



ASTR

Filiala Iași

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RAPORT DE ACTIVITATE

pentru anul 2024

I. Activități specifice în cadrul filialei

I.A. Participarea cu lucrări din partea membrilor filialei pentru manifestări și publicații ale ASTR

1. **Adăscăliței Adrian A.** Strategies Used in Blended Teaching and Learning and Virtual Laboratories for STEAM Education, a 19-a ediție Conferința “Zilele Academiei de Științe Tehnice din România” ZASTR 2024, 19-20 septembrie, Craiova, 2024.
2. L.T. Cotorobai, **Doru-Florin Chiper**, O soluție eficientă pentru integrarea unei tehnici de securitate hardware în proiectarea arhitecturii VLSI pentru DCT IV, Conferința “Zilele Academiei de Științe Tehnice din România” ZASTR 2024, 19-20 septembrie, Craiova, 2024.
3. L.T. Cotorobai, **Doru-Florin Chiper**. An efficient algorithm and architecture for the VLSI implementation of type IV DST using short quasi-band correlation structures allowing efficient incorporation of techniques used for hardware security, *Journal of Engineering Sciences and Innovation-JESI*, no.3,vol.9, 2024.
4. **Ioan Doroftei**, Ionel Starețu, Expriimarea emoțiilor în robotica socială, Conferința “Zilele Academiei de Științe Tehnice din România” ZASTR 2024, 19-20 septembrie, Craiova, 2024.
5. Ionel Starețu, **Ioan Doroftei**, Bionica, o soluție esențială a armonizării societății cu natura și studiu de caz, Conferința “Zilele Academiei de Științe Tehnice din România” ZASTR 2024, 19-20 septembrie, Craiova, 2024.
6. **Corneliu Munteanu**, Daniela-Lucia Chicet, Bogdan Istrate, Adrian Stefan, Ioan Vida-Simiti Influence of deposition technology on the morphology of chromium carbide-based powder coatings, *Journal of Engineering Sciences and Innovation*, JESI, 9(1), 2024, 33-46
7. Simona Nicoleta Mazurchevici, Alina Marguta, **Dumitru Nedelcu**, (2024), Enhancing the characteristics of bio-based polymers coated with ceramic particles, *Journal of Engineering Sciences and Innovation*, JESI, 9(1), 2024, 47-56
8. **Pastravanu O.**, Matcovschi M-H., **Voicu M.**; Restricții în dinamica sistemelor neliniare continue, formulate în termeni de invarianța la flux, Conferința “Zilele Academiei de Științe Tehnice din România” ZASTR 2024, 19-20 septembrie, Craiova,

2024.

I.B. Participarea în Comitete de program, sau Colective editoriale ale manifestărilor, respectiv publicațiilor ASTR

- **D. Nedelcu** - Comitetul științific al Conferinței ZASTR, 19-20 septembrie, 2024, Craiova, România.
- **O. Păstrăvanu** - Comitetul științific al Conferinței ZASTR, 19-20 septembrie, 2024, Craiova, România
- **A. Dima** - membru în Comitetul editorial *Journal of Engineering Sciences and Innovation* (JESI) - Chemical Engineering, Materials Science and Engineering, Natural Resources
- **M. Voicu** - membru în Comitetul editorial *Journal of Engineering Sciences and Innovation* (JESI) - Electrotechnics, Electronics, Energetics, Automation

I.C. Organizarea și co-organizarea de manifestări științifice (sub egida ASTR)

1. “The 33rd International Conference on Robotics in Alpe-Adria-Danube Region RAAD 2024”, June 5-7, 2024, Cluj-Napoca Romania, <https://raad.utcluj.ro> - **Condurache, D.**, Co-chair.
2. “The Joint International Conference of the XIV International Conference on Mechanisms and Mechanical Transmissions (MTM) and the XXVI International Conference on Robotics (ROBOTICS)”, Iasi, Romania, November 14 – 16, 2024, <https://mtm-robotics2024.upt.ro> - **Condurache, D.**, Member of International Scientific Committee.
3. Cea de a 19-a ediție a ciclului de conferințe internaționale anuale *Linguistic Resources and Tools for Natural Language Processing*, a avut loc în acest an la Universitatea „1 Decembrie 1918” din Alba-Iulia și online, în perioada 14-16 noiembrie 2024., (<https://profs.info.uaic.ro/~consilr/2024/>) – **Dan Cristea** co-organizator.
4. The Joint International Conference of the XIV International Conference on Mechanisms and Mechanical Transmissions (MTM) and the XXVI International Conference on Robotics (ROBOTICS) – MTM & ROBOTICS 2024, November 14 – 16, 2024, Iasi, Romania – **Ioan Doroftei** Conference Chair.
5. The 11th International Conference on *Advanced Concepts in Mechanical Engineering*, ACME 2024, June 6 – 7, 2024, Iasi, Romania – **Ioan Doroftei** Chair of Organizing Committee, Membru Scientific Committee.
6. 12th International Conference - *Modern Technologies in Industrial Engineering*, ModTech 2024, June 24-27, The Everly Hotel, Putrajaya, Kuala Lumpur, Malaysia - **Ioan Doroftei, Dumitru Nedelcu** Organizing Committee, Scientific Committee.
7. 6th IFToMM Symposium on *Mechanism Design for Robotics* MEDER 2024, June 27-29, 2024, Timișoara, Romania - **Ioan Doroftei**, Membru National Organizing Committee.
8. The 33rd International Conference on *Robotics in Alpe-Adria-Danube Region* June 5-7, 2024, Cluj-Napoca, Romania - **Ioan Doroftei**, Membru National Committee.
9. A 28-a ediție a Conferinței Internaționale *System Theory, Control and Computing*, ICSTCC 2024, 10-12 octombrie, 2024, Sinaia (volum de lucrări indexat IEEE Xplore), **Vasile Manta, Octavian Păstrăvanu, Mihail Voicu**.
10. International Conference on *Innovative Research* ICIR-EUROINVENT, 6-8 iunie, 2024, Iasi, Romania (<http://www.euroinvent.org/partners/>). **Petrică Vitureanu** – Chairman și organizator.

II. Cercetare (publicații, brevete, proiecte)

II.A. Cărți și capitole în cărți

1. **Condurache, D.**, “*Advances Representation of Higher-Order Kinematics of Motion. Hypercomplex Lie Groups and Lie Algebras*”, April 2024, In book: Mechanisms and Machine Science, vol 154. Publisher: Springer, Cham. https://doi.org/10.1007/978-3-031-51085-4_14
2. **Condurache, D.**, Pisla, D., Giuseppe Carbone, Vaida., C. “*Advances in Service and Industrial Robotics*”, RAAD 2024 May 2024, Publisher: Springer Cham, ISBN: 978-3-031-59256-0
3. **Condurache, D.**, “*A Generalization of the Bresse Properties in Higher-Order Kinematics*” July 2024, DOI: 10.1007/978-3-031-64057-5_12, In book: Advances in Robot Kinematics 2024, Publisher: Springer
4. **Condurache, D.**, Cojocari, M., Birlescu, I., Gherman, B. (2024). “*Automatic Differentiation of Serial Manipulator Jacobians Using Multidual Algebra*”. In: Pisla, D., Carbone, G., Condurache, D., Vaida, C. (eds) *Advances in Service and Industrial Robotics*. RAAD 2024. Mechanisms and Machine Science, vol 157. Springer, Cham. https://doi.org/10.1007/978-3-031-59257-7_38
5. A. Vasilescu, **D. Cristea**, D. Tufiş: Proceedings of the 18th International Conference *Linguistic Resources and Tools for Natural Language Processing*, Braşov and online, 11-12 December 2023 (published in 2024)
6. **Ioan Doroftei**, Balint Kiss, Yvan Baudoin, Zafar Taqvi, Simone Keller Fuchter (Eds.), *25th International Symposium on Measurements and Control in Robotics*, Proceedings of ISMCR 2023, Mechanisms and Machine Science book series, Volume 154, 2024, Springer Cham, ISBN 978-3-031-51084-7.
7. **Corneliu Munteanu, Ioan Doroftei** (Eds.), *Advanced Materials for Multifunctional Applications*, 2024, ISBN: 978-3-7258-1540-1 (Hardback), ISBN: 978-3-7258-1539-5 (PDF), <https://doi.org/10.3390/books978-3-7258-1539-5>, MDPI.
8. **Ioan Doroftei** (Ed.), *Advanced Robots: Design, Control and Application – 2nd Edition*, 2024, ISBN: 978-3-7258-2756-5 (Hardback), ISBN: 978-3-7258-2755-8 (PDF), <https://doi.org/10.3390/books978-3-7258-2755-8>, MDPI.
9. Buium, F., **Doroftei, I.**, Alaci, S. (2024). Assembling Modes of a 3-RRR Planar Mechanism and Its Workspace Analysis. In: Lovasz, EC., Ceccarelli, M., Ciupe, V. (eds) *Mechanism Design for Robotics*. MEDER 2024. Mechanisms and Machine Science, vol 166. Springer, Cham. https://doi.org/10.1007/978-3-031-67383-2_7
10. Straticiu, C., **Doroftei, I.**, Cazacu, CM. (2024). A Short Overview on Terrestrial Hybrid Locomotion Mobile Robots. In: Pisla, D., Carbone, G., **Condurache, D.**, Vaida, C. (eds) *Advances in Service and Industrial Robotics*. RAAD 2024. Mechanisms and Machine Science, vol 157. Springer, Cham. https://doi.org/10.1007/978-3-031-59257-7_29.
11. Sandu, RO., **Doroftei, I.**, Cazacu, CM. (2024). A Concise Review of Upper Limb Prostheses. In: Pisla, D., Carbone, G., **Condurache, D.**, Vaida, C. (eds) *Advances in Service and Industrial Robotics*. RAAD 2024. Mechanisms and Machine Science, vol 157. Springer, Cham. https://doi.org/10.1007/978-3-031-59257-7_21.
12. Cazacu, CM., **Doroftei, I.** (2024). Control Advances in Upper Limb Prostheses: A Review. Part II: Non-Invasive Methods. In: Lovasz, EC., Ceccarelli, M., Ciupe, V. (eds) *Mechanism Design for Robotics*. MEDER 2024. Mechanisms and Machine Science, vol 166. Springer, Cham. https://doi.org/10.1007/978-3-031-67383-2_28.
13. Cazacu, CM., **Doroftei, I.** (2024). Control Advances in Upper Limb Prostheses: A Review. Part I: Invasive Methods. In: Lovasz, EC., Ceccarelli, M., Ciupe, V. (eds)

- Mechanism Design for Robotics*. MEDER 2024. Mechanisms and Machine Science, vol 166. Springer, Cham. https://doi.org/10.1007/978-3-031-67383-2_27.
14. Buium, F., **Doroftei, I.** (2024). Workspace Analysis of a 3 RRR Planar Mechanism. In: Doroftei, I., Kiss, B., Baudoin, Y., Taqvi, Z., Keller Fuchter, S. (eds) 25th International Symposium on *Measurements and Control in Robotics*. ISMCR 2023. Mechanisms and Machine Science, vol 154. Springer, Cham. https://doi.org/10.1007/978-3-031-51085-4_7.
 15. Cazacu, CM., **Doroftei, I.** (2024). Preliminary Functionality Tests of an Improved Ankle Rehabilitation Device. In: Doroftei, I., Kiss, B., Baudoin, Y., Taqvi, Z., Keller Fuchter, S. (eds) 25th International Symposium on *Measurements and Control in Robotics*. ISMCR 2023. Mechanisms and Machine Science, vol 154. Springer, Cham. https://doi.org/10.1007/978-3-031-51085-4_19.
 16. Teodoriu, A.P., **Doroftei, I.**, Pricop, B., Bujoreanu, LG. (2024). Study of the Load-Response Effect of NiTi-Based Thermal Actuators. Application to a Robotic Gripper. In: Doroftei, I., Kiss, B., Baudoin, Y., Taqvi, Z., Keller Fuchter, S. (eds) 25th International Symposium on *Measurements and Control in Robotics*. ISMCR 2023. Mechanisms and Machine Science, vol 154. Springer, Cham. https://doi.org/10.1007/978-3-031-51085-4_21.
 17. **Doroftei, I.**, Morar, CA., Hagan, MG. (2024). Design of a Hybrid Locomotion Mobile Manipulator for Agricultural Application. In: Doroftei, I., Kiss, B., Baudoin, Y., Taqvi, Z., Keller Fuchter, S. (eds) 25th International Symposium on *Measurements and Control in Robotics*. ISMCR 2023. Mechanisms and Machine Science, vol 154. Springer, Cham. https://doi.org/10.1007/978-3-031-51085-4_22.
 18. **Ioan Doroftei**, Ovidiu-Vasile Crivoi and Cristina-Magda Cazacu, Some Particular Theoretical Aspects of Internal-External Gear Pairs with Zero Difference in Numbers of Teeth, to be published in Doroftei, I., Lovasz, EC. (eds) Proceedings of *The Joint International Conference of the XIV International Conference on Mechanisms and Mechanical Transmissions (MTM) and the XXVI International Conference on Robotics (ROBOTICS) – MTM & ROBOTICS 2024*, Springer, Cham.
 19. Cezar Duca, Florentin Buium and **Ioan Doroftei**, Forces Transmission at Mechanisms Actuated with Linear Motors, to be published in Doroftei, I., Lovasz, EC. (eds) Proceedings of The Joint International Conference of the XIV International Conference on Mechanisms and Mechanical Transmissions (MTM) and the XXVI International Conference on Robotics (ROBOTICS) – MTM & ROBOTICS 2024, Springer, Cham.
 20. Bețianu Camelia, Cozma Petronela, **Gavrilescu Maria**, (2024), "Human Health Hazards and Risks Generated by the Bioaccumulation of Lead from the Environment in the Food Chain", In: "*Lead Toxicity Mitigation: Sustainable Nexus Approaches. Environmental Contamination Remediation and Management*", Kumar, N., Jha, A.K. (eds). Springer, Cham, Switzerland, 2024, pp. 73-123. https://doi.org/10.1007/978-3-031-46146-0_5, ISBN: 978-3-031-46145-3
 21. Rosca Mihaela, Cozma Petronela, **Gavrilescu Maria**, (2024), "Mathematical Modeling of Microbial Bioremediation: A Key Step in Process Scale-Up", Chapter 5, In: "*Biosorption Processes for Heavy Metal Removal*", Saini P., (Ed.), IGI Global Scientific Publishing, New York, 2024, 100-134, <http://doi.org/10.4018/979-8-3693-1618-4.ch005>, ISBN13: 979-8-369-316184
 22. Maxim A., Pauca O., **Lazar C.**, *Ingineria reglării automate – Îndrumar de laborator*, Editura MatrixRom, București, 2024. ISBN 978-606-25-0935-4
 23. Costel Catalin Coman, **Dumitru Nedelcu**, Anna Timofiejczuk, (2024), *Parts Obtaining Using the Incremental Forming Process*, ISBN: 1-0364-1580-5 ; ISBN13: 978-1-0364-1580-8, Cambridge Scholars Publishing, UK, <https://www.cambridgescholars.com/product/978-1-0364-1580-8>

24. I.R. Vizitiu-Baciu, D.N.Isopescu, **N. Țăranu**, S.G.Maxineasa, *Contribuții la studiul acoperișurilor verzi*, ISBN: 978-973-621-553-7, Editura Universității tehnice "Gheorghe Asachi" din Iași, 2024
25. Dorel Banabic (Ed.), *History of Romanian Technology and Industry*; Volume 2: Electrical Engineering, Energetics, Transport and Technology Education. Ion Popescu, Dorel Banabic, Coleta De Sabata, and **Mihail Voicu**, History of Technology Education in Romania, pp. 193-238. Springer, 2024; ISBN 978-3-031-39193-4
26. Florin Gheorghe Filip, Vasile Apopei, Daniela Gîfu (eds.), *Information science and technology in Romania*; Ioan Dumitrache – chapter coordinator – in collaboration with Tiberiu Coloși, **Mihail Voicu**, Toma Dragomir, Emil Ceangă, Sergiu Caraman, Vladimir Răsvan, Nicolae Paraschiv, Chapter 6: The contribution of Romanian automatic control community to the development of civilization, pag. 161-193: Editura Academiei Romane, București, 2024; ISBN 978-973-27-3869-6

II.B. Articole în reviste

1. **Adăscăliței Adrian A.** (2024).: Educarea inginerilor pentru reziliență. (a XV-a ediție a Simpozionului Științific al Inginerilor Români de Pretutindeni , SINGRO 2023, "Reziliența ingierească", 17 noiembrie 2023, AGIR, Calea Victoriei 118, București, România), în *Buletinul AGIR*, nr.18/1, pp. 18-25, <https://www.buletinulagir.agir.ro/articol.php?id=3315>
2. **Adăscăliței Adrian A.** (2024), Strategies Used in Blended Teaching and Learning and Virtual Laboratories for STEAM Education, în *Journal of Engineering Sciences and Innovation (JESI)*, vol. 9/ 2024, nr.3, Academia de Științe Tehnice din Romania (ASTR), https://jesi.astr.ro/wp-content/uploads/2024/12/8_Adrian-Adascalitei.pdf (<https://jesi.astr.ro/volume-9-2024-issue-4/>)
3. R.Matei, **D.F. Chiper**. Analytical Design and Polyphase Implementation Technique for 2D Digital FIR Differentiators. *Sensors*, 2024, no.23,vol.24, IF:3.4, (zona galbena-Q2) <https://doi.org/10.3390/s24237870>
4. **D.F. Chiper**, D.M. Dobrea. A Novel Low-Complexity and Parallel Algorithm for DCT IV Transform and Its GPU Implementation, *Applied Sciences*, 2024, no.17,vol.14, 255. IF: 2.5 (zona rosie Q1) <https://doi.org/10.3390/app14177491>
5. R. Matei, **D.F. Chiper**. Design and Polyphase Implementation of Rotationally Invariant 2D FIR Filter Banks Based on Maximally Flat Prototype, *Electronics*, 2024, no.14,vol.13, IF:2.6, (zona galbena-Q2) <https://doi.org/10.3390/electronics13142829>
6. R. Matei, **D.F. Chiper**. Analytical Design of Gaussian Anisotropic 2D FIR Filters and Their Implementation Using the Block Filtering Approach, *Electronics*, 2024, no.14,vol.13, IF:2.6, (zona galbena-Q2) <https://doi.org/10.3390/electronics13071243>
7. Iosif Birlescu, Nicoleta Tohanean, Calin Vaida, Bogdan Gherman, Deborah Neguran, Alin Horsia, Paul Tucan, **Daniel Condurache**, Doina Pisla, "Modeling and analysis of a parallel robotic system for lower limb rehabilitation with predefined operational workspace", *Mechanism and Machine Theory*, Volume 198, 2024, 105674, ISSN 0094-114X, <https://doi.org/10.1016/j.mechmachtheory.2024.105674>
8. **Condurache, D.**, Mihail Cojocari, Ioan-Adrian Ciureanu, 2024." *A Closed Form of Higher-Order Cayley Transforms and Generalized Rodrigues Vectors Parameterization of Rigid Motion*" *Mathematics* 13, no. 1: 114. <https://doi.org/10.3390/math13010114>
9. **Condurache, D.**, Cojocari, M., Popa, I., "Higher-order kinematics of planar rigid motion by euclidean tensors and complex algebra. An overview.", DOI: 10.13140/RG.2.2.12532.26249, Conference: the XXVI International Conference on Robotics (ROBOTICS) Iasi, Romania, November 14 – 16, 2024, At: Iasi, ROMANIA Affiliation: Gheorghe Asachi Technical University of Iasi

10. **Condurache, D.** “Dual Lie Algebra Representations of Rigid Body Motion with Dual Cayley Maps: An Overview.” Proceedings of the ASME 2024 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference. Volume 7: 48th Mechanisms and Robotics Conference (MR). Washington, DC, USA. August 25–28, 2024. V007T07A008. ASME. <https://doi.org/10.1115/DETC2024-143707>
11. **Condurache, D.**, Cojocari, M., “The Extended Wahba's Problem in Dual and Multi-Dual Algebras,” **2024 10th International Conference on Control, Decision and Information Technologies (CoDIT)**, Vallette, Malta, 2024, pp. 2108-2113, doi: 10.1109/CoDIT62066.2024.10708225.
12. **Condurache, D.**, “A generalization of the Bresse properties in higher-order kinematics”, 19th International Symposium on ADVANCES IN ROBOT KINEMATICS LJUBLJANA, JUNE 30 -JULY 4, 2024, Conference: 19th International Symposium on ADVANCES IN ROBOT KINEMATICS LJUBLJANA
13. **Condurache, D.**, “An overview of higher-order kinematics of rigid body and multibody systems with nilpotent algebra”, June 2024, Conference: MMT Symposium, Celebrating 60 years since Mechanism and Machine Theory journal's foundation, June 26-28, 2024, Guimarães, Portugal
14. **Ioan Doroftei**, Ovidiu–Vasile Crivoi, Ioan-Alexandru Doroftei, Theoretical aspects of internal-external gear pairs with small difference in numbers of teeth and their applications to cycloidal gear mechanisms, In *Journal of Engineering Sciences and Innovation*, JESI, Volume 9, Issue 2 / 2024, pp. 113 - 128.
15. Stelian Alaci, Florina-Carmen Ciornei, Ionut-Cristian Romanu, **Ioan Doroftei**, Carmen Bujoreanu and Ioan Tamasag, A Rapid and Inexpensive Method for Finding the Basic Parameters of Involute Helical Gears. *Applied Sciences*, 2024, 14, 2043. <https://doi.org/10.3390/app14052043>. (Impact Factor = 2.5, Q1).
16. Adrian Petru Teodoriu, Bogdan Pricop, Nicoleta-Monica Lohan, Mihai Popa, Radu Ioachim Comănesci, **Ioan Doroftei** and Leandru-Gheorghe Bujoreanu, Designing a Robotic Gripper Based on the Actuating Capacity of NiTi-Based Shape Memory Wires. *Actuators* 2024, 13, 319. <https://doi.org/10.3390/act13080319>. (Impact Factor = 2.2, Q2).
17. Ionut-Cristian Romanu, Stelian Alaci, Luminita Irimescu, Delia-Aurora Cerlinca, Costica Lupascu and **Ioan Doroftei**, Ecological Design Principles for a Vibrating Conveyor, to be published in *Environmental Engineering and Management Journal*. (Impact Factor = 0.9, Q4).
18. Florentin Buium, Cezar D. Duca and **Ioan Doroftei**, Forces transmission quality of complex mechanisms using the structural groups procedure, to be published in *Environmental Engineering and Management Journal*. (Impact Factor = 0.9, Q4).
19. Radu-Octavian Sandu, Danut-Constantin Irimia and **Ioan Doroftei**, A Review on Interfacing Strategies Used for Robotic Upper Limb Prostheses, to be published in *Environmental Engineering and Management Journal*. (Impact Factor = 0.9, Q4).
20. Cristina-Magda Cazacu, Vitalie Coadă, **Ioan Doroftei**, Stelian Alaci, A Comprehensive Review of Lower Limb Exoskeletons, to be published in *Environmental Engineering and Management Journal*. (Impact Factor = 0.9, Q4).
21. **Ioan Doroftei**, Stelian Alaci, Marius–Gheorghe Hagan, Andrei Vieru, Designing an Agricultural Mobile Robot with Hybrid Locomotion, to be published in *Environmental Engineering and Management Journal*. (Impact Factor = 0.9, Q4).
22. **Ioan Doroftei**, Ovidiu-Vasile Crivoi, Cristina-Magda Cazacu, Stelian Alaci, Some Particularities of Internal-External Gear Pairs with Zero Difference in Numbers of Teeth, to be published in *ACTA TECHNICA NAPOCENSIS*, Series: *Applied Mathematics, Mechanics, and Engineering*. (Impact Factor = 0.1, Q4)

23. Ivanov O., Luca M.A., Neagu B.C., Grigoras Gh., **Gavrilas M.**, Flexible Energy Storage for Sustainable Load Leveling in Low Voltage Electricity Distribution Grids with Prosumers, *Sustainability*, Vol. 16, Issue 10, May 2024, DOI: 10.3390/su16103905
24. **Maria Gavrilescu**, (2024), "From pollutants to products: Microbial cell factories driving sustainable biomanufacturing and environmental conservation", *Chemical Engineering Journal*, 2024, **500**, 157152, <http://doi.org/10.1016/j.cej.2024.157152> (FI=13.4)
25. Cozma P., Betianu C., Hlihor R.M., Simion I.M., **Gavrilescu M.**, (2024), "Bio-recovery of metals through biomining within circularity-based solutions", *Processes*, 2024, **12**, 1793, <http://doi.org/10.3390/pr12091793> (FI=2.8)
26. Fertu D.I., Bulgariu L., **Gavrilescu M.**, (2024), "Sustainable use of some natural materials and waste for the decontamination of environmental components polluted with heavy metals", *Environmental Engineering and Management Journal*, 2024, **23**, <http://doi.org/10.30638/eemj.2024.126> (FI=0.9)
27. Asiminicesei D.M., Fertu D.I., **Gavrilescu M.**, (2024), "Impact of heavy metal pollution in the environment on the metabolic profile of medicinal plants and their therapeutic potential", *Plants-Basel*, 2024, **13**, 913, <http://doi.org/10.3390/plants13060913>, (FI=4)
28. Paiu Maria, Favier Lidia, Lutic Doina, Hlihor Raluca-Maria, **Gavrilescu Maria**, (2024), "Visible-light photocatalytic degradation of tartrazine using ZnO nanoparticles: preliminary phytotoxicity investigations on treated solutions", *Buletinul Institutului Politehnic din Iași, Secția Chimie și Inginerie Chimică*, 2024, **70/74**, 35-46, <http://doi.org/10.5281/zenodo.11145259>
29. Fira, Monica, Hariton-Nicolae Costin, and **Liviu Goras**. 2024. "Prediction and Detection of Ventricular Fibrillation Using Complex Features and AI-Based Classification" *Applied Sciences* 14, no. 7: 3050. <https://doi.org/10.3390/app14073050>
30. Fira, Monica, Hariton-Nicolae Costin, and **Liviu Goras**, "Ventricular Fibrillation Prediction and Detection: A Comprehensive Review of Modern Techniques", *Applied Sciences*, 2024, 14(23), 11167; <https://doi.org/10.3390/app142311167>
31. Vasile GROSU, Emilian DAVID, **Liviu GORAS**, Georg PELZ On the Modelling Possibilities of Integrated Circuits Behavior Using Active Learning Principles *ROMJIST* Volume 27, No. 2, 2024, pp. 183-195, DOI: 10.59277/ROMJIST.2024.2.05
32. Baci A., **Lazar C.**, Model-Free Temperature Control of Heat Treatment Process, *Energies*, 17, x, 2024. DOI: 10.3390/xxxxx (IF=3, Q1)
33. Costin M., **Lazar C.**, Induction Motor Improved Vector Control Using Predictive and Model-Free Algorithms Together with Homotopy-Based Feedback Linearization, *Energies*, 17, 875, 2024. DOI: 10.3390/en17040875 (IF=3, Q1)
34. Baci A., **Lazar C.**, Comparative Performance Analysis of Intelligent PID Controllers for a Mechatronic System, *Buletinul Institutului Politehnic din Iași, sectia Electrotehnică. Energetică. Electronică*, 3, vol 69 (73), 2024, pp. 81-98. DOI: 10.2478/bipie-2023-0016 (BDI).
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II.C. Articole în volum de conferințe

1. **Adăscăliței, A.**, Ianioglo, Maria; Velicova, Tatiana. Importanța rezilienței pentru profesorii și elevii care utilizează predarea și învățarea mixtă în educația în domeniul științelor, tehnologiei, ingineriei și matematicii (STEM). In: *Știință, educație, cultură*. Vol.2. 2024. Comrat. pp. 12-19. ISBN 978-9975-83-294-6. https://ibn.idsi.md/vizualizare_articol/205054
2. Secieru Nicolae, **Adăscăliței, A.**, Cărbune Viorel, Serghei Andronic, Grițco Roman: Implementation of Artificial Intelligence in engineering teaching and learning. The 13th International Conference on *Electronics, Communications and Computing* (IC ECCO-2024), Technical University of Moldova, Academy of Science of Moldova, 17-18 OCTOBER, 2024, CHIȘINĂU, pp 138-140. <https://ecco.utm.md/>, <https://ecco.utm.md/wp-content/uploads/2024/12/IC-ECCO-2024-AbstractBookBN.pdf>.
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- Robotics (ROBOTICS) Iasi, Romania, November 14 – 16, 2024, At: Iasi, ROMANIA
Affiliation: Gheorghe Asachi Technical University of Iasi
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 8. **Condurache, D.**, “An overview of higher-order kinematics of rigid body and multibody systems with nilpotent algebra”, June 2024, Conference: MMT Symposium, Celebrating 60 years since Mechanism and Machine Theory journal's foundation, June 26-28, 2024, Guimarães, Portugal
 9. **D. Cristea**, G. Haja, E. I. Tamba, D. Tufiş, Digitalisation of Cultures. Preparations for the Adoption of a Strategy for the Romanian Language, in Vasilescu, A., Gifu, D., Tufiş, D., Cristea, D. (eds.), *Linguistic Resources and Tools for Natural Language Processing*, Proceedings of the 18th International Conference ConsILR 2023, "Alexandru Ioan Cuza" University Publishing House, Iaşi, pp. 23-40, ISSN/ISSN-L: 3045-2074, 2024
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II.D. Brevete

V. Manta

- Cerere brevet de inventie, 5456/06.02.2024, *Sistem protetic pentru detectia si compensarea diferentei de lungime a membrilor inferioare umane*, Fodor Dimitrie-Cristian, Seghedin Neculai-Eugen, Manta Vasile-Ion, Zvoristeanu Otilia, Chitariu Dragos-Florin, Achirei Stefan-Daniel

C. Munteanu

- Munteanu C., Istrate B., Lupescu S., Savin A., Sindilar E., Aliaj biodegradabil pe baza de Mg, tip Mg-Ca-Y, RO 134975 B1

II.E. Participări în proiecte de cercetare-dezvoltare / Tehnologii și servicii

Daniel Condurache

- Director proiect: *Mediu colaborativ pentru dezvoltarea arhitecturilor cloud bazate pe OpenStack cu aplicații în CDI*, POC/398/1/1/Dezvoltarea unor rețele de centre CD, coordonate la nivel național și racordate la rețele europene și internaționale de profil și asigurarea accesului cercetătorilor la publicații științifice și baze de date europene și internaționale. Cod SMIS 2014+124998, Valoare: 5.048.822,88 le

Ioan Doroftei

- EXPERT SENIOR (Director: Conf.univ.dr.ing. Simona Caraiman), Grant DIGITAL-2021-EDIH-01 (Contract: 101083392, cod MySMIS 161826 - BRAINTWIN), DIGITAL INNOVATION ZONE EDIH-MANUFACTURING&SMART HEALTH for better buisness life and health in the North East Romania Region (TUIasi).

Maria Gavrilescu

- *DocTalent4EU* – Transforming Europe through Doctoral Talent and Skills Recognition, Universitatea Tehnică "Gheorghe Asachi" din Iași (partener), Codul proiectului: GA nr. 10109592, Funded by European Union.
- *TechGo3* - Dezvoltare instituțională pentru consolidarea angajabilitatii absolvenților TUIASI, Universitatea Tehnică „Gheorghe Asachi” din Iași, CNFIS-FDI-2024-F-0036.

V. Manta

- responsabil Universitatea Tehnica din Iasi, *Romanian National Quantum Communication Infrastructure* (RoNaQCI), proiect în cadrul programului Digital Europe Programme (DIGITAL), apelul: DIGITAL-2021-QCI-01 (EU Secure Quantum Communication Infrastructure), tema: DIGITAL-2021-QCI-01-DEPLOY-NATIONAL, finanțat de European Commission-EU, proiect number: 101091562, perioada: 1 ianuarie 2023 - 30 iunie 2025, buget total - 9 999 877.60 Euro, din care pentru TUIasi 143 454.90 Eur
- responsabil Universitatea Tehnica din Iasi, *HUB Român de Inteligență Artificială – HRIA*, coordonator UNSTPB, program: Creștere Inteligentă, Digitalizare și Instrumente Financiare 2021-2027, prioritatea: Prioritatea 1. Susținerea și promovarea unui sistem de CDI atractiv și competitiv în România, buget total 65 milioane EUR, din care 3.1 millionae EUR pentru TUIași, durata 60 luni (proiect deus în decembrie

C. Munteanu

- Director Contract 13ROMD – PN-IV-P8-8.3.ROMD 2023-0108. Titlu: *Îmbunătățirea durabilității grapelor cu discuri prin acoperiri termice în jet de plasmă;*
- Responsabil partener TUIASI, Contract PNCDI IV-5.6-24Sol(T24)/2024. Titlu: *Combatant Digital;*

O. Păstrăvanu

- Petri Net Toolbox for Matlab, *MathWorks - Third Party Products - Upgrade for MATLAB 2023*, www.mathworks.com/products/connections/product_detail/petri-net-toolbox.html membru in echipă

N. Țăranu

- Produse și tehnologii ecoinovatoare pentru eficiență energetică în construcții - EFECON, (cofinantare din Fondul European de Dezvoltare Regională prin Programul Operațional Competitivitate 2014-2024, membru in echipă

P. Vizureanu

- Director de proiect: *Environmental footprint reduction through eco-friendly technologies of mine tailing recycling* (RecMine), Mai 2022 – Aprilie 2024, COFUND-ERAMIN-3-RecMine, contract no. 307, European Comission, Horizont 2020 (<https://simitit.ro/recmine/>)
- Responsabil de proiect: *Harnessing complementary curricular preparedness via sustainable management in response to civil and military pollution on the coastline, tributaries and lagoons in black sea's north, west, south zone*, Call: EMFAF-2023-PIA-FLAGSHIP, Type of action: EMFAF-PJG, Proposal number: 101124670, Black Sea SIERRA, 2023–2026 (<https://simitit.ro/black-sea-sierra/>)
- Director de proiect: A NEW GENERATION OF METALLIC BIOMATERIALS AS HEALTH SOLUTION FOR A SUSTAINABLE LIFE (Cool&SmartTit), Project

III. Prezentări invitate / Comunicări / Premii

1. **Adăscăliței A.**, Ashraf Salah Zein El-Din, Sebastian Teodor Arădoaei, Marinel Costel Temneanu: „Collaboration Between Faculty of Electrical Engineering „Gh. Asachi” Technical University Iași, RO, and Faculty of Engineering, Menoufia University, EG, for Use of Blended Teaching Learning and Virtual Laboratories in Engineering Education”. Menoufia University, Faculty of Engineering, Fifth International Conference of *Sustainable Environmental Development*, 29 April - 3 May 2024, Cairo, Egypt. https://icsed2024.conferences.ekb.eg/page_2900.html
2. **Condurache, D.**, Laudatio și membru în comisia de acordare titlu Doctor Honoris Causa domnului profesor João Paulo Flores Fernandes, Noiembrie 2024
3. **D. Cristea.** Epoca inteligenței artificiale: Mai putem fi creativi în știință și literatură?, conferință invitată la Universitatea “Alexandru Ioan Cuza” din Iași, 17 aprilie 2024.
4. **D. Cristea.** Creația științifică este ea aceeași acum ca înainte de apariția ChatGPT?, participare invitată la Masa rotundă, *Societatea Medicilor și Naturaliștilor* din Iași, 20 aprilie 2024.
5. **D. Cristea.** Inteligența artificială în actul medical, participare invitată la Masa rotundă din cadrul RAO-2024: *Inteligența artificială - transformări actuale și viziuni de viitor*, 25 mai 2024, Hotel Internațional - Sala Magnum, Iași.
6. **D. Cristea.** Why generative models are not enough? Arguments for a mixed approach in AI, invited conference at IMCS60 (International Conference dedicated to the 60th anniversary of the foundation of “Vladimir Andrunachievici” Institute of Mathematics and Computer Science), Moldova State University, Chișinău, 10 October 2024.
7. L. Pistol, D. Gîfu, L. A. Scutelnicu, C. Bolea, **D. Cristea.** Prolegomena for a mixed approach in interpreting language, „Zilele Academice Ieșene” Ediția a XXXIX-a Simpozionul „*Sisteme Inteligente și Aplicații*”, 18 octombrie 2024, Iași, Romania.
8. **D. Cristea.** Blames and realities about LLMs. By-products and neuro-symbolic AI, invited talk in the workshop *Foundations and applications of artificial intelligence* (FAAI-24), Filiala Iași a Academiei Române, 30 October 2024.
9. **D. Cristea.** ICIA și IIT – un parcurs comun în lingvistica computațională din România, intervenție invitată la *sesiunea festivă dedicată aniversării a 30 de ani de existență a Institutului de Cercetări pentru Inteligență Artificială „Mihai Drăgănescu”*, Academia Română, 4 noiembrie 2024, București.
10. **D. Cristea, D. Gîfu, A. Scutelnicu, C. Bolea.** Are generative pre-trained transformers all we can do if we want to have a smart machine?, in ConsILR-2024, University of Alba Iulia, 14-16 noiembrie 2024.
11. M. Ungureanu, A. Moruz, L. Șoitu, **D. Cristea.** Do fairy tales influence the acquisition of language in primary school? Steps towards an automatic evaluation, in ConsILR-2024, University of Alba Iulia, 14-16 noiembrie 2024.
12. **Maria Gavrilescu, (2024),** ”Integrating environmental phytoremediation with biomass valorization for the recovery of some critical metals and energy by phytomining”, Virtual International Conference (Online) *Applications of Chemistry in Biomaterials Engineering – NanoBioMat*, Winter edition, 27-29 noiembrie, 2024, (*Invited Plenary Lecture*)
13. **Maria Gavrilescu, (2024),** ”Provocări ale inteligenței artificiale pentru managementul schimbărilor climatice”, *Conferința Științifică Națională de Toamnă*, AOSR, 2024, Iași, Romania (National Autumn Scientific Conference, AOSR, 2024, Iași, Romania), (*Invited Plenary Lecture*)

14. Ungureanu-Comaniță Elena-Diana, Țăbuleac Raluca-Maria, Oprea Paula-Sânziana, Coșbuc Daniela-Ersilia, **Maria Gavrilesu**, (2024), "Evaluation of scenarios for nutrient recovery from food waste and estimation of economic and environmental efficiency using cost-benefit analysis", Virtual International Conference *Application of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat*, Winter 2024 (On-line), 27-29 noiembrie, 2024
15. Maria Paiu, Lidia Favier, Doina Lutic, Raluca-Maria Hlihor, **Maria Gavrilesu**, (2024), "Degradarea fotocatalitică a colorantului tartrazină cu sistemul ZnO/Lumină vizibilă: evaluarea fitotoxicității pentru planta *Lepidium sativum* L.", *Conferința Științifică Națională de Toamnă*, AOSR, 2024, Iași, Romania
16. Maria Paiu, Lidia Favier, Doina Lutic, Raluca-Maria Hlihor, Véronique Alonzo, **Maria Gavrilesu**, (2024), "Enhanced Photocatalytic Degradation of Azo Dyes with ZnO Nanoparticles under Visible Light. Phytotoxicity Evaluation on a Common Plant Species", International Conference *Application of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat*, Winter 2024 (On-line)
17. Raluca-Maria Țăbuleac, **Maria Gavrilesu** (2024), "Advancing responsible tourism- implementing sustainable development goal targets in tourist destinations", *7th International Conference of the Doctoral School of the "Gheorghe Asachi Technical University of Iasi, Romania*, May 2024, Iasi, Romania
18. Raluca-Maria Țăbuleac, Elena Diana Ungureanu-Comăniță, Ersilia Lazăr Coșbuc, Isabela-Maria Simion, **Maria Gavrilesu**, (2024), "Circular economy principles applied in the hospitality industry to reduce food waste", Virtual International Conference *Application of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat*, Winter 2024 (On-line) 27-29 noiembrie, 2024
19. Raluca-Maria Țăbuleac, **Maria Gavrilesu**, (2024), "Analyzing waste management and recycling trends in the tourism industry using Eurostat data", 19th Romanian *Textiles and Leather Conference*, CORTEP 2024, Iasi, 07-09 November 2024 (*Best paper award*)
20. **Vasile Manta**, Computer vision - classical and quantum computing, *International Conference on INnovations in Intelligent SysTems and Applications (INISTA)*, 4-6 September 2024, Craiova, Romania, PhD Workshop, https://dcti.ucv.ro/inista2024/phd_workshop.html
21. Epure Cristian, **Munteanu Corneliu**, Istrate Bogdan, Lohan Nicoleta Monica, Cimpoesu Nicanor, Microhardness evaluation and differential scanning calorimetry analysis on recycled, crushed and heat-treated glass (RCTG), ACME 2024.
22. Mădălin Farcaș, Daniela Lucia Chicet, Mihai Axinte, Bogdan Istrate, Ștefan Adrian, **Corneliu Munteanu**, THERMAL COATING OF PLA - 3D PRINTED PARTS, ACME 2024
23. **Corneliu Munteanu**, F. Lupu, THERMAL AND COLD COATINGS FOR MILITARY APPLICATIONS, ROMAT 2024
24. I. Adomniței, **C. Munteanu**, F. C. Lupu, M. Axinte, D. L. Chicet, P. Paraschiv, S. G. Moga, Nicanor Cimpoeșu, OBTAINING AND CHARACTERIZATION OF YSZ - HIGH Y2O3 CONTENT COATINGS, ROMAT 2024
25. Gabriela Leață, Kamel Earar, **Corneliu Munteanu**, Obtaining and using Mg-Ca-Sr biodegradable materials, through the microstructural evaluation of the biodegradable Mg-Ca-xSr system (x=0.5; 1) used in medicine, BIOMMEDD 2024.
26. **C. Munteanu**, I. Melnic, B. Istrate, Fabian Cezar Lupu, V. N. Arsenoiaia, C. Zirnescu, V. Badiul, IMPROVING THE WEAR PROPERTIES OF THE DISCS USED IN THE DISC HARROW ASSEMBLY, ROMAT 2024
27. M. Farcaș, D. L. Chicet, M. Axinte, B. Istrate, Ș. Adrian, **C. Munteanu**, THERMAL SPRAY DEPOSITION ON POLYMERIC MATERIALS, ROMAT 2024

28. **C. Munteanu**, F. Lupu THERMAL AND COLD COATINGS FOR MILITARY APPLICATIONS - Keynote Lecture - to the 10th International Conference on Materials Science and Technologies – RoMat 2024 which will be held at National University of Science and Technology POLITEHNICA Bucharest (Romania) from November 14th to November 15th, 2024, in the framework of MaterialFEST, a festival for innovation into materials science and engineering.
29. B. Istrate, **C. Munteanu** - THE IMPACT OF ZINC ON THE USAGE PROPERTIES OF MG-0.5CA-XZN BIODEGRADABLE ALLOYS, Congresul Mondial de Biomateriale "WBC 2024", Daegu, Republic of Korea (42038).
30. **Dumitru Nedelcu**: Profesor invitat Silesian University of Technology, Mechanical Engineering Faculty, Gliwice, Poland, 2023-2024; Cursuri: *Additive Manufacturing, Mechanics*
31. **Dumitru Nedelcu**: Profesor invitat - Alecu Russo State University, Balti, Republic of Moldova, 2023-2024, Cursuri: *Tehnologia materialelor III, Tehnologia si proprietatile materialelor nemetalice*
32. Matcovschi M.-H., Apetri M., **Pastravanu O.**, **Voicu M.**; Invarianța la flux a mulțimilor poliedrale. *Sesiunea de comunicari stiintifice a Institutului de Matematica "Octav Mayer" și a Comisiei de Automatica teoretica si Teoria controlului, Zilele academice ieșene*, 19 oct. 2024.

IV. Activități editoriale – Membri în colective de redacție, comitete de program, referenți, recenzenți

A. Adăscăliței

- Membru în Paper Review Committee (Associate Editor și Reviewer), The 2024 IEEE Conference on Telepresence, California Institute of Technology, Pasadena, California, November 16-17, 2024, <https://ieeetelepresence.org/organization/paper-review-committee/>
- Membru în Technical Committee of The 7th International Conference on Big Data and Education (ICBDE 2024), Trinity College, University of Oxford, Oxford, UK during September 24-26, 2024, <https://www.icbde.org/tpc.html>
- Membru în Technical Conference Scientific Committee, MOLDOVA "Știință. Educație. Cultură", conferință științifico-practică internațională (2024 ; Компат). ISBN 978-9975-83-294-6, https://ibn.idsi.md/sites/default/files/imag_file/33-godovshina-kdu-tom-2_2024.pdf
- Membru în Technical Conference Scientific Committee 8th International Learning, Education and Teaching Conference, Dublin, on 26-28 July 2024. (ICTLE), <https://www.ictle.com/scientific-committee/>
- Membru în Conference Scientific Committee, 8th International Conference on Research in Education 28th June 2024 in Amsterdam, Netherlands <https://www.icreconf.org/scientific-committee/>
- Membru în Conference Scientific Committee, WORLDCTE 2024 in Zurich, <https://www.worldcte.org/conference-committee/>
- Membru în Program Committee, 3rd International Conference on Education, Pedagogy and Technology (EDUPT 2024), August 17 ~ 18, 2024, Chennai, India, <https://comit2024.org/edupt/committee#>
- Membru în Program Committee, Knowledge and Cognitive Science and Technologies: KCST 2024, the 28th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2024, <https://www.iiis2024.org/wmsci/website/ProgramCommitte.asp?vc=59>

- Recenzent solicitat de revistele: Computer Applications in Engineering Education, IEEE Access, Education Sciences (MDPI),

N. D. Alexandru

- Membru în International Program Committee of 4th IFSA Winter Conference, Innsbruck, Austria, 7-9 February 2024.
- Membru în International Steering Committee Chair, DAS 2024, May 23-25, Suceava, Romania
- Recenzent solicitat la DAS 2024, Suceava, Romania
- Recenzent solicitat la 2024 47th International Conference on Telecommunications and Signal Processing TSP 2024 July 10-12 20224, Virtual Conference
- Membru în Technical Program Committee of the 14th International Conference on Communications COMM 2024, October 3-4 2024, in Bucharest, Romania
- Membru în Technical Program Committee for 3ICT2024 - International Conference on Innovation and Intelligence for Informatics, Computing and Technologies (3ICT), 17-19 November 2024 - Bahrain, University of Bahrain
- Membru în Technical Program Committee for DASA International Conference on Decision Aid Sciences and Applications, December 11-12, Kingdom of Bahrain
- Recenzent solicitat pentru 2024 5th International Conference on Data Analytics for Business and Industry ICDABI 23 –24 October 2024
- Recenzent solicitat la 2024 International Conference on Decision Aid Sciences and Applications (DASA) 11th – 12th December 2024, Kingdom of Bahrain

D.F. Chiper

- Membru în Colectivul editorial al revistei Electronics
- Membru în Colectivul editorial al revistei Applied Sciences
- Membru în Colectivul editorial al revistei Acoustics, Speech and Signal Processing, ISSN 2522-6827, Canada;
- Membru în Colectivul editorial al revistei Artificial Intelligence Evolution, Universal Wiser Publisher, Singapore
- Membru în Colectivul editorial al revistei Information Systems and Signal Processing Journal, ISSN 2371-9419, Canada;
- Membru în Colectivul editorial al revistei Journal of Electronics and Information Science, ISSN 2371-9524, Canada;
- Membru în Colectivul editorial al revistei Journal of Low Power Electronics and Design, Canada;
- Membru în Colectivul editorial al revistei Journal of Electronics and Information Science, Canada; Clausius Scientific Press, Canada;
- Membru în Colectivul editorial al revistei Journal of Electronic Research and Applications, ISSN: 2208-3502, Australia;
- Membru în Colectivul editorial al revistei Science Journal of Circuits, Systems and Signal Processing, ISSN Print: 2326-9065, New York
- Guest Editor la Electronics la numarul special „Efficient Algorithms and Architectures for DSP Applications
- Guest Editor la Applied Sciences la numarul special ” "Advance in Digital Signal Processing and Its Implementation"
- Recenzor de lucrări publicate în reviste internaționale ISI: IEEE Trans. On Circuits and Systems for Video Technology , IEEE Transaction on Signal Processing, IEEE Signal processing Letters, IEEE Access, IEEE Trans. On Circuits and Systems I, IEEE Trans. On Circuits and Systems II, IEEE Communications Letters, IEEE Transactions on VLSI Systems

D. Condurache

- Redactor șef - *Buletinul Institutului Politehnic din Iasi, seria Matematică, Mecanică Teoretică, Fizică*
- Topical editor - *Mechanical Sciences*
- Editor - *The Romanian Journal of Technical Sciences, seria Applied Mechanics*
- Member of the editorial team - *Parana Journal of Science and Education (PJSE)*, ISSN 2447-6153-
- Editorial board member - *Romanian Journal of Mechanics* ISSN 2537 -5229-
- Editorial board member - *AppliesMath* EISSN 2673-9909-
- Referent la revistele: *Heliyon, Acta Astronautica, Mathematical Problems in Engineering, Measurement, Journal of Mechanical Design, IEEE Robotics and Automation Letters, Astrophysics and Space Science, Advances in Space Research, Mathematical Methods in the Applied Sciences, Advances in Applied Clifford Algebras, Mechanism and Machine Theory, The Journal of the Franklin Institute, Celestial Mechanics and Dynamical Astronomy, The Journal of the Astronautical Sciences, Journal of Guidance Control and Dynamics, International Journal of Non-linear Mechanics, Meccanica, Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*
- Chairman: The Joint International Conference of the XIV International Conference on *Mechanisms and Mechanical Transmissions (MTM)* and the XXVI International Conference on Robotics (ROBOTICS) Iasi, Romania, November 14 – 16, 2024

D. Cristea

- Membru al comitetului editorial al revistei *Journal of Language Modelling*, (<https://jlm.ipipan.waw.pl/index.php/JLM/about/editorialBoard>)
- Membru al comitetului editorial al revistei *Romanian Journal of Information Science and Technology (ROMJIST)* – <https://www.romjist.ro/committees.html>).
- Membru al Editorial Team al revistei *BRAIN – Broad Research in Artificial Intelligence and Neuroscience*, ISSN 2067-3957
- Referent pentru Actele Colocviului de Lexicologie, Institutul de Filologie Română „Al. Philippide”, Iași, 2024.

I. Doroftei

- Associate Editor, *ROBOTICA* (<https://www.cambridge.org/core/journals/robotica/information/editorial-board>)
- Topic Editor, *ACTUATORS* (https://www.mdpi.com/journal/actuators/topic_editors)
- Guest Editor, *ACTUATORS* (https://www.mdpi.com/journal/actuators/special_issues/advanced_robots_actuators)
- Topic Editor, *MATERIALS* (https://www.mdpi.com/journal/materials/topic_editors)
- Guest Editor, *MATERIALS* (https://www.mdpi.com/journal/materials/special_issues/advance_materials_multifunctional_applications)
- Membru in comitetul editorial, *European Journal of Mechanical and Environmental Engineering*, Bruxelles, ISSN 0035-3612, editată de Belgian Society of Mechanical and Environmental Engineering.
- Membru in comitetul editorial, *International Journal of Advance Robotics & Expert Systems (JARES)*.
- Membru in comitetul editorial, *Bulletin of the Polytechnic Institute of Iași. Machine constructions Section*, eISSN 2537-4869.
- Membru in comitetul stiintific, *ROBOTICA & MANAGEMENT-International Journal*, revista *BDI*, ISSN 1453-2069, editată de Societatea de Robotica din Romania.

- Membru în comitetul științific, Bulletin of the Transilvania University of Brasov, Series I: Engineering Sciences.
- Recenzor la jurnale: IEEE Transactions on Robotics; IEEE Transactions on Mechatronics; IEEE Transactions on Industrial Electronics; IEEE Systems; IEEE Transactions on Cognitive and Developmental Systems; Robotics and Computer Integrated Manufacturing; International Journal of Advanced Robotic Systems; Robotica; Journal of Sensors; Robotics and Autonomous Systems; Journal of Mechanical Science and Technology; Assembly Automation; Journal of Bionic Engineering; Journal of Intelligent & Robotics Systems; Journal of Advanced Manufacturing and Processing; Electronics; Energies; Applied Sciences; Computer Speech and Language; Advances in Mechanical Engineering; Applied Mathematics and Mechanics; Computational Intelligence and Neuroscience; Archive of Mechanical Engineering; Drones; Mechanics & Industry; Mathematical Problems in Engineering; Machines; Acta IMEKO; Proceedings of the Romanian Academy – Series A; Romanian Journal of Technical Sciences – Applied Mechanics; European Journal of Mechanical and Environmental Engineering; ROBOTICA & MANAGEMENT-International Journal; Frontiers in Energy Research; Frontiers of Mechanical Engineering; Intelligent Service Robotics; Robotics; Sustainability; Mechatronics; Journal of Pharmaceutical Research International; Part C_ Journal of Mechanical Engineering Science; Biomimetics; Sensors; Actuators; IEEE Robotics and Automation Magazine; Applied Bionics and Biomechanics; Agriculture; Processes; Journal of Mechanics in Medicine and Biology; IEEE Robotics and Automation Letters; Transactions on Neural Systems and Rehabilitation Engineering; Journal of Field Robotics; Journal of Computational Design and Engineering; IEEE Transactions on Intelligent Vehicles; Technologies; Industrial Robot.
- Membru în Comitetul științific la conferințe: 12th International Conference - Modern Technologies in Industrial Engineering, ModTech 2024, June June 24-27, The Everly Hotel, Putrajaya, Kuala Lumpur, Malaysia; The 11th International Conference on Advanced Concepts in Mechanical Engineering, ACME 2024, June 6 – 7, 2024, Iasi, Romania; 6th IFToMM Symposium on Mechanism Design for Robotics Timișoara, Romania, June 27-29, 2024; International Conference on Advancement in Computation & Computer Technologies (InCACCT), 2024, Chandigarh University, Punjab (India); 27th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines, CLAWAR 2024, 04 – 06 September 2024, Kaiserslautern, Germany; The Joint International Conference of the 7th International Conference on Mechanical Engineering (ICOME) and the 3 rd International Conference on Advanced Research in Engineering (CARE) - ICOME & CARE 2024, October 17-19, 2024, Craiova, Romania; 7th International Conference of the Doctoral School, TUIASI CSD 2024, May 15-17, 2024, Iasi, Romania; 10th International Conference on Control, Decision and Information Technologies – CODIT2024, July 01-04, Valetta, Malta.
- Recenzor la conferințe: 12th International Conference - Modern Technologies in Industrial Engineering, ModTech 2024, June June 24-27, The Everly Hotel, Putrajaya, Kuala Lumpur, Malaysia; The 11th International Conference on Advanced Concepts in Mechanical Engineering, ACME 2024, June 6 – 7, 2024, Iasi, Romania; 6th IFToMM Symposium on Mechanism Design for Robotics Timișoara, Romania, June 27-29, 2024; 27th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines, CLAWAR 2024, 04 – 06 September 2024, Kaiserslautern, Germany; The Joint International Conference of the 7th International Conference on Mechanical Engineering (ICOME) and the 3 rd International Conference on Advanced Research in Engineering (CARE) - ICOME & CARE 2024,

October 17-19, 2024, Craiova, Romania; 10th International Conference on Control, Decision and Information Technologies – CODIT2024, July 01-04, Valetta, Malta.

M. Gavrilas

- Membru în Colectivul editorial al revistei Electronics
- Membru în Colectivul editorial al revistei Revue Roumaine des Sciences Techniques, serie Electrotechnique et Energetique.
- Membru în Colectivul editorial al revistei Journal of Sustainable Energy
- Membru în Colectivul editorial al revistei Analls of the University of Craiova, Electrical Engineering Seris.
- Membru în Colectivul editorial al revistei International Journal of Advances in Applied Sciences
- Membru în Colectivul editorial al revistei International Journal of Robotics and Automation
- Membru în Colectivul editorial al revistei Telecommunication, Computing, Electronics and Control – TELKOMNIKA
- Membru în Colectivul editorial al revistei Journal of Power Generation Technology.
- Recenzor la revistele: IEEE Transactions on Power Systems, IEEE Transactions on Emerging Topics in Computational Intelligence, IEEE Transactions on Energy Markets, Policy and Regulation, IEEE Transactions on Industrial Informatics, IEEE Transactions on Sustainable Energy, IEEE Transactions on Systems, Man and Cybernetics, IEEE Access, Applied Energy, Electric Power System Research, Engineering Applications of Artificial Intelligence, IET-Electric Power Applications, IET-Generation, Transmission and Distribution, IET-The Journal of Engineering, IET-Smart Grids, Electrical Power and Energy Systems,

M. Gavrilescu

- Environmental Engineering and Management Journal, Redactor sef
- PeerJ, Academic Editor
- Water, Academic Editor
- Sustainability, Academic Editor
- Processes, Academic Editor
- Plants, Academic Editor
- Applied Sciences, Academic Editor
- Agriculture, Academic Editor
- Foods, Academic Editor
- Hungarian Journal of Industry and Chemistry, Editor
- Journal of Environmental Engineering and Landscape Management, Membru in Comitetul stiintific
- Scientific Study & Research- Chemistry & Chemical Engineering, Biotechnology, Food Industry, Membru in Comitetul stiintific
- European Journal of Science and Theology, Membru in comitetul stiintific
- International Journal of Conservation Science, Membru in comitetul stiintific
- Procedia Environmental Science, Engineering and Management, Editor
- Acta Technica Napocensis - Series: Environmental Engineering and Sustainable Development Entrepreneurship, Membru in comitetul stiintific
- Președinte și organizator al Celei de-a 7-a Conferințe a Școlii Doctorale a Universității Tehnice "Gheorghe Asachi" din Iași, 15-17 mai, 2024, Iasi, Romania.
- Membru în comitetul de organizare și Chair pentru Virtual International Conference Application of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat, Summer Edition, 19-21 June 2024

- Membru în comitetul de organizare al Virtual International Conference Application of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat, Winter 2024, 27-29 noiembrie, 2024
- Membru al Comitetului Științific al EUROINVENT European Exhibition of Creativity and Innovation, Iași, 6-8 iunie 2024
- Membru al Comitetului Științific al International Conference on e-Health and Bioengineering EHB 2024 - 12-th Edition, 14-15 November 2024, Hybrid Conference, IASI- Romania
- Membru al Local Organizing Committee - 7th Annual Meeting of The Euro-Asian Bridge Society of Cardiovascular & Thoracic Surgeons, Iasi, 17-20 October 2024
- Membru al CNATDCU, Comisia Ingineria Mediului, conform Ordinul nr. 5908/2024 privind componența nominală a Consiliului general și a comisiilor de specialitate ale Comisiei Naționale de Atestare a Titlurilor, Diplomelor și Certificatelor Universitare (CNATDCU) pentru mandatul 2024-2028, al Ministerului Educației
- Peer-reviewer: Journal of Environmental Management, Chemical Engineering Journal, Journal of Cleaner Production, Agriculture, Applied Sciences, Processes, Chemosphere, Science of the Total Environment, Biotechnology Advances, Ecotoxicology and Environmental Safety, Journal of Hazardous materials etc.

L. Goraș

- Organizator principal al Simpozionului Internațional de Semnale, Circuite și Sisteme, ISSCS
- Medalia “Meritul pentru învățământ” Clasa I/grad de cavaler;
- Membru în Colectivul editorial al revistei Acta Technica Napocensis (Electronics and Telecommunications)
- Membru în Comisia de Știința și Tehnologia Micro-Sistemelor (STMS) a Secției de Știința și Tehnologia Informației a Academiei Române;
- Medalia IEEE a celui de al treilea mileniu
- Life Senior Member IEEE
- Membru al European Academy of Sciences and Arts

C. Lazăr

- Membru în Colectivul editorial al Revistei “The Annals of "Dunarea de Jos" University of Galati”, Fascicle III: Electrotechnics, Electronics, Automatic Control, Informatics
- Membru în Colectivul editorial al Revistei “Buletinul Institutului Politehnic din Iași”, Electrotechnics, Energetics, Electronics Section
- Referent solicitat de organizatorii conferințelor: European Control Conference, 25-28 June 2024, Stockholm, Sweden; 28th International Conference on System Theory, Control and Computing (ICSTCC), 10-12 October, 2024, Sinaia, Romania

V. Manta

- Membru în Colectivul editorial al revistei “Advances in Electrical and Computer Engineering” și referent
- Membru în Comitetul de program al conferinței 28th International Conference on System Theory, Control and Computing, ICSTCC 2024 (IEEE Xplore)
- Associate Editors-in-Chief: System Theory, Control and Computing Journal, <https://stccj.ucev.ro/index.php/stccj/index>
- Referent solicitat de organizatorii conferințelor: 28th Internațional Conference on System Theory, Control and Computing (ICSTCC), 10-12, October, 2024, Sinaia; 2024, Computer Vision and Pattern Recognition Conference (CVPR); 20th International Conference on Intelligent Computer Communication and Processing, October 17-19, 2024, Cluj-Napoca, Romania

- Referent reviste ISI: Quantum Information Processing

C. Munteanu

- Recenzor de lucrări publicate în reviste internaționale ISI: Materials, Crystals, Metals, Applied Surface Science, Sensors, Arabian Journal of Chemistry, Surface and Interfaces, Materials and Science & Engineering, Surface & Coatings Technology, Coatings, Journal of Textiles Materials.
- Membru în International Scientific Committee - to the 10th International Conference on Materials Science and Technologies – RoMat 2024 which will be held at National University of Science and Technology POLITEHNICA Bucharest (Romania) from November 14th to November 15th, 2024, in the framework of MaterialFEST, a festival for innovation into materials science and engineering.
- Membru în Technical Committee - A 10-a ediție a Conferinței internaționale „Biomateriale, inginerie tisulară și dispozitive medicale” – BIOMMEDD’2024, organizată de Societatea Română de Biomateriale, în perioada 10-12 octombrie 2024, la București.
- Membru în Technical Committee and charmen – ”BIOMAH” – Biomaterials and Novel Technologies for Healthcare, 3 RD International Biennial Conference Biomah, October 18th – 21 st 2024 – Rome – Italy.
- Membru în Technical Committee and charmen - The 13th edition of the International Conference on Materials Science and Engineering, BraMat 2024, will be hosted by “Sergiu T. Chiriacescu” Conference Centre within Transilvania University of Brașov, from 13 to 16 March 2024.
- Membru în Scientific Committee - Conference Program The 11th International Conference on Advanced Concepts in Mechanical Engineering ACME- 2024 JUNE 6 – 7, 2024 Iași, Romania

D. Nedelcu

- Editor Șef, International Journal of Hybrid Information Technology, Global Vision Press, Australia.
- Editor Șef, Advanced Engineering Forum, Scopus etc., Trans Tech Publications Inc., Elveția.
- Editor Șef, International Journal of Modern Manufacturing Technologies.
- Editor Șef, International Journal of Manufacturing Economics and Management.
- Editor, Annals of Dunarea de Jos University of Galați, Fascicle XII, Welding Equipment and Technology.
- Topic editor, Polymers, jurnal WoS Zona Q1
- Topic editor, Materials, jurnal WoS Zona Q2
- Editor, Indian Journal of Engineering and Materials Sciences
- Membru comitet editorial, Journal of Mechanical Engineering and Automation (JMEA)- SUA
- Membru comitet editorial, Journal of Military Technology, Romania
- Referent la revistele: Macromolecular Symposia, Materials, Polymers.

O. Păstrăvanu

- Membru în Colectivul editorial al revistei “Control Engineering and Applied Informatics” (ISI Clarivate)
- Membru în Colectivul editorial al revistei “Revista Română de Informatică și Automatică” (ISI Clarivate)
- Membru în Comitetul de program al conferinței IEEE “International Conference on Automation, Quality and Testing, Robotics”, AQTR 2024, (IEEE Xplore, ISI Clarivate)

- Membru în Comitetul de coordonare al conferinței IEEE “17th International Conference on Development and Application Systems” DAS 2024, (IEEE Xplore, ISI Clarivate)
- Membru în Comitetul editorial al conferinței “28th International Conference on System Theory, Control and Computing”, ICSTCC 2024 (IEEE Xplore)
- Membru în Comitetul de program al conferinței “18th International Symposium on Applied Computational Intelligence” SACI 2024 (IEEE Xplore, ISI Clarivate)
- Membru în Comitetul de program al conferinței IEEE “25th International Carpathian Control Conference”, ICC2024 (IEEE Xplore)
- Member of Track 4 Technical program committee at ETFA'2024, “29th IEEE International Conference on Emerging Technologies and Factory Automation”, (IEEE Xplore, ISI Clarivate)
- Recenzent solicitat de revistele Zentralblatt für Mathematik, Mathematical Reviews

V.I. Popa

- Redactor sef: Cellulose Chemistry and Technology, Editura Academiei

N. Țăranu

- Editor in Chief, Buletinul Institutului Politehnic din Iasi, Secția Construcții și Arhitectura.
- Member of the Editorial Board, Annals of the Academy of Romanian Scientists Series on Engineering Sciences.
- Member of the Scientific Committee – The 17th EUROINVENT, 8-10 May, Iasi, România
- Member of the Scientific Committee of “ModTech International Conference”, June 24-27, 2024, Kuala Lumpur, Malaysia
- Member of the Scientific Committee, 3rd National Conference on Wind Engineering, September 11-13, București România.
- Membru în Comitetul de Organizare la Conferința Națională Științifică De Toamnă a AOSR “Rolul Inteligenței Artificiale în Dezvoltarea Durabilă a României” 23-24 septembrie, Iasi, România
- Member of the International Scientific Committee, “International Conference VSU 2024”, Sofia, October 10-12, 2024

M. Voicu

- Buletinul Institutului Politehnic din Iași
- Transactions on Automatic Control and Computer Science, editată de Universitatea „Politehnica” din Timișoara
- Quality Assurance Review for Higher Education, editată de ARACIS
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