

A10. Lucrări științifice publicate de conducătorii de doctorat și indexate în Baze de Date Internaționale

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, (Copernicus International Database) <http://www.cs.ubbcluj.ro/~studia-i/contents/2020-1/08-DoduAncau.pdf>
2. 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 (Copernicus International Database)
3. 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 (Copernicus International Database)
4. Ghindăoanu, St.V., Ancău, M. THE CURRENT STATE OF SCIENTIFIC RESEARCH IN THE FIELD OF OPTIMISING PRINTED CIRCUIT BOARD PROCESSING TECHNOLOGIES BY MINIMISING DRILLING PATH USING GENETIC ALGORITHMS, AJME, Vol . 22, No.4, 2024, pp.119-126 (Copernicus International Database)
5. ANTAL, Tiberiu Alexandru. SPEED INVESTIGATION OF A MULTITHREADED VERSUS A SINGLE THREADED IMPLEMENTATION OF A JAVA CODE. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.I.], v. 64, n. 1, apr. 2021. ISSN 2393–2988.
6. ANTAL, Tiberiu Alexandru. USING JAVA AFFINE TRANSFORMATION IN A SWING BASED 2DOF PLANAR ROBOT SIMULATION. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.I.], v. 64, n. 1, apr. 2021. ISSN 2393–2988.
7. Doina PISLA, Iosif BIRLESCU, Emil MOIS, Paul TUCAN, Corina RADU, Alin BURZ, Bogdan GHERMAN, Tiberiu ANTAL, Calin VAIDA, Nadim AL HAJJAR. SIMULATION AND CONTROL OF AN INNOVATIVE MEDICAL PARALLEL ROBOT USED FOR HCC TREATMENT PROCEDURE. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.I.], v. 64, n. 1-S2, mar. 2021. ISSN 2393–2988.
8. Doina PISLA, Laurentiu NAE, Calin VAIDA, Eduard OPREA, Adrian PISLA, Bogdan GHERMAN, Tiberiu ANTAL, Katja RIESSENBERGER, Nicolae PLITEA. DEVELOPMENT OF A LEARNING MANAGEMENT SYSTEM FOR KNOWLEDGE TRANSFER IN ENGINEERING. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.I.], v. 64, n. 3, oct. 2021. ISSN 2393–2988.
9. ANTAL, Tiberiu Alexandru. SOME ISSUES RELATED TO THE DOMAIN AND ACCURACY OF THE NUMERICAL PRIMITIVE DATA TYPES IN JAVA THAT CAN BE AVOIDED USING OBJECTS BASED ON THE BigInteger AND BigDecimal CLASSES.

ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, v. 65, n. 1, may. 2022. ISSN 2393–2988.

10. ANTAL, Tiberiu Alexandru. THE CAVEAT OF OBJECT ORIENTED PROGRAMMING IN JAVA. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, v. 65, n. 1, may. 2018. ISSN 2393–2988.
11. Tucan, Paul, Florin Graur, Andrei Caprariu, Corina Radu, Alin Burz, Calin Vaida, Nadim Al Hajjar, Tiberiu Antal, and Doina Pisla. "A functional design analysis of a robotic-guided brachytherapy instrument." In Materials Science and Engineering Conference Series, vol. 1268, no. 1, p. 012016. 2022.
12. Ionut ULINICI, Calin VAIDA, Bogdan GHERMAN, Tiberiu Alexandru ANTAL, Paul TUCAN, Doina PISLA. KINEMATICS AND WORKSPACE SIMULATION OF A NEW PARALLEL ROBOT FOR SILS. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 65, n. 2S, dec. 2022. ISSN 2393–2988.
13. Alin BURZ, Paul TUCAN, Nicoleta TOHANEAN, Bogdan GHERMAN, Calin VAIDA, Adrian PISLA, Tiberiu ANTAL, Giuseppe CARBONE, Cristian ABRUDAN, Doina PISLA. PATIENT ORIENTED CONTROL SYSTEM OF A MODULAR PARALLEL ROBOT FOR ELBOW REHABILITATION. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 65, n. 2S, dec. 2022. ISSN 2393–2988.
14. ANTAL, Tiberiu Alexandru. A CRUD IMPLEMENTATION IN JDEVELOPER AND MS ACCESS OF A FLAT DATABASE FOR STORING ROBOT PROGRAMS. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 66, n. 1, May. 2023. ISSN 2393–2988. Available at: <<https://atna-mam.utcluj.ro/index.php/Acta/article/view/2093>>. Date accessed: 26 Sep. 2023.
15. ANTAL, Tiberiu Alexandru. A REVIEW OF THE PHP SERVER-SIDE SCRIPTING LANGUAGE COMPARED TO C, C++ AND JAVA FOR NUMERICAL ENGINEERING APPLICATIONS. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 66, n. 1, may. 2023. ISSN 2393–2988. Available at: <<https://atna-mam.utcluj.ro/index.php/Acta/article/view/2094>>. Date accessed: 26 Sep. 2023.
16. ANTAL, Tiberiu Alexandru. ABOUT THE TRANSFORMATION OF A STRUCTURED CODE TO A LIBRARY IN JAVA. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 67, n. 1, mar. 2024. ISSN 2393–2988. Available at: <<https://atna-mam.utcluj.ro/index.php/Acta/article/view/2278>>. Date accessed: 25 Dec. 2024.
17. ANTAL, Tiberiu Alexandru. GENERALIZATION BY PARAMETERIZATION WITH ASSOCIATED ARRAYS, IN PHP, IN A MANIPULATOR COMPUTATION. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 67, n. 1, mar. 2024. ISSN 2393–2988. Available at: <<https://atna-mam.utcluj.ro/index.php/Acta/article/view/2279>>. Date accessed: 25 Dec. 2024.
18. Alexandru Pusca, Florin Covaciu, Alin Burz, Alin Horsia, Pierre Mougnot, et al.. Development of an innovative parallel robot used in laparoscopic pancreatic surgery. The

14th IFToMM International Symposium on Science of Mechanisms and Machines, Oct 2025, Brasov, Romania. hal-05265390

19. ANTAL, Tiberiu Alexandru. PYTHON IN THE PLANAR FOUR-BAR LINKAGE MECHANISM SIMULATION. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 68, n. 1 & 2, jun. 2025. ISSN 2393–2988.
20. ANTAL, Tiberiu Alexandru. A MACHINE LEARNING APPROACH IN PLANAR MECHANISM TRAJECTORY APPROXIMATION. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 68, n. 1 & 2, jun. 2025. ISSN 2393–2988.
21. Alin HORSIA, Ionut ZIMA, Damien CHABLAT, Calin VAIDA, Alexandru PUSCA, Tiberiu ANTAL, Bogdan GHERMAN, Doina PISLA. THE CONCEPTUAL DESIGN OF A PARALLEL MECHANISM WITH 3 DEGREES OF FREEDOM FOR ROBOTIC ASSISTED MINIMALLY INVASIVE SURGERY. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 68, n. 1 & 2, jun. 2025. ISSN 2393–2988.
22. ANTAL, Tiberiu Alexandru. A RELATIONAL IMPLEMENTATION WITH WEB INTERFACE FOR STORING ROBOT PROGRAMS. ACTA TECHNICA NAPOCENSIS - Series: APPLIED MATHEMATICS, MECHANICS, and ENGINEERING, [S.l.], v. 68, n. 1 & 2, jun. 2025. ISSN 2393–2988.
23. Calin Vaida, Paul Tucan, Dragos Sebeni, Oana Vanta, Iosif Birlescu, Bogdan Gherman, Tiberiu Antal, Doina Pisla. (2025) Inverse Dynamics Analysis and Simulation of an Innovative 3 DOF Wrist Rehabilitation Robot. In: Machado, J., Trojanowska, J., Ottaviano, E., Xavior, M.A., Valášek, P., Basova, Y. (eds) Innovations in Mechanical Engineering IV. 2025. Lecture Notes in Mechanical Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-93554-1_3
24. Paul Tucan, Nadim Al Hajjar, Calin Vaida, Alexandru Pusca, Corina Radu, Daniela Jucan, Tiberiu Antal, Adrian Pisla, Damien Chablat, Doina Pisla (2025). Design of an Innovative Robotic Surgical Instrument for Circular Stapling. In: Carbone, G., Quaglia, G. (eds) Proceedings of I4SDG Workshop 2025 - IFToMM for Sustainable Development Goals. I4SDG 2025. Mechanisms and Machine Science, vol 180. Springer, Cham. https://doi.org/10.1007/978-3-031-91179-8_7.
25. Ionut Zima, Dragos Sebeni, Bulbucan Vasile, Calin Vaida, Bogdan Gherman, Jose Machado, Paul Tucan, Tiberiu Antal, Doina Pisla (2025). Conceptual Design of an Innovative Robotic Device for Hand Rehabilitation. In: Carbone, G., Quaglia, G. (eds) Proceedings of I4SDG Workshop 2025 - IFToMM for Sustainable Development Goals. I4SDG 2025. Mechanisms and Machine Science, vol 180. Springer, Cham. https://doi.org/10.1007/978-3-031-91179-8_8.
26. Singar O., Banabic D., Formability of tailored hybrid blanks, Romanian Journal of Technical Sciences. Applied Mechanics, 66(2021), 93-101 (Copiarnicus).
27. Banabic D., Răspuns la discursul de recepție al academicianului Mihail-Viorel Bădescu, Academica, XXXIII(2023), Martie, p. 20-23. (Copiarnicus).
28. Banabic D., Viața și opera academicianului Ioan Anton, Academica, XXXIV(2024), Iulie-August, p.25-26. (Copiarnicus).

29. Banabic D., Traian Vuia și invențiile sale, *Academica*, XXXV(2025), Septembrie-Octombrie, p. 419-420. (Copiarnicus).
30. Turcu Antoniu Claudiu, Darab Pompei - Cosmin, Bere Petru Paul, Polycarpou A., Micu Dan Doru. (2022). DIELECTRIC CHARACTERISTICS OF COMPOSITE ELECTRICAL INSULATING MATERIALS FOR ENERGY EFFICIENCY INCREASE. *IET Conference Proceedings*, (2022)(25), 414-419.3.
31. 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
32. Dăian I., Borzan M., Trif A., MONITORING METHODS OF EQUIPMENT IN FOUNDRIES BY INDUCTIVE SENSORS. *ACADEMIC JOURNAL OF MANUFACTURING ENGINEERING (AJME)*, 2021, Vol. 19 Issue 3, p58-62. https://ajme.ro/PDF_AJME_2021_3/L8.pdf
33. Ciupan, C., Ciupan E., Ciupan M. Recyclable Composite Materials for the Upholstered Furniture Industry. *Macromolecular Symposia*. <https://doi.org/10.1002/masy.70039>.
34. Ciupan, C., Ciupan E., Creativitatea oglindită în drepturi de proprietate industrial. <https://repository.utm.md/handle/5014/28486>
35. Domnita-Florina Fratila, Sever-Adrian Radu, and Glad Contiu. An Energy and Emissions Assessment Approach For the Sustainable Turning Process of Ti Alloys. *Journal of Advanced Manufacturing Systems*. <https://doi.org/10.1142/S0219686727500077>.
36. Mircea H Muntean, Vlad I Bocanet, Domnita Fratila. AI Enhanced Quality Assurance Reporting of Surface Deviation Data in Optical 3D Inspection. *IFIP International Conference on Advances in Production Management Systems*, pp 188-201, Publisher, Springer Nature Switzerland
37. Efimov, D., Haragâș, S. (2025): *Study on the use of polyamide as a viable alternative to replace metals in various industrial applications*, *Journal of Research and Innovation for Sustainable Society (JRISS)*, Volume 7, Issue 1, pag.156-162, ISSN: 2668-0416, DOI: 10.33727/JRISS.2025.1.15:156-162. [Index Copernicus]
38. Cristea, A.F., Bălcău, M.C., Haragâș, S. (2023): *Contributions Regarding the Static and Dynamic Behavior of the Vibrating Table named „VISO”*, *WSEAS Transactions on Applied and Theoretical Mechanics*, volume 18, pag.270-280, E-ISSN 2224-3429, doi: 10.37394/232011.2023.18.25. [Scopus]
39. Cristea, A.F., Bălcău, M.C., Haragâș, S. (2023): *Study of Case Regarding Analysis of Vibration at Industrial Vibrating Tables*, 27th International Conference on Circuits, Systems, Communications and Computers (CSCC), Rhodes, Greece, 2023, pag.92-97, *IEEE Xplore*, ISBN 979-8-3503-3759-4, doi: 10.1109/CSCC58962.2023.00022. [Scopus]
40. Buiga, O., Haragâș, S., Tudose, L. (2023): *Helical gears pair optimal design using Genetic Algorithms*, 10th International Conference on Modern Power Systems (MPS), Cluj Napoca, Romania, 2023, pag.1-6, *IEEE Xplore*, doi: 10.1109/MPS58874.2023.10187586. [Scopus]
41. P. Berce, A.Sadeh, R. Păcurar, C.M. Borzan, „Rapid product development using additive manufacturing technologies”, *The Romanian Journal of Technical Sciences, Applied Mechanics*, vol. 64, no.3, pp.189-207, 2020, <https://rjts-applied->

42. P.Berce, H.Chezan, R. Păcurar, „The mechanical behavior of a dynamically stressed customized skull implant made from different types of biomaterials by Additive Manufacturing technologies”, Technical Sciences 5 (2), 87-110, 2020, https://jesi.astr.ro/wp-content/uploads/2020/07/1_Petre-Berce.pdf
43. R Păcurar, S Pascu, A Păcurar, D S Stan, E Teuțan, D. I. Băilă, A Sadeh, „Designing of an original extruding system for 3D printing of parts made of plastic material in powder-state form”, IOP Conference Series: Materials Science and Engineering, Vol. 1009 <https://iopscience.iop.org/article/10.1088/1757-899X/1009/1/012043012043> (2021), 012043,
44. Filip Górski, Olga Komorowska, Przemysław Zawadzki, Wiesław Kuczko, Magdalena Żukowska, Remigiusz Łabudzki, Razvan Pacurar, AUTOMATION OF DESIGN OF MODULAR UPPER LIMB PROSTHESES, Facta Universitatis, Series: Mechanical Engineering, 10.22190/FUME230228072G
45. D.-I Băilă, R. Păcurar, A. Păcurar, Sintered Compacts of Co-Cr Powders Doped with HAp and ZrO₂ Used in Implantology, Lecture Notes in Mechanical Engineering, Springer, 2022, pp. 69–78
46. N., Vitković, M. Trajanović, J. Arandelović, R. Păcurar, C. Borzan, Contact Surface Model Parameterization of the Extra-Articular Distal Humerus Plate Lecture Notes in Mechanical Engineering, Manufacturing 2022, pp. 79–92
47. D.-I., Băilă, R. Păcurar, A. Păcurar, 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
48. M. Kovacs, R. Pacurar, S. Grozav, N. Durakbasa, O. Bodur, J. Rehor, T. Marik, Research on Mechanical Characteristics of parts made of 316L Stainless Steel (material) by using Selective Laser Melting Technology, Proceedings of the International Conference on Intelligent Systems and Patterns Recognition (ISPR 2022), pp.176-187
49. D.Băilă, A.Păcurar, R.Păcurar, Moisture Absorption Behavior of CP5 Composite Materials Used in Industry, The Eurasia Proceedings of Science, Technology, Engineering & Mathematics (EPSTEM 2022), ISSN: 2602 3199, pp.55-63
50. D.Băilă, R.Păcurar, A.Păcurar, „Determination of moisture content and morphological characteristics of mdf composite materials used for industrial products”, Technology, Engineering & Mathematics (EPSTEM 2022), ISSN: 2602-3199, pp.55-63
51. D.Băilă, R.Păcurar, A.Păcurar, Mechanical Properties and Microstructural Analyzes of Epoxy Resins Reinforced with Satin Tissue, SGEM 2022 Conference, ISSN 1314-2704
52. D.Băilă, R.Păcurar, A.Păcurar, Mechanical Behaviors of Polyester Resins Reinforced with Unfilo FiberGlass, SGEM 2022 Conference, ISSN 1314-2704
53. C. Luduşan, D. O. González, R. Păcurar, J. F. R. González, M. G. Fuentes, L. M. Abellán, 3D printed implant structure for breast reconstruction and systematic drug delivery for preventing the reoccurrence of cancer, LI Congreso Anual de la Sociedad Española de Ingeniería Biomédica, XLI Congreso Anual de la Sociedad Española de Ingeniería Biomédica, pp.406-409, 2023, ISBN: 978-84-17853-76-1.
54. Vitković, N., Trajanović, M., Stojković, M., Păcurar, R., Stan, SD., Górski, F. (2023). The Reverse Engineering of Human Organs Based on the Application of Method of Anatomical

Features. In: Dekhtyar, Y., Saknite, I. (eds) 19th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics. NBC 2023. IFMBE Proceedings, vol 89. Springer, Cham. https://doi.org/10.1007/978-3-031-37132-5_16

55. B. Willing, S. G. Fuşlea, G. Poszvek, S. D. Grozav, R. Păcurar, V. Ceclan, A. D. Sterca, E. M. Walcher, N. M. Durakbasa, Research on Constructive Design of Strut-Based Lattice Structures for Load-Bearing Orthopaedic Implants Manufactured by Selective Laser Melting (SLM) Technology, The International Symposium for Production Research, 2023, pp. 347-359, Springer.
56. Vitković, N. Trajanović, M., Barać, M., Trifunović, M., Stojković, J., Stan, S.-D., Păcurar, R., Novel Approach for Education in Biomedical Engineering Based on Atomic Learning. In: Trajanovic, M., Filipovic, N., Zdravkovic, M. (eds) Disruptive Information Technologies for a Smart Society. ICIST 2023. Lecture Notes in Networks and Systems, vol 872. 2024, Springer.
57. Oros Augusta, Tuns Eduard, Razvan Pacurar, STATE OF THE ART OF PRINTABLE NANOPARTICLES VIA INKJET PROCESS: APPLICATIONS IN MEDICINE, Journal on Emerging Topics in Industrial Engineering, 2025, ISSN: 2960-5407 (Online).
58. Buiga, O., Haragăş, S., Tudose, L. - Helical gears pair optimal design using Genetic Algorithms, 10th International Conference on Modern Power Systems (MPS), 21-23 June 2023, doi: 0.1109/MPS58874.2023.10187586 [[Scopus](#)].
59. Ursache, C., Şerdean, F.M., Tudose, L. - E2ZB approximation of the cylindrical roller optimal profile to increase the performance of rolling bearings. In: Moldovan, L., Gligor, A. (eds) The 17th. International Conference Interdisciplinarity in Engineering. Inter-ENG 2023. Lecture Notes in Networks and Systems, vol. 926. Springer, Cham., (2024) doi: 10.1007/978-3-031-54664-8_3, pp. 15-29 [[Scopus](#)].