Comisia de analiză a dosarelor de concurs a Facultăţii Construcţii de Maşini

Decizie Rector nr. 352 / 07.07.2020

PROCES VERBAL

Încheiat astăzi, **27.07.2020**, în cadrul şedinţei desfăşurată în mediul virtual pe platforma MS TEAMS cu membrii Comisiei de analiză a dosarelor de concurs a Facultăţii Construcţii de Maşini. Comisia de analiza a dosarelor candidaţilor inscrişi la concursurile didactice pentru ocuparea posturilor scoase la concurs de UTCN în cadrul Facultăţii de Construcţii de Maşini a fost numită prin decizia de rector nr. 352 din 07.07.2020 şi are în componenţă:

1. Acad.Prof.Dr.Ing. Dorel BANABIC - preşedinte
2. Prof.Dr.Ing. Sorin POPESCU - membru
3. Prof.Dr.Ing. Corina BÎRLEANU - membru

Comisia are rolul conform cerinţelor din ***Metodologia de concurs pentru ocuparea posturilor didactice şi de cercetare vacante din Universitatea Tehnică din Cluj-Napoca*** art. 19 lit. a) de a verifica îndeplinirea standardelor minimale prevăzute la art. 219 alin (1) lit. a) din Legea nr 1/2011, cu modificările şi completările ulterioare, standarde minimale necesare şi obligatorii pentru conferirea titlurilor didactice şi de cercetare.

Facultatea de Construcţii de Maşini a scos la concurs următoarele posturi didactice publicate în **Monitorul Oficial nr. 306 / 15 aprilie 2020, partea a-IIIa** şi anume:

Departamentul Ingineria Sistemelor Mecanice

Profesor, poziţia 9 (vacant) – domeniul Inginerie Mecanică

Pentru ocuparea acestui post pe perioadă nedeterminată şi-a exprimat intenţia de a candida următorul:

- Conf. dr. Ing. Vaida Călin Liviu

Departamentul Ingineria Fabricaţiei

Profesor, poziţia 9 (vacant) – domeniul Inginerie Industrială

Pentru ocuparea acestui post pe perioadă nedeterminată şi-a exprimat intenţia de a candida următorul:

- Conf. dr. Ing. Frăţilă Domniţa Florina

Conferenţiar, poziţia 22 (vacant) – domeniul Inginerie Industrială

Pentru ocuparea acestui post pe perioadă nedeterminată şi-a exprimat intenţia de a candida următorul:

- Şef lucrări. dr. Ing. Leordean vasile Dănuţ

Conferențiar, poziția 23 (vacant) – domeniul Inginerie Industrială

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Șef lucrări. dr. Ing. Popan Ioan Alexandru

Conferențiar, poziția 24 (vacant) – domeniul Inginerie Industrială

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Șef lucrări. dr. Ing. Conțiu Glad

Departamentul Ingineria Proiectării și Robotică

Profesor, poziția 10 (vacant) – domeniul Inginerie și Management

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Conf. dr. Ing. Dragomir Mihai

Conferențiar, poziția 20 (vacant) – domeniul Inginerie și Management

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Șef lucrări. dr. Ing. Dragomir Diana Cristina

Conferențiar, poziția 21 (vacant) – domeniul Inginerie și Management

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Șef lucrări. dr. Ing. Câmpean Emilia Maria

Sef lucrari poz. 37 (vacant) – domeniul Inginerie Industrială

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Asist.Dr. Ing. Buna Zsolt Levente

Departamentul Management si Inginerie Economică:

Conferențiar, poziția 12 (vacant) – domeniul Inginerie și Management

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Șef lucrări. dr. Ing. Oțel Călin Ciprian

Conferențiar, poziția 13 (vacant) – domeniul Inginerie și Management

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- Șef lucrări. dr. Ing. Firescu Violeta-Maria

Departamentul Limbi moderne și Comunicare:

Asistent, poziția 25 (vacant) – domeniul Filologie

Pentru ocuparea acestui post pe perioadă nedeterminată și-a exprimat intenția de a candida următorul:

- dr. Rusu Delia Georgeta

Ordinea de zi cuprinde:

Discutarea şi avizarea dosarelor de concurs depuse de candidaţii de mai sus din punct de vedere al indeplinirii standardelor minimale prevăzute la art. 219 alin (1) lit. a) din Legea nr 1/2011.

Au fost prezenţi online toţi cei 3 membrii ai comisiei.

