

Nume Prenume: MUSCĂ Ilie

Gradul didactic: profesor universitar doctor inginer

Instituția unde este titular: Universitatea "Ștefan cel Mare" din Suceava

Facultatea: Inginerie Mecanică, Autovehicule și Robotică

Departamentul: Mecanică și Tehnologii

LISTA

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

MUSCĂ, I., "Implicații ale reologiei în lubrificația EHD", Teză de doctorat, Universitatea "Ștefan cel Mare", Suceava, 1996, 238p.

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

1. **MUSCA. I- Elemente de tribologie** Editura Universității "Ștefan cel Mare", 2019, ISBN 978-973-666-628-5
2. **FOMIN, M., MUSCA. I. O teorie privind fenomenul de gripare, 2019, ISBN 978-606-13-4849-7**
3. **MUSCA. I. ORGANE DE MASINI Partea I BAZELE PROIECTARII ORGANELOR DE MASINI**, ISBN 978-973-666-801-2, 2024.
4. **MUSCA. I. Organe de masini Partea II BAZELE PROIECTARII TRANSMISIILOR MECANICE**, ISBN 978-973-666-848-7.

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

1. Hangan, P. C. Romanu, I. C. **Musca, I.**, Experimental investigations regarding contact mean pressure in four balls test, ADVANCED TOPICS IN OPTOELECTRONICS, MICROELECTRONICS AND NANOTECHNOLOGIES, Proceedings of SPIE Conference on Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X AUG 20-23, 2020 Constanta, ROMANIA
2. Romanu, I. C., **Musca, I.**, Preliminary study for wood screws fatigue 8TH INTERNATIONAL CONFERENCE ON ADVANCED CONCEPTS IN MECHANICAL ENGINEERING IOP Conference Series-Materials Science and Engineering, 8th International Conference on Advanced Concepts in Mechanical Engineering (ACME) Iasi, ROMANIA, 2018, <http://dx.doi.org/10.1088/1757-899X/444/2/022005>
3. Alaci, S, **Musca, I**, Pentiuc, SG, Study of the Rolling Friction Coefficient between Dissimilar Materials through the Motion of a Conical Pendulum, MATERIALS, <http://dx.doi.org/10.3390/ma13215032>, 2020, WOS:000589407200001.
4. Manolache-Rusu, IC, Românu, IC, **Musca, I**, The evolution of loading capacity in belt transmissions MODTECH INTERNATIONAL CONFERENCE - MODERN TECHNOLOGIES IN INDUSTRIAL ENGINEERING VIII IOP Conference Series-Materials Science and Engineering, 8th International Conference on Modern Technologies in Industrial Engineering VIII (ModTech) JUN 23-27, 2020
5. **Musca, Ilie**, Varareanu, Elena, Marchitan, Marius, ABOUT LOCAL AND VOLUME DISPLACEMENTS OF HIGHLY COMPLIANT SPHERES, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, WOS:001532429000008.2024.
6. Siretean, ST, Alaci, S, **Musca, I**, Ciornei, FC, Determining the coefficient of rolling friction using hypocycloidal oscillations, 8th International Conference on Advanced

- Concepts in Mechanical Engineering (ACME), JUN 07-08, 2018, IOP Conference Series-Materials Science and Engineering, <http://dx.doi.org/10.1088/1757-899X/444/2/022017>, WOS:000467443600017.
7. Sirghie, E, **Musca, I**, Romanu, IC, Nazarie, IM, Experimental and Numerical Evaluation of the Stress-strain Characteristic for Synthetic Rubber Spheres, MATERIALE PLASTICE, 2668-8220, 2024, WOS:001339285800007.
 8. **Musca, I**, Romănu, IC, Gagea, A, Preliminary study of friction in automotive ball joints, 14th International Conference on Tribology (ROTRIB 19), IOP Conference Series-Materials Science and Engineering, Tech Univ Cluj Napoca, Cluj Napoca, ROMANIA, SEP 19-21, 2019. <http://dx.doi.org/10.1088/1757-899X/724/1/012020>, WOS:000619349400020.
 9. Romănu, IC, **Musca, I**, Coutun, N, Juravle, A, A simple solution for evaluation of lubricants anti-wear properties, IOP Conference Series-Materials Science and Engineering, 7th International Conference on Advanced Concepts in Mechanical Engineering (ACME) JUN 09-10, 2016, Iasi, ROMANIA, <http://dx.doi.org/10.1088/1757-899X/147/1/012025>, WOS:000390720200025.
 10. Spinu, S, Cerlinca, D, **Musca, I**, The frictional contact of coated bodies. Part I - The sliding contact, 7th International Conference on Modern Technologies in Industrial Engineering (ModTech), IOP Conference Series-Materials Science and Engineering JUN 19-22, 2019, <http://dx.doi.org/10.1088/1757-899X/591/1/012069>, WOS:000562929900069
 11. Spinu, S, Cerlinca, D, **Musca, I**. The frictional contact of coated bodies. Part II - The slip-stick contact, IOP Conference Series-Materials Science and Engineering, 7th International Conference on Modern Technologies in Industrial Engineering (ModTech), JUN 19-22, 2019 Iasi, ROMANIA, <http://dx.doi.org/10.1088/1757-899X/591/1/012070>, WOS:000562929900070.
 12. Fomin, M, **Musca, I**, Numerical considerations regarding the occurrence of plastic shearing with implications in scuffing, IOP Conference Series-Materials Science and Engineering, 14th International Conference on Tribology (ROTRIB'19), SEP 19-21, 2019, Tech Univ Cluj Napoca, Cluj Napoca, ROMANIA. 1757-8981, <http://dx.doi.org/10.1088/1757-899X/724/1/012013>, WOS:000619349400013.
 13. Alaci, S, **Musca, I**, Bujoreanu, C, Romanu, IC, Nitu, NA, Ciornei, FC, The Effect of Dry Friction upon the Dynamics of a Short Eccentric Rotor: An Analytical and Experimental Study, LUBRICANTS, 2075-4442, <http://dx.doi.org/10.3390/lubricants11080340>, WOS:001057948200001.2023

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- Selecție cu maximum 20 lucrări în volume de conferințe

1. Vasilache, M.F., Muscă, I., The control of the lubricant film by the resistive method for scuffing. Tribology in Industry, 2015, 37(3), pp. 336–339.
2. Nazarie, I.M., Musca, I., ABOUT TIRE -RUNWAY FRICTION MEASUREMENTS, TEHNOMUS - New Technologies and Products in Machine Manufacturing Technologies, pp. 66-70, 2023.
3. Romănu I. C., Glovnea M., Manolache -Rusu I.-C., Muscă I., Alaci S., Bădărău -Șuster H., EXPERIMENTAL TEST RIG FOR VEHICLE BRAKE PAD EVALUATION, TEHNOMUS - New Technologies and Products in Machine Manufacturing Technologies, 2023, pp. 71-75.
4. Tamașag, I., Beșliu-Băncescu, I., Muscă, M., A SIMPLE NON-CONTACT METHOD TO EVALUATE HIGH DEFORMABLE BODIES DEFORMATION,

New Technologies and Products in Machine Manufacturing Technologies, 2023, pp. 95-100.

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5. Hangan, C., Romanu, I.C., Muscă, I., About four balls scuffing test parameters. IOP Conference Series: Materials Science and Engineering, 2020, 997(1), 012011.
6. Manolache-Rusu, I.C., Romanu, I.C., Muscă, I., The evolution of loading capacity in belt transmissions. IOP Conference Series: Materials Science and Engineering, 2020, 916(1), 012065.
7. Fomin, M., Musca, I., Numerical considerations regarding the occurrence of plastic shearing with implications in scuffing. IOP Conference Series: Materials Science and Engineering, 2020, 724(1), 012013.
8. Hangan, P.C., Romanu, I.C., Musca, I., Experimental investigations regarding contact mean pressure in four balls test. Proceedings of SPIE - The International Society for Optical Engineering, 2020, 11718, 117181P.
9. Siretean, S.T., Muscă, I., Alaci, S., Ciornei, F.-C., Use of hypocycloidal motion in the study of rolling friction. Mechanisms and Machine Science, 2018, 57, pp. 467–476.

E. Brevete obținute în întreaga activitate

1. BELOUSOV, V., MIREA, C., **MUSCĂ, I.**, IBĂNESCU, R., 02.03.1983, "Freză frontală cu dinți demontabili armați". Brevet nr. 81629, România.
2. MIHAILIDE, M., **MUSCĂ, I.**, ș.a., 19.02.1986, "Freză de învăluire". Brevet nr. 89400, România.
3. MIHAILIDE, M., **MUSCĂ, I.**, ș.a., 10.12.1984, "Freză de învăluire cu plăcuțe fixate mecanic" Brevet nr. 86294, România.
4. COMAN, Gh., **MUSCĂ, I.**, ZAHARIA, L., "Cap de forjat orbital", Brevet de invenție nr. 96339.
5. **MUSCĂ, I.**, CIORNEI, F.C., PRODAN R.C., Dispozitiv pentru măsurarea simultană a parametrilor caracteristici pentru contactul mecanic dintre zona falangei distale a unui deget și o suprafață plană transparentă. Brevet de invenție 12590/30.09.2011 (**Indexat ISI Thompson**).

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Semnătura:

