

## A6: Lista lucrărilor științifice publicate de către studenții doctoranzi care și-au finalizat teza în ultimii cinci ani

- 1) Cristina Elena DODU, Mircea ANCĂU, *TABU SEARCH APPROACH FOR PERMUTATION FLOWSHOP SCHEDULING*, STUDIA UNIV. BABES-BOLYAI, INFORMATICA, ISSN (online): 2065-9601, doi: 10.24193/subbi.2020.1.08, 2020, <http://www.cs.ubbcluj.ro/~studia-i/contents/2020-1/08-DoduAncau.pdf>
- 2) Cristina Elena DODU, Mircea ANCĂU, *AN EFFICIENT ALGORITHM FOR LOT PERMUTATION FLOW SHOP SCHEDULING PROBLEM*, Proceedings of the Romanian Academy - Series A, 2021 [https://academiaromana.ro/sectii2002/proceedings/doc2021-IP/ip02/ip\\_ts10\\_Dodu\\_Ancau.pdf](https://academiaromana.ro/sectii2002/proceedings/doc2021-IP/ip02/ip_ts10_Dodu_Ancau.pdf)
- 3) Cristina Elena DODU, Mircea ANCĂU, *CONSIDERATIONS RELATED TO THE LOWER BOUND, IN FLOWSHOP SCHEDULING PROBLEMS*, ACADEMIC JOURNAL OF MANUFACTURING ENGINEERING, VOL.19, ISSUE 1, 2021 [https://www.ajme.ro/PDF\\_AJME\\_2021\\_1/L2.pdf](https://www.ajme.ro/PDF_AJME_2021_1/L2.pdf)
- 4) Cristina Elena DODU, Mircea ANCĂU, *A TABU SEARCH FOR TIME MINIMIZATION IN PRINTED CIRCUIT BOARD ASSEMBLY*, ACADEMIC JOURNAL OF MANUFACTURING ENGINEERING, VOL.19, ISSUE 2, 2021 [https://www.ajme.ro/PDF\\_AJME\\_2021\\_2/L2.pdf](https://www.ajme.ro/PDF_AJME_2021_2/L2.pdf)
- 5) Stanciu Birlescu A., Vilau Cristian, and Balci Nicolae, „Analysis of the Mechanical Behavior of Treelike Fractal Structures in SLM-Manufactured Components”, MATERIALS, vol. 18, no. 10, 2025. <https://doi.org/10.3390/ma18102215> / FI=3.3 / Q2
- 6) Angela Luft, Balci Nicolae, and Sebastian Bremen, „EXPERTS' PERSPECTIVES ON THE ADOPTION OF ADDITIVE MANUFACTURING IN THE INDUSTRY AND ITS INTERRELATED IMPLICATIONS IN PRODUCTION STRUCTURES”, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, vol. 67, no. 1, pp. 159-166, 2024. FI=0.2 /
- 7) Anca Stanciu-birlescu, Vilau Cristian, Ioan Voinea, Christian Noesner, and Balci Nicolae, „MECHANICAL PROPERTIES EVALUATION OF THE SAMPLES MADE BY SLM, WITH TREE-LIKE FRACTALS INTERNAL STRUCTURE”, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, vol. 67, no. 1, 2024. FI=0.2 /
- 8) Tunc L.T., Sheikhi M., Moldovan Catalin Ionut, Gutiu E., and Balci Nicolae, „Non-planar 5-axis directional additive manufacturing of plastics: machine, process, and tool path”, MANUFACTURING LETTERS, vol. 41, pp. 951-956, 2024. <https://doi.org/10.1016/j.mfglet.2024.09.119> / FI=2 / Q3 /
- 9) Karim Abbas, Balci Nicolae, Sebastian Bremen, and Lukas Hedwig, „POLYETHERETHERKETONE (PEEK) IN RAPID TOOLING: ADVANCEMENTS AND APPLICATIONS FOR FUSED FILAMENT FABRICATION OF RUBBER MOLDS”, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, vol. 67, no. 1, pp. 13-22, 2024. FI=0.2 /
- 10) Jucan O.-D., Gadalean R.-V., Chicinas H.-F., Balci Nicolae, and Popa Catalin Ovidiu, „The Assessment of the Transversal Rupture Strength (TRS) and Hardness of WC-Co Specimens Made via Additive Manufacturing and Sinter-HIP”, METALS, vol. 13, no. 6, 2023. <https://doi.org/10.3390/met13061051> FI=2.5 / Q2
- 11) Rusu M., Balci Nicolae, Moldovan M., Cuc S., Petean I., COSMA SORIN-COSMIN, and Leordean Vasile Danut, „Recycled PET Composites Reinforced with Stainless Steel Lattice Structures Made by AM”, POLYMERS, vol. 15, no. 23, 2023. <https://doi.org/10.3390/polym15234591> FI=4.9 / Q1
- 12) Stanciu Birlescu A. and Balci Nicolae, „Computational Model for Tree-like Fractals Used as Internal Structures for Additive Manufacturing Parts”, APPLIED SCIENCES-BASEL, vol. 13, no. 20, 2023. <https://doi.org/10.3390/app132011187> FI=2.5 / Q2 /
- 13) Abbas K., Hedwig L., Balci Nicolae, and Bremen S., „Advanced FFF of PEEK: Infill Strategies and Material Characteristics for Rapid Tooling”, POLYMERS, vol. 15, no. 21, 2023. <https://doi.org/10.3390/polym15214293> FI=4.9 / Q1
- 14) Pascu S. and Balci Nicolae, „Process Parameter Optimization for Hybrid Manufacturing of PLA Components with Improved Surface Quality”, POLYMERS, vol. 15, no. 17, 2023. <https://doi.org/10.3390/polym15173610> FI=4.9 / Q1
- 15) Sergiu Pascu, Alexandru Harfas, and Balci Nicolae, „CONCEPTUAL DESIGN AND EXECUTION OF A FLEXIBLE HYBRID MANUFACTURING SYSTEM”, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, vol. 66, no. 2, pp. 287-292, 2023. FI=0.2 /

- 16) Gadalean R.V., Jucan O.-D., Chicinas H.F., Balci Nicolae, and Popa Catalin Ovidiu, „ADDITIVE MANUFACTURING OF WC-Co BY INDIRECT SELECTIVE LASER SINTERING (SLS) USING HIGH BULK DENSITY POWDERS”, ARCHIVES OF METALLURGY AND MATERIALS, vol. 67, no. 2, pp. 577-585, 2022. <https://doi.org/10.24425/amm.2022.137793> / FI=0.2 / Q4
- 17) Abbas K., Balci Nicolae, Bremen S., and Skupin M., „Crystallization and Aging Behavior of Polyetheretherketone PEEK within Rapid Tooling and Rubber Molding”, JOURNAL OF MANUFACTURING AND MATERIALS PROCESSING, vol. 6, no. 5, 2022. <https://doi.org/10.3390/jmmp6050093> FI=3.3 / Q2
- 18) Jucan O.D., Gadalean R.V., Chicinas H.F., Hering M., Balci Nicolae, and Popa Catalin Ovidiu, „Study on the indirect selective laser sintering (SLS) of WC-Co/PA12 powders for the manufacturing of cemented carbide parts”, INTERNATIONAL JOURNAL OF REFRACTORY METALS HARD MATERIALS, vol. 96, 2021. <https://doi.org/10.1016/j.ijrmhm.2021.105498> / FI=4.8 / Q1
- 19) Moldovan Catalin Ionut, COSMA SORIN-COSMIN, Nichita-Larisa Milodin, Christina Teusan, Petru Berce, and Balci Nicolae, „FINITE ELEMENT ANALYSES OF 3D PRINTED COMPOSITE ROBOT COMPONENT”, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, vol. 64, no. I, pp. 141-152, 2021. FI=0.2
- 20) Cuc S., Burde A., COSMA SORIN-COSMIN, Leordean Vasile Danut, Rusu M., Balci Nicolae, Prodan D., Moldovan M., and Ene R., „Adhesion between Biocomposites and Different Metallic Structures Additive Manufactured”, COATINGS, vol. 11, no. 4, 2021. <https://doi.org/10.3390/coatings11040483> FI=2.8 / Q2
- 21) Ozan Singar, M. Merklein, Study on formability characteristics of the weld seam of Aluminum Steel Tailored Hybrid Blanks, Key Engineering Materials Vol. 549, 2013 pp 302-310
- 22) Ozan Singar, Application of Aluminum-Steel tailored blanks joined by CMT welding, SheMet, 2015
- 23) Ozan Singar, Dorel Banabic, Characterization and application of tailored Hybrid blanks, Ro. J. Techn. Sci. Appl. Mechanics, Vol. 64, pp 35-50 I, Bucharest, 2019
- 24) Ozan Singar, Dorel Banabic Formability of Tailored hybrid blanks, Ro. J. Techn. Sci. Appl. Mechanics, Vol. 64, Nr. 1, Bucharest, 2019
- 25) Ozan Singar, Dorel Banabic, Numerical Simulation of Tailored Hybrid Blanks, The Publishing House Proceedings of the Romanian Academy, Series A Volume 22, Number 2/2021, pp. 179–187 (IF=1.0)
- 26) Inoan Ioan Cristian, Corcheș R. N., Achimaș G., Possibilities to increase the durability of the active plates of the extrusion dies, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics, Mechanics, and Engineering, Vol. 63, Issue III, September, 2020
- 27) Inoan Ioan Cristian, Corcheș R. N., Achimaș G., Elastic compression joints and possibilities of their testing, ACTA TECHNICA NAPOCENSIS Series: Applied Mathematics, Mechanics, and Engineering Vol. 64, Issue III, September, 2021
- 28) Inoan Ioan Cristian, Corcheș R. N., Achimaș G., ș.a., Numerical solution of engineering problems regarding elastic tightening joints, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics, Mechanics, and Engineering, Vol. 64, Issue III, September, 2021
- 29) Inoan Ioan Cristian, Corcheș R. N., Achimaș G., ș.a. Study on the application of self-tightening assemblies (Clamping, shrinking-on), A.J.M.E., vol.19, ISSUE 1/2021
- 30) Inoan Ioan Cristian, Corcheș R. N., Achimaș G., ș.a. Experimental research on assemblies with own tightening, A.J.M.E., vol.19, ISSUE 2/2021
- 31) Ozan Singar, K. Roll, K. Eipper Numerical simulation of the CMT-weld line of tailored hybrid blanks, Forming Technology Forum 2013 September 19 – 20, 2013, UTG, TUM, Germany
- 32) Dăian I., Borzan M., Trif A., MONITORING METHODS OF EQUIPMENT IN FOUNDRIES BY INDUCTIVE SENSORS. ACADEMIC JOURNAL OF MANUFACTURING ENGINEERING, VOL.19, ISSUE 3/2021. Pg. 58-62. ISSN 1583-7904. [https://ajme.ro/PDF\\_AJME\\_2021\\_3/L8.pdf](https://ajme.ro/PDF_AJME_2021_3/L8.pdf)
- 33) Dăian I., Borzan M., Trif A., MEASUREMENT OF INTERIOR DEPRESSURISATION AND VARIATIONS FOR AN INDUSTRIAL DUST FILTER. ACADEMIC JOURNAL OF MANUFACTURING ENGINEERING (AJME), VOL. 18, ISSUE 2/2020, ISSN1583-7904, p. 103-108. [https://www.ajme.ro/PDF\\_AJME\\_2020\\_2/L14.pdf](https://www.ajme.ro/PDF_AJME_2020_2/L14.pdf)
- 34) . Dăian Ioan, Borzan M., Trif A., Monitoring of knock out grid instalations fondries, using probes and level senzors. AJME , vol.20, Issue 4/2022
- 35) R. Coroiu, D.-C. David, O. Coroiu și C. Ciupan, „Inventory and State-of-Conservation Survey Model for Railway Heritage: the Case of Turda–Abrud (Romania)”, *Industrial Archaeology Review* (2020): DOI: 10.1080/03090728.2020.1798105.

- 36) R. Coroiu, O. Coroiu și D.-C. David, „Implicațiile Intervențiilor Inoportune asupra Lemnului din Clădiri Istorice”, Atelierele de la Sibiu, Conferința Internațională Ediția 2017: O Perspectivă Atemporală asupra Lemnului, (București: Editura Universitară „Ion Mincu”, 2019): 55-73, ISBN: 978606-638-185-7. [https://scholar.google.com/scholar?hl=ro&as\\_sdt=0%2C5&q=coroiu+ruxandra&btnG=](https://scholar.google.com/scholar?hl=ro&as_sdt=0%2C5&q=coroiu+ruxandra&btnG=)
- 37) L. Bucșa, O. Coroiu, R. Coroiu și D.-C. David, „The Complexity and Utility of a Building Biology Assessment”, Transsylvania Nostra 52:4 (2019): 10-21, ISSN: 1842-5631. [https://scholar.google.com/scholar?hl=ro&as\\_sdt=0%2C5&q=coroiu+ruxandra&btnG=](https://scholar.google.com/scholar?hl=ro&as_sdt=0%2C5&q=coroiu+ruxandra&btnG=)
- 38) R. Coroiu și C. Ciupan, „Ranking of Heritage Railways by Architectural Value and State of Conservation Assessment of their Buildings”, The XXIIIrd International Scientific Conference „Inventica 2019” (Iași: 2019): 52-58, ISSN: 1844-7880.
- 39) R. Coroiu, „Stadiul Actual al Arhitecturii Feroviare a Căilor Ferate Înguste Abandonate din Regiunea Istorică a Maramureșului”, Transsylvania Nostra 47:3 (2018): 12-17, ISSN: 1842-5631. [https://scholar.google.com/scholar?hl=ro&as\\_sdt=0%2C5&q=coroiu+ruxandra&btnG=](https://scholar.google.com/scholar?hl=ro&as_sdt=0%2C5&q=coroiu+ruxandra&btnG=)
- 40) O. Coroiu și R. Coroiu, „Cauzele Apariției, Problematika Eradicării și Prevenția Atacurilor Fungice Produse de *Serpula lacrymans* (Buretele de Casă)”, Transsylvania Nostra 39:3 (2016): 11-17, ISSN: 1842-5631. [https://scholar.google.com/scholar?hl=ro&as\\_sdt=0%2C5&q=coroiu+ruxandra&btnG=](https://scholar.google.com/scholar?hl=ro&as_sdt=0%2C5&q=coroiu+ruxandra&btnG=)
- 41) Rusan, C. I., & Ciupan, C. (2020). Bed Frame Fabrication For Heavy Duty Machine Tools Or Unique Of High Strenght Materials Quend 700. The Annals Of “Dunarea De Jos” University Of Galati. Fascicle IX, Metallurgy And Materials Science, 43(3), 26-36. <https://www.gup.ugal.ro/ugaljournals/index.php/mms/article/view/3947>
- 42) Rusan, C. I., & Ciupan, C. (2020). Static And Modal Analysis Of High-Speed Cnc Milling Spindle. Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering, 63(4). <https://atnamam.utcluj.ro/index.php/Acta/article/view/1433/1209>
- 43) Rusan, C. I., Mihai, C. & Ciupan, C. (2021). Optimization And Static Analisys Of The Flp2000 Portal Milling Bed Frame From - Cast Iron Construction To Welded Construction. Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering. <https://atnamam.utcluj.ro/index.php/Acta/article/view/1567/1289>
- 44) M Ciupan, I Cionca, V Hereș, C Rusan. (2021) Milling A Large Mold For The Thermoforming Of A Plant Fiber Composite Chair. Nonconventional Technologies Review/Revista De Tehnologii Neconventionale, 25(1). <https://www.revtn.ro/index.php/revtn/issue/view/26>
- 45) Schonstein, C., & Rusan, C. I. (2022). Considerations Regarding The Steering And Linear Drive Mechanism With Double Differential For Tracks Machines. Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering, 65(1). <https://atnamam.utcluj.ro/index.php/Acta/issue/view/61>
- 46) Rusan C. I. Ciupan, C. Ciupan, M. Hurgoiu, D. Design And Stiffness Of A Cnc Milling Router With Reconfigurable Aluminium Structure. Acta Technica Napocensis Series-Applied Mathematics Mechanics And Engineering, Volume 66, 1S, dec. 2023 <https://atnamam.utcluj.ro/index.php/Acta/article/view/2207>
- 47) Rusan, Claudiu-Ioan; Ciupan, Mihai; Ciupan, Cornel (2023). Design Of A Linear Hydraulic MicroTurbine To Compensate The Energy Consumption Of A House. Acta Technica Napocensis - Series: Applied Mathematics, Mechanics, And Engineering, V. 65 (1s). <https://atnamam.utcluj.ro/index.php/Acta/issue/view/61>
- 48) Claudiu Schonstein, Claudiu-Ioan Rusan. (2023). Establishing The Motion Functions For An Assistive Robot For People With Motor Disabilities. Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering, V. 66, N. 1, Pp 57-63. <https://atnamam.utcluj.ro/index.php/Acta/article/view/2098/1667>
- 49) Claudiu Schonstein, Claudiu-Ioan Rusan. (2023). Kinematic Control Functions For A 2t Structure Integrated On An Assistant Robot. Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering, V66(1), Pp 63-69. <https://atnamam.utcluj.ro/index.php/Acta/article/view/2099/1668>
- 50) Mihai Ciupan, Claudiu Ioan Rusan, Emanuela Sorina Pop (2023). Numerical Calculation Of Pneumatic Losses In A Rotary Vane Compressor. Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering, V66(1s).
- 51) Filip I., Ciupan E., Cionca I., Ciupan C., Pop E., Câmpăan E., Hereș V, Rat F. (2017). Furniture parts made of composite materials based on vegetable fibers. The 21th International Conference of Inventics, Iasi, pg. 38 – 45, 2017
- 52) Cionca, I., Ciupan, M., & Heres. V. (2020). Developing and Testing of HempFiber and Ecological Matrix Composites. The XXII International Conference "Inventica 2020", ISSN:1844-7880

- 53) Ciupan C., Pop E., Filip I., Ciupan E., Câmpcean E., Cionca I., Hereş V. A new approach of the design process for replacing wooden parts of furniture The 13th Modern Technologies in Manufacturing, Cluj-Napoca, 2017. MATEC Web of Conference 137, 06002 (2017), DOI: 10.1051/mateconf/201713706002
- 54) Ciupan C., Pop E., Filip I., Ciupan E., Câmpcean E., Cionca I., Hereş V. A new approach of the design process for replacing wooden parts of furniture The 13th Modern Technologies in Manufacturing, Cluj-Napoca, 2017. MATEC Web of Conference 137, 06002 (2017), DOI: 10.1051/mateconf/201713706002
- 55) Ciupan E., Lăzărescu L., Filip I., Ciupan C., Câmpcean E., Cionca I., Pop E. (2017). Characterization of a thermoforming composite material made from hemp fibers and polypropylene. The 13th Modern Technologies in Manufacturing, Cluj-Napoca, 12-13.10.2017, MATEC Web of Conferences, Volume 137, pag. 30, DOI: 10.1051/mateconf/201713708003
