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Gradul didactic: **Şef lucrări**

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

1. "Cercetări privind frânarea de tip Jake la motoarele diesel", Universitatea "Ștefan cel Mare", Suceava, sub coordonarea Prof. dr. ing. Ioan MIHAI, susținută public pe 24.07.2015.

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

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

1. Ștefan-Constantin LUPESCU, I.C. MANOLACHE-RUSU, Cornel-Camil SUCIU, Design and construction of a stand for checking the shape deviations of brake discs, fim.usv.ro/wp-content/uploads/sites/9/2023/12/18.pdf, TEHNOMUS Journal No. 30, ISSN 1224-029x, Published **2024**
2. Ionuț-Cristian ROMÂNĂ, I.C. MANOLACHE-RUSU, Ilie MUSCĂ, Stelian ALACI, Marilena GLOVNEA, Bădărău-Șuster Helene, Experimental test rig for vehicle brake pad evaluation, fim.usv.ro/wp-content/uploads/sites/9/2023/12/11.pdf, TEHNOMUS Journal No. 30, ISSN 1224-029x, Published **2024**
3. **Manolache-Rusu, I. C.**, Tamașag I., Beșliu-Băncescu I., Surface roughness investigation of CNC pocket milling of hardwood beech, Proceedings of SPIE, Vol. 12493, Published **2023**, DOI: 10.1117/12.2643135 (SCOPUS), ISBN 978-151066093-9
4. Glovnea, M., Suci, C., **Manolache-Rusu, I. C.**, Theoretical modeling of the dependence between micro-contact parameters and mechanical properties of contact materials, Proceedings of SPIE, Vol. 12493, Published **2023**, DOI: 10.1117/12.2643294 (SCOPUS), ISBN 978-151066093-9
5. Românu Ionuț Cristian, **Manolache-Rusu I.C.**, Muscă Ilie, Ciornei Gavril, Experimental test rig for oil film thickness study, Proceedings of SPIE, Vol. 12493 Published **2023**, DOI 10.1117/12.2643130 (SCOPUS), ISBN 978-151066093-9
6. Grădinariu, C.A., Mihai, I., **Manolache-Rusu, I. C.**, Suci, C., Dynamic performances in diesel engines supercharged by electrically driven axial compressors compared to other forced induction systems, Published **2022**, Ingineria Automobilului, Nr.:63 pp:19-24, WOS:000880290800005.
7. Ioan TAMAȘAG, Irina BEȘLIU-BÎNCESCU, Traian Lucian SEVERIN, I.C. MANOLACHE-RUSU, Irinel Vasile EȘI, Experimental comparison of abs-like resin and abs filament used in additive manufacturing, fim.usv.ro/wp-content/uploads/sites/9/2023/01/02.pdf, TEHNOMUS Journal No. 29, ISSN 1224-029x, Published **2022**
8. Rusu I., **Manolache-Rusu I.C.**, Diaconu A., Palamarciuc O., Gural'Skiy I., Molnar G., Rotaru A., Pressure gradient effect on spin-crossover materials: Experiment vs theory, Published **2021**, Journal of Applied Physics, Volume 129, Issue 6, article id.064501, DOI: 10.1063/5.0042582.
9. **Manolache-Rusu I.C.**, Suci C., Tamașag I., Picus C., Preliminary investigations upon the influence of CNC milling strategy on hardwood surface parameters, Published **2021**, Tehnomus Journal, Vol. 28, ISSN-1224-029X.
10. **Manolache-Rusu, I.C.**, A parametric cad model for an external helical gear, Published **2020**, TEHNOMUS Journal, No.27, pp.67-70
11. **Manolache-Rusu, I.C.**, Experimental investigations upon surface damages of spark plug central electrodes, Published **2020**, TEHNOMUS Journal, No.27, pp.46-52
12. I.C. **Manolache-Rusu**, C. Suci, I. Mihai, Analysis of a passive vs. semi-active quarter car suspension model, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 117181Q, <https://doi.org/10.1117/12.2571225>

13. C. Picus, I. Mihai, **I.C. Manolache-Rusu**, Simulation of the impact of a liquid jet upon contact with a perpendicular surface versus an inclined one, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 1171815, <https://doi.org/10.1117/12.2571167>
14. C. Picus, I. Mihai, **I.C. Manolache-Rusu**, VOF method developed for the evaporation of liquid droplets that come into contact with heated surfaces, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 1171814, <https://doi.org/10.1117/12.2571165>
15. A.C. Grădinariu, **I.C. Manolache-Rusu**, I. Mihai, Experimental evaluation of the air flow rate and boost pressure by aid of the diaphragm method for an electrically driven axial compressor, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 1171810, <https://doi.org/10.1117/12.2571155>
16. A.C. Grădinariu, **I.C. Manolache-Rusu**, I. Mihai, Compression ratio influence on the performances of a diesel engine equipped with an electrically driven axial compressor, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 1171811, <https://doi.org/10.1117/12.2571156>
17. C. Suci, **I.C. Manolache-Rusu**, I. Beșliu-Băncescu, Optical investigations of the 3D printing regime influence on surface parameters, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 117181N, <https://doi.org/10.1117/12.2571220>
18. M. Beniuga, I. Mihai, **I.C. Manolache-Rusu**, The modification of vaporization times and the evolution analyze of diameters of fuel drops depending about gaseous ambient temperature, Published **2020**, Proc. SPIE 11718, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies X, 1171813, <https://doi.org/10.1117/12.2571160>
19. **I.C. Manolache-Rusu**, I.C. Romănu, I. Muscă, The evolution of loading capacity in belt transmissions, Published **2020**, IOP Conf. Ser.: Mater. Sci. Eng., 916, 012065, DOI: <https://doi.org/10.1088/1757-899X/916/1/012065>
20. **I.C. Manolache-Rusu**, I. Muscă, M. Glovnea, E. Varareanu-Stroici, Experimental study of friction between an aluminum pulley and a rubber strip, Published **2019**, TEHNOMUS Journal No. 26, pp. 86-90 ISSN 1224-029x
21. **I.C. Manolache-Rusu**, T. Severin The influence of the exhaust pipe length over the braking torque produced by a diesel engine, Published **2019**, TEHNOMUS Journal No. 26, pp. 29-33 ISSN 1224-029x
22. D. Melinte, **I.C. Manolache-Rusu**, C. Suci An overview of draught regulators used in solid fuel boilers, Published **2019**, TEHNOMUS Journal No. 26, pp. 101-105 ISSN 1224-029x
23. **I.C. Manolache-Rusu**, M. Glovnea, C. Suci, Estimation of braking capability for two distinct auxiliary engine brake systems paired with an exhaust brake, Published **2019**, IOP Conference Series: Materials Science and Engineering, 568 (1), 012024, DOI: <https://doi.org/10.1088/1757-899X/568/1/012024>
24. **I.C. Manolache-Rusu**, M. Glovnea, C. Suci, Preliminary studies on the braking efficiency of an engine working in combined Jake brake and exhaust brake regime, Published **2019**, IOP Conference Series: Materials Science and Engineering, 591 (1), 012056, DOI: <https://doi.org/10.1088/1757-899X/591/1/012056>
25. M. Glovnea, **I.C. Manolache-Rusu**, C. Suci, Modeling of stress and strain states induced by torsion of straight rods with elliptical cross sections, Published **2019**, IOP Conference Series: Materials Science and Engineering 591 (1), 012047, DOI: <https://doi.org/10.1088/1757-899X/591/1/012047>
26. M. Glovnea, **I.C. Manolache-Rusu**, C. Suci, Theoretical aspects regarding the straight rod with elliptical cross section subjected to torsion, Published **2019** IOP Conference Series: Materials Science and Engineering 591 (1), 012048, DOI <https://doi.org/10.1088/1757-899X/591/1/012048>
27. **I.C. Manolache-Rusu**, I. Mihai, Study of the combustion process in a rotary engine with constant combustion chamber, Published **2018**, Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies IX, Book Series: Proceedings of SPIE Volume: 10977 Article Number: UNSP 109772M DOI: 10.1117/12.2323796, WOS:000458717900093, ISSN: 0277-786X, eISSN: 1996-756X, ISBN: 978-1-5106-2614-0
28. **I.C. Manolache-Rusu**, Exhaust brake system model and torque simulation results on a diesel single-cylinder engine, Published **2018**, TEHNOMUS Journal No. 25, pp. 27-34 ISSN 1224-029x

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

1. **I.C. Manolache-Rusu**, C. Suci, I.C. Romănu, A. C. Dumistrăcel, Experimental Set-Up and Preliminary Study on the Evolution of Tire-Road Contact Patch, **Advanced Topics on Measurement and Simulation (ATOMS) 28-30 Aug. 2024 Constanta, Romania**
2. Ș.C. LUPESCU, **I.C. MANOLACHE-RUSU**, C.C. SUCIU, Design and construction of a stand for checking the shape deviations of brake discs, fim.usv.ro/wp-content/uploads/sites/9/2023/12/18.pdf, TEHNOMUS Journal No. 30, ISSN 1224-029x, Published **2024**

E. Brevete obținute în întreaga activitate

Data:
17.10.2025

Semnătura:

