

Tematica și bibliografia pentru colocviul de admitere la doctorat, sesiunea septembrie 2023, domeniul **Ingineria materialelor**, Facultatea de Știința și Ingineria Materialelor sunt prezentate în Tabelul 2.

Tabelul 2. Tematica și bibliografia pentru colocviul de admitere la doctorat, sesiunea septembrie 2023

Nr. crt.	TEMA	BIBLIOGRAFIA
1	Dezvoltare de noi materiale solide pentru aplicații ce implică transfer termic	<ol style="list-style-type: none"> 1. Web, R. L., Principles of Enhanced Heat Transfer, Wiley, New York 1994. 2. Web, R. L., Bergles, A. E., Heat Transfer Enhancement: Second Generation Technology, Mech. Eng., 105(6), pp. 60–67, 1983. 3. Pop I., Ingham D. B., Convective Heat Transfer: Mathematical and Computational Modelling of Viscous Fluids and Porous Media, Elsevier, USA, 2001. 4. Bejan, A, Krauss A, Heat transfer handbook, Willey and sons, USA 2003. 5. Janna W.S., Engineering Heat Transfer – second edition, CRC Press, 2001. 6. Kakac S., Vasiliev L. L, Bayazitoglu Y., Yener Y., eds., Microscale Heat Transfer - Fundamentals and Applications, Springer, 2005.
2	Dezvoltare de noi fluide, ca tehnică de intensificare a transferului termic	<ol style="list-style-type: none"> 1. Minea A.A., Advances in industrial heat transfer, Ed. A. A. Minea, CRC press Taylor & Francis, ISBN: 9781439899076, 2012 2. Andreozzi A; Manca O; Naso V, Natural convection in vertical channels with an auxiliary plate, International Journal of Numerical Methods for Heat & Fluid Flow, 12(6), pp. 716 -734, 2002 3. Bergles, A. E., Jensen, M. K., Somerscales, E. F. C., Manglik, R. M., Literature Review of Heat Transfer Enhancement Technology for Heat Exchanges in Gas-Fired Applications, Report GRI 91-0146, Gas Research Institute, Chicago, 1991. 4. Bergles, A. E., Jensen, M. K., Shome, B., Bibliography on Enhancement of Convective Heat and Mass Transfer, Report HTL-23, Heat Transfer Laboratory, Rensselaer Polytechnic Institute, Troy, NY, 1995. 5. Bhatnagar, R. K., Manglik, R. M., Enhanced Heat and Mass Transfer Literature: Case for a Digital Library with Intelligent Information Retrieval, Thermal Fluids and Thermal Processing Laboratory, Report TFTPPL-CS1, University of Cincinnati, Cincinnati, OH, 2002.
3	Cercetări experimentale și CFD privind transferul de căldură în schimbătoare de căldură	<ol style="list-style-type: none"> 1. Minea A.A., Advances in industrial heat transfer, Ed. A. A. Minea, CRC press Taylor & Francis, ISBN: 9781439899076, 2012 2. Bergles, A. E., Jensen, M. K., Somerscales, E. F. C., Manglik, R. M., Literature Review of Heat Transfer Enhancement Technology for Heat Exchanges in Gas-Fired Applications, Report GRI 91-0146, Gas Research Institute, Chicago, 1991. 3. Bergles, A. E., Jensen, M. K., Shome, B., Bibliography on Enhancement of Convective Heat and Mass Transfer, Report HTL-23,

		<p>Heat Transfer Laboratory, Rensselaer Polytechnic Institute, Troy, NY, 1995.</p> <ol style="list-style-type: none"> 4. Kakac, S., Bergles, A. E., Mayinger, F., Yuncu, H., Heat Transfer Enhancement of Heat Exchangers, Kluwer Academic, Dordrecht, The Netherlands 1999. 5. Bhatnagar, R. K., Manglik, R. M., Enhanced Heat and Mass Transfer Literature: Case for a Digital Library with Intelligent Information Retrieval, Thermal Fluids and Thermal Processing Laboratory, Report TFTPPL-CS1, University of Cincinnati, Cincinnati, OH, 2002.
4	Dezvoltare de noi fluide cu nanoparticule (nanofluide)	<ol style="list-style-type: none"> 1. Minea A.A., Advances in industrial heat transfer, Ed. A. A. Minea, CRC press Taylor & Francis, ISBN: 9781439899076, 2012 2. Andreozzi A; Manca O; Naso V, Natural convection in vertical channels with an auxiliary plate, International Journal of Numerical Methods for Heat & Fluid Flow, 12(6), pp. 716 -734, 2002 3. Bergles, A. E., Jensen, M. K., Shome, B., Bibliography on Enhancement of Convective Heat and Mass Transfer, Report HTL-23, Heat Transfer Laboratory, Rensselaer Polytechnic Institute, Troy, NY, 1995. 4. Bhatnagar, R. K., Manglik, R. M., Enhanced Heat and Mass Transfer Literature: Case for a Digital Library with Intelligent Information Retrieval, Thermal Fluids and Thermal Processing Laboratory, Report TFTPPL-CS1, University of Cincinnati, Cincinnati, OH, 2002.
5	Sisteme expert utilizate pentru obtinerea si procesarea materialelor	<ol style="list-style-type: none"> 1. Vizureanu, P., Expert Systems, published by Intech, Vukovar, Croatia, 2010, 238 pages, on-line edition, ISBN 978-953-307-032-2, http://www.intechopen.com/books/show/title/expert-systems 2. Ștefan, M., Vizureanu, P., Manole, V., Modelare, optimizare și simulare la încălzirea materialelor metalice, Editura Tehnopress, Iași, 2005, 184 pg., ISBN 973-702-280-7. 3. Ștefan, M., Vizureanu, P., Bejinariu, C., Manole, V., Baze de date și sisteme expert în selecția și proiectarea materialelor, vol. I, Editura Tehnopress, Iași, 2008, 298 pg., ISBN 978-973-702-514-2. 4. Vizureanu, P., Ștefan, M., Baci, C., Ioniță, I., Baze de date și sisteme expert în selecția și proiectarea materialelor, vol. II, Editura Tehnopress, Iași, 2008, 262 pg., ISBN 978-973-702-515-9. 5. RULE-BASED EXPERT SYSTEM APPLICATION TO OPTIMIZING OF MULTISCALE MODEL OF HOT FORGING AND HEAT TREATMENT OF TI-6AL-4V, Maciol, P (Maciol, Piotr)[1] ; Krumphals, A (Krumphals, Alfred)[1] ; Jedrusik, S (Jedrusik, Stanislaw); Maciol, A (Maciol, Andrzej); Sommitsch, C(Sommitsch, Christof), Edited by:Idelsohn, S; Papadarakakis, M; Schrefler, B, COMPUTATIONAL METHODS FOR COUPLED PROBLEMS IN SCIENCE AND ENGINEERING V, Pages: 1237-1248, Published: 2013.
6	Proiectarea, obținerea și caracterizarea (bio)materialelor metalice și nemetalice	<ol style="list-style-type: none"> 1. Vizureanu P., Materiale refractare, Editura PIM, Iași, 2007, 320pg., ISBN 978-973-716-581-7. 2. Vizureanu P. Băltatu, M.S., Titanium-based Alloy for Biomedical Applications, Materials Research Forum LLC Publishing House, Millersville, PA, U.S.A., 2020, 154pg., ISBN 978-1-64490-078-9. 3. Ștefan, M., Vizureanu, P., Bejinariu, C., Bădărău, Gh., Manole, V., Studiul proprietăților termice ale materialelor, Editura Tehnopress, Iași, 2008, 294 pg., ISBN 978-973-702-566-1. 4. Vizureanu, P., Experimental Programming in Materials Science, Mirea Publishing House, Moscow, 2006, 116 pg., ISBN 5-7339-0601-4.

		<p>5. Uptake of silica covered Quantum Dots into living cells: Long term vitality and morphology study on hyaluronic acid biomaterials, D'Amico, Michele; Fiorica, Calogero; Palumbo, Fabio Salvatore; Militello, Valeria; Leone, Maurizio; Dubertret, Benoit; Pitarresi, Giovanna; Giammona, Gaetano, Materials science & engineering. C, Materials for biological applications, Volume:67, Pages:231-6, DOI:10.1016/j.msec.2016.04.082, Published:2016-Oct-1 (Epub 2016 May 05).</p> <p>6. Adhesion aspects in biomaterials and medical devices, By: Antoniac, I (Antoniac, Iulian); Sinescu, C (Sinescu, Cosmin); Antoniac, A (Antoniac, Aurora), JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, Volume: 30, Issue: 16, Pages: 1711-1715, Special Issue: SI, DOI: 10.1080/01694243.2016.1170959, Published: AUG 17 2016.</p>
7	Analiza unor materiale metalice speciale cu aplicații medicale	<p>1. Additive manufacturing of biodegradable metals: Current research status and future perspectives, Acta Biomaterialia Volume 9815, 2019, 3-22, Yu Qin, Peng Wen, Hui Guo, Dandan Xia, Johannes Henrich Schleifenbaum.</p> <p>2. Challenges in the use of zinc and its alloys as biodegradable metals: Perspective from biomechanical compatibility, Acta Biomaterialia, 971, 2019, 23-45, Guannan Li, Hongtao Yang, Yufeng Zheng, Xie-Hui Chen, Kazuki Takashima</p> <p>3. In vitro degradation and biocompatibility evaluation of typical biodegradable metals (Mg/Zn/Fe) for the application of tracheobronchial stenosis, Bioactive Mat., 2019, 114-119.</p> <p>4. Yangyang Li, Jianglong Yan, Wenhao Zhou, Pan Xiong, Yan Cheng</p> <p>5. Laser powder bed fusion of titanium-tantalum alloys: Compositions and designs for biomedical applications, Journal of the Mechanical Behavior of Biomedical Materials Volume 108 August 2020 Article 103775, Sheng Huang, Swee Leong Sing, Geoff de Looze, Robert Wilson, Wai Yee Yeong</p>
8	Sisteme multistrat metalo-ceramice utilizate în controlul rezistenței la coroziune	<p>1. Handbook of Thin Films, Springer Book, 2002</p> <p>2. John D. Wachtman Richard A. Haber, Ceramic Films and Coatings 1st Edition Hardcover ISBN: 9780815513186, eBook ISBN: 9780815516323, 1993.</p> <p>3. Junying Min, Hailang Wan, Blair E. Carlson, Jianping Lin, Chengcheng Sun Application of laser ablation in adhesive bonding of metallic materials: A review, Optics & Laser Technology, 2020, Article 106188,</p> <p>4. Jing Zhang Yeon-Gil Jung Advanced Ceramic and Metallic Coating and Thin Film Materials for Energy and Environmental Applications, Springer,</p>
9	Studii și cercetări privind îmbunătățirea și procesarea unor aliaje utilizate în echipamentele de muncă și individuale de protecție în domeniul securității și sănătății în muncă	<p>1. Bejinariu, C., Extrudarea indirectă la rece a oțelului, Editura Tehnopress, Iași, 2008, ISBN 978-973-702-582-1</p> <p>2. Magnesium Alloys - Design, Processing and Properties, Edited by Frank Czerwinski, ISBN 978-953-307-520-4, 2011</p> <p>3. Aluminium Alloys, Theory and Applications, Edited by Tibor Kvaček, ISBN 978-953-307-244-9, 2011</p> <p>4. Procedeu de fosfatizare microcristalină a unor piese metalice pe bază de fier. Brevet de invenție Nr. RO 125457 B1, Publicat în Buletinul Oficial al Proprietății Industriale, RO-BOPI 9/2014, din 30.09.2014.</p> <p>5. Welding - Modern Topics. Academic Editor, Sadek Alfaro, University of Brasilia. published January 14th, 2021, DOI: 10.5772/intechopen.83204, ISBN978-1-83881-896-8</p>

10	<p>Efectul vitezei de deformare asupra microstructurii și proprietăților mecanice ale unor aliaje ușoare deformate plastic cu viteze ridicate</p>	<ol style="list-style-type: none"> 1. COLE, B.N. et al., High speed impact extrusion of metals. Proc Instn Mech Engrs, 1965, Vol. 180, Pt. 1, No. 8, 191-215. 2. WÄLDER, J. et al., Numerical investigations for simultaneously processing metal and plastic using impact extrusion. MATEC Web of Conf 80: 16003, 2016, 618-625. 3. MAGLIARO, J., ALTENHOF, W., Energy absorption mechanisms and capabilities for magnesium extrusions under impact. Int J Mech Sci 2020; 179:105667. 4. ZHU, G., LIAO J., SUN, G., LI, Q., Comparative study on metal/CFRP hybrid structures under static and dynamic loading. Int J Impact Eng 2020; 141:103509. 5. ANDRÉ, N., DOS SANTOS, J., AMANCIO-FILHO, S., Impact resistance of metal-composite hybrid joints produced by frictional heat. Compos Struct 2020; 233:111754. 6. DU, Y. et al., The effect of double extrusion on the microstructure and mechanical properties of Mg-Zn-Ca alloy. Mater Sci Eng: A 2013; 583:69-77. 7. SONG, G., ATRENS, A., Understand magnesium corrosion - A framework for improved alloy performance. Adv Eng Mater 2003; 5(12):837-58. 8. FERRÁS, A.F. et al., Scrap production of extruded aluminum alloys by direct extrusion. Procedia Manufacturing 38 (2019) 1731-1740. 9. PARK YU, H. et al., Effects of extrusion speed on the microstructure and mechanical properties of ZK60 alloys with and without 1 wt% cerium addition, Materials Science & Engineering A, 583 (2013) 25-35. 10. LI, L.X., ZHOU, J., DUSZCZYK, J., Prediction of temperature evolution during the extrusion of 7075 aluminium alloy at various ram speeds by means of 3D FEM simulation, Journal of Materials Processing Technology, 145 (2004) 360-370. 11. CHENG J., GHOSH, S., A crystal plasticity FE model for deformation with twin nucleation in magnesium alloys. Int J Plast 2015; 67:148-170. 12. KUMAR, M., BEYERLEIN, I., A measure of plastic anisotropy for hexagonal close packed metals: application to alloying effects on the formability of Mg. J Alloys Compd 2017; 695(25):1488-1497. 13. WANG, H. et al., Strain rate sensitivities of deformation mechanisms in magnesium alloys. Int J Plast 2018; 107:207-222. 14. KURUKURI, S. et al., Rate sensitivity and tension-compression asymmetry in AZ31B magnesium alloy sheet. Philos Trans R Soc A: Math Phys Eng Sci 2014; 372 (2015): 20130216. 15. ZHOU, R., ROY, A., SILBERSCHMIDT, V., A crystal-plasticity model of extruded AM30 magnesium alloy. Comput Mater Sci 2019; 170:109-140. 16. BISHT, A., YADAV, V., SUWAS, S., DIXIT, U., Deformation behavior of AM30 magnesium alloy. J Mater Eng Perform 2018; 27:4900-4910. 17. JIN, S., ALTENHOF, W., Control of load/displacement responses of AA6061-T6 and T4 circular extrusions under axial compressive loads. Int J Impact Eng 2011; 38(1):1-12.
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11	<p>Evoluția microstructurii la procesarea cuprului prin extrudare multiplă și laminare ulterioară</p>	<p>1. MONTAZERI-POUR, M. et al., Microstructural and mechanical properties of AA1100 aluminum processed by multi-axial incremental forging and shearing. <i>Materials Science and Engineering A</i>, Vol. 639, 2015, 705-716.</p> <p>2. LI, F., SHI, W., BIAN, N., WU, H.-B., Effect of accumulative strain on grain refinement and strengthening of ZM6 magnesium alloy during continuous variable cross-section direct extrusion. <i>Acta Metallurgica Sinica (English Letters)</i>, Vol. 28, Issue 5, 2015, 649-655.</p> <p>3. MONTAZERI-POUR, M., PARSA, M.H., MIRZADEH, H., Multi-axial incremental forging and shearing as a new severe plastic deformation processing technique. <i>Advanced Engineering Materials</i>, Vol. 17, Issue 8, 2015, 1197-1207.</p> <p>4. LI, J. et al., Micro-structural evolution in metals subjected to simple shear by a particular severe plastic deformation method. <i>Journal of Materials Engineering and Performance</i>, Vol. 24, Issue 8, 2015, 2944-2956.</p> <p>5. BINESH, B., AGHAIE-KHAFRI, M., RUE-based semi-solid processing: Microstructure evolution and effective parameters. <i>Materials and Design</i>, Vol. 95, 2016, 268-286.</p> <p>6. GAO, W., XU, J., TENG, J., LU, Z., Microstructure characteristics and mechanical properties of a 2A66 Al–Li alloy processed by continuous repetitive upsetting and extrusion., <i>Journal of Materials Research</i>, Vol. 31, Issue 16, 2016, 2506-2515.</p> <p>7. FARAJI, G., KIM, H.S., Review of principles and methods of severe plastic deformation for producing ultrafine-grained tubes. <i>Materials Science and Technology</i>, Vol. 33, Issue 8, 2017, 905-923.</p> <p>8. RAHIMI, F. et al., Effect of pure shear strain on mechanical properties and microstructural evolution. By: Eivani, A.R, Jafarian, H.R., Bhattacharjee, T., <i>Materials Science and Engineering A</i>, Vol. 679, 2017, 133-142.</p> <p>9. CHEN, Q. et al., Evolution of microstructure and texture in copper during repetitive extrusion-upsetting and subsequent annealing. By: Shu, D.Y., Lin, J., Wu, Y., Xia, X.S., Huang, S.H., Zhao, Z.D., Mishin, O.V., Wu, G.L., <i>Journal of Materials Science & Technology</i>, Vol. 33, Issue 7, 2017, 690-697.</p> <p>10. SEGAL, V., Review: Modes and processes of severe plastic deformation (SPD). <i>Materials</i>, Vol. 11, Issue 7, 2018, 1-29.</p> <p>11. YAO, Y. et al., Refining the microstructure, modifying the texture and enhancing the toughness of AZ31B alloy rod by the extrusion and upsetting. <i>Journal of Alloys and Compounds</i>, Vol. 764, 2018, 202-209.</p> <p>12. LIPÍŃSKA, M., OLEJNIK, L., LEWANDOWSKA, M., A new hybrid process to produce ultrafine grained aluminium plates. <i>Materials Science and Engineering A</i>, Vol. 714, 2018, 105-116.</p> <p>13. CZERWINSKI, F., Thermomechanical processing of metal feedstock for semisolid forming: A review. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i>, Vol. 49, Issue 6, 2018, 3220-3257.</p> <p>14. BAGHERPOUR, E., PARDIS, N., REIHANIAN, M., EBRAHIMI, R., An overview on severe plastic deformation: research status, techniques classification, microstructure evolution, and applications. <i>International</i></p>