În urma finalizării discuţiilor se încheie Avizul Comisiei şi s-a întocmit acest proces verbal în două exemplare.

Aviz:

Nr. crt	Candidat	Îndeplinirea standardelor minimale CNATDCU / respectiv al cerintelor din metologia de concurs UTCN	Observaţii	Aviz
Departamentul Ingineria Sistemelor Mecanice				
1	Vaida Călin Liviu Profesor poz. 9	Domeniul Inginerie Mecanică		pozitiv
Departamentul Ingineria Fabricaţiei				
2	Frăţilă Domnița Florina Profesor poz. 9	Domeniul Inginerie Industrială		pozitiv
3	Leordean vasile Dănuț Conferenţiar poz. 22	Domeniul Inginerie Industrială		pozitiv
4	Popan Ioan Alexandru Conferenţiar poz. 23	Domeniul Inginerie Industrială		pozitiv
5	Conţiu Glad Conferenţiar poz. 24	Domeniul Inginerie Industrială		pozitiv
Departamentul Ingineria Proiectării şi Robotică				
6	Dragomir Mihai Profesor poz. 10	Domeniul inginerie şi Management		pozitiv
7	Dragomir Diana Cristina Conferenţiar poz. 20	Domeniul inginerie şi Management		pozitiv
8	Câmpean Emilia Maria Conferenţiar poz. 21	Domeniul Inginerie şi Management		pozitiv
9	Buna Zsolt Levente Sef lucrari poz. 37	Domeniul Inginerie Industrială		pozitiv
Departamentul Management si Inginerie Economică				
10	Oţel Călin Ciprian Conferenţiar poz. 12	Domeniul Inginerie şi Management		pozitiv

11	Firescu Violeta-Maria Conferențiar poz. 13	Domeniul Inginerie și Management		pozitiv
Departamentul Limbi moderne și Comunicare				
12	Rusu Delia Georgeta asistent poz. 25	Domeniul Filologie		pozitiv

Întocmit azi 27.07.2020, Prof.dr.ing.Corina BÎRLEANU

Președinte comisie:	**Semnătură**
Acad. Prof.Dr.Ing. Dorel BANABIC	
Membrii comisiei:	
Prof.Dr.Ing Sorin POPESCU	
Prof. Dr.Ing. Corina BÎRLEANU	

27.07.2020

Cluj-Napoca

Conf.dr.ing. Domniţa Florina Frăţilă
Facultatea Construcţii de Maşini
Departamentul Ingineria Fabricaţiei

Autoevaluare privind îndeplinirea criteriilor CNATDCU

CRITERIUL	INDICATORI	PUNCTAJ MINIMAL	PUNCTAJ REALIZAT
A1	Activitatea didactică / profesională	130	169.63
A2	Activitatea de cercetare	300	708.55
A3	Recunoaşterea impactului activităţii	100	1987.66
	Total general	**Necesar 530**	**Realizat 2865.84**

A1. Activitatea didactică şi profesională - 169.63

1.1 Cărţi/manuale/monografii/ capitole în cărţi de specialitate (minimum 2 ca prim autor) **61.81**

1. **Frăţilă D.** *Sustainable Manufacturing through Environmentally-friendly Machining.* Chapter in book: *Green Manufacturing Processes and Systems, Materials Forming, Machining and Tribology*, DOI: 10.1007/978-3-642-33792-5_1, Springer-Verlag Berlin Heidelberg 2013, pp 1-21, J. P. Davim (ed.).	4.2
2. **Frăţilă D.** *Environment-friendly manufacturing processes in the context of transition to sustainable production.* Chapter in book: *Comprehensive Materials Processing. Volume 8: Health, Safety and Environmental issues.* Volume Editor: Professor Nabil Bassim, Editor in Chief - Saleem Hashmi, Development editor - Es Collins (Elsevier), Pages 163-175, ISBN: 978-0-08-096532-1, http://dx.doi.org/10.1016/B978-0-08-096532-1.00815-3	2.4
3. **Frăţilă D.**, Bâlc N., Achimaş Gh. *Monografia Departamentului Ingineria Fabricaţiei. Istoric. Evoluţie. Perspective. 60 de ani spre succes.* Cluj-Napoca 2015. Editura Târgu-Mureş, ISBN 978-973-0-20176-5.	6.66
4. Gyenge, Cs., **Frăţilă, D.** *Ingineria fabricaţiei.* Editura Alma Mater, Cluj-Napoca, 2004, ISBN 973-8397-77-4 , 150 p.	7.5
5. Roş O., **Frăţilă D.** *Ecoproiectare.* Casa Cărţii de Ştiinţă. Cluj-Napoca 2007. ISBN 978-973-133-204-8, 305 p.	15.25
6. **Frăţilă D.** *Umweltfreundliche Zerspanung.* Editura UT Press, Cluj-Napoca 2008. ISBN 978-973-662-404-9, 200 p.	20
7. Roş Olimpia, **Frăţilă Domniţa.** *Proiectare pentru mediu.* Casa Cărţii de Ştiintă, Cluj 2000, ISBN 973-686-113-9, 116 p.	5.8

1.2 Alte materiale didactice (suport de curs, îndrumare) inclusiv în format electronic (minimum 4, din care 2 ca prim autor) **37.82**

1. **Frăţilă D.**, Radu A., Păcurar A., Păcurar R., Conţiu G., Panc N., Pop G. *Tehnologii de fabricaţie. Îndrumător pentru lucrări de laborator.* Editura UT Press, Cluj-Napoca 2011. ISBN 978-973-662-626-5, 170 p.	1.22
2. **Frăţilă D.** *Bazele fabricaţiei. Grundlagen der Fertigungstechnik. Manufacturing Fundamentals. (Suport de curs,* germană, engleză, română, în format electronic), Editura UT Press, ISBN 978-606-737-351-6, 2019, 142 p.	7.2
3. **Frăţilă D.** *Manufacturing Fundamentals – Questions and Exercises. Bazele fabricaţiei - Întrebări şi probleme. Grundlagen der Fertigungstechnik–Fragen und Übungen.* (engleză, română, germană, în format electronic), 2014, 85 p. *(https://tcm.utcluj.ro/wp-content/uploads/2019/03/Fratila-D_Exercitii-BF-QEP-2018.pdf)*	4.25
4. **Frăţilă D.** *Spanende Fertigungverfahren II.* (Suport de curs, germană-română, în format electronic), Editura UT Press, ISBN 978-606-737-352-3, 2019, 168 p.	10.35
Frăţilă D. *Tehnologii de fabricaţie. Suport de curs* în format electronic, 2019, Editura UT Press, ISBN 978-606-737-353-0, 206 p.	10.30
6. **Frăţilă D.** *Kompetitive Methoden der Gestaltung. Unterrichtsmaterial,* în format electronic, 2018, 35p. *(https://tcm.utcluj.ro/wp-content/uploads/2019/03/Fratila-D_Suport-de-curs-MCP-deutsch-2018.pdf)*	1.75
7. **Frăţilă D.** *Proiectare pentru mediu. Suport de curs* în format electronic, 2018, 54 p. *(https://tcm.utcluj.ro/wp-content/uploads/2019/03/Fratila-D_Suport-de-curs-PM-2017.pdf)*	2.7

1.3 Coordonare de programe de studii, organizare şi coordonare programe de formare continua **30**

Responsabil al Domeniului studii de masterat *Inginerie Industrială*	15
Responsabil al programului de masterat *Procese de producţie inovative şi management tehnologic (în limba germană)*	15

1.4 Dezvoltare de noi discipline (titular, 10 x disciplină) **40**

• *Bazele fabricaţiei.* Anul I – Specializarea Inginerie Industrială • *Proiectare pentru mediu.* Anul III – Specializarea Tehnologia Construcţiilor de Maşini • *Metode competitive de proiectare.* Anul I master - Specializarea Procese de Producţie Inovative şi Management Tehnologic • *Dezvoltare durabilă.* Anul I master - Specializarea Procese de Producţie Inovative şi Management Tehnologic	40

A2. Activitatea de cercetare - 708.55

2.1 Articole indexate în reviste ISI Thomson Reuters şi în volumele unor manifestări ştiinţifice indexate (de la ultima promovare minimum 8, din care 3 în reviste, minimum 3 autor principal, minimum 1 articol în reviste din zona roşie sau galbenă; (30+10xFI)/nr. autori, 25/nr. autori) **363.49**

