. Willi Andrei Uriciuc, Horațiu Vermeșan, **Adrian-Ioan BOTEAN**, Liviu Nistor, Cătălin Popa, *Research on the surface of the dental alloys with cobalt-crom base*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.62, Issue IV, pp.623-628, 2019
6. **Adrian BOTEAN**, *Optimization of a γ -type stirling engine performance based on an experimental approach*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.62, Issue II, pp.309-316, 2019.
7. **Adrian BOTEAN**, *Influence of the temperature gradient on the speed of a Stirling Gamma engine*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.61, Issue III, pp.339-346, 2018 [Index ISI]
8. **Adrian BOTEAN**, *Influence of working fluid pressure on the power of a Stirling gamma engine*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.61, Issue II, pp.195-200, 2018 [Index ISI]
9. **Adrian BOTEAN**, *The state of stresses in the proximal femoral bone in bipodal and unipodal support*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.61, Issue II, pp.189-194, 2018 [Index ISI]
10. **Adrian BOTEAN**, *Study of changing geometric characteristics in proximal femoral bone affected by osteoporosis in compliane with Singh index*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.60, Issue III, pp.369-376, 2017
11. **Adrian BOTEAN**, *State of stresses in 2D osteoporotic models according to human proximal femoral bone area in unipodal support*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.60, Issue II, pp.227-234, 2017
12. **Adrian BOTEAN**, Iacob Hiticaș, *Experimental power determination of a Gamma type Stirling engine*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.60, Issue 1, pp.103-108, 2017
13. **Adrian BOTEAN**, Marian Florescu, Alin Glogovețan, Vlad Vitan, *The functional analysis of a Gamma type Stirling engine*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.59, Issue 1, pp.53-58, 2016
14. **Adrian BOTEAN**, *Study of Stresses in Trabecular Structure in Case of Fracture Type 31-B1.3 Using Cannulated Screws, Unipodal Support*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.58, Issue 3, pp.361-368, 2015
15. **Adrian BOTEAN**, Mândru Dan, Hărdău Mihail, *Plan model to analyze the state of stresses and strains of the human proximal femoral bone*, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, ISSN 1221-5872 Vol.58, Issue 2, pp.199-204, 2015

C2) Studii publicate la conferințe indexate în baze de date internaționale de referință în domeniu (ISIProc, DBLP, ACM, IEEE, SCOPUS)¹

1. **Adrian - Ioan BOTEAN**, The Use of Trigonometric Series for the Study of Isotropic Beam Deflection, *Mathematics* 2023, 11(6), 1426 (Special Issue Advanced Mathematical Modeling and Numerical Solutions in Applied Mechanics and Engineering); <https://doi.org/10.3390/math11061426>
2. **Adrian BOTEAN**, *Thermal expansion coefficient determination of polylactic acid using digital image correlation*, EENVIRO 2017, E3S Web of Conferences 32, 01007 (2018)
3. Mihai Sorin Tripa, **Adrian BOTEAN**, Lucia Ghioltean, Adriana Sorcoi, Călin Rareș Roman, Mihaela Suci, Study of deformations for thermoplastic polyurethane membrane by finite elements method (FEM), *Applied Mechanics and Materials, Recent Tendency in Aerospace, Robotics, Manufacturing Systems, Energy and Mechanical Engineering*, Volume 841, Chapter 2: Design, Modelling and Simulation in Mechanical Engineering, pp 72-76, June 2016, ISSN: 1662-7482, doi: 10.4028/www.scientific.net/AMM.841.72
4. Ioana Alexandra Takacs, **Adrian BOTEAN**, Mihail Hărdău, Ștefan Chindriș, *Displacement-stress distribution in a femoral bone by optical methods*, 8th International Conference Interdisciplinarity in Engineering, INTER-ENG 2014, 9-10 October 2014, Tîrgu Mureș, Romania, Procedia Technology, Elsevier, ISSN 2212-0173, Volume 19, 2015, Pages 901-908, doi:10.1016/j.protcy.2015.02.129 (<http://www.sciencedirect.com/science/article/pii/S2212017315001334>)
5. **Adrian BOTEAN**, Mândru Dan, Hărdău Mihail, *Modeling human femoral neck using a 2D structure*, 8th International Conference Interdisciplinarity in Engineering, INTER-ENG 2014, 9-10 October 2014, Tîrgu Mureș, Romania, Procedia Technology, Elsevier, ISSN 2212-0173, Volume 19, 2015, Pages 921-926, doi:10.1016/j.protcy.2015.02.132, (<http://www.sciencedirect.com/science/article/pii/S2212017315001334>)
6. Takacs Ioana Alexandra, Dudescu Mircea Cristian, Hărdău Mihail, **BOTEAN Adrian Ioan**, *Experimental validation of a finite element model of an osteoporotic human femoral bone using strain gauge measurement*, The 6th International Conference „Advanced concepts in mechanical engineering”, Iași, June 12-13, 2014; *Applied Mechanics and Materials*, Vol.658 (2014) pp 513-519, Trans Tech Publications, Switzerland (www.scientific.net/AMM.658.513), ISSN 1660-9336
7. **Adrian BOTEAN**, Mihaela Suci, Lucian Fechet, Gavril Bâlc, Marius Ghereș, Sorin Grozav, *About the study of stresses for desmopan membrane by finite elements method (FEM)*, *Journal of Asian Scientific Research*, April 2014, 4(4):207-213, Online ISSN:2223-1331, Print ISSN 2226-5724 (<http://www.pakinsight.com/?ic=archive&journal=2&month=04-2014&issue=4>)
8. Mircea Cristian DUDESCU, **Adrian-Ioan BOTEAN**, Mihail HARDAU, Nicolaie BAL, *Measurement of thermoplastics tensile properties using digital image correlation*, 14th Symposium on Experimental Stress Analysis and Materials Testing with the occasion of 90 years of Strength of Materials Laboratory, 23-25 May 2013, Timișoara. *Key Engineering Materials*, Vol. 601 (2014) pp 33-36, Trans Tech Publications Switzerland.

¹ indexate în:

[ISIProc] - ISI Proceedings (<https://webofknowledge.com>)

[IEEE] - IEEE Xplore (<http://ieeexplore.ieee.org/Xplore/guesthome.jsp>)

[ACM] - ACM portal (<http://portal.acm.org>)

[DBLP] - (<http://www.informatik.uni-trier.de>)

[SCOPUS] - (<http://www.scopus.com>)

D – Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

D1) Reviste

1. Mihaela SIMION, **Adrian-Ioan BOTEAN**, Mircea BEJAN, *Determinarea rigidității unor roboți industriali*, Simpozionul științific al inginerilor de pretutindeni – Ediția a X-a, SINGRO 2012 – Educație și inginerie, București, 13-14 Septembrie 2012, Buletinul AGIR, nr.1/2013, pp133-138. (<http://www.buletinulagir.agir.ro/articol.php?id=1667>)
2. Mariana RUNCAN, **Adrian-Ioan BOTEAN**, Mariana ARGHIR, *Contribution a l'étude experimentale par methode Moire de projection sur production et transmission les vibrations mecaniques sur le corps humain*, Acta Technica Napocensis, Series: Applied Mathematics and Mechanics, 52, vol. III, International Conference Advanced Engineering In Mechanical Systems ADEMS'09, UT Press, ISSN 1221-5872, 2009.
3. **Adrian-Ioan BOTEAN**, *Thermo yielding stresses into circular plate with a central hole*, Acta Technica Napocensis, Series: Machines Construction, Materials, 51, 2008, Technical University of Cluj-Napoca, ISSN: 1224-9106.
4. **Adrian-Ioan BOTEAN**, *Thermo yielding stresses into homogeneous circular plate with a ray – dependent temperature variation*, Acta Technica Napocensis, Series: Machines Construction, Materials, 51, 2008, Technical University of Cluj-Napoca, ISSN: 1224-9106.
5. **Adrian-Ioan BOTEAN**, *Practical applications for Spider 8 device*, Acta Technica Napocensis, Scientific bulletin of the Technical University of Cluj-Napoca, Series: Machines constructions. Materials, Editura U.T.PRES, 2006, ISSN 1224-9106.