- 56) Ciupan E., Cionca I., Ciupan M., Campean E. (2022). The Optimization Of Costs For The Thermoformed Frames From Natural Fiber Composites. Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering Vol. 65, Issue Special I, February, 2022, pag. 57-64. <https://atnamam.utcluj.ro/index.php/Acta/article/view/1735/1396>
- 57) Ciupan M., Ciupan E., Cionca I., Geres V., Muresan C. (2022). Assessing The Influence Of Mechanical Properties Of A Polypropylene And Hemp Composite On The Design Of Upholstered Furniture. Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering Vol. 65, Issue Special I, February, 2022, pag. 91-96. <https://atnamam.utcluj.ro/index.php/Acta/article/view/1787/1431>
- 58) Cionca I, Ciupan E, Ciupan M., Ciupan C. NEW ECOLOGICAL COMPOSITE MATERIALS FOR THE UPHOLSTERED FURNITURE INDUSTRY. Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering Vol. 66, Issue Special IS. <https://atnamam.utcluj.ro/index.php/Acta/issue/view/71>
- 59) Ciupan M., Cionca I., Heres V., Rusan C. Milling A Large Mold For The Thermoforming Of A Plant Fiber Composite Chair. Nonconventional Technologies Review / Revista de Tehnologii Neconventionale, 2021, Vol 25, Issue 1, p14. <https://www.revtm.ro/index.php/revtn/issue/view/26>
- 60) Ichim M., Filip I., Cionca I. Investigations On The Recycling Of Polypropylene Matrix Composites Reinforced With Hemp Fibres. DOI: 10.2478/9788366675735-025
- 61) P. Bondor, D. O. Rusu, F. Milaş, G. Conţiu, M. S. Popa, FEM thermo-mechanical simulation of cutting force, torque and temperatures in high-speed drilling process of AISI 4140, ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, Vol. 65, Nr. 4S, 2023
- 62) ID Voina, DO Rusu, MS Popa, P Bondor, RV Gădălean, The influence of the cutting-edge microgeometry of reamers on the stainless-steel machining, ACTA TECHNICA NAPOCENSIS-Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, Vol. 64, Nr. 4, 2021
- 63) Oezden, R., Aclan, M., Danho, S.: Experimental accuracy assessment of different measuring sensors on workpieces with varying properties. IManE&E (Innovative Manufacturing Engineering and Energy International Conference) Volume 178. Chisinau, 2018.
- 64) Aclan, M., Oezden, R., Danho S.: Investigation of the geometric change of plastic articles made by polyamid. IManE&E (Innovative Manufacturing Engineering and Energy International Conference) Volume 178. Chisinau, 2018.
- 65) VOINA, I. D., RUSU, D., POPA, M., BONDOR, P., & GĂDĂLEAN, R. (2021). THE INFLUENCE OF THE CUTTING-EDGE MICROGEOMETRY OF REAMERS ON THE STAINLESS-STEEL MACHINING. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, And ENGINEERING, 64(4).
- 66) Faur, A. S., Popa, M. S., Luca, B. C., Voina, I. D., & Bizubac, D. (2018). Research on the influence of a new tap drill geometry on C45, 42CrMo4 and X5CrNi8 steel processing. In MATEC Web of Conferences (Vol. 178, p. 01002). EDP Sciences..
- 67) Stanciu Birlescu A.V., Vilau C., Balc N., Voina I. D., Noesnsen C. (2023). Mechanical properties evaluation of the samples made by SLM, with tree-like fractals internal structure. MTem The 15<sup>th</sup> INTERNATIONAL CONFERENCE.