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Gradul didactic: **Șef. lucr. dr. ing.**

Instituția unde este titular: **Universitatea Ștefan Cel Mare din Suceava**

Facultatea: **Facultatea de Inginerie Mecanică, Autovehicule și Robotică**

Departamentul: **Mecanică și Tehnologii**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

A1. *"Efectul de capăt în contactul liniar dintre corpuri din materiale neliniar elastice"*, sub coordonarea Prof. dr. ing. Ilie Muscă, susținută public pe 26.04.2013.

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

1. **Stelian Alaci, Ioan Doroftei, Florentin Buium, Florina Cirnei, Ionuț Cristian Romanu**, A NUMERICAL PROCEDURE FOR POSITION ANALYSIS OF A ROBOTIC STRUCTURE. PART 1- GENERAL METHODOLOGY, New advances in mechanisms, mechanical transmissions and robotics, 2020, ISBN978-3-030-60075-4, pp 23-32, Springer Publishers..
2. **Stelian Alaci, Ioan Doroftei, Florentin Buium, Florina Cirnei, Ionuț Cristian Romanu**, A NUMERICAL PROCEDURE FOR POSITION ANALYSIS OF A ROBOTIC STRUCTURE. PART 2-3C ROBOTIC ARM ILLUSTRATION, New advances in mechanisms, mechanical transmissions and robotics, 2020, ISBN978-3-030-60075-4, pp 33-42, Springer Publishers.

C. Lucrări indexate ISI/BDI publicate în ultimii 5 ani

1. **Ciornei, FC, Alaci, S, Romanu, IC, Mihai, I, Tibu, GA**, Kinematical analysis of a generalized Cardanic joint, IOP Conference Series-Materials Science and Engineering, Volume: 477, Article Number: 012037, DOI: 10.1088/1757-899X/477/1/012037, 2019
2. **Ciornei, FC, Alaci, S, Romanu, IC, Mihai, I, Lazar, VC**, Aspects concerning the friction for the motion on an inclined plane of an axisymmetric body, IOP Conference Series-Materials Science and Engineering, Volume: 477, Article Number: 012036, DOI: 10.1088/1757-899X/477/1/012036, 2019"
3. **Romanu, IC, Musca, I**, Preliminary study for wood screws fatigue, IOP Conference Series-Materials Science and Engineering, Volume: 444, Article Number: 022005, DOI: 10.1088/1757-899X/444/2/022005, 2018
4. **Alaci, S, Ciornei, FC, Buium, F, Romanu, IC, Rusu, OT**, Grapho-analytical kinematic analysis for plane cam mechanisms and follower with finite curvature, IOP Conference Series-Materials Science and Engineering, Volume: 444, Article Number: 052001, DOI: 10.1088/1757-899X/444/5/052001, 2018
5. **Ciornei, F.C., Pentiu, R.-D., Alaci, S., Romanu, IC, Irimescu, L., Buium, F.**, Employment of hyper-cycloidal oscillatory motion for finding the coefficient of rolling friction. Part 2: Experimental investigation, IOP Conference Series-Materials Science and Engineering, 2019
6. **Ciornei, F.C., Pentiu, R.D., Alaci, S., Romanu, IC, Siretean, S.T., Ciornei, M.C.** An improved technique of finding the coefficient of rolling friction by inclined plane method, IOP Conference Series-Materials Science and Engineering, 2019
7. **Alaci, S., Ciornei, F.C., Pentiu, R.D., Ciornei, M.C., Romănu, I.C.** Upon the efficiency of gear transmissions, Journal of Physics: Conference Series, 2020.
8. **Alaci, S., Ciornei, F.C., Pentiu, R.D., Ciornei, M.C., Romănu, I.C.** Indetermination versus incompatibility in dynamic systems with dry friction, Journal of Physics: Conference Series, 2020
9. **Muscă, I., Romănu, I.C., Gagea, A.** Preliminary study of friction in automotive ball joints, IOP Conference Series-Materials Science and Engineering 2020
10. **P. C. Hangan, I. C. Romănu, I. Musca**, EXPERIMENTAL INVESTIGATIONS REGARDING CONTACT MEAN PRESSURE IN FOUR BALLS TEST, Proceedings Volume 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X; 117181P (2020) <https://doi.org/10.1117/12.2571223>
11. **C Hangan, I C Romănu, I Muscă**, ABOUT FOUR BALLS SCUFFING TEST PARAMETERS, IOP Conf. Series: Materials Science and Engineering 997 (2020) 012011 IOP Publishing doi:10.1088/1757-899X/997/1/012011

12. **IC Manolache-Rusu, I C Românu, I Muscă**, THE EVOLUTION OF LOADING CAPACITY IN BELT TRANSMISSIONS, IOP Conference Series: Materials Science and Engineering, Volume 916, ModTech International Conference - Modern Technologies in Industrial Engineering VIII 23-27 June 2020, Iasi, Romania
13. **Alaci, Stelian; Doroftei, Ioan; Buium, Florentin; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian**, A Numerical Procedure for Position Analysis of a Robotic Structure. Part II: 3C Robotic Arm Illustration, 2021, Mechanisms and Machine Science, vol 88, doi 10.1007/978-3-030-60076-1_4
14. **Alaci, Stelian; Doroftei, Ioan ; Buium, Florentin ; Ciornei, Florina-Carmen ; Romanu, Ionut-Cristian**, A Numerical Procedure for Position Analysis of a Robotic Structure. Part I: General Methodology, 2021, Mechanisms and Machine Science, vol 88, doi. 10.1007/978-3-030-60076-1_3
15. **Alaci, Stelian; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian**, Stress State in an Eccentric Elastic Ring Loaded Symmetrically by Concentrated Forces, 2022, Mathematics, vol 10, no 8, doi 10.3390/math10081314
16. **Alaci, Stelian; Doroftei, Ioan; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian; Doroftei, Ioan Alexandru**, The Kinematics of a Bipod R2RR Coupling between Two Non-Coplanar Shafts, 2022 , Mathematics, vol 10, no 16, doi 10.3390/math10162898
17. **Alaci, Stelian; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian**, Validation of Nonlinear Dependence of Rolling Friction Moment on the Normal Force for Elastic Materials, 2022, Materials, vol 15, doi 10.3390/ma15072518
18. **Alaci, Stelian; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian; Doroftei, Ioan; Bujoreanu, Carmen; Tamaşag, Ioan** A New Direct and Inexpensive Method and the Associated Device for the Inspection of Spur Gears, 2023, Machines, vol 11, no 12, doi 10.3390/machines11121046
19. **Alaci, S.; Ciornei, F.-C.; Romanu, I.-C.; Velniciuc, A.-M.; Bujoreanu, C.** , Study of Vibrations of a Cantilever Beam with Uniformly Distributed Mass, 2023, Mechanisms and Machine Science, vol127, no 97, doi 10.1007/978-3-031-25655-4_11
20. **Suciu, Cornel; Glovnea, Marilena; Romanu, Ionut Cristian**, Experimental investigations of micro-contact parameters by aid of laser profilometry and micro-indentation, 2023, Proceedings of SPIE - The International Society for Optical Engineering, doi 10.1117/12.2643290
21. **Alaci, Stelian; Doroftei, Ioan; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian; Doroftei, Ioan-Alexandru; Ciornei, Mariana-Catalina**, A New RP1PR Type Coupling for Shafts with Crossed Axes, 2023, Mathematics, vol 1110.3390/math11092025
22. **Alaci, Stelian; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian; Ciocirlan, Toma-Marian; Ciornei, Mariana-Catalina** , Solution for the Kinematics of Non-H-D Couplings Applied to RPCR Mechanism, 2023, Axioms, vol12, no4, doi 10.3390/axioms12040357
23. **Alaci, Stelian; Doroftei, Ioan ; Ciornei, Florina-Carmen; Romanu, Ionut-Cristian; Ciocirlan, Toma-Marian; Ciornei, Mariana-Catalina**, Proposed Shaft Coupling Based on RPRRR Mechanism: Positional Analysis and Consequences, 2023, Axioms, vol 12, no 7, doi 10.3390/axioms12070707
24. **Alaci, Stelian; Musca, Ilie; Bujoreanu, Carmen; Romanu, Ionut-Cristian; Nitu, Nicolae-Adrian; Ciornei, Florina-Carmen**, The Effect of Dry Friction upon the Dynamics of a Short Eccentric Rotor: An Analytical and Experimental Study, 2023, Lubricants, vol 11, no 8, doi 10.3390/lubricants11080340
25. **S Alaci, FC Ciornei, IC Romanu, I Doroftei, C Bujoreanu, I Tamaşag**, A Rapid and Inexpensive Method for Finding the Basic Parameters of Involute Helical Gears, Applied Sciences 14 (5), 2024
26. **CR Iordache, C Bujoreanu, S Alaci, FC Ciornei, IC Romanu**, Wear Reduction on the Roller–Shoe Mechanism at High Operation Loads, Coatings 14 (3), 316, 2014

D. Lucrări publicate în ultimii 5 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

Nu este cazul

- Selecție cu maximum 20 lucrări în volume de conferințe

1. **H Cătălin, I Muscă, IC Românu** CONSIDERATIONS REGARDING LUBRICANTS TESTING ON FOUR BALLS MACHINES, TEHNOMUS, 2020
2. **M GLOVNEA, C SUCIU, IC ROMÂNŪ**, MODELING OF PRESSURE DISTRIBUTIONS AND NORMAL DISPLACEMENTS IN THE CASE OF LOADS DISTRIBUTED OVER SURFACES BOUND BY CLOSED CONICAL CURVES, TEHNOMUS, 2021
3. **E SÎRGHIE, I MUSCĂ, IC ROMÂNŪ**, EXPERIMENTAL STUDY ON LOADING-UNLOADING RUBBER SPHERES DEFORMATION, TEHNOMUS, 2021

4. **S Alaci, FC Ciornei, IC Romanu, AM Velniciuc**, Study of Vibrations of a Cantilever Beam with Uniformly Distributed Mass, IFToMM International Symposium on Science, 2022
5. **Suciu, Cornel; Glovnea, Marilena; Romanu, Ionut Cristian**, Experimental investigations of micro-contact parameters by aid of laser profilometry and micro-indentation, 2022, Constanta, ATOM-N - Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies
6. **IC Romănu, IC Manolache-Rusu, I Muscă, G Ciornei**, Experimental test rig for oil film thickness study, 2022, Constanta, ATOM-N -Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies

E. Brevete obținute în întreaga activitate

1. Nu este cazul

Data:

20.10.2025

Semnătura:

