

FIȘA DE VERIFICARE A ÎNDEPLINIRII STANDARDELOR MINIMALE

Candidat: Conf.dr.ing. **Păcurar Răzvan Ioan**, înscris la concursul pentru susținerea tezei de abilitare la **Facultatea de Inginerie Industrială, Robotică și Managementul Producției, Departamentul Ingineria Fabricației**, domeniul științific **Inginerie Industrială**.

Nr.crt.	Criteriu	Indicatori	Condiții profesor / abilitare	Realizat
1.	Criteriul A1	Activitate didactică și profesională (A1)	130 puncte	307.79
2.	Criteriul A2	Activitate de cercetare (A2)	300 puncte	623.36
3.	Criteriul A3	Recunoașterea și impactul activității (A3)	100 puncte	534.76
TOTAL			530 puncte	1465.91

Data: 15.02.2022

Candidat abilitare:
Conf.dr.ing. Păcurar Răzvan Ioan

A1. Activitatea didactică și profesională

1.1 Cărți /manuale /monografii /capitole în cărți de specialitate			
1.1.1 Cărți /manuale/monografii /capitole de specialitate ca autor (Profesor: minim 2 prim autor)			
1.1.1.1 internaționale - Indicator unitar: nr. pagini/(5*nr. Autori)			
Nr.	Titlu	Număr pagini	Punctaj
1.	R. Păcurar , Fabricația pieselor metalice prin topire selectivă cu laser, cu aplicabilitate în domeniul industrial, Editura Tehnică Info Chișinău, 2015, ISBN 978-9975-63-382-6	250	50
2	Cs. Gyenge, A. Păcurar, N. Bâlc, R. Păcurar , Tehnologii și echipamente de asamblare, Editura Tehnică Info Chișinău, 2016, ISBN 978-9975-63-383-3	300	15
3.	R. Păcurar , A. Păcurar, chapter “Applications of the Selective Laser Melting Technology in the Industrial and Medical Fields” , 26 pages, published in the book entitled „New Trends in 3D Printing”, edited by: dr. Igor V Shishkovsky , Open-access book, IN-Tech Publishing House, Rijeka, Croatia, 2016, ISBN 978-953-51-4668-1	26	2.6
Total criteriu A.1.1.1.1.			67.6
1.1 Cărți /manuale /monografii /capitole în cărți de specialitate			
1.1.1 Cărți /manuale/monografii /capitole de specialitate ca autor (Profesor: minim 2 prim autor)			
1.1.1.2. naționale - Indicator unitar: nr. pagini/(10*nr. Autori)			
Nr.	Titlu	Număr pagini	Punctaj
1.	P., Berce, N., Bâlc, C., Caizar, R., Păcurar , ș.a., Tehnologii de fabricație prin adăugare de material și aplicațiile lor, Editura Academiei, 2014, ISBN 978-973-27-2396-8	387	5.52
2.	R., Păcurar , A. Petrilak, Fabricația implanturilor medicale personalizate prin topire selectivă cu laser – studiu de caz, Editura Risoprint, 2015, ISBN 978-973-53-1645-7	120	6
Total criteriu A.1.1.1.2.			11.52

1.1 Cărți /manuale /monografii /capitole în cărți de specialitate			
1.1.2 Cărți ca editor			
1.1.2.1 internaționale - Indicator unitar: nr. pagini/(10*nr. editori)			
Nr.	Titlu	Număr pagini	Punctaj
1.	Laurentiu Slatineanu, Vasile Merticaru, Florin Negoescu, Margareta Coteata, Răzvan Pacurar , Gabriela Strnad, Irina Tita, Gheorghe Oancea, Petru Dusa, Eduard Nitu and Oana Dodun, Innovative Manufacturing Engineering 2015, <u>Applied Mechanics and Materials</u> , Volumes 809-810, Trans Tech Publications, Switzerland, 2015, doi: 10.4028/www.scientific.net/AMM.809-810,	1576	14.32
2.	R. Păcurar , „Finite Element Method - Simulation, Numerical Analysis and Solution Techniques”, Open-access book, IN-Tech Publishing House, Rijeka, Croatia, 2018, ISBN 978-953-51-3850-1,	311	31.1
Total criteriu A.1.1.2.1.			45.42
1.2 Alte materiale didactice – inclusiv în format electronic (pentru format electronic - echivalent format A4 text fără figuri cu minimum 3200 caractere inclusiv spații)		Număr pagini	Punctaj
1.2.1. Suporturi de curs / Îndrumare; (Profesor: Minimum 4 din care 2 prim autor) ; Indicator unitar: nr. pagini/(20*nr. Autori)			
Nr.	Titlu	Număr pagini	Punctaj
1.	R. Păcurar , F. Popișter, Computer Aided Design – Surfaces, Sheet Metal and Mold Tools Modeling Using SolidWorks, Editura Risoprint, 2016, ISBN 978-973-53-1774-4	176	4.4
2.	Frățilă, D., Radu SA, R. Păcurar , ș.a., (2011) Tehnologii de fabricatie. Îndrumător pentru lucrări de laborator, Editura UT Press, Cluj-Napoca, 170p., ISBN 978-973-662-626-5	170	1.21
3.	N. Bâlc, R. Păcurar , Tehnologii neconvenționale și de prototipare rapidă – îndrumător de proiect, Editura Risoprint, 2016, ISBN 978-973-53-1792-8	70	1.75
4.	Nicolae Bâlc, R. Păcurar , Alina Popan, Horea Chezan, Alexandru Popan, Tehnologii Neconventionale - Lucrări practice de laborator, Editura Alma Mater, Cluj-Napoca, 2016, ISBN 978-606-504-202-5	119	1.19
5.	R. Păcurar , N. Bâlc, Non-conventional technologies – proiect guidebook, Editura Risoprint, 2022, ISBN 978-973-53-2707-1	70	1.75
6.	F. Popișter, R. Păcurar , Informatică aplicată – Proiectare Asistată de Calculator folosind SolidWorks – Surfaces, Sheet Metal și Mold Tools, 2022, Editura UT Press, ISBN 978-606-737-561-9.	117	2.93
Total criteriu A.1.2.1			13.23

