

LISTA DE LUCRĂRI

a. Lista de lucrări relevante

1. **Mariana Rațiu**, Alexandru Rus. *Mecanisme*. Editura Universității din Oradea, 2025. ISBN 978-606-10-2426-1
2. **Mariana Ratiu**, Mariana Adriana Prichici. *Industrial robot trajectory optimization- a review*. MATEC Web of Conferences 126, 02005 (2017). <https://doi.org/10.1051/mateconf/201712602005>
3. **M Ratiu** and D M Anton. *A brief overview of parallel robots and parallel kinematic machines*. 2020 IOP Conference Series: Materials Science and Engineering 898 012007. <https://iopscience.iop.org/article/10.1088/1757-899X/898/1/012007>
4. Tătaru, M.-B.; Rus, A.; Vesselényi, T.; **Rațiu, M.**; Țarcă, I. *Synthesis and Functional Optimization of a Vibratory Machine with a Parallel Mechanism Structure*. Appl. Sci. 2025, 15, 4910. WOS:001487688200001. <https://doi.org/10.3390/app15094910> <https://www.mdpi.com/2076-3417/15/9/4910>
5. **M. Ratiu** and A. Rus, *Modeling of the trajectory-generating equipments*, 2017 14th International Conference on Engineering of Modern Electric Systems (EMES), Oradea, Romania, 2017, pp. 216-219, doi: 10.1109/EMES.2017.7980418. WOS:000427085200051. <https://ieeexplore.ieee.org/abstract/document/7980418>
6. **Ratiu Mariana**. *Nanotechnology in textile industry (Review)*. Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XVI No. 2 2015. pp 83-88 <https://doaj.org/toc/1843-813X>
7. **Mariana Ratiu**, Alexandru Rus, and Monica Loredana Balas. *Modeling in ADAMS of a 6R industrial robot*. MATEC Web of Conferences 184, 02006 (2018) <https://doi.org/10.1051/mateconf/201818402006>
8. **M Ratiu**, A Rus, DM Anton and RV Ghincu, *Command and Control System for a Parallel Robot*, 2021 16th International Conference on Engineering of Modern Electric Systems (EMES) Oradea, Romania, 2021, pp. 1-4, WOS:000855847300040. doi: 10.1109/EMES52337.2021.9484151. <https://ieeexplore.ieee.org/abstract/document/9484151>
9. **M Ratiu**, MA Prichici, DM Anton and DC Negrau. *Compression testing of samples printed on Delta and Cartesian 3D printer*. 2021 IOP Conference Series: Materials Science and Engineering 1169 012008. <https://iopscience.iop.org/article/10.1088/1757-899X/1169/1/012008>
10. **M Ratiu**, MA Prichici, A Rus, S Bogdan and MB Tataru. *Study on the impact of automotive noise and vibration on human health and environment*. Annals of the University of Oradea. Fascicle of Management and Technological Engineering. Vol. XXXII, 2023/1. Preprints. 2023. 2023111003. <https://doi.org/10.20944/preprints202311.1003.v1>

b. Teza de doctorat

Titlul tezei: *Protecția mediului în contextul dezvoltării durabile în partea de nord-vest a României*

Conducător științific: Prof. dr. Nicolae Josan

Instituția: Universitatea din Oradea

Domeniul: Geografie

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Titlu științific de doctor conferit în baza Ordinului Ministrului Educației, Cercetării, Tineretului și Sportului nr. 4387 din 06.06.2011.

c. Brevete de invenție și alte titluri de proprietate industrială

d. Cărți și capitole în cărți

d1. **Mariana Rațiu**, Alexandru Rus. *Mecanisme*. Editura Universității din Oradea, 2025. ISBN 978-606-10-2426-1

e. Articole/studii în extenso, publicate în reviste din fluxul științific internațional principal

e1. **Ratiu, M.**; Gligor, E.T.; Tamas, G.F.; Peres, A.C.; Tataru, M.B. *Art Nouveau Buildings, Examples of Innovative and Sustainable Approach—Case Study: Oradea, Romania*. Sustainability 2025, 17(13), 5952. WOS:001527534000001. <https://doi.org/10.3390/su17135952>
<https://www.mdpi.com/2071-1050/17/13/5952>

e2. Tătaru, M.-B.; Rus, A.; Vesselényi, T.; **Rațiu, M.**; Țarcă, I. *Synthesis and Functional Optimization of a Vibratory Machine with a Parallel Mechanism Structure*. Appl. Sci. 2025, 15, 4910. WOS:001487688200001. <https://doi.org/10.3390/app15094910> <https://www.mdpi.com/2076-3417/15/9/4910>

e3. Taghiyari, H. R., Arabi, M., Antov, P., Nadali, E., Ilies, D. C., Salimifard, E., Shishegar, I., Savov, V., Dudeva, V., Kawalerczyk, J., and **Ratiu, M.** (2025). *Effects of wollastonite on selected properties of medium-density fiberboards made from wood and palm leaf residues*, BioResources 20(2), 3866–3883. WOS:001476647800015.
<https://ojs.bioresources.com/index.php/BRJ/article/view/24449>

e4. Afzal, A.; Ahmad, S.; Ahmad, S.; Irfan, M.; Indrie, L.; Ahmad, F.; **Ratiu, M.** *Influence of Fabric Characteristics on Mechanical Performances of Protective Gloves*. Coatings 2025, 15(3), 285. WOS:001452052300001. <https://doi.org/10.3390/coatings15030285>
<https://www.mdpi.com/2079-6412/15/3/285>

e5. Ilies, A.B.; Burtă, O.; Hadeel, S.A.-H.; Mircea, C.; Al Shomali, M.; Caciara, T.; **Ratiu, M.**; Peres, A.C.; Hassan, T.H.; Janzakov, B.; et al. *Integrated Analysis of Indoor Air Quality and Fungal Microbiota in Educational Heritage Buildings: Implications for Health and Sustainability*. Sustainability 2025, 17(3), 1091. WOS:001419459500001. <https://doi.org/10.3390/su17031091>
<https://www.mdpi.com/2071-1050/17/3/1091>

e6. Ilieș, D.C.; Apopei, A.-I.; Ilieș, A.; Caciara, T.; Zharas, B.; Hodor, N.; Turza, A.; Hassan, T.H.; Barbu-Tudoran, L.; Pereș, A.C.; **Ratiu, M.**; Safarov, B.; Bilalov, B.; Gligor, E.T. *Preserving Cultural Heritage: Enhancing Limestone Durability with Nano-TiO₂ Coating*. Heritage 2024, 7, 4914–4932. <https://doi.org/10.3390/heritage7090232>

f. Publicații in extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

f1. **M Ratiu**, A Rus, DM Anton and RV Ghincu, *Command and Control System for a Parallel Robot*, 2021 16th International Conference on Engineering of Modern Electric Systems (EMES) Oradea, Romania, 2021, pp. 1-4, doi: 10.1109/EMES52337.2021.9484151. WOS:000855847300040. <https://ieeexplore.ieee.org/abstract/document/9484151>

f2. **M. Ratiu** and A. Rus, *Modeling of the trajectory-generating equipments*, 2017 14th International Conference on Engineering of Modern Electric Systems (EMES), Oradea, Romania, 2017, pp. 216-219, doi: 10.1109/EMES.2017.7980418. WOS:000427085200051. <https://ieeexplore.ieee.org/abstract/document/7980418>

f3. **M. Ratiu**. *Transition from environmental protection to environmental sustainability*. Bulletin of the LN Gumilyov Eurasian National University. Chemistry. Geography. Ecology Series. Vol. 149 No. 4 (2024). <https://doi.org/10.32523/2616-6771-2024-149-4-159-165>

f4. **M Ratiu**, AV Pele, A Bradea, CF Pop, *Digital education and microlessons, innovative models in nowadays education*. Annals of the University of Oradea, Fascicle of Management and Technological Engineering, vol. XXXII, 2024/2. <https://imt.uoradea.ro/auo.fmte/files-2024-v2/IMT016.pdf>

f5. **M Ratiu**, MA Prichici, A Rus, S Bogdan and MB Tataru. *Study on the impact of automotive noise and vibration on human health and environment*. Annals of the University of Oradea. Fascicle of Management and Technological Engineering. Vol. XXXII, 2023/1. Preprints. 2023. <https://doi.org/10.20944/preprints202311.1003.v1>

f6. **M Ratiu**, AV Pele, A Bradea and CF Pop. *Digital and media education of adult educators*. Annals of the University of Oradea. Fascicle of Management and Technological Engineering. Vol. XXXII, 2023/1. Preprints 2023. <https://doi.org/10.20944/preprints202311.0958.v1>

