Tematica și bibliografia

Domeniul **inginerie industrială**

Nr. crt.	Tema propusă	Conducătorul de doctorat	Bibliografia	Forma de finanţare
1	**Cercetări comparative între microstructura, proprietățile mecanice și biocompatibilitatea aliajului de înaltă entropie CoCrFeNiMn cu oțelul inoxidabil 316L**	Prof.dr.ing. Eugen Axinte	1. Ren, B., Li, S., Wang, N., Xiao, Z., Axinte, E., & Wang, Y. (2022). Excellent catalytic performance of mechanically alloyed AlCrFeMnTiZr0. 5 high-entropy alloy for malachite green degradation. *Materials letters*, *328*, 133076. Shang, C., Axinte, E., Ge, W., Zhang, Z., & Wang, Y. (2017). High-entropy alloy coatings with excellent mechanical, corrosion resistance and magnetic properties prepared by mechanical alloying and hot pressing sintering. *Surfaces and Interfaces*, *9*, 36-43.	Buget cu bursă / Buget fără bursă / Taxă
2	**Optimizarea planificării și programării producției în fabricația de serie**	Prof.dr.ing. Oana Dodun	[1] Daisuke Kokuryoa, Ken Yamashitaa, Toshiya Kaiharaa, Nobutada Fujiia, Toyohiro Umedab, Rihito Izutsub, A Proposed Production Decision Method for Order Planning Considering Decision Criteria of Multiple Organizations, Procedia CIRP 93 (2020) 933–937, The 53rd CIRP Conference on Manufacturing Systems [2] R.C. Vlad, AN INTEGRATED PLANNING AND SCHEDULING MODEL FOR WIRING SYSTEMS ASSEMBLY, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics, Mechanics, and Engineering, Vol. 61, Issue Special, September, 2018 [3] C. Ramesh, R. Kamalakannan, R. Karthik, C. Pavin, S. Dhivaharan, A lot streaming based flow shop scheduling problem using simulated annealing algorithm, Materials Today: Proceedings 37 (2021) 241–244	Buget cu bursă / Buget fără bursă / Taxă
3	Cercetări privind modelarea proceselor de prelucrare prin eroziune electrică	Prof.dr.ing. Oana Dodun	[1] F.M. Kit, N.N.Y. Zu, R.H.A.Haq, B. Manshoor, M.F.A. Ghafir, O.M.F. Marwah, J.Hoffmann, Performance Evaluation of Electrode Fabricated by using FDM in Die-Sinking EDM, *Journal of Advanced Research in Applied Sciences and Engineering Technology*, Volume 35, Issue 1, Pages 129 – 142, 2024 [2] S.S. Ferreira, L.H.A. Maia, F.L. Amorim, Effects of machining parameters on spectral entropy of acoustic emission signals in the electro erosion, *International Journal of Advanced Manufacturing Technology,* 131, Issue 1, Pages 289 – 299, 2024	Buget cu bursă / Buget fără bursă / Taxă
4	**Studiul angrenajelor melcate cu contact magnetic**	Prof.dr.ing. Petru Duşa	[1] Tlali P. M., Wang R-J., and Gerber S., "Magnetic Gear Technologies: A Review," presented at the 2014 International Conference on Electrical Machines (ICEM), 2014. [2] Zhu Zi Qiang, "Overview of novel magnetically geared machines with partitioned stators," *IET Electric Power Applications,* vol. 12, no. 595-604, 2018, doi: 10.1049/iet-epa.2017.0680. [3] Yan Bo, Li Xianglin, Wang Xiuhe, and Yang Yubo, "A review on the field-modulated magnetic gears: Development status, potential applications, and existent challenges," *IET Electric Power Applications,* vol. 18, pp. 1-19, 2024, doi: 10.1049/elp2.12365.	Buget cu bursă / Buget fără bursă / Taxă
