

LISTA

lucrărilor științifice în domeniul disciplinelor din postul didactic

A – Teza de doctorat

“Contribuții la cinematica și dinamica unui nou robot paralel cu cinci grade de mobilitate pentru chirurgia minim invazivă și integrarea acestuia într-o platformă E-learning pentru chirurgia hepatică”

Conducător științific: Prof. Dr. Ing. Nicolae Plitea

Universitatea Tehnică Cluj-Napoca

Susținere publică: 27.10.2011.

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

CĂRȚI

1. Nour Crișan, Sanda Bodea, **Iacob-Liviu Scurtu**: Desen tehnic pentru asamblări în proiectare, Editura Risoprint, ISBN: 978-973-53-0920-6, Cluj Napoca, 2012.
2. Sanda Bodea, **Iacob-Liviu Scurtu**: Geometrie descriptivă și desen tehnic, Editura Risoprint, ISBN: 978-973-53-1902-1, Cluj Napoca, 2016
3. Cornel Ciupan, Emanuela Sorina Pop, Mihai Damian, Cristina Miron Borzan, Mihai Steopan, **Iacob-Liviu Scurtu**, Grigore Marian Pop, Alexandru Popan, Razvan Curta, Nicolae Panc, Mihai Ciupan: Îndrumător pentru practica studenților în atelierul mecanic, Editura UTPRESS, ISBN – 978-606-737-418-6, 2019.
4. **Scurtu, I-L.**, Szabo, I., Rusan, C-I., Infografică Tehnică- Îndrumător de laborator, ISBN: 978-606-737-695-1, Cluj Napoca, 2024,

CAPITOLE DE CARTE

1. Nicolae Vlad Burnete: Tendințe tehnologice în domeniul autovehiculelor, Editura UTPRESS, ISBN – 978-606-737-641-8, 2023, Scurtu Iacob-Liviu-coautor la capitolul: Tendințe de dezvoltare a surselor energetice utilizate în construcția vehiculelor electrice

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

c1) Articole / studii publicate la conferințe indexate sau în reviste de specialitate de circulație internațională recunoscute (cotate ISI)

1. Szabo, I., **Scurtu, L. I.**, Raboca, H., & Mariasiu, F. (2023). Topographical optimization of a battery module case that equips an electric vehicle. Batteries, 9(2), 77.
2. **Scurtu, L. I.**, Szabo, I., & Gheres, M. (2023). Numerical Analysis of Crashworthiness on Electric Vehicle's Battery Case with Auxetic Structure. Energies 2023, 16, 5849.
3. Furcea L, Graur F, **Scurtu L**, Plitea N, Pîslă D, Vaida C, Deteșan O, Szilaghy A, Neagoș H, Mureșan A, Vlad L. The advantages of implementing an e-learning platform for laparoscopic liver surgery. Chirurgia (Bucur). 2011 Nov-Dec;106(6) 799-806. PMID: 22308919.

c2) Studii publicate la conferințe sau în reviste indexate în baze de date internaționale de referință în domeniul (DBLP, ACM, IEEE, SCOPUS, etc)¹

¹ indexate în:

[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>)

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1. **Scurtu, I. L.**, & Moldovanu, D. (2024, September). Conceptual design of an electric vehicle chassis using topology optimization method. In IOP Conference Series: Materials Science and Engineering (Vol. 1311, No. 1, p. 012022). IOP Publishing.
 2. **Scurtu Iacob-Liviu**, Aerodynamic performance evaluation for a vehicle structure equipped with a bicycle rack, RoJAE vol. 27 no. 1 / March 2021, ISSN 2457 – 5275 (Online, English), 2021
 3. **Scurtu L.**, Jurco A., Borza E.V., Mariasiu F., Vlad N., Morariu S. Aerodynamic Study of an Electric Vehicle Prototype, In: Dumitru I., Covaciu D., Racila L., Rosca A. (eds) The 30th SIAR International Congress of Automotive and Transport Engineering. SMAT 2019. Springer, Cham. https://doi.org/10.1007/978-3-030-32564-0_56 , 2020
 4. **Scurtu L.**, Borzan Al., Mariasiu F., Vlad N., Varga B., Morariu S. Drag Coefficient Analysis for Side Mirrors of an Electric Vehicle Prototype, In: Dumitru I., Covaciu D., Racila L., Rosca A. (eds) The 30th SIAR International Congress of Automotive and Transport Engineering. SMAT 2019. Springer, Cham. https://doi.org/10.1007/978-3-030-32564-0_57 , 2020
 5. Balcau M., **Scurtu L.** (2020) Design and CFD Simulation of an Automotive Air Heat Exchanger. In: Dumitru I., Covaciu D., Racila L., Rosca A. (eds) The 30th SIAR International Congress of Automotive and Transport Engineering. SMAT 2019. Springer, Cham. https://doi.org/10.1007/978-3-030-32564-0_58.
 6. **Scurtu, L.**, Szabo, I., Mariasiu, F., Moldovanu, D., Mihali, L. and Jurco, A., 2019, August. Numerical analysis of the influence of mechanical stress on the battery pack's housing of an electric vehicle. In IOP Conference Series: Materials Science and Engineering (Vol. 568, No. 1, p. 012054). IOP Publishing, <https://doi.org/10.1088/1757-899X/568/1/012054>.
 7. **Scurtu, L.**, B. O. Varga, F. Mariasiu, T. Buidin, Adela Borzan, and D. Moldovanu. "Numerical analysis of the SOC factor variations' influence on the autonomy of an electric vehicle." In IOP Conference Series: Materials Science and Engineering, vol. 568, no. 1, p. 012046. IOP Publishing, 2019, <https://doi.org/10.1088/1757-899X/568/1/012046>.
 8. **Scurtu IL.**, Balcau MC., Jurco AN. (2019) Topography Optimization of a Bracket Used for Car Bodywork Reinforcement. In: Burnete N., Varga B. (eds) Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018). AMMA2018 2018. Proceedings in Automotive Engineering. Springer, Cham. https://doi.org/10.1007/978-3-319-94409-8_8
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 10. **L. Scurtu**, N. Plitea, N. Crișan, D. Pîslă: Kinematics and Workspace of a New Surgical Robot with Five Degrees of Freedom, pp.406-411 2012 IEEE International Conference on Automation, Quality and Testing, Robotics, THETA 18th edition 24th -27th May, Cluj-Napoca, Romania, IEEE Catalog Number: CFP12AQT-PRT, ISBN: 978-1-4673-0702-4, DOI: 10.1109/AQTR.2012.6237744.
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 12. F. Graur, M. Frunza, R. Elisei, L. Furcea, **L. Scurtu**, C. Radu și alții: Ethics in Robotic Surgery and Telemedicine, New Trends in Mechanism Science, ISBN 978-90-481-9688-3, Proceeding in Eucomes Conference, 2010, Cluj, România, . https://doi.org/10.1007/978-90-481-9689-0_53.
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D – Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