f7. **M Ratiu**, M A Prichici, D M Anton and D C Negrau. *Tensile testing of samples printed on Delta and Cartesian 3D printer*. Annual Session of Scientific Papers - IMT Oradea. 2022 IOP Conf. Series: Materials Science and Engineering 1256 012018 <https://iopscience.iop.org/article/10.1088/1757-899X/1256/1/012018>

f8. DC Negrau, G Grebenisan, **M Ratiu**, DM Anton. *Control system for FDA deposition using a CNC milling machine*. 2021 IOP Conference Series: Materials Science and Engineering 1169 012029. <https://iopscience.iop.org/article/10.1088/1757-899X/1169/1/012029>

f9. **M Ratiu**, MA Prichici, DM Anton and DC Negrau. *Compression testing of samples printed on Delta and Cartesian 3D printer*. 2021 IOP Conference Series: Materials Science and Engineering 1169 012008. <https://iopscience.iop.org/article/10.1088/1757-899X/1169/1/012008>

f10. **M Ratiu**, DM Anton and DC Negrau. *Experimental study on the settings of Delta and Cartesian 3D printers for samples printing*. 2021 IOP Conference Series: Materials Science and Engineering 1169 012026. <https://iopscience.iop.org/article/10.1088/1757-899X/1169/1/012026>

f11. **M Ratiu**, A Rus and M L Balas. *Dynamics of a 6R industrial robot*. 2020 IOP Conference Series: Materials Science and Engineering 898 012013. <https://iopscience.iop.org/article/10.1088/1757-899X/898/1/012013>

f12. **M Ratiu** and D M Anton. *A brief overview of parallel robots and parallel kinematic machines*. 2020 IOP Conference Series: Materials Science and Engineering 898 012007. <https://iopscience.iop.org/article/10.1088/1757-899X/898/1/012007>

- f13. **M Ratiu**, A Rus and M L Balas. *Kinematic modeling of a 6R industrial robot*. 2019 IOP Conference Series: Materials Science and Engineering 568 012021. <https://iopscience.iop.org/article/10.1088/1757-899X/568/1/012021>
- f14. **M Ratiu**, G Grebenisan, M A Prichici and S Bogdan. *Optimization methods of the industrial robots' trajectory*. 2019 IOP Conference Series: Materials Science and Engineering 568 012009. <https://iopscience.iop.org/article/10.1088/1757-899X/568/1/012009>
- f15. S Bogdan, G Grebenișan, D A Ulica, **M Ratiu**. *The implementation of an adaptive traffic light concept in regards to tram access in a complex intersection*. 2019 IOP Conference Series: Materials Science and Engineering 568 012097. <https://iopscience.iop.org/article/10.1088/1757-899X/568/1/012097>
- f16. **Mariana Ratiu**, Mihaela Popovici, Gabriela Codorean. *Research on the teachers' needs analysis for combating school dropout*. 2019 Journal Plus Education, Vol XXIII Special Issue. pp. 131-135. <https://www.uav.ro/jour/index.php/jpe/article/view/1271/1358>
- f17. **Mariana Ratiu**, Mihaela Popovici, Gabriela Codorean. *Research on the factors leading to early school leaving*. 2019 Journal Plus Education, Vol XXIII Special Issue. pp. 147-151. <https://www.uav.ro/jour/index.php/jpe/article/view/1274/1361>
- f18. **Mariana Ratiu**, Alexandru Rus, and Monica Loredana Balas. *Modeling in ADAMS of a 6R industrial robot*. MATEC Web of Conferences 184, 02006 (2018) <https://doi.org/10.1051/mateconf/201818402006>
- f19. **Mariana Ratiu**, Corina Suteu and Ioan-Florin Oarga. *Education and training in Romania on occupational safety and health in the offshore industry*. MATEC Web of Conferences 184, 04005 (2018). <https://doi.org/10.1051/mateconf/201818404005>
- f20. Ioan-Florin Oarga, **Mariana Rațiu** and Ioan-Tudor Oarga. *Occupational health and safety risk management*. MATEC Web of Conferences 184, 04012 (2018) <https://doi.org/10.1051/mateconf/201818404012>
- f21. **Mariana Ratiu**, Mariana Adriana Prichici. *Industrial robot trajectory optimization- a review*. MATEC Web of Conferences 126, 02005 (2017). <https://doi.org/10.1051/mateconf/201712602005>
- f22. **Ratiu Mariana**. *Short literature review on the kinematics and dynamics of the industrial robots*. Annals of the University of Oradea. Fascicle of Management and Technological Engineering. Volume XXV (XV) 2016/2. pp 49-52. <https://imt.uoradea.ro/auo.fmte/article.php?v1=2016-2&v2=0>
- f23. **Ratiu Mariana**. *Short literature review on the optimization of the five-axis CNC machines*. Annals of the University of Oradea. Fascicle of Management and Technological Engineering, Volume XXV (XV) 2016/2. pp 59-62. <https://imt.uoradea.ro/auo.fmte/article.php?v1=2016-2&v2=0>
- f24. **Ratiu Mariana**. *Simulated enterprise – a model of entrepreneurial education*. Annals of the University of Oradea. Fascicle of Management and Technological Engineering, Volume XXIV (XIV) 2015/3. pp 85-88. <https://imt.uoradea.ro/auo.fmte/article.php?v1=2015-3&v2=0>
- f25. **Ratiu Mariana**. *Entrepreneurial education for engineering students (Review)*. Economics Management Information Technology (EMIT). Vol 4 No.2/2015. pp 27-33 www.emit.kcbor.net
- f26. **Ratiu Mariana**. *Nanotechnology in textile industry (Review)*. Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XVI No. 2 2015. pp 83-88 <https://doaj.org/toc/1843-813X>

