Lista de lucrări ştiinţifice

A – Teza de doctorat

„Cercetări teoretice şi experimentale privind fabricaţia prin sinterizare selectivă cu laser a implanturilor personalizate din materiale biocompatibile"

Conducător ştiinţific: Prof.dr.ing. Petru Berce

Universitatea Tehnică din Cluj-Napoca

Susţinere publică: 2014

B – Cărţi şi capitole în cărţi publicate în ultimii 10 ani

CĂRŢI

1. Petru Berce, Nicolae Bâlc, Horea Chezan, Dan Leordean, Voicu Mager, **Cristina Borzan,** Cristian Berce – *Aplicaţiile medicale ale tehnologiilor de fabricaţie prin adăugare de material,* Editura Academiei Române, Bucureşti, 2015, ISBN 978-973-27-2591-7, 280 pages, premiată cu ***Premiul Academiei Romane, Henri Coanda 2015.***

C – Lucrări indexate ISI/BDI publicate în ultimii 10 ani

c1) Articole publicate în reviste de specialitate de circulaţie internaţională recunoscute (cotate ISI)

1. Ceclan VA, Bere P, Borzan M, Grozav S, **Borzan C**, „Development of Environmental Technology for Carbon Fibre Reinforced Materials Recycling", MATERIALE PLASTICE, Volume: 50, Issue: 2, JUN 2013, Pages: 79-83, **IF 0.463** (http://uefiscdi.gov.ro/userfiles/file/CENAPOSS/rev_rom_isi_14%20iun_2016_factori.pdf) , indexed in WOS, Accession Number: WOS:000320842600002.
2. **Miron-Borzan C.Ş.**, M. C. Dudescu, Khalid Abd Elghany, V. Ceclan, P. Berce, Analysis of mechanical proprieties of selective laser sintered polyamide parts obtained on different SLS equipment, Revista de Materiale Plastice, Vol. 52, no. 1, March, 2015,

ISSN 0025-5289, **IF 0.903**, indexed in WOS, Accession Number: WOS:000373966500001.

3. **C. Ş. Miron-Borzan,** M. C. Dudescu, V.Ceclan, A. Trif, Ridzon M., P. Berce, PA 2200 vs. PMMA: Comparison between the mechanical proprieties obtained for the 2 biocompatible materials, Revista de Materiale Plastice, Vol 53, no. 1, 2016, **IF 0.903** (http://www.scijournal.org/impact-factor-of-MATER-PLAST.shtml), indexed in WOS, Accession Number: WOS:000351194900010.
4. D. C. Mada, C.Gasparik, M. Moldovan, C. S. Miron-Borzan, A. I. Irimie, D. Cornea, D. Dudea, Campian R. S. , The Effect of a Natural Extract-Based Experimental Bleaching Gel Upon the Colour and Surface Roughness of a Composite Resin - An In Vitro Study, Studia Universitatis Babes-Bolyai Chemia LXI, 4, 2016 (p. 43 - 52), **IF 0.148**.
5. Maria Kapustova, Jozef Bilik, Martin Sahul, Martin Ridzon, **Cristina Stefana Miron Borzan,** Experimental Research Regarding the Plastic Flow of Aluminium Alloy EN AW-7075 in Closed-die Forging Without Flash, Revista de Materiale Plastice, Vol 54, No.2, 2017, p. 326-330, **IF 0,778**.
6. C. Cosma, N. Balc, M. Moldovan, L. Morovic, P. Gogola, **C. Miron-Borzan**, Post-processing of customized implants made by laser beam melting from pure Titanium, Journal of Optoelectronics and Advanced Materials Vol. 19, No. 11 - 12, November – December 2017, p. 738 – 747, ISSN: PRINT: 1454 – 4164, ON-LINE: 1841 – 7132, **IF 0.449** (2016).
7. **C. S. Miron Borzan**, M. Moldovan, V. Bocanet, Evaluation of Surface Modification of PA 2200 Parts Made by Selective Laser Sintering Process, REVISTA DE CHIMIE, issue 69, volume 4, 2018, April, ISSN 2537-5733, **IF 1,232** (2017).

C2) Articole publicate în volume ale Conferintelor ISI:

8. Ceclan VA, Balc N, Grozav S, Bere P, Borzan CS, „Quality of the hydroformed tubular parts", Conference on Interdisciplinary Research in Engineering Steps towards Breakthrough Innovation for Sustainable Development (INTERIN 2013), Advanced Engineering Forum, Volume: 8-9, 2013, Pages: 215-224, DOI: 10.4028/www.scientific.net/AEF.8-9.215, indexed in WOS, Accession Number: WOS:000323184000024 (ISI Proceedings).
9. C. S. Miron-Borzan, M.C. Dudescu, P. Berce, Bending and compression tests for PA 2200 parts obtained using Selective Laser Sintering method, The 4th International

Conference on Computing and Solutions in Manufacturing Engineering 2016 - CoSME'16, MATEC Web Conf., Volume 94, 2017, DOI: 10.1051/matecconf/20179403010 (ISI Proceedings).

10. **CS Miron-Borzan**, E Sabau, M Mera, P Berce, Research Regarding the Manufacturing through AM Technologies of an Implant for Cervical Disc Replacement, MATEC Web of Conferences, Volume 137 Modern Technologies in Manufacturing (MTeM 2017 - AMaTUC), 02008, ISBN: 978-2-7598-9027-9, 2017 https://doi.org/10.1051/matecconf/201713702008.

11. M Mera, **CS Miron-Borzan**, Research Regarding the Influence of Execution, Assembly and Functioning Errors on the Teeth Profile Modification of Spur Gear in Front Plane, MATEC Web of Conferences Volume 137 Modern Technologies in Manufacturing (MTeM 2017 - AMaTUC), 01007, ISBN: 978-2-7598-9027-9, 2017, https://doi.org/10.1051/matecconf/201713701007.

C3) Studii publicate la conferințe indexate în baze de date internaționale de referință în domeniul[1]

1. **C.Ș. Miron-Borzan**, A.I. Popan, V.A. Ceclan, A. Popescu and P. Berce, Custom Implants: Manufacturing Principles and Determination of Psychological Price, Trans Tech Publications, Switzerland, Applied Mechanics and Materials, vol 808, , October 2015, p. 169-174, ISBN -13: 978-3-03835-653-0.

2. A.I. Popan, N. Bâlc, I.A. Popan, N. Panc and **C.Ș. Miron-Borzan,** Using Simulation to Improve the Quality of the Metallic Industrial Components Made by Rapid Casting, Trans Tech Publications, Switzerland, Applied Mechanics and Materials, vol 808, October 2015, p. 187-192, ISBN -13: 978-3-03835-653-0.

3. V.A. Ceclan, I.A. Popan, S. Grozav, **C.Ș. Miron-Borzan** and I. Kuric, The Analyses of Working Parameters for a 3D Complex Part Manufacturing by CNC Machine, Trans

[1] indexate în:
[IEEE] - IEEE Xplore (http://ieeexplore.ieee.org/Xplore/guesthome.jsp)
[ACM] - ACM portal (http://portal.acm.org)
[DBLP] - (http://www.informatik.uni-trier.de)
[SCOPUS] - (http://www.scopus.com)

Tech Publications, Switzerland, Applied Mechanics and Materials, vol 808, October 2015, p. 286-291, ISBN -13: 978-3-03835-653-0.

4. A. Popescu, L. Hancu, P. Bere and **C.Ş. Miron-Borzan,** Experimental and Theoretic Research Regarding Extrusion Optimization for Reinforced Polyamide (Pa 6.6 – 10 % GF), Trans Tech Publications, Switzerland, Applied Mechanics and Materials, vol 808, October 2015, p. 125-130, ISBN -13: 978-3-03835-653-0.

5. Ceclan, V.A., Bâlc, N., Miron, A.V., **Borzan C. Ş.,** Popan A., "Numerical simulation of the tube bending process and validation of the results". Academic Journal of Manufacturing Engineering, vol. 9, ISSUE 3/2011, pg. 32-37. http://eng.upt.ro/auif/Lucrari_PDF_2011_3/32.Articol_AJME_Ceclan.pdf

6. **Borzan C.Ş.**, Berce P., Leordean D., Miron A., Luca A., Morovic L., "Study of a tridimensional model of a custom implant in Cranio-Maxillofacial Surgery", Academic Journal of Manufacturing Engineering, Vol 11, ISSUE 2, 2013, pg 38-43. ISSN 1583 – 7904 http://eng.upt.ro/auif/Lucrari_PDF_2013_2/Borzan.pdf

7. Miron A.V., Balc N., Popan A., **Borzan C.Ş.**, Bere P., "Studies on water jet cutting of 2D parts made from carbon fiber composite materials", Academic Journal of Manufacturing Engineering, Vol 11, ISSUE 2, 2013, pg 87-92, ISSN 1583 – 7904, http://eng.upt.ro/auif/Lucrari_PDF_2013_2/Miron.pdf

8. Luca A., Balc N., Popan A., **Borzan C.Ş.,** "Research to improve the surface quality of metal parts made by invest casting", Academic Journal of Manufacturing Engineering, Vol 11, ISSUE 2, 2013, pg 74-79, ISSN 1583 – 7904. http://eng.upt.ro/auif/Lucrari_PDF_2013_2/Luca.pdf

9. **Borzan C. Ş.**, Berce P., Chezan H., Sabău E., Radu S. A., Ridzon M., "Physico-Mechanical Properties Characterization of the Parts from PA 2200 Manufactured by Selective Laser Sintering Technology", Academic Journal of Manufacturing Engineering, Vol. 11, ISSUE 4 / 2013, pg 108-113, ISSN: 1583-7904, http://eng.upt.ro/auif/Lucrari_PDF_2013_4/20-Borzan%20CS.pdf

10. Ceclan V., Grozav S., Sabău E., Popan A., **Borzan C. Ş.**, "Structural Analysis of Tubes Hydroforming", Academic Journal of Manufacturing Engineering, Vol. 11, ISSUE 3 / 2013, pg 56-59, ISSN: 1583-7904, http://eng.upt.ro/auif/Lucrari_PDF_2013_3/11-Ceclan%20V..pdf

11. Radu S. A., Popescu A., Pacurar A., Pacurar R., **Borzan C. Ș.**, "Research Considering the Fabrication of Resin Parts Using Silicone Rubber Molds", Academic Journal of Manufacturing Engineering, Vol. 11, ISSUE 3 / 2013, pg 92-95, ISSN: 1583-7904, http://eng.upt.ro/auif/Lucrari_PDF_2013_3/19-Radu%20S..pdf

12. Sabau E., Bâlc N., Bere P., **Borzan C. Ș.**, Ceclan V., "Experimental Study on Mechanical Behavior of Glass Fiber Reinforced Polymer Composites Under Axial Compression", Academic Journal of Manufacturing Engineering, Vol. 11, ISSUE 3 / 2013, pg 110-113, ISSN: 1583-7904, http://eng.upt.ro/auif/Lucrari_PDF_2013_3/23-Sabau%20E..pdf

13. S. C. Cosma, N. Balc, D. Leordean, M. Moldovan, M. Dudescu, **C. Borzan**, Customized medical applications of Selective Laser Melting manufacturing, Academic Journal Of Manufacturing Engineering, Vol. 13, ISSUE 1/2015, p. 24-32.

14. S.C. Cosma, N. Balc, M. Moldovan, **C.Ș. Miron-Borzan,** Surface treatments applied on titanium implants, Ovidius University Annals of Chemistry. Volume 26, Issue 1, Pages 41–48, June 2015, p.41-48, ISSN (Online) 2286-038X, DOI: 10.1515/auoc-2015-0008.

15. **C. Ș. Miron-Borzan**, C. Borzan, L.Vincze, C. Cosma, A. Trif - Study on Knowledge and Acceptability of Custom Implants Manufactured by Selective Laser Sintering Method from Biocompatible Materials with Human Body, Journal Plus Education, Volume XII A, Special ISSUE/ 2015, pag. 79-85.

16. A. Miron, M. Arghir, N. Balc, A. Popan, **C. Miron-Borzan**, Determination of cutting head vibrations during abrasive watter jet cutting process, Acta Technica Napocensis, Applied Mathematics, Mechanics and Engineering Series, Vol 58, No 3 (2015), pg. 431-434, ISSN 1221-5872. Available at: http://www.atna-mam.utcluj.ro/index.php/Acta/article/view/705

17. Borzan C., Mocean F., **Borzan C. Ș.**, Vincze L., "*A Study on the Level of Stress in a Health Unit*". Proceedings of the Applied Computing Conference 2009 [ACC, 09]; "Proceedings of the 11th WSEAS International Conference on Mathematical Methods and Applied Computing [MMACTEE,09]", Vol. II, Vouliagmeni, Athens, Greece, sept. 28-30, 2009, Mathematics and Computers in Science and Engineering, A Series of Reference Books and Textbooks, ISBN: 978-960-474-124-3, ISSN:1790-2769, pg. 520-524, 2009.

D – Lucrări publicate în ultimii 10 anii în reviste şi volume de conferinţe cu referenţi (neindexate)

- Selecţie cu maximum 20 lucrări în volume de conferinţe

1) **Borzan C.Ş.**, Bacali L., Bojan I., Rus D., "*Marketing research for student education in Engeenering and management*". KSI Transactions on Knowledge Society, Bulgaria, ISSN 1313-4787, vol.4, dec. 2009, pg. 5-8, II International Science Conference Knowledge Society and III International Science Conference for Young researchers "Technical Science and Industrial Management", Nessebar, Bulgaria, 2-4 September 2009.

2) **Borzan C. Ş.**, Bacali L., Trif C. M., "The determination of the psychological price", KSI Transactions on Knowledge Society, II International science conference "Knowledge Society", ISSN 1313-4787, vol. 4, 2009, pg. 9–10, II International Science Conference Knowledge Society and III International Science Conference for Young researchers "Technical Science and Industrial Management", 2-4 September 2009, Nessebar, Bulgaria.

3) Borzan M., Muresan M., Trif A., **Borzan C.S.**, "*The Influence of the Sharpening Angle to the Hob Cutting Precision*". MTeM Proceedings for 2009 & Proceedings of the 9th International Conference „Modern Technologies in Manufacturing", 8th – 10th October Cluj-Napoca, ISBN 973-7937-07-04, p.21-22.

4) **Borzan, C.Ş.,** Berce, P., Miron, A.V., Hodor, A.I., Ceclan, V.A., "Some considerations about manufacturing of custom implants from biocompatible materials", 13th International Conference „Automation in Production Planning and Manufacturing", Zilina – Turcianske Teplice 2012, ISBN 978-80-89276-35-6, pg 32-35.

5) Miron, A.V., Bâlc, N., **Borzan, C.Ş.**, Ceclan, V.A., Hodor, A.I., "Numerical simulation of the superplastic forming process", Journal 13th International Conference „Automation in Production Planning and Manufacturing", Zilina – Turcianske Teplice 2012, ISBN 978-80-89276-35-6, pg 166-169.

6) Hodor, A.I., Berce, P., **Borzan, C.Ş.**, Miron, A.V., "Manufacture molds for small and medium series production from composite materials reinforced whith glass fiber", 13th International Conference „Automation in Production Planning and Manufacturing", Zilina – Turcianske Teplice, 2012, ISBN 978-80-89276-35-6, pg 83-86.

7) **Borzan C.Ş.**, Berce P., Miron A.V., Grozav S., Ceclan V., "An overview about the actual study of the use of PEEK in medical devices", 14th International Conference „Automation in Production Planning and Manufacturing", Zilina – Turcianske Teplice 2013, ISBN 978-80-89276-41-7, pg 15-18.

8) Ceclan V., Grozan S., **Borzan C. Ş.**, Popan A., Maries M., "Numerical Simulation of bending and hydroforming processes of tubular parts", 14th International Conference „Automation in Production Planning and Manufacturing", Zilina – Turcianske Teplice 2013, ISBN 978-80-89276-41-7, pg 19-23.

9) **Borzan C.Ş.**, Berce, P., Ceclan V., Grozav S., Luca A., Research regarding achiving a sillicone rubber mould for a custom cranioplasty, 15th International Conference „Automation in Production Planning and Manufacturing", Zilina – Oscadnica, Slovak Republik, 2014, ISBN 978-80-554-0878-1, pg 28-32.

10) Ceclan V., Grozav S., Kuric I., **BORZAN, C.Ş.**, Popescu A, Trif, A., Research regarding the mechanical characteristic hydrofoming tubular specimens, 15th International Conference „Automation in Production Planning and Manufacturing",Zilina – Oscadnica, Slovak Republik, 2014, ISBN 978-80-554-0878-1 pg. 51-54.

11) Luca A., Balc N., Grozav S., Popan A., **BORZAN C.Ş.,** Manufacture of metallic parts by vacuum casting process, 15th International Conference „Automation in Production Planning and Manufacturing", Zilina – Oscadnica, Slovak Republik, 2014, ISBN 978-80-554-0878-1, pg 108-111.

12) Miron A. V., Balc N., Popan A., Grozav S., **Miron-Borzan C.S.,** Research on abrasive waterjet machining of composite materials, 16th International Conference „Automation in Production Planning and Manufacturing", Zilina – Oscadnica, Slovak Republik, 2015, ISBN 978-80-89276-47-9, pg 83-87.

13) Miron A. V., Borzan M., Ceclan V., **Miron-Borzan C.S.,** Popescu A. Case study of simulation for a superplastic forming, 16th International Conference „Automation in Production Planning and Manufacturing", Zilina – Oscadnica, Slovak Republik, 2015, ISBN 978-80-89276-47-9, pg 88-93.

14) Ceclan V., Grozav S., Borzan M., Kuric I., **Miron-Borzan C.S.,** Research regarding bending cupper tubes, 16th International Conference „Automation in Production

Planning and Manufacturing“, Zilina – Oscadnica, Slovak Republik, 2015, ISBN 978-80-89276-47-9, pg 25-28.

15) Popescu A., Kuric I., **Miron-Borzan C.S,** Maries M., Miron A., Experimental research regarding extrusion reinforced polyamide, 16th International Conference „Automation in Production Planning and Manufacturing“, Zilina – Oscadnica, Slovak Republik, 2015, ISBN 978-80-89276-47-9, pg 123-127.

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Semnătura

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