

## LIST OF PUBLICATIONS

### A – PhD Thesis

„*Theoretical and Experimental Research on Hydroformed Tubes*”

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Public defense: 10 March 2010.

### B – Books and books chapter

1. **Ceclan V.A.** ”*Proiectare Asistata de Calculator - Suport de curs*” ISBN: 978-973-53-2859-7 Editura RISOPRINT, Cluj-Napoca, 2022.
2. **Ceclan V.A.** ”*Proiectare Asistata de Calculator - Îndrumător de modelare 3D utilizând programul CATIA*” ISBN: 978-973-53-2858-0 Editura RISOPRINT, Cluj-Napoca, 2022.
3. **Ceclan V.A.** ”*Îndoirea si hidroformarea reperelor tubulare utilizând utilaje universale*” ISBN978-9975-63-457-1 Editura TEHNICA-INFO, Chişinău, 2021.
4. Sorin G., **Ceclan V. A.**, Popescu A. ”*Utilaje si tehnologii pentru prelucrare prin deformare plastica la rece*”, ISBN 978-606-8009-12-4 Editura JRC Turda, 2015.
5. Kuric I., Grozav S., **Ceclan V. A.**, s.a. ”*Mecanization and automation equipment for processing*”, ISBN 978-504-188-2 Editura Alma Mater, Cluj-Napoca, 2015.
6. Grozav S., **Ceclan V.**, Popescu A, Kuric I., Cubonova N., Kumericakova D., Cisar M., Bulej V., Wiecek D. ”*Tools and equipment for automated processes and systems*”, Publish House PARDON, Trencin, Slovakia, 2019, 512 pagini, ISBN 978-606-8009-12-4.

### C – ISI/BDI articles published

#### c1) Articles published in ISI international journals

1. Grozav S.D., Sterca A.D., Kociško M., Pollák M. and **Ceclan V.**, ”*Feasibility of Predictive Models for the Quality of Additive Manufactured Components Based on Artificial Neural Networks*”, MACHINES, Volume 10, Issue 2, DOI: 10.3390/machines10020128, <https://www.mdpi.com/2075-1702/10/2/128>, 2022;
2. Pollak M., Kocisko M., Petrus J., Grozav S.D., **Ceclan V.**, ”*Research into the Impact of Spindle Speed and Feed Rate Changes on the Life of a Deep-Drilling Technology Tool*”,

MACHINES, Volume 10, Issue 4, DOI: 10.3390/machines10040268, Repository link: <https://www.mdpi.com/2075-1702/10/4/268>, 2022;