f27. **M. Ratiu.** *Eco-innovation for a sustainable future.* Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XV No. 2 2014 pp 177-182. <https://doaj.org/toc/31c1fe7d2c78434c877670ba58321847>

f28. **M. Ratiu.** *Ecolabel – Tool for promoting sustainable consumption and production.* Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XV No. 1 2014. pp 177-182. <https://doaj.org/toc/31c1fe7d2c78434c877670ba58321847>

f29. **M. Ratiu.** *European regulation regarding the environmental impact of the textile products.* Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XIV No. 2 2013. pp 149-154. <https://doaj.org/toc/31c1fe7d2c78434c877670ba58321847/XIV>

f30. **M. Ratiu.** *Improving quality of life by applying of standards relating to ergonomics.* Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XIII No. 1 2012. pp 237-241. <https://doaj.org/toc/31c1fe7d2c78434c877670ba58321847/XIII>

f31. **M. Ratiu.** *Industrial ecology - an instrument for sustainable development.* Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XIII. No. 2 2012. pp 229-232. <https://doaj.org/toc/31c1fe7d2c78434c877670ba58321847/XIII>

f32. S. Bota, L.Indrie, **M. Ratiu.** *Toxicology of textile dyes.* Annals of the University of Oradea. Fascicle of Textiles, Leatherwork. Volume XI No. 2 2010. , pp 227-231. <https://textile.webhost.uoradea.ro/Annals/VolumeXI-no%202-2010.pdf>

f33. F. Marsal, D. Palet, M. Riera, A. Serra, L. Indrie, **M. Ratiu.** *New development in the core yarns manufacture.* Annals of the University of Oradea, Fascicle of Textiles, Leatherwork. Volume XI No 2 2010. pp 86-90. <https://textile.webhost.uoradea.ro/Annals/VolumeXI-no%202-2010.pdf>

g. Alte lucrări și contribuții științifice sau, după caz, din domeniul creației artistice

g1. Constantin Bungău, Marcela Prada, **Mariana Rațiu.** „*Safety the first*” în conceptul de îmbunătățire a proceselor, cei 6S. Conferința regională „Împreună pentru prevenirea riscurilor”. Băile Felix. 22-24 octombrie 2012. Volumul „Prevenirea riscurilor, securitate și sănătate în muncă”, Editura Universității din Oradea. ISBN 978-606-10-0910-7

g2. Sanda Bota, **Mariana Ratiu**, Liliana Indrie. *Nanotechnology for textile industry.* The International Scientific Symposium “Innovative solutions for sustainable development of textiles industry. Mai 2009. Oradea (B)

g3. Feliu Marsal, Daniel Palet, Liliana Indrie, **Mariana Ratiu.** *Aspect prediction of the knitted fabrics from the yarn propertie.* The International Scientific Symposium “Innovative solutions for sustainable development of textiles industry. Mai 2009. Oradea (B)