5	Configurarea sistemelor flexibile de fabricație folosind aplicatii de intelegență artificială	Prof. dr. ing. Petru Duşa	[1] Christian Meske, Enrico Bunde, Johannes Schneider & Martin Gersch (2022) Explainable Artificial Intelligence: Objectives, Stakeholders, and Future Research Opportunities, Information Systems Management, 39:1, 53-63, DOI: 10.1080/10580530.2020.1849465 [2] Atieh AM, Cooke KO, Osiyevskyy O. The role of intelligent manufacturing systems in the implementation of Industry 4.0 by small and medium enterprises in developing countries. Engineering Reports. 2023;5(3):e12578. doi: 10.1002/eng2.12578 [3] J. Aldrin Raj, D. Ravindran, M. Saravanan and T. Prabaharan, Simultaneous scheduling of machines and tools in multimachine flexible manufacturing systems using artificial immune system algorithm, International Journal of Computer Integrated Manufacturing, 2014 Vol. 27, No. 5, 401–414, http://dx.doi.org/10.1080/0951192X.2013.834461© 2013 Taylor & Francis [5] Santosh Kumar Mandal", Mayank Kumar Pandey[b] and M.K. TiwarF*, Incorporating dynamism in traditional machine loading problem: an Al-based optimisation approach, International Journal of Production ResearchVol. 48, No. 12, 15 June 2010, 3535–3559 [6] Ilya Jackson, Dmitry Ivanov, Alexandre Dolgui & Jafar Namdar (31 Jan 2024): Generative artificial intelligence in supply chain and operations management: a capability based framework for analysis and implementation, International Journal of Production Research, DOI: 10.1080/00207543.2024.2309309	Buget cu bursă / Buget fără bursă / Taxă

6	Studiu factorilor care influentează pierderi de transfer de contact la investigarea cu ultrasunete	Prof. dr. ing. Petru Dușa	[1] Darjo Zuljan | (2022) Effect of ultrasonic coupling media and surface roughness on contact transfer loss, Cogent Engineering, 9:1, 2009092, DOI: 10.1080/23311916.2021.2009092 [2] Shuyong Duan, Jialin Zhang, Heng Ouyang, Xu Han and Guirong Liu, A Novel On-Site-Real-Time Method for Identifying Characteristic Parameters Using Ultrasonic Echo Groups and Neural Network, Chinese Journal of Mechanical Engineering (2024) 37:8 https://doi.org/10.1186/s10033-023-00989-0 [3] Xiaoying Cheng , Gaoshen Ma, Zhenyu Wu , Hongfei Zu, Xudong Hu,Automatic defect depth estimation for ultrasonic testing in carbon fiber reinforced composites using deep learning, NDT & E International, Volume 135, April 2023, 102804	Buget cu bursă / Buget fără bursă / Taxă
7	**Cercetarea privind analiza microgeometriei suprafețelor prelucrate prin așchiere**	Prof.dr.ing. Mihaiță Horodincă	1. Chen, J. S.; Huang, Y. K.; Chen, M. S., A study of the surface scallop generating mechanism in the ball-end milling process, Int. J. Mach. Tools Manuf. 2005, 45, 9, 1077-1084. https://doi.org/10.1016/j.ijmachtools.2004.11.019 2. Costes, J. P., A predictive surface profile model for turning based on spectral analysis. J. Mater. Process. Technol. 2013, 213, 1, 94-100. https://doi.org/10.1016/j.jmatprotec.2012.08.009 3. Li, J.; Xu, W.; Shen, T.; Jin, W.; Wu, C., Evaluating surface roughness of curved surface with circular profile based on arithmetic circular arc fitting. Aip. Adv. 2023, 13, 125312. https://doi.org/10.1063/5.0174008 4. Zeng, Q.; Qin, Y.; Chang, W.; Luo, X., Correlating and evaluating the functionality-related properties with surface texture parameters and specific characteristics of machined components. Int. J. Mech. Sci. 2018, 149, 62–72. https://doi.org/10.1016/j.ijmecsci.2018.09.044	Buget cu bursă / Buget fără bursă / Taxă