1. Prodan, C. V., & **Scurtu, I. L.** (2024). Design and evaluation of a horse saddle using cad software. *Journal of Industrial Design and Engineering Graphics*, 19(1), 169-172.
 2. **Scurtu, I. L.**, & scurtu, A. D. (2024). Aerodynamics evaluation of high-rise buildings. *Journal of Industrial Design and Engineering Graphics*, 19(1), 117120-117120.
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 5. Scurtu, I. L., Balcău, M., Jurco, A., Craciun, I., Kiraly, A., & Szabo, I. (2023). Evaluation and improving the aerodynamics of the commercial van. *Journal of Industrial Design and Engineering Graphics*, 18(1), 17-22.
 6. Bodea, Sanda-Mariana; Scurtu, Iacob-Liviu. Aerodynamic evaluation of a motorcycle helmet. *Journal of Industrial Design & Engineering Graphics*, 2022, 17.2.
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 11. Scurtu, I. L., & Gheres, M. I. (2022). Numerical evaluation of vehicles aerodynamics in platoon using CFD simulation. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1220, No. 1, p. 012024). IOP Publishing.
 12. Scurtu IL, Jurco AN. Aerodynamics for a trailer adapted to road transport of animals. In *International Symposium, ISB-INMA-TEH, Agricultural and Mechanical Engineering, Bucharest, Romania, 31 October-1 November 2019*. 2019 (pp. 515-522). INMA Bucharest.
 13. Jurco AN, Scurtu IL., Geometrical design and crash simulation of a shock absorber. *International Symposium, ISB-INMA-TEH, Agricultural and Mechanical Engineering, Bucharest, Romania, 31 October-1 November 2019*. 2019. INMA Bucharest.
 14. Scurtu LI, Jurco AN. Airflow and thermal comfort of the bus passengers. *Journal of Industrial Design and Engineering Graphics*. 2019 May 20;14(1):171-4.
 15. Jurco AN, Scurtu LI. Thermal comfort in office buildings. *Journal of Industrial Design and Engineering Graphics*. 2019 May 20;14(1):123-6.
 16. Scurtu IL, Gheres M, Jurco AN. Sloshing simulation of the liquid from the truck tanker. In *International Symposium, ISB-INMA TEH'2018, Agricultural and mechanical engineering, Bucharest, Romania, 1-3 November 2018* (pp. 143-148). INMA Bucharest.
 17. Jurco AN, Gheres M, Jurco EC, Scurtu IL. CFD study of the exhaust gases distribution for tractors without cab. In *International Symposium, ISB-INMA TEH'2018, Agricultural and mechanical engineering, Bucharest, Romania, 1-3 November 2018* (pp. 149-152). INMA Bucharest.
 18. Iacob-Liviu SCURTU, Alexandra-Daniela SCURTU, Ancuța Nadia JURCO, Horea-George CRIȘAN, Optimizarea topologică a structurilor în inginerie, 2017, Volumul 32, Lucrările celei de a XVI-a Conferințe Naționale multidisciplinare – cu participare internațională - "Profesorul Dorin Pavel - fondatorul hidroenergeticii românești", Sebeș, publicat în Știință și Inginerie, Ed. AGIR, București, ISSN 2067-7138, 2017.
 19. Horea-George CRIȘAN, Oana-Adriana CRIȘAN, Elena-Simina LAKATOS, Iacob-Liviu SCURTU, Aspecte privind efectele poluării autovehiculelor asupra mediului înconjurător - Studiu de caz, 2017, Volumul 32, Lucrările celei de a XVI-a Conferințe Naționale multidisciplinare – cu participare internațională - "Profesorul Dorin Pavel - fondatorul hidroenergeticii românești", Sebeș, publicat în Știință și Inginerie, Ed. AGIR, București, ISSN 2067-7138, 2017.
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<http://sorging.ro/jideg/index.php/jid/article/view/325>
 21. Horea George CRISAN, Sanda Mariana BODEA, Ancuta Nadia JURCO, Iacob-Liviu SCURTU, Designing an effective intersection using cad environment. *JIDEG*, n. 12, p. 97-100, mai 2017, ISSN 2344-4681.
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24. Ancuța Nadia JURCO, Eugen Claudiu JURCO, **Iacob-Liviu SCURTU**, Bianca URS, Monitoring studies of sewage treatment plant from the city of huedin through the prism of water quality parameters, Lucrările celei de a XVI-a Conferințe Naționale multidisciplinare – cu participare internațională - "Profesorul Dorin Pavel - fondatorul hidroenergeticii românești", Sebeș, publicat în Știință și Inginerie, , Ed. AGIR, București, ISSN 2067-7138, 2016.
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28. **Scurtu LI**, Ștefan Bodi, Dragomir M. Optimization methods applied in CAD based furniture design. ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING. 2015 Nov 28;58(4).
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31. D. Baldean, N. Crisan, **L. Scurtu**: Experimental research of a common rail diesel injection system using advantages engineering methods, Acta Tehnica Napocensis, ISSN 2284-743X, Volume 2, Issue 4 Special Edition, October - December 2013, pp. 43-46, Environmental Engineering and Sustainable Development Entrepreneurship, EESDE.
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33. **L. Scurtu**, M. Orban, N. Crișan: Comparative Methods for Determining the Line of Intersection Between Two Planes, Acta Technica Napocensis, Vol. 55, Issue II, ISSN 1221-5872, Cluj-Napoca, 2012.
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38. D. Pîslă, N. Plitea, C. Vaida, B. Prodan, A. Vidrean, M. Glogoveanu, **L.Scurtu**, C. Sabou, D. Leșe, M. Suci: Innovative development of parallel microrobots with six degrees of freedom with four and five guiding kinematic chains of the platform, Acta Technica Napocensis Vol.III, 51, ISSN 1221-5872, Cluj-Napoca, 2008.
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E – Brevete obținute pentru întreaga activitate

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<https://ro.espacenet.com/publicationDetails/biblio?II=1&ND=3&adjacent=true&locale=ro> RO&FT=D&date=20220530&CC=RO&NR=135733A2&KC=A2
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2. MARIASIU FLORIN EMIL [RO]; SCURTU LIVIU IACOB [RO]; VARGA BOGDAN OVIDIU, DISPOZITIV AERODINAMIC AMPLASAT SUPERIOR DESTINAT SEMIREMORCILOR DE TRANSPORT RIGIDE, Date bibliografice: RO135734 (A2) — 2022-05-30,
https://ro.espacenet.com/publicationDetails/biblio?II=0&ND=3&adjacent=true&locale=ro_RO&FT=D&date=20220530&CC=RO&NR=135734A2&KC=A2
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 4. N. Plitea, D. Pîslă, C. Vaida, A. Vidrean, D. Lese, L. Scurtu: Familie de roboti pentru poziționare cu orientare constantă a platformei (efectorului final), Patent nr. A/10021/2010.
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Semnătura