3. Serban F.M., Grozav S., **Ceclan V.**, Turcu A., "Artificial neural networks model for springback prediction in the bending operations", TEHNICKI VJESNIK - TECHNICAL GAZETTE, Volume 27, Issue 3, Pages: 868-873, Published: Jun 14, Repository link: <https://hrcak.srce.hr/239096>, 2020;
4. **Ceclan V.**, Popan I.A., Grozav S., Popan A.I., "Study on milling strategies influence on the quality characteristics in case of composite material", 14<sup>th</sup> International Conference on Modern Technologies in Manufacturing (MTeM-AMaTUC), Cluj-Napoca, Romania, Oct 2019, Modern Technologies in Manufacturing, MATEC Web of Conferences, Vol 299, Article Number: 04012, WOS:000568128200047, ISBN978-2-7598-9083-5, ISSN2261-236X, DOI: 10.1051/mateconf/201929904012; [https://www.matec-conferences.org/articles/mateconf/abs/2019/48/mateconf\\_mtem2019\\_04012/mateconf\\_mtem2019\\_04012.html](https://www.matec-conferences.org/articles/mateconf/abs/2019/48/mateconf_mtem2019_04012/mateconf_mtem2019_04012.html)
5. Gabrian S.S., Grozav S.D., Ciusca G.N., **Ceclan V.**, Turcu A. and Legutko S., "New materials obtained by rubber recycling from industrial waste", MODERN TECHNOLOGIES IN MANUFACTURING (MTEM 2019) Book Series: MATEC Web of Conferences Volume: 299 Article Number: 05010 Published: 2019, Repository link: [https://www.matec-conferences.org/articles/mateconf/abs/2019/48/mateconf\\_mtem2019\\_05010/mateconf\\_mtem2019\\_05010.html](https://www.matec-conferences.org/articles/mateconf/abs/2019/48/mateconf_mtem2019_05010/mateconf_mtem2019_05010.html)
6. **Ceclan V.**, Grozav S., "Determination of the force required for the hydroforming of al 99,5", Conference: 3rd International Scientific Conference on Innovative Technologies in Engineering Production (ITEP) Location: Bojnice, SLOVAKIA Date: SEP 11-13, 2018, Innovative Technologies In Engineering Production (Itep'18) Book Series: MATEC Web of Conferences Volume: 244 Article Number: 01003 Published: 2018, Repository link: [https://www.matec-conferences.org/articles/mateconf/pdf/2018/103/mateconf\\_itep2018\\_01003.pdf](https://www.matec-conferences.org/articles/mateconf/pdf/2018/103/mateconf_itep2018_01003.pdf)
7. **Ceclan V.A.**, Grozav S.D., Kuric I., "Research on Inner Surface of Tubes Hydroformed" *Advances in Science and Technology*", Research Journal, Volumul 11, no,4, pp. 311-317, DOI: <https://doi.org/10.12913/22998624/80900> 2017, Repository link: <http://www.astroj.com/Research-on-Inner-Surface-of-Tubes-Hydroformed,80900,0,2.html>
8. Borzan C.S.M., Dudescu M.C., **Ceclan V.**, Trif A., Ridzon M., Berce P., "PA 2200 vs. PMMA: Comparison Between the Mechanical Proprieties Obtained for the 2 Biocompatible Materials", MATERIALE PLASTICE Vol 53 No1 pp 1-5, (2016), <https://revmaterialeplastice.ro/pdf/MIRON%20-%20BORZAN%20C%20S%201%2016.pdf>

9. Grozav S.D., **Ceclan V.A.**, Kuric I., "*The mechanism of deformation process in case of orbital deformation*", 2016 International Conference on Production Research - Europe, Africa and Middle East, 4rd International Conference on Quality and Innovation in Engineering and Management, pag. 489-493, July 25-30, 2016, UTPRES, CLUJ-NAPOCA, ROMANIA, ISBN 978-606-737-180-2.
10. Popan I.A., Balc N., Popan A.I., Carean A., **Ceclan V.A.**, "*Analysis on the abrasive water-jet milling process on titanium alloys*", International Conference on Production Research - Africa, Europe and the Middle East (ICPR-AEM) / 4<sup>th</sup> International Conference on Quality and Innovation in Engineering and Management (QIEM), Cluj-Napoca, Romania, Jul 25-30, 2016, pp: 407-411, Published: 2017, WOS:000436122900072, ISBN: 978-606-737-180-2.
11. Borzan C.S.M., Dudescu M.C., Khalid A. E., **Ceclan V.**, Berce P., "*Analysis of Mechanical Properties of Selective Laser Sintered Polyamide Parts Obtained on Different Equipment*" Revista de MATERIALE PLASTICE, vol 52, nr 1, 2015 pag. 39, Impact Factor 0.347.
12. Ilutiu-Varvara D.A., Marza C.M., Sas-Boca I.M., **Ceclan V.A.**, "*The assessment and reduction of carbon oxides emissions at electric arc furnaces - Essential factors for sustainable development*", 8<sup>th</sup> International Conference Interdisciplinarity in Engineering, INTER-ENG 2014 Book Series: Procedia Technology, Volume: 19 Pages: 402-409, Published: 2015, DOI: 10.1016/j.protcy.2015.02.057 WOS:000358732500056
13. Grozav S.D., **Ceclan V.A.**, Ivan Kuric, "*Determining Deformation Force In Orbital Deformation And Comparing It With Other Conventional Methods*" 2014 International Conference on Production Research - Europe, Africa and Middle East, 3rd International Conference on Quality and Innovation in Engineering and Management, pag. 236-239, JULY 1-5, 2014, CLUJ-NAPOCA, ROMANIA, ISBN: 978-973-662-978-5
14. Józwick J., Kuric I., GROZAV S.D., **Ceclan V.A.**, "*R-Test Dynamic Measurement Of 5-Axis Cnc Machining Centre Rotary Axis Kinematic Centre Error*" 2014 International Conference on Production Research - Europe, Africa and Middle East, 3rd International Conference on Quality and Innovation in Engineering and Management, pag. 287-292, JULY 1-5, 2014, CLUJ-NAPOCA, ROMANIA, ISBN: 978-973-662-978-5
15. **Ceclan V.A.**, Bere P., Borzan M., Grozav S., Borzan C., "*Development of Environmental Technology for Carbon Fibre Reinforced Materials Recycling*", Revista de MATERIALE PLASTICE, vol 50, nr 2, 2013 pag. 79, Impact Factor 0.347
16. **Ceclan V.A.**, Bâlc N., Grozav S., Bere P., Borzan C.S., "*Quality of the hydroformed tubular parts*" Advanced Engineering Forum Vols. 8-9 (2013) pp 215-224, Online available since 2013/Jun/27 at [www.scientific.net](http://www.scientific.net), © (2013) Trans Tech Publications, Switzerland, doi:10.4028 /[www.scientific.net](http://www.scientific.net) /AEF.8-9.215

17. **Ceclan V.A.**, Achimaş G., Lăzărescu L., Groze F., "Influence of the internal pressure on the change of the wall thickness in the case of tubes subjected to bending", Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium, pag. 133, ISSN 1726-9679, ISBN 3-901509-58-5;
18. Groze F.M., Achimaş G., Lazarescu L., **Ceclan V.**, "Artificial Intelligence Application in the bending process", Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium, pag. 307, ISSN 1726-9679, ISBN 3-901509-58-5;

**c2) Articles published in international data base journals, in manufacturing engineering domain (DBLP, ACM, IEEE, SCOPUS)<sup>1</sup>**

1. Sterca A.D., Calin R.A., Cristian L., Walcher E.M., Bodur O., **Ceclan V.**, Grozav S.D., Durakbasa N.M. "Evaluation of Fused Deposition Modeling Process Parameters Influence on 3D Printed Components by High Precision Metrology", Mechanical Engineering. Springer, Cham. [https://doi.org/10.1007/978-3-030-90421-0\\_24](https://doi.org/10.1007/978-3-030-90421-0_24), 2021;
2. Popan A., Popan I.A., Cosma C., **Ceclan V.**, Balc N., "Experimental study 3D printed parts made of continuous fiberglass reinforced polymer", Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, Vol. 64, No 1, 2021, pp. 81-86, 2021, ISSN 1221-5872, Published by UT Press, Repository link: <https://atnam.utcluj.ro/index.php/Acta/article/view/1556>;
3. Miron-Borzan C., Sabău E., Vilău C., **Ceclan V.**, "A comparative study using finite element analyses for cervical disc implants", Academic Journal of Manufacturing Engineering, Volume 18, Issue 2, 2020, Pages 5-11, Publisher: Editura Politehnica
4. Ciusca G., Potra T., **Ceclan V.**, Groza, S., "Determination of Field Temperature for Composite Materials Using Empirical Methods", 19th International Symposium for Production Research, ISPR 2019; Vienna; Austria; 28 August 2019 through 30, 2020, Pages 416-421, DOI: 10.1007/978-3-030-31343-2\_36
5. Grozav S.D, **Ceclan V.A.**, Ciusca G.N., "Calculation of the contact surface in the orbital deformation of the cylindrical workpiece", Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering, Vol. 61, No 4, 2018, pp. 695-700, 2018, ISSN 1221-5872, Published by UT Press, Repository link: <https://atnam.utcluj.ro/index.php/Acta/article/view/1118>
6. Grozav S.D., Ciuşcă G.N., **Ceclan V.**, "The lack of uniformity of the deformations and the degree of deforming in case of orbital deformation" 13<sup>th</sup> International Conference