D2) Selecție cu maximum 20 lucrări în volume de conferințe

1. M. Simion, **A.I. BOTEAN**, M. Bejan, *Studiul numeric și experimental a unui robot industrial serial utilizând metoda CDI*, Conferința Tehnico-Științifică Internațională VII, Probleme actuale ale urbanismului și amenajării teritoriului, Culegere de articole, Volumul II pag.177-183, 13-15 noiembrie 2014, Chișinău, ISBN 978-9975-71-582-9
2. **Adrian-Ioan BOTEAN**, Ioana Alexandra Takacs, Mihail HARDAU, *The study of stresses distribution for the femoral bone in bipodal support – 3D modeling*, 11th Youth Symposium on Experimental Solid Mechanics, Under the auspices of: IMEKO Technical Committee 15 and Danubia – Adria Symposium, 30th of May 2012 – 2nd of June 2012, Brasov, Romania, Book of Abstract ISBN 978-606-19-0079-4; Proceedings ISBN 978-606-19-0078-7.
3. **Adrian-Ioan BOTEAN**, Mihaela SIMION, *Study of state of stresses using photoelasticity in case of an industrial robot Scara*, 11th Youth Symposium on Experimental Solid Mechanics, Under the auspices of: IMEKO Technical Committee 15 and Danubia – Adria Symposium, 30th of May 2012 – 2nd of June 2012, Brasov, Romania, Book of Abstract ISBN 978-606-19-0079-4; Proceedings ISBN 978-606-19-0078-7.
4. Mihaela SIMION, **Adrian-Ioan BOTEAN**, Mircea BEJAN, *Utilizarea fotoelasticimetriei in analiza starii de tensiuni pentru o structura de robot industrial. Consideratii generale*, A XII-a Conferinta Nationala multidisciplinara – cu participare internationala, "Profesorul Dorin PAVEL – fondatorul hidrotehnicii romanesti", Stiinta si Inginerie, vol. 21, ISBN 2067-7138, Sebes, 2012, pag. 621-628.
5. Mihaela SIMION, **Adrian-Ioan BOTEAN**, Mircea BEJAN, *Numerical study of displacements and stresses of an industrial serial robot*, The 4th International Conference Computational Mechanics and Virtual Engineering „COMEC 2011”, 20-22 October 2011, Brasov, ISBN 978 – 973 – 131 – 122 – 7.