1.4 Dezvoltare de noi discipline (se punctează o singură dată în cazul multiplicării lor în programe de studii diferite)			
Indicator unitar: 10			
Nr.	Disciplina și specializarea	Punctaj	
1.	Dezvoltarea disciplinei „ <i>Informatică aplicată II</i> ” la anul III TCM engleză de la Facultatea de Inginerie Industrială, Robotică și Managementul Producției	10	
2.	Dezvoltarea disciplinei „Proiectare Asistată de Calculator” la masterele IVFC engleză, IVFC română, IVFC Zalău, PPIMT germană, Facultatea de Inginerie Industrială, Robotică și Managementul Producției.	10	
Total criteriu A.1.4			20
1.5 Proiecte educationale (ERASMUS, Leonardo etc.)			
Indicator unitar: 10 * (ani desfășurare)			
Nr.	Acordul ERASMUS și țara	Număr ani	Punctaj
1.	Acord ERASMUS + - Univ. Tehnica din Cluj-Napoca - Univ. Tehnica din Rijeka, Croatia (Responsabil – Răzvan Păcurar – acord semnat în anul 2015)	6	60
2.	Acord ERASMUS + - Univ. Tehnica din Cluj-Napoca – Univ. Tehnica din Istria, Croatia (Responsabil – Răzvan Păcurar – acord semnat în anul 2018)	4	40
3.	Acord ERASMUS + - Univ. Tehnică din Cluj-Napoca - Univ. Tehnica din Varna, Bulgaria (Responsabil – Răzvan Păcurar – acord semnat în anul 2018)	4	40
4.	Acord ERASMUS + - Univ. Tehnică din Cluj-Napoca - Univ. Vest Macedonia, Grecia (Responsabil – Răzvan Păcurar – acord semnat în anul 2021)	1	10
Total criteriu A.1.5.			150
Total A1			307.79

A2. Activitatea de cercetare

2.1 Articole indexate în reviste ISI Thomson Reuters și în volumele unor manifestări științifice indexate ISI Thomson Reuters, vizibile în baza de date (De la ultima promovare* Minimum 8 articole, din care 3 în reviste, minimum 3 ca autor principal, pentru Profesor; * Minim 1 articol în reviste din zona roșie sau galbenă) Indicator unitar: Pentru reviste $(30+10*\text{factor impact})/\text{nr. autori}$; Pentru volume conferințe $25/\text{nr. autori}$			
Nr.	Titlu	Factor de impact	Punctaj
1.	P., Berce, R. Păcurar , N., Bâlc, Virtual Engineering for Rapid Product Development, ISI Proceedings of WSEAS Network Conference: " New Aspects of Engineering Mechanics, Structures, Engineering Geology", 5 th -7 th July 2008, Crete., Greece, ISSN 1790-2769, http://www.wseas.us/e-library/conferences/2008/crete/emeseq/emeseq25.pdf		8.33
2.	R., Păcurar , N., Bâlc, P., Berce, F. Prem, Research on Improving the Mechanical Properties of the SLS Metal Parts, ISI Proceedings of the International Conference on Additive Technologies iCAT 2008, 14 th -16 th September 2008, Ptuj, Slovenia, ISSN 1726-9679, WOS:000262860100501		6.25
3.	N., Bâlc, P., Berce, R., Păcurar , CAD for optimal scaling of the 3D model, to compensate the SLS post-processing errors, ISI Proceedings of the International Conference on Additive Technologies iCAT 2008, 14 th -16 th September 2008, Ptuj, Slovenia, ISSN 1726-9679, WOS:000262860100031		8.33
4.	P., Berce, N., Bâlc, R., Păcurar , SLS Parameters Optimization using the Taguchi Method, ISI Proceedings of the International Conference on Additive Technologies iCAT 2008, 14 th -16 th September 2008, Ptuj, Slovenia, ISSN 1726-9679, WOS:000262860100046		8.33
5.	R. Păcurar , N. Bâlc, O. Roș, Optimum Scaling of the SLS Metal Parts Using Finite Element Analysis, The 14 th International Conference Modern Technologies, Quality and Innovation- New face of TMCR, 2010, Slanic Moldova, vol. 1, pag. 439-442, ISSN 2066-3919, WOS:000282604000107		8.33
6.	R. Păcurar , N. Bâlc, F. Prem, Research on how to improve the accuracy of the SLM metallic parts, AIP Proceedings - ESAFORM Conference on material forming: ESAFORM 2011, Belfast, Northern Ireland, vol. 1353, pag. 1385-1390, https://doi.org/10.1063/1.3589710		8.33
7.	R. Păcurar , A. Păcurar, P. Berce, N. Bâlc, O. Nemeș, "Porosity change by resin impregnation in structures obtained by selective laser sintering technology" in Studia Universitatis Babes-Bolyai Chemia, vol. 57, no. 3, pp. 5-13, 2012, http://studia.ubbcluj.ro/download/pdf/755.pdf	0.191	6.38
8.	R. Păcurar , P. Berce, "Research on How Lens Position of the Optical System is Influencing the Mechanical Characteristics of the Metallic Parts Made by Selective Laser Melting Equipment", in Interdisciplinary research in engineering: steps towards breakthrough innovation for sustainable development, vol. 8-9, pp. 285-292, 2013, https://doi.org/10.4028/www.scientific.net/AEF.8-9.285		12.5