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[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>)

on Modern Technologies in Manufacturing (MTeM-AMaTUC), Cluj-Napoca, Romania, Oct 12-13, 2017, Modern Technologies in Manufacturing, Book Series: MATEC Web of Conferences, Vol. 137, Article Number: 05002, Published: 2017, ISBN: 978-2-7598-9027-9, ISSN: 2261-236X, DOI: <https://doi.org/10.1051/mateconf/201713705002>;

7. **Ceclan V.A.**, Popan I.A., Grozav S.D., Miron-Borzan C, Kuric I., *"The Analyses of Working Parameters for a 3D Complex Part Manufacturing by CNC Machine"*, Applied Mechanics and Materials Vol 808 (2015) pp 286-291, (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.808.286
8. Grozav S.D., **Ceclan V.A.**, Turcu A., Oprea O.V., *"Kinematic Process Plastic Cold Orbital Forming"*, Applied Mechanics and Materials Vol 808 (2015) pp 98-103, (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.808.98 <https://www.scientific.net/AMM.808.98>
9. Cisar M., Kuric I., **Ceclan V.A.**, *"Device for Training of Machine Tool Diagnostic Routines under Various Conditions"*, Applied Mechanics and Materials Vol 808 (2015) pp 3-8, (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.808.3
10. Miron-Borzan C.S., Popan A., **Ceclan V.**, Popescu A., Berce P., *"Custom implants: Manufacturing principles and determination of psychological price"*, Journal: Applied Mechanics and Materials, ISSN: 1662-7482, Vol. 808, pp 169-174, doi:10.4028/www.scientific.net/AMM.808.169, 2015, Trans Tech Publications, Switzerland;
11. Luca A., Balc N., Popan A., **Ceclan V.**, Panc N., *"Improving the quality of the parts made by rapid metal casting process"*, Academic Journal of Manufacturing Engineering, AJME-2014, Vol. 12, Issue 1, ISSN 1583-7904, pg. 82-86;
12. Jerzy J., Kuric I., Grozav S., **Ceclan V.**, *"Calibration of 5 axis CNC Machine Tool with 3D Quickset Measurement System"*, Academic Journal of Manufacturing Engineering, vol. 12, issue 1/2014, pag. 20, issn 1583-7904
13. Jerzy J., Kuric I., Grozav S., **Ceclan V.**, *"Diagnostics of CNC machine tool with R-Test system"*, Academic Journal of Manufacturing Engineering, vol. 12, issue 1/2014, pag. 56, ISSN 1583-7904
14. **Ceclan V.**, Grozav S., Sabau E., Popan A., Borzan C., *"Structural analysis of tubes hydroforming"*, Proceedings of the 11<sup>th</sup> International Conference, Modern Technology in Manufacturing, MTeM 2013, 17<sup>th</sup>-19<sup>th</sup> October 2013, Cluj-Napoca, ISBN 978-606-8372-02-0., Published in *Academic Journal of Manufacturing Engineering, AJME-2013, Vol. 11, Issue 4, ISSN 1583-7904, pg. 56-59*;
15. **Ceclan V.A.**, Balc N., Grozav S., Bere P., Borzan C.S., *"Quality of the hydroformed tubular parts"*, Advanced Engineering Vols 88-9 (2013) pp 215-224, (2013) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AEF.8-9.215.
16. Popan I.A., Carean A., Luca A., **Ceclan V.**, Balc N., *"Research on 3D metal sculpturing by water jet cutting versus CNC machining"*, International Conference, Modern Technology in Manufacturing, MTeM 2013, 17<sup>th</sup>-19<sup>th</sup> October 2013, Cluj-

Napoca, ISBN 978-606-8372-02-0, Academic Journal of Manufacturing Engineering, AJME-2013, Vol. 11, Issue 4, ISSN 1583-7904;

