

Publishing of articles and books

1. Scientific jointly articles published / submitted to ISI journals

1. Górski F, Łabudzki R, Żukowska M, Sanfilippo F, Ottestad M, Zelenay M, Băilă D-I, Pacurar R. Experimental Evaluation of Extended Reality Technologies in the Development of Individualized Three- Dimensionally Printed Upper Limb Prostheses. Applied Sciences. 2023; 13(14):8035. <https://doi.org/10.3390/app13148035> ; Impact factor: 2.7 (Q2) – joint article published.
2. Górski, F., Rybarczyk, D., Wichniarek, R., Wierzbicka, N., Kuczko, W., Żukowska, M., Regulski, R., Păcurar, R., Comsa, D.S., Băilă, D.I., Zelenay, M., Sanfilippo, F., Development and testing of individualized sensorized 3D printed upper limb bicycle prosthesis for adult patient Applied Sciences; 13(23), 12918; 2023, <https://doi.org/10.3390/app132312918> , Impact factor: 2.7 (Q2) – joint article published.
3. Górski, F., Grohs, A., Kuczko, W., Żukowska, M., Wichniarek, R., Siwiec, S., Băilă, D.I., Zelenay, M., Păcurar, R., Sanfilippo, F., Development and studies of VR-assisted hand therapy using a customized bio-mechatronic 3D printed orthosis. Electronics, 2024; 13(1):79, <https://doi.org/10.3390/electronics13010079> Impact factor: 2.9 (Q2) – joint article published.
4. Păcurar R.I., Sanfilippo F., Økter M.B., Băilă D-I, Zaharia C., Nicoară A.I., Radu I.C., Savu T., Górski F., Kuczko W., Wichniarek R., Comşa D.S., Zelenay M. and Woźniak P. 2024, Use of high-performance polymeric materials in customized low-cost robotic grippers for biomechatronic applications: experimental and analytical research. Frontiers in Materials. 11: 1304339. <https://doi.org/10.3389/fmats.2024.1304339> . Impact factor: 3.2 (Q2) – joint article published.

Disclaimer: This results was realised with the EEA Financial Mechanism 2014-2021 financial support. Its content (text, photos, videos) does not reflect the official opinion of the Programme Operator, the National Contact Point and the Financial Mechanism Office. Responsibility for the information and views expressed therein lies entirely with the author(s).



2. Additional scientific articles published / submitted to ISI journals by the EMERALD consortium

1. Băilă D-I, Păcurar R, Savu T, Zaharia C, Truşcă R, Nemeş O, Górski F, Păcurar A, Pleşa A, Sabău E. Mechanical and Wetting Properties of Ta2O5 and ZnO Coatings on Alloy Substrate of Cardiovascular Stents Manufactured by Casting and DMLS. *Materials*. 2022; 15(16):5580. Impact factor: 3.748 (Q1), <https://doi.org/10.3390/ma15165580>
2. Stojković JR, Turudija R, Vitković N, Górski F, Păcurar A, Pleşa A, Ianoşi-Andreeva-Dimitrova A, Păcurar R. An Experimental Study on the Impact of Layer Height and Annealing Parameters on the Tensile Strength and Dimensional Accuracy of FDM 3D Printed Parts. *Materials*. 2023; 16(13):4574. ; Impact factor: 3.4. (Q2) <https://doi.org/10.3390/ma16134574>
3. Vitković N, Stojković JR, Korunović N, Teuţan E, Pleşa A, Ianoşi-Andreeva-Dimitrova A, Górski F, Păcurar R. Extra-Articular Distal Humerus Plate 3D Model Creation by Using the Method of Anatomical Features. *Materials*. 2023; 16(15):5409. Impact factor: 3.4 (Q2) <https://doi.org/10.3390/ma16155409>
4. Păcurar, R., Comşa, D.S., Sabău, E., Teuţan, E., Zelenay, M., Băilă, D.I., Kuckzo, W., Filip Górski, F., Research On The Design And Manufacturing Of An Upper-Limb Prosthesis By Fused Deposition Modelling, *Acta Technica Napocensis*, 2023; 16 (4), pp.493-498, impact factor: 0.3 (Q4) <https://atna-mam.utcluj.ro/index.php/Acta/article/view/2259/1746>
5. Păcurar, R., Comşa, D.S., Sabău, E., Guţiu, E., Ianoşi-Andreeva-Dimitrova, A., Pleşa, A., Zelenay, M., Băilă, D.I., Żukowska, M., Górski, F., Research On The Design And Manufacturing Of a Wrist- Hand Orthosis By Fused Deposition Modelling, *Acta Technica Napocensis*, 2023; 16 (4), pp.499-504, impact factor: 0.3 (Q4) <https://atna-mam.utcluj.ro/index.php/Acta/article/view/2260/1747>
6. Băilă D.I., Sanfilippo F., Savu T. Zaharia C., Górski, F., Radu, I.C., Parau, C.A., Zelenay, M., Păcurar. R. 3D printing of personalised stents using new advanced photopolymerizable resins and Ti-6Al-4V alloy, *Rapid Prototyping journal*, Vol. 30 No. 4, pp. 696-710, Impact factor: 3.9 (Q2) <https://doi.org/10.1108/RPJ-10-2023-0360>

Disclaimer: This results was realised with the EEA Financial Mechanism 2014-2021 financial support. Its content (text, photos, videos) does not reflect the official opinion of the Programme Operator, the National Contact Point and the Financial Mechanism Office. Responsibility for the information and views expressed therein lies entirely with the author(s).

3. Scientific articles published in proceedings of scientific international conferences (SCOPUS, PROQUEST)

1. Băilă, D.I., Păcurar, R., Păcurar, A., Mechanical properties and microstructural analyzes of epoxy resins reinforced with satin tissue, International Conference SGEM Bulgaria 2022 , ISSN 1314-2704, International Multidisciplinary Scientific GeoConference SGEM, ISBN 978-619-7603-48-4, vol 22, iss.6.1., 2022, <https://doi.org/10.5593/sgem2022/6.1/s24.03>
2. Băilă, D.I., Păcurar, R., Păcurar, A., Mechanical behaviors of polyester resins reinforced with unifilo fiberglass, International Conference SGEM Bulgaria, ISSN 1314-2704, ISBN 978-619-7603-48-4, Vol. 22, Iss. 6.1, 2022, <https://doi.org/10.5593/sgem2022/6.1/s24.05>
3. Băilă, D.I., Păcurar, R., Păcurar, A., Moisture absorption behavior of CP5 composite materials used in industry, International Conference ICBASET Turcia 2022, EPSTEM 2022 The Eurasia Proceedings of Science, Technology, Engineering & Mathematics (EPSTEM), ISSN: 2602-3199, vol.18, pg. 55-63, <https://doi.org/10.55549/epstem.1192332>
4. Băilă, D.I., Păcurar, R., Păcurar, A., Thin-Film Protective Coatings on Samples Manufactured by Direct Metal Laser Sintering Technology Used in Dentistry, Lecture Notes in Mechanical Engineering, Manufacturing 2022, pp. 59–68; https://link.springer.com/chapter/10.1007/978-3-030-99769-4_5
5. Băilă, D.I., Păcurar, R., Păcurar, A., Sintered Compacts of Co-Cr Powders Doped with HAp and ZrO₂ Used in Implantology, Lecture Notes in Mechanical Engineering, Springer, 2022, pp. 69–78; https://link.springer.com/chapter/10.1007/978-3-030-99769-4_6
6. Vitković, N, Trajanović, M., Arandjelović, J., Păcurar, R., Borzan, C., Contact Surface Model Parameterization of the Extra-Articular Distal Humerus Plate, Lecture Notes in Mechanical Engineering, Manufacturing 2022, pp. 79–92; https://link.springer.com/chapter/10.1007/978-3-030-99769-4_7

Disclaimer: This results was realised with the EEA Financial Mechanism 2014-2021 financial support. Its content (text, photos, videos) does not reflect the official opinion of the Programme Operator, the National Contact Point and the Financial Mechanism Office. Responsibility for the information and views expressed therein lies entirely with the author(s).