8	Cercetări privind creșterea stabilității dinamice a sistemelor de producție	Prof.dr.ing. Mihaiță Horodincă	1. Wenjing, D., Self-excited vibration, Springer Berlin Heidelberg, 2013, https://link.springer.com/book/10.1007/978-3-540-69741-1 2. Liu, Y.P, Altintas, Y., In-process identification of machine tool dynamics,CIRP Journal of Manufacturing Science and Technology, Volume 32, 2021, Pages 322-337, https://doi.org/10.1016/j.cirpj.2021.01.007. 3.Brecher, C., Weck, M. (2021). The Dynamic Behavior of Machine Tools. In: Machine Tools Production Systems 2. Lecture Notes in Production Engineering. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-60863-0_13	Buget cu bursă / Buget fără bursă / Taxă
9	Cercetări privind sinteza compresoarelor cu spirală	Prof.dr.ing. Mihaiță Horodincă	1. Gravesen, Jens and Christian Henriksen. "The Geometry of the Scroll Compressor." SIAM Rev. 43 (2001): 113-126. 2. Chen, Yu, Eckhard A. Groll, Nils P. Halm and James E. Braun. "A Comprehensive Model of Scroll Compressors Part II: Overall Scroll Compressor Modeling." (2000). Cavazzini, Giovanna, Francesco Giacomel, Alberto Benato, Francesco Nascimben, and Guido Ardizzon. 2021. "Analysis of the Inner Fluid-Dynamics of Scroll Compressors and Comparison between CFD Numerical and Modelling Approaches" Energies 14, no. 4: 1158. https://doi.org/10.3390/en14041158	Buget cu bursă / Buget fără bursă / Taxă
10	**Cercetări privind tehnologiile de fabricare a pieselor multimaterial prin imprimare 3D**	Prof.dr.ing. Gheorghe Nagîț	1. Nazir A, Gokcekaya O, Billah KMM, Ertugrul O, Jiang J, Sun J, et al. Multi-material additive manufacturing: A systematic review of design, properties, applications, challenges, and 3D printing of materials and cellular metamaterials. Materials & Design. 2023; 2. García-Collado A, Blanco JM, Gupta MK, Dorado-Vicente R. Advances in polymers based Multi-Material Additive-Manufacturing Techniques: State-of-art review on properties and applications. Addit. Manuf. 2022 3. Hasanov S, Alkunte S, Rajeshirke M, Gupta A, Huseynov O, Fidan I, et al. Review on Additive Manufacturing of Multi-Material Parts: Progress and Challenges. J. Mater. Process. 2022; 4. Zheng X, Williams C, Spadaccini CM, Shea K. Perspectives on multi-material additive manufacturing. J. of Materials Research volume. 2021 5. Bandyopadhyay A, Heer B. Additive manufacturing of multi-material structures. Materials Sci. and Eng.: R: Reports. 2019; 129: 1-16	Buget cu bursă / Buget fără bursă / Taxă
11	Cercetări privind influența tehnologiei de prelucrare asupra unor proprietăți de exploatare ale pieselor	Prof.dr.ing. Gheorghe Nagîț	1. Wen, Q.; Liu, M.; Zhang, Z.; Sun, Y. Experimental Investigation into the Friction Coefficient of Ball-on-Disc in Dry Sliding Contact Considering the Effects of Surface Roughness, Low Rotation Speed, and Light Normal Load. *Lubricants* 2022, *10*, 256. https://doi.org/10.3390/ lubricants10100256	Buget cu bursă / Buget fără

			2. Wang, W.; Zhao, W.; Liu, Y.; Zhang, H.; Hua, M.; Dong, G.; Tam, H.Y.; Chin, K.S. A Pocket-Textured Surface for Improving the Tribological Properties of Point Contact under Starved Lubrication. *Materials* 2021, *14*(7):1789. doi: 10.3390/ma14071789 3. Costa, H.L.; Schille, J.; Rosenkranz, A. Tailored surface textures to increase friction—A review. *Friction* 2022, *10*(9), 1285-1304. https://doi.org/10.1007/s40544-021-0589-y 4. Li, M.; Shi, W.; Shi, J.; Wang, T.; Shi, L., Wang, X. Regulation and control of wet friction of soft materials using surface texturing: A review. *Friction* 2023, *11*(3), 333-353. https://doi.org/10.1007/s40544-022-0617-6 5. Rosenkranz, A.; Grützmacher, P.G.; Gachot, C.; Costa, H.L. Surface Texturing in Machine Elements – A Critical Discussion for Rolling and Sliding Contacts. *Adv. Eng. Mater.* 2019, *21*, 1900194. DOI: 10.1002/adem.201900194 6. Hou, Q.; Yang, X.; Cheng, J.; Wang, S.; Duan, D.; Xiao, J.; Li, W. Optimization of Performance Parameters and Mechanism of Bionic Texture on Friction Surface. *Coatings* 2020, *10*, 171; doi:10.3390/coatings10020171	bursă / Taxă