g4. **Mariana RATIU**, Sanda Rodica BOTA, Corina SUTEU. *Impact of the textile industry on human and environmental health.* The International Scientific Symposium “Innovative solutions for sustainable development of textiles industry”. Mai 2008. Oradea (B)

g5. Sanda Bota, **Ratiu Mariana.** *Eco – textiles.* The International Scientific Symposium “Innovative solutions for sustainable development of textiles industry”. Mai 2008. Oradea (B)

g6. **M. Ratiu**, S. Bota. *Best available techniques (BAT) for the textiles industry.* The International scientific Symposium „Modern Technologies and Performant Management in the Textiles-Leatherwork Field. Mai 2007. Oradea (B)

g7. **M. Ratiu.** *Integrated management systems.* The International scientific Symposium „Modern Technologies and Performant Management in the Textiles-Leatherwork Field”. Mai 2007. Oradea (B)

g8. **Mariana Ratiu.** *Oportunități de finanțare a cercetării științifice în domeniul textile-pielărie.* Analele Universității din Oradea, Fascicula Textile-Pielărie. Mai 2006. pp 255-259

g9. **Mariana Rațiu.** *Eticheta ecologică pentru încălțăminte.* Analele Universității din Oradea, Fascicula Textile-Pielărie. Noiembrie 2004. pp 235-240

g10. **Mariana Rațiu.** *Promovarea produselor textile cu impact redus asupra mediului.* Analele Universității din Oradea, Fascicula Textile-Pielărie. Noiembrie 2004. pp 229-234

g11. **Mariana Rațiu.** *Protecția mediului în contextul dezvoltării durabile.* Buletinul AGIR nr. 4/2004. pp 99-102

g12. **Mariana Rațiu.** *Protecția mediului-domeniu fundamental în procesul de integrare a României în Uniunea Europeană.* Analele Universității Aurel Vlaicu din Arad, Fascicula: Chimie și protecția mediului. 2004. pp 334-339

g13. Liliana Indrie, **Mariana Rațiu**, Sabina Gherghel. *Deciziile și impactul lor asupra conceptului de sistem informational.* Analele Universității din Oradea, Fascicula Textile-Pielărie Mai 2004. pp 267-274

g14. **Mariana Ratiu**, Liliana Indrie. *Sisteme integrate de management.* Analele Universității din Oradea, Fascicula Textile-Pielărie Mai 2004. pp 357-360

g15. **Mariana Rațiu.** *Mecanisme specifice utilajelor din domeniul confecțiilor din piele și înlocuitori.* Annals of the Oradea University, Fascicle of Management and Technological Engineering. Mai 2004. p 90

g16. **Mariana Ratiu.** *Le developpement durable au niveau planetaire,* The fifth International World Energy System Conference. Oradea. 2004

g17. **Ratiu Mariana.** *Développement durable en Europe pour un monde Meilleur.* Proceedings of the 2nd International Symposium Natural resources and sustainable agriculture. 23-24 aprilie 2004. Băile Felix. ISBN 973-613-898-4. pp 527-534

g18. **Ratiu Mariana**, Indrie Liliana. *Integrated environmental management systems.* Proceedings of the 2nd International Symposium “Natural resources and sustainable agriculture”. 23-24 aprilie 2004. Băile Felix. ISBN 973-613-898-4. pp 519-525

g19. **Ratiu Mariana.** *Professional training of the engineer at beginning of the 3rd millenium.* Proceedings of the International Scientific Conference “Education for All and for Life”. 29 mai-1 iunie 2003. Oradea. pp 87-88

g20. Liliana Indrie, **Mariana Ratiu.** *Sisteme informaționale în contextul societății contemporane.* Analele Universității din Oradea, Fascicula Textile-Pielărie. Mai 2003. pp 57-62

g21. **Mariana Ratiu**, Liliana Indrie. *Necesitatea și oportunitatea profilului de inginerie economică.* Analele Universității din Oradea, Fascicula Textile-Pielărie. Mai 2003. pp 63-66

g22. **Mariana Rațiu.** *Noi orientări în cercetarea științifică și dezvoltarea tehnologică.* Analele Universității din Oradea, Fascicula Colegiului Tehnic, Economic și de Administrație. 2002. Oradea

g23. **Mariana Rațiu.** *Sisteme cibernetice în industria confecțiilor din piele.* Conferința internațională “Tendințe în dezvoltarea aplicațiilor ciberneticii”. 16-17 noiembrie 2002. Băile Felix.