7. Răzvan Păcurar, Diana Ioana Maria Negrea, Emilia Sabău, Dan Sorin Comșa, Cristina Borzan, Nikola Vitkovic, Justyna Rybarczyk and Ancuța Păcurar, Research on the Mechanical Characteristics of 3D-Printed PEEK Material-Based Lattice Structures Used for Vertebral Implants, Lecture Notes in Mechanical Engineering, Manufacturing 2024, pp. 95–107; https://link.springer.com/chapter/10.1007/978-3-031-56456-7_8
8. Răzvan Păcurar, Consuella Gania, Emilia Sabău, Dan Sorin Comșa, Nikola Vitkovic, Sven Maricic, Stanislaw Legutko and Ancuța Păcurar, Research on Design and Manufacturing of PEKK-Based Mandibular Implants Made by Fused Deposition Modeling, Lecture Notes in Mechanical Engineering, Manufacturing 2024, pp. 108–120; https://link.springer.com/chapter/10.1007/978-3-031-56456-7_9
9. Răzvan Păcurar, Gabriela Friciu, Emilia Sabău, Cristian Vilău, Eugen Guțiu, Ovidiu Nemeș, Nikola Vitkovic, Remigiusz Łabudzki and Ancuța Păcurar, Research on Design and Manufacturing of Pelvic Bone Structure by Fused Deposition Modeling Method, Lecture Notes in Mechanical Engineering, Manufacturing 2024, pp. 130–145; https://link.springer.com/chapter/10.1007/978-3-031-56456-7_11

4. Published books

1. Răzvan PACURAR, Filip GÓRSKI, Filippo SANFILIPPO, Diana BĂILĂ, Branislav Rabara, Martin Bjaadal ØKTER, Dan-Sorin COMȘA, Emilia SABĂU, Magdalena ŻUKOWSKA, Dominik RYBARCZYK, Natalia WIERZBICKA, Radosław WICHNIAREK, Wiesław KUCZKO, Roman REGULSKI, *EMERALD e-toolkit for teaching purposes, basic knowledge about realizing biomimetic mechatronic systems*, Risoprint publishing house, Cluj-Napoca, 2023, ISBN 978-973-53-3158-0.

Disclaimer: This results was realised with the EEA Financial Mechanism 2014-2021 financial support. Its content (text, photos, videos) does not reflect the official opinion of the Programme Operator, the National Contact Point and the Financial Mechanism Office. Responsibility for the information and views expressed therein lies entirely with the author(s).



2. Răzvan PĂCURAR, Filip GÓRSKI, Filippo SANFILIPPO, Diana BĂILĂ, Martin ZELENAY, Dan-Sorin COMȘA, Emilia SABĂU, Remigiusz ŁABUDZKI, Michal GALLIA, Tom SAVU, Nicolae IONESCU, Mihaela ULMEANU, Bogdan JUGRAVU, Vlad ENACHE, Cătălin ZAHARIA, Ionuț-Cristian RADU, Magdalena ŻUKOWSKA, Justyna RYBARCZYK, Dominik RYBARCZYK, Roman REGULSKI, Natalia WIERZBICKA, Radosław WICHNIAREK, Wiesław KUCZKO, *EMERALD e-book for developing of biomimetic mechatronic systems*, Risoprint publishing house, Cluj-Napoca, 2023, ISBN 978- 973-53-3157-3.
3. Filip Gorski, Michal Rychlik, Răzvan Păcurar, „Advances in Manufacturing III, vol. 5 – Biomedical Engineering: Research and Technology Innovations, Industry 4.0”, Lectures Notes in Mechanical Engineering, Springer, 2022, ISBN 978-3-030-99768-7; <https://link.springer.com/book/10.1007/978-3-030-99769-4>
4. Păcurar, R., Gorski, F., Special Issue "Smart Materials, Intelligent Structures and Innovative Applications of 3D Printing and Bio-Printing Methods", MDPI Materials journal, ISSN 1996-1944, https://www.mdpi.com/journal/materials/special_issues/XA56C5IU0T
5. Filip Gorski, Răzvan Păcurar, Joaquín F. Roca González, Michal Rychlik, „Advances in Manufacturing IV, vol. 5 – Biomedical Engineering: Digitalization, Sustainability and Industry Applications”, Lectures Notes in Mechanical Engineering, Springer, 2024, ISBN 978-3-031-56456-7; <https://link.springer.com/book/10.1007/978-3-031-56456-7>

Disclaimer: This results was realised with the EEA Financial Mechanism 2014-2021 financial support. Its content (text, photos, videos) does not reflect the official opinion of the Programme Operator, the National Contact Point and the Financial Mechanism Office. Responsibility for the information and views expressed therein lies entirely with the author(s).