17. Sabau E., Balc N., Bere P., Borzan C.S., **Ceclan V.**, ”*Experimental study on mechanical behavior of glass fiber reinforced polymer composites under axial compression*”, Proceedings of the 11<sup>th</sup> International Conference, Modern Technology in Manufacturing, MTeM 2013, 17<sup>th</sup>-19<sup>th</sup> October 2013, Cluj-Napoca, ISBN 978-606-8372-02-0,;
18. Grozav S., **Ceclan V.A.**, ”*Industrial automation in the relative spiral feed and contact contour during cold orbital deformation*”, 2nd International Conference on Quality and Innovation in Engineering and Management, 22<sup>th</sup>-24<sup>th</sup> November 2012, Cluj-Napoca, ISSN 1582-2559,., pg. 367-370;
19. **Ceclan V.A.**, Balc N., Grozav S., ”*Quality of Bending Aluminium tubes at 45<sup>0</sup>*”, 2nd International Conference on Quality and Innovation in Engineering and Management, 22<sup>th</sup>-24<sup>th</sup> November 2012, Cluj-Napoca, ISSN 1582-2559,., pg. 315-318;
20. Popan A., Balc N., Carean A., Luca A., **Ceclan V.**, ”*Developing a New Program to Calculate the Optimum Water Jet Cutting Parameters*”, Academic Journal of Manufacturing Engineering, AJME-2011, Vol. IX, Issue 3, ISSN 1583-7904, pp. 17-22;
21. **Ceclan V.**, Balc N., Miron A., Borzan C., Popan A., ”*Numerical simulation of the tube bending process and validation of the results*”, Academic Journal of Manufacturing Engineering, AJME-2011, Vol. IX, Issue 3, ISSN 1583-7904, pag. 32-37;

## D – Articles published in other journals or conference proceedings

1. **Ceclan V.**, Besoi N., Grozav S., ”*Improvement the safety device of a feed baler*”, International Multidisciplinary Conference, 12th EDITION, 25-26 November, 2021, Baia Mare – Nyiregyhaza, ROMANIA – HUNGARY, pag. 30-36, ISSN
2. Popan A., Grozav, S., Luca, A., **Ceclan V.**, Trif A., ”*The analysis of software solution used in abrasive water jet cutting process*”, 15<sup>th</sup> International Scientific Conference - Automation in Production, Planning and Manufacturing, 19-23 April 2014, Zilina-Oscadnica, Slovakia, ISBN 978-80-89276-41-7, pg. 142-145;
3. Borzan C.S., Berce P., **Ceclan V.**, Grozav S., Luca A., ”*Research regarding achiving a silicone rubber mould for a custom cranioplasty*”, 15<sup>th</sup> International Scientific Conference - Automation in Production, Planning and Manufacturing, 19-23 April 2014, Zilina-Oscadnica, Slovakia, ISBN 978-80-89276-41-7, pg. 29-32;
4. Trif A., Borzan M., Fratila D., **Ceclan V.**, Popescu A., Popan A., ”*Research regarding the influence of temperature on carbide inserts in turning process*”, 14<sup>th</sup> International Scientific Conference - Automation in Production, Planning and Manufacturing, 19-23 April 2014, Zilina-Oscadnica, Slovakia, ISBN 978-80-89276-41-7, pg. 170-173;
5. **Ceclan V.**, Grozav S., Borzan C.S., Popan A., Maries M., ”*Numerical simulation of bending and hydroforming processes of tubular parts*”, 14<sup>th</sup> International Scientific Conference - Automation In Production, Planning and Manufacturing, 22-24. April 2013, Zilina-Turcianske Teplice, Slovakia, ISBN 978-80-89276-41-7, pg. 19-23.

6. Popan A., Grozav S., Luca A., **Ceclan V.**, ”*Manufacturing 3D complex parts using abrasive water jet milling technology*”, 15<sup>th</sup> International Scientific Conference - Automation In Production, Planning and Manufacturing, 22-24. April 2013, Zilina-Turcianske Teplice, Slovakia, ISBN 978-80-89276-41-7, pg. 148-153;
7. **Ceclan V.A.**, Balc N., Achimas G., Cuc B., ”*Determination of the Mechanical Characteristics of Tubular Specimens Used in the Automotive Industry*”, XXV microCAD International Scientific Conference 31 March- 1 April 2011, pp. 23-28, ISBN 978-963-661-964-0;

### E – Patents obtained for the entire activity

1. Patent no. 125433/30.07.2014, Autori: Achimas G., Comsa D.S., Lazarescu L., Achimas S., **Ceclan V.A.**, “*Hydraulically Assisted Stamping Device*”.

Date:  
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