		<p>Journal of Advanced Manufacturing Technology, Vol. 100, Issue 5-8, 2019, 1647-1694.</p> <p>15. WU, Y. et al., Microstructure and mechanical properties of copper billets fabricated by the repetitive extrusion and free forging process. Journal of Materials Engineering and Performance, Vol. 28, Issue 4, 2019, 2063-2070.</p> <p>16. ZHANG, G. et al., Effects of repetitive upsetting-extrusion parameters on microstructure and texture evolution of Mg-Gd-Y-Zn-Zr alloy. Journal of Alloys and Compounds, Vol. 790, 2019, 48-57.</p>
12	<p>Studiul transformării ordine-dezordine din aliajele cu memoria formei cu înalt grad de ordonare cristalografică a austenitei.</p>	<p>1. J. Spielfield, Marforming and martempering of a Cu–Zn–Al shape memory alloy, Materials Science and Engineering A273–A275 (1999) 639–643</p> <p>2. Leandru-Gheorghe Bujoreanu, On the influence of austenitization on the morphology of α-phase in tempered Cu–Zn–Al shape memory alloys Materials Science and Engineering A 481–482 (2008) 395–403..</p> <p>3. S. Stanciu, L.-G. Bujoreanu, Burak Özkal, M. Lutfi Öveçoğlu, Andrei Victor Sandu, Study of precipitate formation in Cu–Al–Ni–Mn–Fe shape memory alloys, Journal of Optoelectronics and Advanced Materials, Vol. 10, No. 6, June 2008, p. 1365 – 1369.</p> <p>4. Leandru G. Bujoreanu, Sergiu Stanciu, Paul Bărsănescu, Nicoleta M. Lohan, Study of the transitory formation of α_1 bainite, as a precursor of α-phase in tempered SMAs, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies IV, edited by Paul Schiopu, Cornel Panait, George Caruntu, Adrian Manea, Proc. of SPIE Vol. 7297, 72970B.</p> <p>5. Sergiu Stanciu, Leandru G. Bujoreanu, Iulian Ioniță, Andrei V. Sandu, Alexandru Enache, A structural-morphological study of a Cu₆₃Al₂₆Mn₁₁ shape memory alloy, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies IV, edited by Paul Schiopu, Cornel Panait, George Caruntu, Adrian Manea, Proc. of SPIE Vol. 7297, 72970C.</p> <p>6. S. Stanciu, L. G. Bujoreanu, R. I. Comaneci, N. Cimpoesu, I. Ionita, V. V. Moldoveanu, Particularities of phase transitions in thermomechanically processed Cu-Al-Mn shape memory alloys, ESOMAT 2009, 05004 (2009), DOI:10.1051/esomat/200905004</p>
13	<p>Controlul degradării materialelor metalice</p>	<p>1. Additive manufacturing of biodegradable metals: Current research status and future perspectives, Acta Biomaterialia Volume 9815, 2019, 3-22, Yu Qin, Peng Wen, Hui Guo, Dandan Xia, Johannes Henrich Schleifenbaum.</p> <p>2. Challenges in the use of zinc and its alloys as biodegradable metals: Perspective from biomechanical compatibility, Acta Biomaterialia, 971, 2019, 23-45, Guannan Li, Hongtao Yang, Yufeng Zheng, Xie-Hui Chen, Kazuki Takashima</p> <p>3. In vitro degradation and biocompatibility evaluation of typical biodegradable metals (Mg/Zn/Fe) for the application of tracheobronchial stenosis, Bioactive Mat., 2019, 114-119.</p> <p>4. Yangyang Li, Jianglong Yan, Wenhao Zhou, Pan Xiong, Yan Cheng, 4. Laser powder bed fusion of titanium-tantalum alloys: Compositions and designs for biomedical applications, Journal of the Mechanical Behavior of Biomedical Materials Volume 108 August 2020 Article 103775, Sheng Huang, Swee Leong Sing, Geoff de Looze, Robert Wilson, Wai Yee Yeong</p>
14	<p>Acoperiri ceramice avansate</p>	<p>1. Handbook of Thin Films, Springer Book, 2002</p> <p>2. Ceramic Films and Coatings 1st Edition, John D. Wachtman Richard A. Haber, Hardcover ISBN: 9780815513186, eBook ISBN: 9780815516323, 1993.</p> <p>3. Application of laser ablation in adhesive bonding of metallic materials: A review, Optics & Laser Technology, 2020, Article 106188, Junying Min, Hailang Wan, Blair E. Carlson, Jianping Lin, Chengcheng Sun</p> <p>4. Advanced Ceramic and Metallic Coating and Thin Film Materials for Energy and Environmental Applications, Springer, Jing Zhang Yeon-Gil Jung</p>

15	Obținerea și caracterizarea straturilor funcționale	<ol style="list-style-type: none"> 1 Stefan Lucian Toma, Starturi Funcționale, Editura Performantica Iasi, 2022, ISBN 978-606-685-823-6. 2 Gardon Marc, Functional coatings obtained by Thermal Spray technologies, LAP Lambert Academic Publishing, 2015, ISBN 365-963-281-3. 3 ,Ilker S Bayer, Functional Coatings: From Formulation in Solution to Applications on Surfaces and Interfaces, Editura Mdpi AG, 2020, ISBN 303-928-710-9. 4 Hartmut Frey, Hamid R. Khan, Handbook of Thin Films Technology, Publisher Springer Berlin, Heidelberg, 2015, ISBN 978-3-642-05429-7
16	Acoperiri dure -tip cermet, rezistente la uzura, eroziune si abraziune obținute prin pulverizare termică	<ol style="list-style-type: none"> 1 Stefan Lucian Toma, Fundamente in procesele de pulverizare termică, Editura Performantica Iasi, 2022, ISBN 978-606-685-838-7. 2 Lech Pawlowski The Science and Engineering of Thermal Spray Coatings, Publisher Willy, 2008, ISBN 978-047-075-407-8. 3 Christopher Riley, Third Generation Cermet Thermal Spray Coatings for Colbalt-free Corrosion Resistant Hard Wearing Applications, Publisher University of Nottingham, 2015, 4 Manish Roy J. Paulo Davim, Thermal Sprayed Coatings and their Tribological Performances, IGI Global Publisher of Tiomley knowledge, 2015, 978-146-667-489-9 5 J.R. Davis Handbook of Thermal Spray Technology, Publisher ASM International, 2015, ISBN 978-087-170-795-6

Criteriile de selecție pentru colocviul de admitere la doctorat, sesiunea septembrie 2023, domeniul **Ingineria materialelor**, Facultatea de Știința și Ingineria Materialelor:

1. Candidații vor susține o prezentare în *Power Point* iar criteriile de apreciere sunt detaliate în Tabelul 1.
2. Prezența candidaților la colocviu de admitere este obligatorie.
3. Este obligatorie capacitatea de exprimare în limbaj tehnic.

Tabelul 1. Criterii de selecție pentru colocviul de admitere la doctorat, sesiunea septembrie 2023: evaluarea probei orale

Criterii de evaluare proba orală	Punctaj
1. Stadiul actual al cunoașterii științifice în domeniul temei propuse și potențialele contribuții la dezvoltarea acestuia	2
2. Selectarea celor mai relevante și recente surse bibliografice aferente temei de cercetare propuse	2



3 Claritatea obiectivelor de cercetare și caracterul de noutate al acestora	2
4. Corectitudinea științifică, claritatea și relevanța prezentării	2
5. Conformitatea răspunsurilor la întrebările comisiei de admitere la doctorat, referitoare la expunerea susținută și la dezvoltarea potențială a temei propuse	2
TOTAL	10

Precizări:

- Nota se acordă în intervalul 1-10.
- Evaluarea probei orale (max. 10 minute pentru fiecare candidat): Candidații vor pregăti, conform domeniului ales, un subiect liber dar încadrat în tematica propusă de CCPD S.I.M. Candidații sunt încurajați să prezinte ideea pe care își vor axa cercetările doctorale.
- La punctaje egale, departajarea se face ținând cont de nota obținută la examenul de disertație într-o prima etapă și de media de finalizare a studiilor de licență într-a doua etapă. Media obținută la licență de către candidații care au efectuat 5 ani de studii se va echivala cu nota obținută la examenul de disertație.
- Nota minimă de promovare a colocviului de admitere este 7(șapte).

DECAN,
Conf.univ.dr.ing. Iulian IONIȚĂ

Director al CCPD - S.I.M.,
Prof.univ.dr. ing. Leandru-Gheorghe BUJOREANU