Anexa 8

LISTA LUCRĂRILOR ȘTIINȚIFICE ELABORATE

Conf. dr. ing. BRĂILEANU Patricia – Isabela

I. TEZA (E) DE DOCTORAT (T)

T1 ***Brăileanu Patricia – Isabela***, "*Cercetări privind optimizarea protezelor personalizate / Research on optimizing customized prostheses*", susținută în data de 18 septembrie 2020.

II. CĂRȚI PUBLICATE (C)

Ca1 ***Patricia-Isabela Brăileanu***, *Procesare și Modelare Imagistică Digitală în Ingineria Industrială*, Editura BREN, Editură recunoscută CNCSIS cod 96, ISBN-978-606-610-347-3, Bucureşti, 2025.

Ca2 ***Patricia-Isabela Brăileanu***, Sorin Cănănău, Nicoleta Elisabeta Pascu, *Design Hibrid și Tehnici Inovative de Proiectare Asistată de Calculator*, Editura POLITEHNICA PRESS, Editură recunoscută CNCSIS cod 19, ISBN-978-606-9608-54-8, Bucureşti, 2023.

Ca3 Adrian Constantin Popescu, Tiberiu Gabriel Dobrescu, ***Patricia Isabela Brăileanu***, *Engineering Graphics*, Editura BREN, Editură recunoscută CNCSIS cod 96, ISBN-978-606-610-307-7, Bucureşti, 2023.

Cb1- ***Patricia-Isabela Brăileanu***, *Designul Industrial în Era Modernismului - Origini, Impact și Inovație*, Editura BREN, Editură recunoscută CNCSIS cod 96, ISBN-978-606-610-316-9, Bucureşti, 2024.

III. ALTE MATERIALE PUBLICATE (I,D)

I1 – Pascu Nicoleta Elisabeta, Dobrescu Tiberiu Gabriel, ***Isabela Patricia Brăileanu***, *Îndrumar de laborator-Desen tehnic Vol. 1*, Editura BREN, Editură recunoscută CNCSIS cod 96, ISBN general 978-606-610-255-1, Vol. 1.-2021- ISBN 978-606-610-256-8, Bucureşti 2021.

I2 – ***Patricia Isabela Brăileanu***, Tiberiu Gabriel Dobrescu, *Technical Drawing - Laboratory Guide*, Editura BREN, Editură recunoscută CNCSIS cod 96, ISBN general-978-606-610-306-0, Bucureşti 2023.

I3 – ***Patricia Isabela Brăileanu,*** *Tehnici de Modelare și Animație: Îndrumar de Laborator*, Editura POLITEHNICA PRESS, ISBN-978-606-9608-62-3, Bucureşti, 2023.

I4 – ***Isabela Patricia Brăileanu,*** Tiberiu Gabriel Dobrescu, Nicoleta Elisabeta Pascu, *Grafică asistată de calculator – 3D: Îndrumar de Laborator*, Editura BREN, Editură recunoscută CNCSIS cod 96, ISBN 978-606-610-289-6, Bucureşti, 2023.

IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

Ris1 – ***Patricia Isabela Brăileanu*** (2025) HUMAN-COMPUTER INTERACTION IN SMART GREENHOUSES: A REVIEW OF INTERFACES, TECHNOLOGIES, AND USER-CENTERED APPROACHES, COMPUTERS (MDPI, IF: 4,2-2024, Q2), Vol. 14, Issue 12, Document Type Review, Article Number 553, Published DEC 12 2025, Indexed 2025-12-31, DOI: 10.3390/computers14120553, ISSN 2073-431X, IDS Number: AE5EJ, Accession Number WOS: 001646231700001.

Ris2 – ***Patricia Isabela Brăileanu,*** Marius-Teodor Mocanu, Nicoleta Elisabeta Pascu

(2025) TRIBOLOGICAL ASSESSMENT OF FFF-PRINTED TPU UNDER DRY SLIDING CONDITIONS FOR SUSTAINABLE MOBILITY COMPONENTS, FUTURE TRANSPORTATION (MDPI, IF: 1,7-2024, Q3), Vol. 5, Issue 4, Document Type Article, Article Number 184, Published DEC 2 2025, Indexed 2025-12-31, DOI: 10.3390/futuretransp5040184, eISSN 2673-7590, IDS Number: AF9TT, Accession Number WOS: 001647218100001

Ris3 – ***Patricia Isabela Brăileanu***, Marius-Teodor Mocanu, Tiberiu Gabriel Dobrescu, Dan Dobrotă, Nicoleta Elisabeta Pascu (2025) *Structure–property–performance relationships in thermoplastic polyurethane: Influence of infill density and surface texture*, POLYMERS (MDPI, IF: 4,9-2024, Q1), Vol. 17, Issue 19, Document Type Article, Article Number 2716, Published OCT 9 2025, Indexed 2025-10-20, DOI: 10.3390/polym17192716, eISSN 2073-4360, PubMed ID: 41096361, IDS Number: 8ON7J, Accession Number WOS: 00159358040000.

Ris4 – ***Patricia Isabela Brăileanu***, Marius-Teodor Mocanu, Tiberiu Gabriel Dobrescu, Nicoleta Elisabeta Pascu, Dan Dobrotă (2025) *Structure and texture synergies in fused deposition modeling (FDM) polymers: a comparative evaluation of tribological and mechanical properties*, POLYMERS (MDPI, IF: 4,9-2024, Q1), Vol. 17, Issue 15, Document Type Article, Article Number 2159, Published AUG 7 2025, Indexed 2025-08-24, DOI: 10.3390/polym17152159, eISSN 2073-4360, PubMed ID: 40808209, IDS Number: 6DJ7C, Accession Number WOS: 001550682200001.

Ris5 – Patricia Isabela Brăileanu, Nicoleta Elisabeta Pascu (2025) *Influence of surface texture in additively manufactured biocompatible materials and triboelectric behavior*, MATERIALS (MDPI, IF:3,2-2024, Q2), Vol. 18, Issue 14, Document Type Article, Article Number 3366, Published JUL 17 2025, Indexed 2025-07-31, DOI: 10.3390/ma18143366, eISSN 1996-1944, PubMed ID: 40731576, IDS Number: 5HG1T, Accession Number WOS: 001535640300001.

Ris6 – ***Patricia Isabela Brăileanu***, Andrei Călin, Tiberiu Gabriel Dobrescu, Nicoleta Elisabeta Pascu, *Comparative examination of friction between additive manufactured plastics and steel surface*, Materiale Plastice, DOI 10.37358/MP.23.3.5675, Vol. 60, Issue 3, page: 48–57, September 2023, Indexed: 2023-11-05, Document Type: Article, ISSN: 0025-5289, eISSN: 2668-8220, IDS Number: U2RM0, Accession Number WOS: 001083326000006.

Ris7 – Cosmina Stefana Teodora Manole, ***Patricia Isabela Braileanu***, Tiberiu Gabriel Dobrescu, Florina Chiscop, *Custom humeral joint prostheses using additive manufacturing and biocompatible smart materials*, Materiale Plastice, DOI 10.37358/MP.23.3.5675, Vol. 60, Issue 3, page: 19–30, September 2023, Indexed: 2023-11-05, Document Type: Article, ISSN: 0025-5289, eISSN: 2668-8220, IDS Number: U2RM0, Accession Number WOS: 001083326000003.

Ris8 – Florin-Ionut Boacă, Sorin Cănănău, ***Isabela Brăileanu***, Andrei Călin, *A simplified fem bending model for corrugated board*, Acta Technica Napocensis Series - Applied Mathematics, Mechanics and Engineering, Vol. 66, Issue I, page: 117–122, March 2023, Indexed: 2023-06-14, Document Type: Article, ISSN: 1221-5872, IDS Number: H4PR8, Accession Number WOS: 000995805400013.

Ris9 – ***Braileanu Patricia Isabela***; Prisecaru Delia Alexandra; Crisan Nicoleta; Stoica Marilena; Calin Andrei, *Influence of triangular pattern infill on 3d printed torus mechanical behavior*, Materiale Plastice, Volume: 59, Issue: 4, Page: 155-164, DOI 10.37358/MP.22.4.5634 , DEC 2022; Indexed: 2023-04-28; Document Type: Article, ISSN:

0025-5289, eISSN:2668-8220, IDS Number: C9KT1, Accession Number WOS:000965030700014.

Ris10 – ***Braileanu, PI***; Simion, I; Bou-Said, B; Prisecaru, DA; Crisan, N, *Custom hip stem additive prototyping using smart materials*, Materiale Plastice, Volume: 57, Issue: 2, Pages: 152-158, DOI 10.37358/MP.20.2.5361, Published: Jun 2020, Indexed: 2020-11-03, Document Type: Article, ISSN: 0025-5289, eISSN:2668-8220, Current Publisher: REVISTA CHIMIE SRL, IDS Number: OC9BZ, Accession Number WOS:000579451200016

Ris11 – ***Patricia Isabela Braileanu*** (2025) *Smart metallurgy: the impact of Industry 4.0 on materials processing and innovation*, The Annals of "Dunărea de Jos" University of Galati Fascicle IX. Metallurgy and Materials Science, 48(4), 33-38, ISSN 2668-4748, e-ISSN 2668-4756, DOI: https://doi.org/10.35219/mms.2025.4.06, Index DOAJ, Copernicus.

Ris12 – Ștefan-Andrei Lazăr, ***Patricia Isabela Braileanu***, advanced modeling and 3D printing techniques for game and CGI characters, The Annals of "Dunărea de Jos" University of Galati Fascicle IX. Metallurgy and Materials Science, 47(3), 32-37, ISSN 2668-4748, e-ISSN 2668-4756, DOI: 10.35219/mms.2024.3.06, Index DOAJ, EBSCO, Copernicus.

Ris13 – Andrada Elena Kubaszky, ***Patricia Isabela Braileanu***, *Design and manufacturing of a custom guitar amplifier: Optimizing materials for acoustic performance and durability*, The Annals of "Dunărea de Jos" University of Galati Fascicle IX. Metallurgy and Materials Science, 47(3), 26-31, ISSN 2668-4748, e-ISSN 2668-4756, DOI: 10.35219/mms.2024.3.05, Index DOAJ, EBSCO, Copernicus.

Ris14 – Mădălina Elena Munteanu, ***Patricia Isabela Braileanu***, Portable electronics reimagined: Design, innovation, and user–centered solutions, Journal of Research and Innovation for Sustainable Society (JRISS), Vol. 6, Issue 2, ISSN 2668-0416, pp. 178-191, DOI: 10.33727/JRISS.2024.2.19:178-191, Index EBSCO.

Ris15 – Ramona ElianaCiobanu, Florin Ciprian Marinescu, ***Patricia Isabela Braileanu***, Sustainable solutions for converting PET into 3D printing filament, Academic Journal of Manufacturing Engineering, 23(1), pp. 174–179, DOI: 10.5281/zenodo.15043938, Index Scopus.

Ris16 – ***Patricia Isabela Braileanu,*** Tribofilament printing chalanges: analyzing defects in additive manufactured textured parts and surfaces, Academic Journal of Manufacturing Engineering, 23(1), pp. 189–194, DOI: 10.5281/zenodo.15043977, Index Scopus.

Ris17 – Gean-Carlos Nicholas Dumitrescu, ***Patricia Isabela Braileanu***, *Custom prosthetic finger device using 3d printable PA11 CF powder*, The Annals of "DUNAREA DE JOS" University of Galati. Fascicle IX. Metallurgy and Materials Science, Vol. 46, No.3, 2023, ISSN 2668–4748, DOI: 10.35219/mms.2023.1.05, Index DOAJ.

Ris18 – Valeria Stanca, ***Patricia Isabela Braileanu***, *Custom knee prosthesis design for aditive manufacturing*, Academic Journal of Manufacturing Engineering, Vol.21, Issue 1, pp. 72–77, 2023, ISSN 1583–7904, Index EBSCO.

Ris19 – ***Patricia Isabela Braileanu***, *Case study of structures based on hyperbolic geometry*, Journal Proceedings in Manufacturing Systems – JPMS , Vol.17, Issue 4, pp. 147–152, 2022, ISSN 2343–7472, Index ProQuest.

Ris20 – Andrada Elena Kubaszky, ***Patricia Isabela Braileanu***, Tiberiu Gabriel Dobrescu, Nicoleta-Elisabeta Pascu, *Design of a color detector device with display and speaker by using additive manufacturing and arduino boards*, Journal Proceedings in Manufacturing Systems – JPMS , Vol.17, Issue 4, pp. 139–144, 2022, ISSN 2343–7472, Index ProQuest.

Ris21 – ***Patricia Isabela Braileanu***, Sorin Cananau, Tiberiu Gabriel Dobrescu, Nicoleta-Elisabeta Pascu, *Finite element analysis of metal structures based on elongated Johnson cupola*, Journal Proceedings in Manufacturing Systems – JPMS , Vol. 17, No. 3, pp. 89–95, 2022, ISSN 2067-9238, Index ProQuest.

Ris22 – ***Patricia Isabela Brăileanu***, Sorin Cănănău, Nicoleta Elisabeta Pascu, *Geometric pattern infill influence on pentagonal cupola mechanical behavior subject to static external loads*, Journal of Research and Innovation for Sustainable Society (JRISS), Vol. 4, Issue 2, pp. 5–15, 2022, ISSN 2668–0416, DOI: 10.33727/JRISS.2022.2.1:5-15, Index EBSCO.

Ris23 – Filip Harmon, ***Patricia Isabela Brăileanu***, *Rapid prototyping of a custom upper limb bionic prosthesis*, JIDEG, June 2020, Vol. 15, Issue 1, pp. 35–39, Online ISSN 2344–4681, 2020, Print ISSN 1843–3766, Index EBSCO, ProQuest.

Ris24 – ***Patricia Isabela Brăileanu***, Ionel Simion, Benyebka Bou–Saïd, Gina Florica Stoica, *Method of extracting hip joint bones from C.T. images in order to perform static F.E.A. study*, U.P.B. Sci. Bull., Series D, Vol. D, Iss. 2, pp. 153–164, 2019, ISSN 1454–2358, Index Scopus.

Ris25 – ***Braileanu Patricia Isabela***, *Design of a modular kitchen furniture*, Journal of Industrial Design and Engineering Graphics, Published: 2017-11-01, Vol. 12, Issue 2, pp. 13–20, Online ISSN 2344–4681, 2017, Print ISSN 1843–3766, Index EBSCO, ProQuest.

Ris26 – ***Braileanu Patricia Isabela***, *Kitchen island furniture design for residential houses*, Journal of Industrial Design and Engineering Graphics, Published: 2017-05-25, Vol. 12, Issue 1, Pages: 169–172, Online ISSN 2344–4681, 2017, Print ISSN 1843–3766, Index EBSCO, ProQuest.

Vis1 – ***Patricia Isabela Brăileanu***, Nicoleta Elisabeta Pascu, Tiberiu Gabriel Dobrescu, Gabriel Gheorghe Jiga (2024) 3D PRINTED WATCH STRAPS MANUFACTURED WITH TPU MATERIALS AND THE INFLUENCE OF INFILL PRINTING CHARACTERISTICS ON THE MECHANICAL TENSILE BEHAVIORS, MACROMOLECULAR SYMPOSIA, Vol. 413, Issue 4, Special Issue SI, Conference Meeting 11th International Conference on Times of Polymers & Composites (TOP) JUN 11-15, 2023, Univ Campania, Naples, ITALY, Article Number: 2400024, Published: AUG 2024, Indexed: 2024-08-29, Document Type Proceedings Paper, DOI 10.1002/masy.202400024, ISSN: 1022-1360, eISSN: 1521-3900, IDS Number: D0N0B, Accession Number WOS: 001293226800062.

Vis2 – Jiga, G; Crunteanu, DE; Dobrescu, TG; ***Braileanu, PI***; Pascu, NE, *Redesign of a metallic component using polylactic acid - PLA by fused deposition modeling - FDM for durability increase*, 10^{TH} International Conference on Times of Polymers (TOP) and Composites; MACROMOLECULAR SYMPOSIA, Volume: 405, Issue: 1, Special Issue: SI, Article Number: 2100221, DOI 10.1002/masy.202100221 , Published: OCT 2022, Indexed: 2022-11-05, Document Type: Proceedings Paper, Current Publisher: WILEY-V C H VERLAG GMBH, ISSN:1022-1360, eISSN: 1521-3900, IDS Number: 5L8WA, Accession Number WOS: 000870688000006.

Vis3 – Harmon, FA; ***Braileanu, PI***, *Rapid prototyping of a lower-body exoskeleton for paraplegia patients*; International Conference on Reliable Systems Engineering (ICORSE) - 2021, Book Series: Lecture Notes in Networks and Systems, Volume: 305, Page: 107-118, DOI 10.1007/978-3-030-83368-8_11 , Published: 2022, Indexed: 2022-09-18, Document Type: Proceedings Paper, Current Publisher: SPRINGER INTERNATIONAL PUBLISHING AG, ISSN: 2367-3370, eISSN: 2367-3389, IDS Number: BT7XI, Accession

Number WOS: 000851368600011

Vis4 – *Braileanu, PI*; Simion, I; Bou-Said, B; Crisan, N, *Custom hip implant design optimisation*, Proceedings of the 2018 19TH International CONFERENCE on Research and Education in Mechatronics (REM 2018), 2018, Page 58-63, Indexed: 2018-01-01, Document Type: Proceedings Paper, Current Publisher: IEEE, ISBN 978-1-5386-5413-2, IDS Number: BR4QX, Accession Number: WOS: 000652331400011

Vis5 – Vasilica Cristina ICOCIU, Nicoleta-Elisabeta PASCU, Tiberiu DOBRESCU, Ionuţ Cristian PEREDERIC, Patricia Isabela BRĂILEANU, Comparative analysis of defects occurring in the layers of 3D-printed plastic parts using the FDM technology, Proceedings in Manufacturing Systems, Vol. 20, Issue 2, 2025, pp. 55-60, Index Copernicus.

Vis6 – Ionuţ Cristian PEREDERIC, Nicoleta Luminiţa CĂRUŢAŞU, Nicoleta Elisabeta PASCU, ***Patricia Isabela Brăileanu***, Lattice structures in sustainable design material optimization and reducing ecological footprint, Proceedings in Manufacturing Systems, Vol.19, Issue 3, 2024, pp. 97-101, Index Copernicus, ProQuets.

Vis7 – *Patricia Isabela Braileanu*, Tiberiu Gabriel Dobrescu, Nicoleta Elisabeta Pascu, Ionuţ Cristian Perederic, Generative design for reducing material waste: a case study on flanges, Proceedings in Manufacturing Systems, Vol.19, Issue 2, pp. 81-86, Index Copernicus.

Vis8 – *Patricia Isabela Braileanu*, Sorin Cănănău, Emilia Bălan, Nicoleta Elisabeta Pascu, *Researching and trends in additive manufacturing post-processing*, Annals of the Academy of Romanian Scientists, Series on Engineering Sciences, vol. 15, no. 2, pp. 69-82, Ed. AOSR, ISSN online 2066-8570, Bucureşti, 2023, DOI: 10.56082/annalsarscieng.2023.2.69, Index WorldCat.

Vis9 – *Patricia Isabela Brăileanu*, Ionel Simion, Benyebka Bou–Saïd, *Method of developing bone segmentation code by using the VTK library in order to extract patients hip joint from ct scans*, AIP Conference Proceedings, Volume 2425, Issue 1, 06 April 2022, DOI 10.1063/5.0082921, Index Scopus.

Vis10 – *Patricia I. Brăileanu*, Ionel Simion, Benyebka Bou–Saïd, Maria Gratiela Ianos, Olivier Tayot, Bertrand Bordet, *F.E.A. study of a patient's prosthetic hip by using reverse engineering method*, 13th International Multi–Conference on Society, Cybernetics and Informatics (IMSCI 2019), July 6–9, 2019, Orlando, Florida, USA, Conf. Proceedings, Vol. I, pp. 65–70, Index Scopus.

Vis11 – *Brăileanu Patricia Isabela*, Simion I. And Bou–Saïd B., *Researching and trends in optimizing hip joint prosthesis*, ICEGD 2019, Craiova Romania, published in JIDEG, 20 May 2019, Vol. 14, Issue 1, pp. 221–226, Online ISSN 2344–4681, Print ISSN 1843–3766, Index EBSCO, ProQuest.

V. BREVETE DE INVENŢIE / INOVAŢII SAU CREAŢII ARTISTICE (B,A)

VI. CONTRACTE ŞI RAPOARTE ŞTIINŢIFICE (P,F)

Pn1 – Director proiect ***Brăileanu Patricia – Isabela***, Contract nr. 66/11.10.2023, câştigat în cadrul competiţiei Granturi Naţionale de Cercetare ARUT 2023, GNAC ARUT 2023 finanţat de Universitatea Naţională de Ştiinţă şi Tehnologie POLITEHNICA Bucureşti, în valoare totală 49,752.00 RON. Înregistrat la registratura Universităţii Naţionale de Ştiinţă şi Tehnologie POLITEHNICA Bucureşti cu nr. 5474/11.10.2023; "*Influenţa Texturii*

Suprafeţelor Manufacturate prin Aditivare Asupra Procesului de Triboîncărcare" – ItSMAPT.

https://upb.ro/wp-content/uploads/2022/11/GNAC-2023-ARUT_UPB_proiecte_finantate_051023.pdf.

Pn2 – Director proiect ***Brăileanu Patricia – Isabela***, Contract nr. intern ME 15.22.01, fază unică pe 2023 valoare totală 30,000.00 RON. Înregistrat la registratura Universităţii Naţionale de Ştiinţă şi Tehnologie POLITEHNICA Bucureşti cu nr. 3128/18.09.2023. Beneficiar: RES TERRANET HOLDING SRL; "Studiu privind analiza distanţelor faţă de aeroporturi ale unor parcuri eoliene" – SADAPE.

VII. COMUNICĂRI ŞTIINŢIFICE NEPUBLICATE (E)

E1 – ***Brăileanu Patricia Isabela***, *Research on optimizing customized prostheses*, Séminaire TMI, LaMCoS, 04.07.2018, INSA Lyon.

E2 – ***Brăileanu Patricia Isabela***, Optimisation of personalized prostheses, German-French-Moroccan Summer School 2018, TRIBOLOGY TODAY – From Research Labs to Industry, Poster Session, 07-13.04.2018.

E3 – ***Brăileanu Patricia Isabela***, *Sémiotique dans la conception d'objets*, Invited Speaker Webinaire, L'Ingénieur designer, réalité ou nécessité: 14 mars 2023 – 15h :00 (GMT+2), ORGANISATEUR : LA CONFÉRENCE INTERNATIONALE DES FORMATIONS D'INGÉNIEURS ET TECHNICIENS D'EXPRESSION FRANÇAISE (CITEF), http://www.reseau-citef.org/2023/03/05/webinaire-lingenieur-designer-realite-ou-necessite-universite-politehnica-bucarest/

VIII. Lucrări în volumele unor manifestări ştiinţifice neindexate

- ***Patricia Isabela Brăileanu***, Benyebka Bou–Saïd, Ionel Simion, Ionuţ Cristian Perederic (2020) MECHANICAL BEHAVIOR SIMULATION OF A HIP JOINT EXTRACTED FROM CT SCANS OF A PATIENT DIAGNOSED WITH ARTHRITIS, BY USING FINITE ELEMENT METHOD, 36th IBIMA Conference: 4–5 November 2020, Granada, Spain, ISBN 978–0–9998551–5–7.
- ***Brăileanu Patricia Isabela***, Manasia Loredana, Simion Ionel, Bou-saïd Benyebka, Stoica Gina Florica (2018) REDUCING EARLY INTRAPROSTHETIC DISLOCATION BY USING PERSONALIZED HIP JOINT PROSTHESIS DESIGN AND VIRTUAL PREOPERATIVE PLANNING, 5th International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2018, Albena, Bulgaria, August, 24 – September, 2 2018, DOI 10.5593/sgemsocial2018/5.3.

Data
21/01/2026

Semnătură

Conf. dr. ing. BRĂILEANU Patricia – Isabela