9.	R. Păcurar , P. Berce, "Research on the durability of injection molding tools made by selective laser sintering technology", in Proceedings of the Romanian Academy series A-mathematics physics technical sciences information science, vol. 14, no. 3, pp. 234-241, 2013, https://academiaromana.ro/sectii2002/proceedings/doc2013-3/08-Pacurar.pdf	1.658	23.29
10.	R. Păcurar , A. Păcurar, N. Bâlc, A. Petrilak, L. Morovic, "Estimating the Life-Cycle of the Medical Implants Made by SLM Titanium-Alloyed Materials Using the Finite Element Method", in Innovative manufacturing engineering, vol. 371, pp. 478-482, 2013, https://doi.org/10.4028/www.scientific.net/AMM.371.478		5
11.	R. Păcurar , A. Păcurar, A. Petrilak, N. Bâlc, "Finite Element Analysis to Predict the Mechanical Behavior of Lattice Structures Made by Selective Laser Melting Technology", Applied Mechanics and Materials vol. 657, pp. 231-235, 2014, https://doi.org/10.4028/www.scientific.net/AMM.657.231		6.25
12.	R. Păcurar , A. Păcurar, "Finite Element Analysis to Improve the Accuracy of Parts Made by Stainless Steel 316L Material Using Selective Laser Melting Technology", Applied Mechanics and Materials vol. 657, pp. 236-240, 2014, https://doi.org/10.4028/www.scientific.net/AMM.657.236		12.5
13.	R. Păcurar , A. Păcurar, N. Bâlc, „Research on the mechanical behaviour of an airplane component made by selective laser melting technology”, MATEC Web of Conferences, Vol. 94, 2017, https://doi.org/10.1051/mateconf/20179403012		8.33
14.	R. Păcurar , A. Păcurar, A. Petrilak, „The influence of build orientation on the mechanical properties of medical implants made from PA 2200 by Selective Laser Sintering”, MATEC Web of Conferences Vol. 112, 2017, https://doi.org/10.1051/mateconf/201711203009		8.33
15.	R. Păcurar , A. Păcurar, A. Petrilak, „Finite Element Analysis to determine the optimum contact pressure between the components of a hip implant made by using the Selective Laser Sintering and the Selective Laser Melting Technologies”, MATEC Web of Conferences Vol. 137, 2017, https://doi.org/10.1051/mateconf/201713702010		8.33
16.	A. Păcurar, R. Păcurar , E. Beata, F. Popișter, C. Oțel, „Decreasing of the manufacturing time for a thermoforming mold by applying the DFM principles”, MATEC Web of Conferences Vol. 137, 2017, https://doi.org/10.1051/mateconf/201713701008		5
17.	R. Păcurar , A. Păcurar, S. Pop, „Designing of an innovative extrusion system for metallic parts made by desktop 3D printing method”, MATEC Web of Conferences Vol. 178, 2018, https://doi.org/10.1051/mateconf/201817802009		8.33
18.	R. Păcurar , V. Buzilă, A. Păcurar, E. Guțiu, S. D. Stan, P. Berce, „Research on improving the accuracy of FDM 3D printing process by using a new designed calibrating part”, MATEC Web of Conferences, Vol. 299, 2019, https://doi.org/10.1051/mateconf/201929901007		4.17

19.	A. Păcurar, M. Rău, R. Păcurar , E. Guțiu, L. Bacali, C. Cosma, „Research regarding the designing and manufacturing of hand orthosis by using Fused Deposition Modeling technology”, MATEC Web of Conferences, Vol. 299, 2019, https://doi.org/10.1051/mateconf/201929901008		4.17
20.	F. Popișter, D. Popescu, A. Păcurar, R. Păcurar (corresponding author) , Mathematical Approach in Complex Surfaces Toolpaths, Mathematics, 9, 1360, 2021. https://doi.org/10.3390/math9121360 (ISI Q1)	2.258	13.15
21.	D.-I. Băilă, C. Vițelaru, R. Trușcă, L.R. Constantin, A. Păcurar, C.A. Parau, R. Păcurar (corresponding author) , Thin Films Deposition of Ta2O5 and ZnO by E-Gun Technology on Co-Cr Alloy Manufactured by Direct Metal Laser Sintering, Materials 14, 3666, 2021. https://doi.org/10.3390/ma14133666 (ISI Q1)	3.623	9.46
22.	R. Păcurar , P. Berce, A. Petrila, O. Nemeș, C.Ș.M. Borzan, M. Harničárová, A. Păcurar, Selective Laser Sintering of PA 2200 for Hip Implant Applications: Finite Element Analysis, Process Optimization, and Morphological and Mechanical Characterization, Materials 14, 4240, 2021. https://doi.org/10.3390/ma14154240 (ISI Q1)	3.623	9.46
23.	R. Păcurar , P. Berce, O. Nemeș, D.-I. Băilă, D.S. Stan, A. Oarcea, F. Popișter, C.M. Borzan, S. Maricic, S. Legutko, A. Păcurar, Cast Iron Parts Obtained in Ceramic Molds Produced by Binder Jetting 3D Printing—Morphological and Mechanical Characterization, Materials, 14, 4502, 2021. https://doi.org/10.3390/ma14164502 (ISI Q1)	3.623	6.02
Total criteriu A.2.1.			198.59
2.2 Articole în reviste și volumele unor manifestări științifice indexate în alte baze de date internaționale (De la ultima promovare*, Minim 8 pentru profesor) Indicator unitar: 15/nr. autori			
Nr.	Titlu	Punctaj	
1	N. Bâlc, P. Berce, C. Popa, R. Păcurar , "Industrial Applications of RP Technologies", in Academic Journal of Manufacturing Engineering, vol. 4, no. 3, pp. 6-12, 2006.	3.75	
2	N Bâlc, P. Berce, R Păcurar , "Active Elements Tools Made by Selective Laser Sintering", in Rapid Prototyping Journal – Third Quarter, vol. 12, no. 3, 2006.	5	
3	N., Bâlc, R. Păcurar , Crai, A "Research on how to decrease the porosity of the SLS metal parts", in Rapid Prototyping Journal – Third Quarter, vol. 12, no. 3, 2006	5	
4	N. Bâlc, P. Berce, R. Păcurar , "Comparison Between Different Infiltration Methods, in order to Decrease the Porosity of the SLS Metal Parts", in Academic Journal of Manufacturing Engineering, vol. 7, no. 1, pp. 6-11, 2009	5	
5	R. Păcurar , N. Bâlc, P. Berce, "Software Compensations of the SLS Metal Parts Shrinkage", in Academic Journal of Manufacturing Engineering, vol. 7, no. 1, pp. 74-81, 2009	5	
6	N. Bâlc, R. Păcurar "The accuracy of the complex steel parts made by SLS and SLM", in Academic Journal of Manufacturing Engineering, vol. 7, no. 3, pp. 48-53, 2009	7.5	
7	R. Păcurar , S.A Radu, M. Ancău, "A new greedy selective algorithm for solving flowshop scheduling problems.", in Annals of DAAAM & Proceedings, 2010	5	

8	N. Bâlc, P. Berce, R. Păcurar , "Comparison between SLM and SLS in producing complex metal parts.", in Annals of DAAAM & Proceedings, 2010	5
9	S., A. Radu, R. Păcurar , M. Ancău, "Research concerning the development of new generation of stochastic heuristic algorithms", in Academic Journal of Manufacturing Engineering, vol. 9, no. 4, 2011	5
10	R. Păcurar , P. Berce, "Selective Laser Melting for Rapid Product Development", in Acta Technica Napocensis-series: Applied mathematics, mechanics, and engineering, vol. 54, no. 2, 2011	7.5
11	R. Păcurar , P., Berce M., Dura "Research on how to improve the mechanical properties of the metallic parts made by selective laser melting (SLM)", in Journal of Trends in the Development of Machinery and Associated Technology, pp. 81-84, 2011	5
12	R. Păcurar , P., Berce , N., Balc, L, Goagas, "Finite element simulation to estimate the durability of the customized implants made by selective laser melting (SLM)", Journal of Trends in the Development of Machinery and Associated Technology, pp. 497-500, 2011	3.75
13	R. Păcurar , N., Balc, M. Căprar, "Finite Element Analysis to Compensate the Errors of the Selective Laser Melting Process", Journal of Trends in the Development of Machinery and Associated Technology, pp. 493-496, 2011	5
14	R. Păcurar , N. Bâlc, O. Roş, "Finite element analysis to improve the SLS process for rapid product development", in The 15th International Conference Modern Technologies, Quality and Innovation- New face of TMCR, 2011	5
15	A.,S., Radu, A., Păcurar, R. Păcurar , "Manufacturing of the active mold elements and optimisation of the necessary material used for vacuum casting process", in Acta tehnica napocensis-series: applied mathematics, mechanics, and engineering, vol. 55, no. 4, 2012	5
16	R. Păcurar , A. Păcurar, A. S. Radu, "Research on how to control the porosity of the medical implants made by selective laser melting technology", in Acta tehnica napocensis-series: applied mathematics, mechanics, and engineering, vol. 55, no. 4, 2012	5
17	R. Păcurar , A. Păcurar, "Research on how to correlate the accuracy of the prototype model, tools and plastic injected parts in the rapid product development process, using the selective laser sintering method", in Acta tehnica napocensis-series: Applied mathematics, mechanics, and Engineering, vol. 56, no. 1, 2013	7.5
18	Cs Gyenge, A. Păcurar, R. Păcurar , S.A Radu, "Some characteristics aspects regarding the precision manufacturing of worm gears", Academic journal of manufacturing engineering, Vol. 11, Issue 4, 2013	3.75
19	R. Păcurar , A. Păcurar, "Innovative solution to decrease the porosity of injection moulding tools made by selective laser sintering technology", in Acta tehnica napocensis-series: applied mathematics, mechanics, and engineering, vol. 56, no. 1, 2013	7.5
20	R. Păcurar , A. Păcurar, N. Bâlc, "Research on the Accuracy of Injection Molding Tools Made by H13 Material Using the Selective Laser Melting Technology", in Recent Advances in Engineering Mechanics, Structures and Urban Planning, pp. 81-86, 2013	5
21	R. Păcurar , A. Păcurar, A. S., Radu, "Finite element analysis to estimate the efficiency of a wind turbine rotor", in Acta tehnica napocensis-series: applied mathematics, mechanics, and engineering, vol. 57, no. 3, 2014.	5

22	R. Păcurar , A. Păcurar, Popișter, F., Popișter, A. "Finite Element Analysis to Improve the Accuracy of ABS Plastic Parts Made by Desktop 3D Printing Method", in Applied Mechanics and Materials, vol. 760, pp. 509-514, 2015	3.75
23	R. Păcurar , A. Păcurar, A.S. Radu, Research on the Influence of the Orientation of Deposited Material on the Mechanical Properties of Samples Made from ABS M30 Material Using the 3D Printing Method, in Applied Mechanics and Materials, Vol. 809-810, pp. 429-434, 2015	5
24	R. Păcurar , A. Păcurar, Topology Optimization of an Airplane Component to Be Made by Selective Laser Melting Technology, in Applied Mechanics and Materials, Vol. 808, 2015	7.5
25	Cs. Gyenge, A. Păcurar, L. Oláh, R. Păcurar , New manufacturing technology for variable pitch and variable screw profile worms in Applied Mechanics and Materials, Vol. 808, 2015	3.75
26	D. I., Moldan, R. Păcurar , "Finite Element Analysis to Estimate the Mechanical Behavior of a Tripod Used in Emergency Situations", in 6Th International Conference on Modern Power Systems MPS 2015, 18-21 May 2015, Cluj-Napoca, Romania, Acta Electrotehnica, vol. 3, pp. 174-178, 2015	7.5
27	A. Păcurar, R. Păcurar , „Research on the Predictive Maintenance Procedure for a Black Lye Pump of Regeneration Boiler Used in the Paper and Pulp Company”, „International Journal of Mechanical Engineering and Automation, Vol. 2, No. 9, pp. 406-411, 2015	7.5
28	C. Oțel, R. Păcurar , D. Filip, M. Steopan, P. Frîncu, „ Case study for Replacing the DAM 6X40 Lathe with Doosan LYNX 220 Lathe for Processing the Part „ Body of Spark Plug”, in Applied Mechanics and Materials, Vol. 859, pp. 163-434, 2017, https://doi.org/10.4028/www.scientific.net/AMM.859.163	3
29	P. Berce, A.Sadeh, R. Păcurar , C.M. Borzan, „Rapid product development using additive manufacturing technologies”, The Romanian Journal of Technical Sciences, Applied Mechanics, vol. 64, no.3, pp.189-207, 2020, https://rjts-applied-mechanics.ro/index.php/rjts/article/view/315	3.75
30	P.Berce, H.Cezan, R. Păcurar , „The mechanical behavior of a dynamically stressed customized skull implant made from different types of biomaterials by Additive Manufacturing technologies”, Technical Sciences 5 (2), 87-110, 2020, https://jesi.astr.ro/wp-content/uploads/2020/07/1_Petre-Berce.pdf	5
31	R Păcurar , S Pascu, A Păcurar, D S Stan, E Teușan, D. I. Băilă, A Sadeh, „Designing of an original extruding system for 3D printing of parts made of plastic material in powder-state form”, IOP Conference Series: Materials Science and Engineering, Vol. 1009 (2021), 012043, https://iopscience.iop.org/article/10.1088/1757-899X/1009/1/012043012043	2.14
32	A. Păcurar, R. Păcurar , B. Eross, C.M. Borzan, Optimal tool path strategies for decreasing the manufacturing time of one thermoforming mold, Acta Technica Napocensis-Series: Applied Mathematics, Mechanics and Engineering, Vol. 64, Issue 1, 2021. WOS:000694719400008	3.75
33	R Păcurar , B Danci, A Păcurar, Research on optimal scaling of parts made from stainless steel material by Selective Laser Melting, 2021 9th International Conference on Modern Power Systems (MPS), IEEE Xplore, 16-17 June 2021, Cluj-Napoca, Romania, 2021, DOI: 10.1109/MPS52805.2021.9492672	5

34	A. Păcurar, A. Tomșea, C. Vilău, E. Guțiu, R. Păcurar , Designing and manufacturing of an ankle orthosis using 3d printing technology, Acta Technica Napocensis-Series: Applied Mathematics, Mechanics and Engineering, Vol. 64, Issue 4, 2021, WOS:000731519800006	3
35	R. Păcurar , D. Chincișan, C. Vilău, A. Păcurar, Designing and manufacturing of an internal combustion engine connecting rod made of AlSi10Mg material using selective laser melting technology, Acta Technica Napocensis-Series: Applied Mathematics, Mechanics and Engineering, Vol. 64, Issue 4, 2021, WOS:000731519800004.	3.75
Total criteriu A.2.2.		175.64
2.3 Articole în extenso în reviste/ volumele unor manifestări științifice naționale/internaționale neindexate (Se admit max. 2 articole la aceeași ediție). Indicator unitar: 6/nr. autori (reviste); 4/nr. autori (volume conferințe)		
Nr.	Titlu	Punctaj
1	Bâlc, R. Păcurar , Comșa S., <i>Thermal Shrinkage Modeling in Selective Laser Sintering</i> , Computing and Solutions In Manufacturing Engineering, Brasov – Sinaia, 2004, ISBN 973-635-372-9	1.33
2	N. Bâlc, R. Păcurar , <i>Rapid Tooling For Injection Molding, Using The SLS Technology</i> , Computing and Solutions In Manufacturing Engineering, Brasov – Sinaia, 2004, ISBN 973-635-372-9	2
3	N. Bâlc, P. Berce, R. Păcurar , Injection moulding tools made by selective laser sintering, The 8 th Esaform Conference on Material Forming, Cluj-Napoca, 27-29 April 2005, ISBN 973 27 1175 2.	1.33
4	N., Bâlc, P., Berce, R., Păcurar , S.A., Radu, The spatial deformations during the SLS metal parts post-processing, Proceedings of the 7th International MTeM Symposium: "Modern Technologies and Machine-tools", 6 th -8 th October 2005, Cluj-N., Romania, ISBN 973 9087 83 3.	1
5	N., Bâlc, R., Păcurar , A., Crai, Research on how to reduce the porosity of metallic parts made by SLS, Proceedings of the 7th International MTeM Symposium: "Modern Technologies and Machine-tools", 6 th -8 th October 2005, Cluj-N., Romania, ISBN 973 9087 83 3.	1.33
6	N. Bâlc, P. Berce, R. Păcurar , Considerations on Selecting the Rapid Tooling Technologies – Examples and Case Studies, The 1-st DAAAM International Specialized Conference on Additive Technologies, pag. 31-36, Celje, Slovenia, April 2007, ISBN 3-901509-61-5	1.33
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11	R. Păcurar , P. Berce, N. Bâlc, Finite Element Analysis for Estimating the Shrinkage of Metal Parts During SLS Post-Processing Stage in the Oven , Micro-CAD, Miskolc, 2010	1.33	
12	N. Bâlc, R. Păcurar , P. Berce, Rapid Product Development Using the SLS Tooling Method, Micro-CAD, Miskolc, 2010	1.33	
13	R. Păcurar , N. Bâlc, O.Roș, Improving the Accuracy of the SLS Metal Parts using the Finite Element Method, International Journal of Modern Manufacturing Technologies, vol. II, no. 1/2010, pag. 61-66, ISSN 2067-3604	2	
14	R.A. Păcurar, P. Berce, C. Caizar, R. Păcurar , Optical Metrology on Vacuum Cast Silicone Rubber Form, The 5th International Conference on Manufacturing Science and Education - MSE 2011, vol. 1, pag. 55-58, ISSN 1843-2522	1	
15	F. Prem, D. Leordean, N. Bâlc, R. Păcurar , The Influence of Working Parameters of SLM Technology on Surface Quality and Precision of Stainless Steel Parts, Annals of MTeM Conference for 2011, vol. 10, pag. 283-286, ISBN 978-606-8372-02-0	1	
Total criteriu A.2.3		20	
2.5 Granturi/ proiecte câștigate prin competiție sau contracte cu mediul socio-economic (în val. de min. 25000 lei, justificată cu documente care să ateste încasarea sumei)			
2.5.1 Director/ Responsabil (Minim 2D sau 4R pentru profesor)			
2.5.1.1. internaționale - Indicator unitar: 20*val/(10 mii euro)			
Nr.	Titlu	Director / Responsabil	Punctaj
1.	Boosting the scientific excellence and innovation capacity of 3D printing methods in pandemic period” - BRIGHT Project Reference: 2020-1-RO01-KA226-HE-095517, “Cooperation for innovation and the exchange of good practices”, Action type: Strategic Partnerships for Digital Education Readiness” (2021-2023) (buget total proiect: 187.500 EUR / din care buget UTCN: 32.367 EUR)	Director	52.22
2.	Contract de finanțare pentru proiecte de cooperare în învățământul universitar-Contract numărul: 21-COP-0019 - “ European network for 3D printing of biomimetic mechatronic systems” - EMERALD (2022-2023) finanțat prin Granturile SEE - Spațiul Economic European (buget total proiect - 198.810 EUR / din care buget UTCN: 57.774 EUR)	Director	69.29
3.	"3D and Virtual Reality Technologies for VET" - 3D4VR - www.3d4vr.eu - Project Reference: 2019-1-HR01-KA202-061006 - "Cooperation for innovation and the exchange of good practices", Action type: Strategic Partnerships for vocational education and training" - partener în proiect – buget alocat UTCN: 18.700 EUR	Responsabil din partea UTCN	29.92
Total criteriu A.2.5.1.1			151.43

2.5 Granturi/ proiecte câștigate prin competiție sau contracte cu mediul socio-economic (în val. de min. 25000 lei, justificată cu documente care să ateste încasarea sumei)			
2.5.1 Director/ Responsabil (Minim 2D sau 4R pentru profesor)			
2.5.1.2. naționale - Indicator unitar: 10*val/(10 mii euro)			
Nr.	Titlu	Director / Responsabil	Punctaj
1.	Contractul CNCSIS nr 332 / 2006 (Tip T-D), Tema: "Cercetări teroretice și experimentale privind fabricația elementelor active de matrițe prin sinterizare selectivă cu laser (SLS)" (2006-2008), director de proiect. (5700 EUR).	Director	5.7
Total criteriu A.2.5.1.2			5.7
2.5 Granturi/proiecte câștigate prin competiție sau contracte cu mediul socio-economic (în val. de min. 25000 lei justificată cu documente care să ateste încasarea sumei)			
2.5.2 Membru în echipă			
2.5.2.1 internaționale - Indicator unitar: 4* nr. ani în proiect			
Nr.	Titlu		Punctaj
1	Contractul FP6 " Optical 3D Metrology – Automated in-line metrology for quality assurance in the manufacturing industry" – OP3MET (2006-2008) – Co-operative Research Project. Responsabil din partea UTC-N: Prof. P. Berce		12
2	Contract FP7 "ADm-ERA- Reinforcing Additive Manufacturing Research Cooperation Between the Central Metallurgical Research and Development Institute and the European Research Area", (2011-2013) Responsabil din partea UTC-N: Prof. N. Bâlc		12
3	Contract HORIZON 2020, Boosting the scientific excellence and innovation capacity in additive manufacturing of the Technical University of Cluj-Napoca – AMaTUC, (2016-2019), Director de proiect: Prof. N.Balc		12
Total criteriu A.2.5.2.1			36
2.5 Granturi/proiecte câștigate prin competiție sau contracte cu mediul socio-economic (în val. de min. 25.000 lei justificată cu documente care să ateste încasarea sumei)			
2.5.2 Membru în echipă			
2.5.2.2. naționale - Indicator unitar: 2* nr. ani în proiect			
Nr.	Titlu		Punctaj
1	Proiect de cercetare de excelență CEEEX nr. 41/2005, " Rețea de Fabricație Inovativă (IMAN), (2005-2008), buget : 1.420.000 RON, Director de Proiect : Prof.dr.ing. Petru Berce		6
2	Contract CNCSIS - Platforma integrata de cercetare si formare pentru productia inovativa: fabrica viitorului, (2006-2008), Buget: 4.928.000 RON, Director de proiect: Prof. P. Berce		6
3	Contract CNCSIS – PN II – parteneriate - Sisteme expert de optimizare a proceselor tehnologice, (2007- 2010) Director de proiect: prof.dr.ing. Ancau Mircea		6

4	Contract CNCSIS – PN II – idei - Cercetari privind dezvoltarea de noi generatii de algoritmi euristici stocastici de rezolvare a problemelor de esalonare a fabricatiei, 2009- 2011 (Director de proiect: prof.dr.ing. Ancau Mircea),	6
5	Contract CNCSIS – PN II – PCCE - Noi materiale biocompatibile destinate implanturilor personalizate fabricate prin SLS și SLM (BIOMAPIM), în programul Idei Complexe = (2010-2013), 2.000.000 EUR, Director de proiect: Prof. P. Berce	6
6	PNIII -P1-1.2 PCCDI 2018 Implementarea tehnologiilor aditive in fabricarea componentelor complexe si suprasolicitate (DigiTech), (Director de proiect: prof.dr.ing. Berce Petru) (2018-2020)	6
Total criteriu A.2.5.2.2		36
Total A2		623.36

A3. Recunoașterea și impactul activității

3.1 Vizibilitate în baze de date internaționale

3.1.1 citări în articole indexate ISI - Indicator unitar: 10/nr. autori articol citat

Nr.	Articol citat	Articol care citează	Nr. autori	Punctaj
1.	R., Păcurar, N., Bâlc, P., Berce, F. Prem, Research on Improving the Mechanical Properties of the SLS Metal Parts, ISI Proceedings of the International Conference on Additive Technologies iCAT 2008, 14 th -16 th September 2008, Ptuj, Slovenia,	L. Novakova-Marcincinova, J. Novak-Marcincin, "Rapid Prototyping in Developing Process with CA Systems Application", Applied Mechanics and Materials, Vol. 464, pp. 399-405, 2014	4	2.5
		L. Novakova-Marcincinova, J. Novak-Marcincin, "Testing of the ABS Materials for Application in Fused Deposition Modeling Technology", Applied Mechanics and Materials, Vol. 309, pp. 133-140, 2013	4	2/5
		Novak-Marcincin, J., Novakova-Marcincinova, L., Barna, J., Janak, M., Application of FDM rapid prototyping technology in experimental gearbox development process. <i>Tehnički vjesnik</i> , 19(3), 689-694, 2012. Preuzeto s http://hrcak.srce.hr/86747	4	2.5
		Novakova-Marcincinova, L and Novak-Marcincin, J, Applications of rapid prototyping fused deposition modeling materials, Annals of daaam for 2012 &	4	2.5

		proceedings of the 23rd international DAAAM symposium - intelligent manufacturing and automation - focus on sustainability 23 , pp.57-60, 2012		
		Coranic, T; Gaspar, S and Pasko, J, Structural modification impact analysis of selected components of shielding equipment using rapid prototyping technology, MM SCIENCE JOURNAL, pp.2183-2187, 2018	4	2.5
		Li, JQ; Sun, HR and Ma, QY, Research on the preparation and the dielectric properties of sibon wave transparent ceramic by the solid-state reaction, University politehnica of Bucharest scientific bulletin series b-chemistry and materials science 81 (2) , pp.105-114, 2019	4	2.5
2.	P., Berce, R. Păcurar , N., Bâlc, Virtual Engineering for Rapid Product Development, ISI Proceedings of WSEAS Network Conference: " New Aspects of Engineering Mechanics, Structures, Engineering Geology", 5 th -7 th July 2008, Crete., Greece, ISSN 1790-2769	Udroiu, R; Nedelcu, A and Deaky, B, Rapid manufacturing by polyjet technology of customized turbines for renewable energy generation, Environmental engineering and management journal 10 (9) , pp.1387-1394, 2011	3	3.33
		Novak-Marcincin, J; Janak, M; (...); Novakova-Marcincinova, L, Design and Verification of the Industrial Robot Effector with Use of Rapid Prototyping Method, 2013 IEEE 8th International symposium on applied computational intelligence and informatics (SACI 2013) , pp.99-102	3	3.33
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3.	N. Bâlc, P. Berce, R. Păcurar, "Comparison between SLM and SLS in producing complex metal parts." in Annals of DAAAM & Proceedings, 2010.	Pavel Hanzl, Miroslav Zetek, Tomáš Bakša, Tomáš Kroupa, The Influence of Processing Parameters on the Mechanical Properties of SLM Parts, Procedia Engineering, Volume 100, 2015, Pages 1405-1413	3	3.33
		Diana-Irinel, B., Sergiu, T., The SLA technology and economical development in Romanian dentistry, Proceedings of the 31st International Business Information Management Association Conference, IBIMA 2018: Innovation Management and Education Excellence through Vision 2020 pp. 6683-6687, 2018	3	3.33
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		L. Novakova-Marcincinova, J. Novak-Marcincin, "Rapid Prototyping in Developing Process with CA Systems Application", Applied Mechanics and Materials, Vol. 464, pp. 399-405, 2014	3	3.33
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5.	R. Păcurar, A. Păcurar, P. Berce, N. Bâlc, O. Nemeș, "Porosity change by resin impregnation in structures obtained by selective laser sintering technology" in Studia Universitatis Babeș-Bolyai Chemia, vol. 57, no. 3, pp. 5-13, 2012.	L. Novakova-Marcincinova, J. Novak-Marcincin, "Production of Composite Material by FDM Rapid Prototyping Technology", Applied Mechanics and Materials, Vol. 474, pp. 186-191, 2014	5	2
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10.	P., Berce, N., Bâlc, C., Caizar, R., Păcurar, Radu S.A, S. Brătian, I.Fodorean., Tehnologii de fabricație prin adăugare de material și aplicațiile lor, Editura Academiei, 2014	E Moraru, O Dontu, D Besnea, Study and realization of prosthetic dental models by additive technologies, IOP Conference Series, 2018	7	1.42
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		D Bricín, M Ackermann, Z Jansa, D Kubátová, A Kříž, Development of the Structure of Cemented Carbides during Their Processing by SLM and HIP, - Metals, 2020	2	5
14.	R. Păcurar, A. Păcurar, A. Petrilak, „The influence of build orientation on the mechanical properties of medical implants made from PA 2200 by Selective Laser Sintering”, MATEC Web of Conferences, Vol. 112, 2017	Aldahash, SA and Gadelmoula, AM, Orthotropic properties of cement-filled polyamide 12 manufactured by selective laser sintering, Rapid prototyping journal 26 (6) , pp.1103-1112, 2020	3	3.33
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Total criteriu A.3.1.1				170.55

3.1 Vizibilitate în baze de date internaționale

3.1.2 citări în articole indexate BDI - Indicator unitar: 5/nr. autori articol citat

Nr.	Articol citat	Articol care citează	Nr. autori	Punctaj
1.	R., Păcurar, N., Bâlc, P., Berce, F. Prem, Research on Improving the Mechanical Properties of the SLS Metal Parts, ISI Proceedings of the International Conference on Additive Technologies iCAT 2008, 14 th -16 th September 2008, Ptuj, Slovenia, ISSN 1726-9679	Novakova-Marcincinova, L., Novak-Marcincin, J., Torok, J., Barna, J., Selected experimental tests of materials used in rapid prototyping area, Manufacturing Technology, 13(2), pp. 220-226, 2013 (SCOPUS)	4	1.25
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Total criteriu A.3.1.2				139.21
3.2 Prezentări efectuate ca invitat/invitată în plenul unor manifestări științifice naționale și internaționale și Profesor invitat (exclusiv Erasmus)				
3.2.1 în străinătate - Indicator unitar: 20				
Nr.	Titlul prezentării	Manifestarea științifică	Punctaj	
1.	Trends and opportunities of additive manufacturing technologies http://imane.ro/wp-content/uploads/2018/05/IMANEE-2018-Conference-Programme.pdf	conferința IMANEE 2018, CHIȘINAU, Republica MOLDOVA	20	
Total criteriu A.3.2.1				20
3.2 Prezentări efectuate ca invitat/invitată în plenul unor manifestări științifice naționale și internaționale și Profesor invitat (exclusiv Erasmus)				
3.2.2 în țară - Indicator unitar: 10				
Nr.	Titlul prezentării	Manifestarea științifică	Punctaj	
1.	Boosting the scientific excellence and innovation capacity of 3D printing methods in pandemic period”, http://www.2021.imane.ro/program/	conferința IMANEE 2021, Iași, România	10	
Total criteriu A.3.2.2				10
3.3 (a) Membru în colectivele de redacție sau comitete științifice ale revistelor și manifestărilor științifice, organizator de manifestări științifice; (b) Recenzent pentru reviste și manifestări științifice naționale și internaționale				
3.3.1. indexate ISI - Indicator unitar: 10				
Nr.	Comitetul științific / denumirea revistei ISI			Punctaj
1.	Membru în comitetul științific la Conferința Internațională Computing and Solutions in Manufacturing Engineering, COSME 2016 și 2020, Brașov			10
2.	Membru în comitetul științific la: Conferința Internațională Modern Technologies in Manufacturing (MTeM) 2017-2019 Cluj-Napoca			10
3.	Recenzent la revista de specialitate Rapid Prototyping Journal			10
4.	Recenzent la revista de specialitate Materials (MDPI) (ISI)			10

5.	Recenzent la revista de specialitate Applied Sciences (MDPI) – ISI	10
6.	Recenzent la revista de specialitate Metals (MDPI) – ISI	10
7.	Recenzent la revista de specialitate Polymers (MDPI) – ISI	10
Total criteriu A.3.3.1		70
3.3 (a) Membru în colectivele de redacție sau comitete științifice ale revistelor și manifestărilor științifice, organizator de manifestări științifice; (b) Recenzent pentru reviste și manifestări științifice naționale și internaționale		
3.3.2. indexate BDI - Indicator unitar: 8		
Nr.	Comitetul științific / denumirea revistei ISI	Punctaj
1.	Membru în comitetul științific la Conferința Internațională Innovative Manufacturing Engineering – IMANE 2014-2021	8
2.	Recenzent la revista de specialitate Journal of Mechnaics Engineering and Automation – David Publishing House - BDI	8
3.	Recenzent de specialitate al unor lucrari pentru jurnalul BDI International Journal of Mechanical Engineering and Automation (Ethan Publishing company) - BDI	8
Total criteriu A.3.3.2		24
3.4 Experiență de management, analiză și evaluare în cercetare și/sau învățământ		
3.4.2 Membru - Indicator unitar: 2*ani desfășurare		
Nr.	Denumire	Punctaj
1.	Membru în cadrul Consiliului Facultății Construcții de Mașini / Facultății Inginerie Industrială, Robotică și Managementul Producției (perioada 2012-2021)	18
2.	Membru în cadrul comisiei de diplomă la specializarea TCM engleză (din anul 2017)	8
3.	Membru în comisia de admitere la ciclul de licență – Facultatea Construcții de Mașini (2004 -2020)	32
4.	Membru în comisia de admitere la masterat – specializarea IVFC engleză (2010-2018)	16
5.	Auditor intern pentru cercetare în UTCN în anul 2015 și 2016	4
Total criteriu A.3.4.2		78

3.5 Premii;		
3.5.3 Premii internaționale - Indicator unitar: 10		
Nr.	Denumire	Punctaj
1.	1 premiu internațional pentru lucrarea “Estimating the Life-Cycle of the Medical Implants Made by SLM Titanium-Alloyed Materials Using the Finite Element Method” (autori: R. Păcurar , A. Păcurar, N. Bâlc, A. Petrilak, L. Morovic) ce a obținut distincția “Award of excellence” în cadrul conferinței științifice “Innovative Manufacturing Network” (IMANE), ce a fost organizată în anul 2013 de către Universitatea Tehnică “Gheorghe Asachi” din Iași.	10
2.	1 premiu internațional pentru lucrarea “Designing of an original extruding system for 3D printing of parts made of plastic material in powder-state form” (autori: Razvan Pacurar, Sergiu Pascu, Ancuta Pacurar, Dan Sergiu Stan, Emil Teutan, Diana Irinel Baila and Arik Sadeh) ce a obținut distincția “Award of excellence” în cadrul conferinței științifice COSME 2020 ce a fost organizată de către Universitatea Transilvania din Brașov	10
Total criteriu A.3.5.3		20
3.6 Membru în academii, organizații, asociații profesionale de prestigiu, naționale și internaționale, apartenență la organizații din domeniul educației și cercetării		
3.6.4 Asociații profesionale;		
3.6.4.2 naționale - Indicator unitar: 3		
Nr.	Denumire	Punctaj
1.	Membru în cadrul Asociației Universitare de Ingineria Fabricației (AUIF)	3
Total criteriu A.3.6.4.2		3
Total A3		534.76