6. Ioana Alexandra TAKACS, **Adrian-loan BOTEAN**, Mihail HARDAU, *Numerical and experimental analysis of the state of stresses of the femoral neck – plane modeling*, 10th Youth Symposium on Experimental Solid Mechanics, 25th – 28th May 2011, Chemnitz University of Technology, Department of Solid Mechanics, ISBN 978-3-941003-34-7.
7. Mihaela SIMION, **Adrian-loan BOTEAN**, Mircea BEJAN, *Experimental study of a composite beam loaded in four points bending test*, 10th Youth Symposium on Experimental Solid Mechanics, 25th – 28th May 2011, Chemnitz University of Technology, Department of Solid Mechanics, ISBN 978-3-941003-34-7.
8. Mihaela SIMION, **Adrian-loan BOTEAN**, Mircea BEJAN, *Studiul analitic si numeric al deplasarilor pentru o grinda articulata*, A XI-a Conferinta Nationala multidisciplinara – cu participare internationala, "Profesorul Dorin PAVEL – fondatorul hidrotehnicii romanesti", Stiinta si Inginerie, vol. 13, ISBN 973-8130-82-4, ISBN 978-973-720-197-3, Sebes, 2011, pag. 563-570.
9. Ioana Alexandra TAKACS, **Adrian-loan BOTEAN**, Mihail HARDAU, *Studiul fortelor care actioneaza asupra osului femural*, A XI-a Conferinta Nationala multidisciplinara – cu participare internationala, "Profesorul Dorin PAVEL – fondatorul hidrotehnicii romanesti", Stiinta si Inginerie, vol. 13, ISBN 973-8130-82-4, ISBN 978-973-720-197-3, Sebes, 2011, pag. 563-570.
10. Mircea Cristian DUDESCU, **Adrian-loan BOTEAN**, Mihail HARDAU, *Digital image correlation method applied to material testing*, 26th Danubia-Adria Symposium, Montanuniversitat Leoben, Austria, ISBN 978-3-902544-02-5, 2009.
11. **Adrian-loan BOTEAN**, *Studiul plăcilor circulare omogene, partea a II-a (The research of bending of homogeneous circular plates, part II)*, A VIII-a Conferinta Nationala multidisciplinara – cu participare internationala, "Profesorul Dorin PAVEL – fondatorul hidrotehnicii romanesti", Stiinta si Inginerie, vol. 13, ISBN 973-8130-82-4, ISBN 978-973-720-197-3, Sebes, 2008, pag. 571-580.
12. **Adrian-loan BOTEAN**, *Studiul plăcilor circulare omogene, partea I-a (The research of bending of homogeneous circular plates, part I)*, A VIII-a Conferinta Nationala multidisciplinara – cu participare internationala, "Profesorul Dorin PAVEL – fondatorul hidrotehnicii romanesti", Stiinta si Inginerie, vol. 13, ISBN 973-8130-82-4, ISBN 978-973-720-197-3, Sebes, 2008, pag. 563-570.
13. **Adrian-loan BOTEAN**, Mircea Cristian DUDESCU, Mihail HARDAU, *Applications of the 3D digital image correlation in experimental mechanics*, 15th International Conference and User Meeting, Schloss Großlaupheim, Dantec Dynamics, Sept. 22nd-23rd, 2008, Ulm, Germany, ISBN 978-3-00-025353-9.
14. Mircea Cristian DUDESCU, **Adrian-loan BOTEAN**, *Deformations measurement using digital image correlation principle*, Acta Technica Napocensis, Series: Machines Construction, Materials, 50, 2007, Technical University of Cluj-Napoca, ISSN: 1224-9106.
15. **Adrian-loan BOTEAN**, *Studiul placilor circulare cu o gaura centrala utilizand metode analitice si numerice*, A XXXI-a Conferinta Nationala de Mecanica Solidelor, Chisinau, 2007.
16. **Adrian-loan BOTEAN**, Manuela Codruta Badea, *Photoelastic calibration using Photostress System*, 24th Danubia – Adria Advances in Experimental Methods, Sibiu, Romania, 2007, ISBN 978-973-739-456-9.
17. **Adrian-loan BOTEAN**, *Aplicatii ale metodei elementelor finite in calculul de rezistenta (remorca auto)*, A VII-a Conferință Națională multidisciplinară – cu participare internațională, „Profesorul Dorin Pavel – fondatorul hidroenergeticii românești”, Sebeș 2007, Volumul 11, Editura Agir, București 2007, ISBN 973-8130-82-4, ISBN 978-973-720-123-2.
18. **Adrian-loan BOTEAN**, Augustin CRETU, Nicolae LOBONTIU, *Stress and deformation analysis of a ferry's wheel mechanical structure*, 6th European Solid Mechanics Conference, Budapest 2006, Hungary, ISBN 963 87244 0 4.
19. **Adrian-loan BOTEAN**, *Calculul și construcția chiulasei unui motor cu aprindere prin scânteie (M.A.S.) partea III-a*, A VI-a Conferință Națională multidisciplinară – cu participare internațională, „Profesorul Dorin Pavel – fondatorul hidroenergeticii românești”, Sebeș 2006, Volumul 10, Editura Agir, București 2006, ISBN-10 973-8130-82-4; ISBN-10 973-720-030-6, ISBN-13 978-973-8130-82-1, ISBN-13 978-973-720-030-3, pag.301-306.

20. Adrian-Ioan BOTEAN, *Calculul și construcția chiulasei unui motor cu aprindere prin scânteie (M.A.S.) partea II-a*, A VI-a Conferință Națională multidisciplinară – cu participare internațională, „Profesorul Dorin Pavel – fondatorul hidroenergeticii românești”, Sebeș 2006, Volumul 10, Editura Agir, București 2006, ISBN-10 973-8130-82-4; ISBN-10 973-720-030-6, ISBN-13 978-973-8130-82-1, ISBN-13 978-973-720-030-3, pag.295-300.

Data: 03.12.2024

Semnătura