12	Cercetări privind tehnologiile de durificare plastică superficială la rece a suprafețelor cilindrice interioare	Prof.dr.ing. Gheorghe Nagîț	1. Dimitrov, DM; Slavov, SD and Dimitrov, Z, Experimental research on the effect of the ball burnishing process, using new kinematical scheme on hardness and phase composition of surface layer of AISI 304L stainless steel, 21st Innovative Manufacturing Engineering and Energy International Conference (IManE and E) 2017 | 21ST INNOVATIVE MANUFACTURING ENGINEERING & ENERGY INTERNATIONAL CONFERENCE - IMANE&E 2017 2. Dzyura, V; Maruschak, P and Prentkovskis, O, Determining Optimal Parameters of Regular Microrelief Formed on the End Surfaces of Rotary Bodies, Feb 2021 | ALGORITHMS 14 (2) 3. Jerez-Mesa, R; Fargas, G; (...); Travieso-Rodriguez, JA, Superficial Effects of Ball Burnishing on TRIP Steel AISI 301LN Sheets, Jan 2021, METALS 11 (1) 4. Nagît, G; Slatineanu, L; (...); Mihalache, AM, Surface layer microhardness and roughness after applying a vibroburnishing process, Sep-oct 2019 | JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T 8 (5) , pp.4333-4346	Buget cu bursă / Buget fără bursă / Taxă
13	**Funcționalitatea graduală a materialelor ranforsate cu fibre în timpul printării 3D multi-material**	Prof.dr.ing. Dumitru Nedelcu	[1] Tey, J.Y., Teh, D.; Yeo, W.H.; Shak, K.P.Y.; Saw, L.H.; Lee, T.S. *Development of 3D printer for functionally graded material using fused deposition modelling method*, IOP Conf. Series: Earth and Environmental Science, 2019, 268, 012019, doi:10.1088/1755-1315/268/1/012019. [2] Choy, S. Y., Sun, C. N., Leong, K. F., Tan, K. E., & Wei, J. (2016). *Functionally graded material by additive manufacturing*, Proceedings of the 2nd International Conference on Progress in Additive Manufacturing (Pro-AM 2016), 206-211. [3] El-Galy, I.M.; Saleh, B.I.; Ahmed, M.H. *Functionally graded materials classifications and development trends from industrial point of view*. SN Appl. Sci. 1, 1378 (2019). https://doi.org/10.1007/s42452-019-1413-4. [4] Leoni, F.; Dal Fabbro, P.; Rosso, S.; Grigolato, L.; Meneghello, R.; Concheri, G.; Savio, G. *Functionally Graded Additive Manufacturing: Bridging the Gap between Design and Material Extrusion*. Appl. Sci. 2023, 13, 1467. https://doi.org/10.3390/app13031467.	Buget cu bursă / Buget fără bursă / Taxă
14	**Injectarea multi-component a reperelor din materiale biodegradabile**	Prof.dr.ing. Dumitru Nedelcu	[1] Șereș, I., *Injectarea materialelor termoplastice*, Editura Imprimeriei de Vest, Oradea, 1996 [2] Șereș, I., *Materiale termoplastice pentru injectare. Tehnologie. Incercări*, Editura Imprimeriei de Vest, Oradea, 2001 [3] Fetecău, C., *Injectarea materialelor plastice*, editia a doua, Editura Didactică și Pedagogică, București, 2007	Buget cu bursă / Buget fără bursă / Taxă
15	**Texturarea reperelor din materiale biodegradabile si inglobarea particulelor de aur**	Prof.dr.ing. Dumitru Nedelcu	[1]. Edit Roxana Moldova, *Contribution to the laser surface texturing of AISI 430 stainless steel*, teză de doctoratm Brașov, 2022, https://www.unitbv.ro/documente/cercetare/doctorat-postdoctorat/sustinere-teza/2022/edit-roxana-moldovan/Rezumat_teza_dr_Moldovan_Edit_Roxana_2022_EN.pdf [2]. Costa, H.L.; Schille, J.; Rosenkranz, A. *Tailored surface textures to increase friction-A review*. Friction 2022, https://doi.org/10.1007/s40544-021-0589-y. 135. [3]. Ahmed, Y.S.; DePaiva, J.M.; Amorim, F.L.; Torres, R.D.; De Rossi, W.; Veldhuis, S.C. *Laser surface texturing and characterization of austenitic stainless steel for the improvement of its surface properties*. Int. J. Adv. Manuf. Technol. 2021, 115, 1795–1808.	Buget cu bursă / Buget fără bursă / Taxă
16	**Stabilitatea dinamică a dispozitivelor de prindere a pieselor prelucrate prin frezare**	Prof.dr.ing. Nicolae Seghedin	1.Hans Christian Moehring , Petra Wiederkehr , Oscar Gonzalo , Petr Kolar. Intelligent Fixtures for the Manufacturing of Low Rigidity Components. Springer, 2018.	Buget cu bursă / Buget fără

			2. A. Gameros, S. Lowth a, D. Axinte , A. Nagy-Sochacki, O. Craig a, H.R. Siller. State-of-the-art in fixture systems for the manufacture and assembly of rigid components: A review. International Journal of Machine Tools and Manufacture, Volume 123, December 2017, Pages 1-21. 3. Falko Fiedler a, Jannik Ehrenstein a, Christian Höltgen a, Aileen Blondrath a, Lukas Schäper b, Amon Göppert b, Robert Schmitt. Jigs and Fixtures in Production: A Systematic Literature Review. Journal of Manufacturing Systems, Volume 72, February 2024, Pages 373-40	bursă / Taxă
17	**Sinteza creativă a mecanismelor de strângere**	Prof.dr.ing. Nicolae Seghedin	1 J. Cecil, A Clamping Design Approach for Automated Fixture Design. Int J Adv Manuf Technol (2001) 18:784–789, 2001. 2. Cheng-liang Liu, A Systematic Conceptual Design of Modular Fixtures. Int J Adv Manuf Technol (1994) 9:217-224 9, 1994. 3. Karol Velíšek, Peter Košťál & Radovan Zvolenský, Clamping Fixtures for Intelligent Cell Manufacturing. International Conference on Intelligent Robotics and Applications, ICIRA 2008: Intelligent Robotics and Applications pp 966–972.	Buget cu bursă / Buget fără bursă / Taxă
18	**Influența deformațiilor termice ale dispozitivelor de prindere asupra preciziei de prelucrare**	Prof.dr.ing. Nicolae Seghedin	1.A. Gameros, S. Lowth a, D. Axinte , A. Nagy-Sochacki, O. Craig a, H.R. Siller. State-of-the-art in fixture systems for the manufacture and assembly of rigid components: A review. International Journal of Machine Tools and Manufacture, Volume 123, December 2017, Pages 1-21. 2. Mangudi Varadarajan, Kartik, Design of ultra precision fixtures for nano-manufacturing, MIT, 2005. 3. M. Estrems, H.T. Sànchez & F. Faura, Influence of Fixtures on Dimensional Accuracy in Machining Processes. Springer, 2003.	Buget cu bursă / Buget fără bursă / Taxă
19	**Modularizarea protezelor utilizate la tratarea fracturilor de col femural**	Prof.dr.ing. Nicolae Seghedin	1.Pietro Maniscalco, Fabrizio Quattrini, Corrado Ciatti, Laura Ghidoni, Giuseppe Ghidoni, Valeria Burgio, Francesco Pogliacomi, Enrico Vaienti & Francesco Ceccarelli, Neck modularity in total hip arthroplasty: a retrospective study of nine hundred twenty-eight titanium neck implants with a maximum follow-up of eighteen years. International Orthopaedics, Volume 44, pages 2261–2266, (2020). 2. Paul J. Duwelius MD, Bob Burkhart PA, Clay Carnahan PA, Grant Branam BSc, Laura Matsen Ko MD, YingXing Wu MD, Cecily Froemke MS, Lian Wang MS & Gary Grunkemeier PhD, Modular versus Nonmodular Neck Femoral Implants in Primary Total Hip Arthroplasty: Which is Better?, Clinical Orthopaedics and Related Research, Volume 472, pages 1240–1245, (2014) 3. Alexander E. Weber, John D. Blaha, Femoral neck modularity: A bridge too far, Seminars in Arthroplasty, Volume 24, Issue 2, June 2013, Pages 71-75.	Buget cu bursă / Buget fără bursă / Taxă
20	Studiul unor procese de fabricare și al unor proprietăți fizico-mecanice și de exploatare ale materialelor polimerice utilizate în construcția de mașini	Prof.dr.ing. Laurențiu Slătineanu	1. Groover, M.P. Fundamentals of Modern Manufacturing - Materials, Processes and Systems, 7th Edition. John Wiley & Sons Inc., 2021 2. Scutaru, M. L., Chiru, A., Vlase, S., Cofaru, C., Teodorescu-Draghicescu, H., Materiale plastice si compozite in ingineria autovehiculelor. București, Matrix Rom, 2013 3. Ward, I.M., Mechanical properties of solid polymers, John Wiley, 3rd edition 2012	Buget cu bursă / Buget fără bursă / Taxă
21	Cercetări privind caracteristicile unor procese neconvenționale de prelucrare	Prof.dr.ing. Laurențiu Slătineanu	1. Herman, R.I.E., Herman, M., Karnyaszky, T.M et al. *Tratat de Tehnologii Neconvenționale. Vol.V. Prelucrarea prin eroziune complexă, electrică și electrochimică.* Timișoara: Editura Augusta: Artpress, 2004 2. Nanu A. (coodonator general), Deneș, V., Dodun, O., Ghiculescu, D., Marinescu, N.I., Nani, V.M., Nanu, A., Nanu, D., Obaciu, G., Olariu, M., Oprean, C., Pisarciuc, C., Purcar, C., Revitzky_levay, A., Slătineanu, L., Slavici, T., Țîțu, M. *Tratat de tehnologii neconvenționale. Vol. II. Prelucrarea prin eroziune electrică.* Sibiu: Editura Universității "Lucian Blaga", 2004 3. Groover, M.P. Fundamentals of Modern Manufacturing - Materials, Processes and Systems, 7th Edition. John Wiley & Sons Inc., 2021	Buget cu bursă / Buget fără bursă / Taxă
22	Studiul unor procese de prelucrare utilizate în construcția de mașini	Prof.dr.ing. Laurențiu Slătineanu	1. Groover, M.P. Fundamentals of Modern Manufacturing - Materials, Processes and Systems, 7th Edition. John Wiley & Sons Inc., 2021 2. Nagîț, G., Braha, V., Rusu, B. Tehnologii de ștanțare și matrițare. Bazele prelucrării prin deformare plastică. Chișinău: Editura Tehnica-Info, 2002 3. Sindilă, G. Sisteme tehnologice de deformare plastică la rece. Vol. 1 și 2. București: Editura Bren, 2014	Buget cu bursă / Buget fără bursă / Taxă

Domeniul **Inginerie Mecanică**

Nr. crt.	Tema propusă	Conducătorul de doctorat	Bibliografia	Forma de finanţare
23	Cercetări privind aero-hidraulica vehiculelor	Prof. dr. ing. Daniela Popescu	1. Hucho, Wolf-Heinrich, ed. Aerodynamics of road vehicles: from fluid mechanics to vehicle engineering. Elsevier, 2013. 2. Rajesh R., Vehicle Dynamics and Control second edition, University of Minnesota, Minneapolis, 2012. 3. Ibrahim, S., and R. C. Mehta. "An Investigation of Air Flow and Thermal Comfort of Modified Conventional Car Cabin Using Computerized Fluid Dynamics." Journal of Applied Fluid Mechanics 11.Special Issue) (2018): 141-150.	Buget cu bursă / Buget fără bursă / Taxă
24	Cercetări privind identificarea de soluţii pentru cresterea eficienţei si siguranţei în funcţionare a robinetelor industriale	Prof. dr. ing. Daniela Popescu	1. Žic, E.; Banko, P.; Lešnik, L. Hydraulic analysis of gate valve using computational fluid dynamics (CFD). Sci. Rev. Eng. Environ. Sci. 2020, 29, 275–288. 2. Jia, M.; Li, Z.; Jia, L.; Liu, J. Structural optimization of V-sector valve cores and adaptability in secondary heating networks. Flow Meas. Instrum. 2021, 81, 102032. 3. Yu, R.; Wu, Y.; Chen, X.; Wu, X. Study on the design of ball valve based on elastic ring valve seat structure and fluid charac-teristics and fatigue strength. Flow Meas. Instrum. 2023, 89, 102302. 4. API 6D:2014; Specification for Pipeline Valves. American Petroleum Institute: Washington, DC, USA, 2014.	Buget cu bursă / Buget fără bursă / Taxă
25	**Cercetări privind determinarea posibilitatilor de exploatare a resurselor regenerabile locale, cu putere instalata sub 100 kW**	Prof. dr. ing. Daniela Popescu	1. Pandey B, Karki A. Hydroelectric Energy: Renewable Energy and the Environment. Boca Raton: CRC Press; 2017. 2. Hoseinzadeh S, Ghasemi M H, Heyns S. Application of hybrid systems in solution of low power generation at hot seasons for micro hydro systems. Renewable Energy 2020; 160:323-32. 3. Peviani M, Alterach J, Danelli A. HYDROPOWER Project, targeted to improve water resource management for a growing renewable energy production, https://www.rse-web.it/progetti/see-hydropower-targeted-to-improve-water-resource-management-for-a-growing-renewable-energy-production-534/; 2011. 4. European Commission. Press release. European Green Deal: EU agrees stronger legislation to accelerate the rollout of renewable energy, https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2061; 2023. 5. Klein SJW and Fox ELB. A review of small hydropower performance and cost. Renewable and Sustainable Energy Reviews 2022; 169: 112898.	Buget cu bursă / Buget fără bursă / Taxă
26	Cercetări privind analiza eficienţei energetice si a sigurantei in functionare a sistemelor de conducte, inclusiv echipamente destinate modificării parametrilor de funcţionare	Prof. dr. ing. Daniela Popescu	1. Larock, Bruce E., Roland W. Jeppson, and Gary Z. Watters. Hydraulics of pipeline systems. CRC press, 1999. 2. Velázquez, J.; González-Arévalo, N.; Díaz-Cruz, M.; Cervantes-Tobón, A.; Herrera-Hernández, H.; Hernández-Sánchez, E. Failure pressure estimation for an aged and corroded oil and gas pipeline: A finite element study. J. Nat. Gas Sci. Eng. 2022, 101, 10453219. 3. ISO 14313:2007; Petroleum and Natural Gas Industries—Pipeline Transportation Systems—Pipeline Valves. ISO, Geneva, 2007. 4. Longo, S., Tanda, M.G., Chiapponi, L. (2021). Problems in Hydraulics and Fluid Mechanics. Springer Tracts in Civil Engineering . Springer, Cham. 5.Aurel Alessandrescu, Ingineria mecanica a sistemelor de conducte. Ghid de proiectare + CD, AGIR, 2013 .	Buget cu bursă / Buget fără bursă / Taxă
27	Cercetări privind imbunatatirea performantei energetice si exploatarea resurselor regenerabile in clădiri	Prof. dr. ing. Daniela Popescu	1. Ahmed A et al. Assessment of the renewable energy generation towards net-zero energy buildings: A review. Energy and Buildings 2022; 256: 111755. 2. Belussi, L., Barozzi, B., Bellazzi, A., Danza, L., Devitofrancesco, A., Fanciulli, C., ... & Scrosati, C. (2019). A review of performance of zero energy buildings and energy efficiency solutions. Journal of building engineering, 25, 100772. 3. Chen, S., Zhang, G., Xia, X., Setunge, S., & Shi, L. (2020). A review of internal and external influencing factors on energy efficiency design of buildings. Energy and Buildings, 216, 109944. 4. Lian J, et al. A review on recent sizing methodologies of hybrid renewable energy systems. Energy Conversion and Management 2019; 199: 112027.	Buget cu bursă / Buget fără bursă / Taxă