Roş, O. Gyenge Cs. & **Frăţilă, D.** *Sustainable Product Development by Considering the Environmental Consequences.* 18th International DAAAM Symposium "Intelligent Manufacturing & Automation: Focus on Creativity, Responsibility and Ethics of Engineers", 24-27th October 2007, Zadar, Croatia, pp.645-646. (ISTP/ISI Proceedings and ISTP CDROM/ ISI Proceedings).	8.33
Gyenge, Cs., Ros, O., **Fratila, D.** *Achievements of Manufacturing Engineering Department from TU Cluj-Napoca in the Field of Competitive and Ecological Products Development.* 19th International DAAAM Symposium "Intelligent Manufacturing & Automation: Focus on Next Generation of Intelligent Systems and Solutions. 22-25th October 2008, Trnava Slovacia. ISSN 1726-9679, ISBN 978-3-901509-68-1, pp. 577-578.	8.33
Frăţilă D. *Evaluation of Near Dry Machining Effects on Gear Milling Process Efficiency.* Journal of Cleaner Production 17/9 (2009), pp.839-845. (FI=1.867)	48.67
Frăţilă D. *Minimization of metal working fluid ecological impact by NDM.* Environmental Engineering and Management Journal March-April/2009, Vol.8, No.2, pp.335-339. (FI=0.885)	38.85
Frăţilă D. *Macro-Level Environmental Comparison Of Near-Dry Machining And Flood Machining.* Journal of Cleaner Production Vol. 18, No 10-11 (2010), pp. 1031-1039. ISSN 0959-6526. (FI=1.435)	44.35
D. Frăţilă, A. Radu. *Modeling and comparing of steady thermal state at gear milling by conventional and environment-friendly cooling method.* International Journal of Advanced Manufacturing Technology (2010) 47/9-12, pp. 1003-1012, Springer London. ISSN 0268-3768 (Print), ISSN 1433-3015 (Online). (FI=1.068)	20.34
Frăţilă D., Caizar C. *Application of Taguchi method to selection of optimal lubrication and cutting conditions in face milling of AlMg3.* Journal of Cleaner Production, 19(2011), pp. 640-645, ISSN 0959-6526. (FI=2.727)	28.64
Frăţilă D. Caizar C. *Assessment of Cooling Effect and Surface Quality to Face Milling of $AlMg_3$ using Several Cooling Lubrication Methods.* Journal of Materials and Manufacturing Processes 27/3(2012), pp. 291-296, ISSN 1042-6914(Print), 1532-2475(Online). (FI =1.297)	21.49
Frăţilă D., Caizar C. *Investigation of the Influence of Process Parameters and Cooling Method on Surface Quality of AISI-1045 during Turning.* Journal of Materials and Manufacturing Processes 27/10(2012), pp.1123-1128, ISSN 1042-6914. (FI=1.297)	21.49
Radu A., **Frăţilă D.** *Simulation and Experimental Research on the Vacuum Casting of Non-metallic Complex Parts using Flexible Molds.* Proceedings of Romanian Academy, Series A. Volume 13, Number 4/2012, pp. 343–350, ISSN 1454-9069. (FI=0.537)	17.685
Frăţilă D. *Research of Environment-Friendly Techniques Influence on the Accuracy of Gear Processing in the Context of Sustainable Machining.* Proceedings of Romanian	41.15

Academy, Series A. Volume 14, Number 1/2013, pp.56-63, ISSN 1454-9069. (FI=1.115)	
Leordean D., Radu S.A., **Frăţilă D.,** Berce P. *Studies on design of customized orthopedic endoprostheses of titanium alloy manufactured by SLM.* International Journal of Advanced Manufacturing Technology, 79(5) 2015, pp 905-920. ISSN 0268-3768. 2015. (FI=1.568)	11.42
Frăţilă D. *Numerical and Experimental Approach of Cutting Temperatures to Green Turning of 42CrMo4 Steel.* Journal of Materials and Manufacturing Processes 31/5 (2016), pp.657-666, ISSN 1042-6914. (FI=2.274)	52.74

2.2 Articole în reviste şi volume ale unor manifestări ştiinţifice indexate în baze de date internaţionale, B+ (de la ultima promovare minimum 8; 15/nr. autori) **131.05**

Frăţilă, D., Gyenge Cs. *Study of the Performance of Non Aggressive Cutting Fluids to the Environment for Applications in Metal Cutting.* Proceedings of The 14th International DAAAM Symposium "Intelligent Manufacturing & Automation: Focus on Reconstruction and Development", 22nd -25th October 2003, Bosnia Herzegovina, ISBN 3-901509-34-8, ISSN 1726-9679, pp. 151-152.	7.5
Frăţilă D., Gyenge Cs., Roş O. *Some Theoretical And Experimental Aspects Related To The Minimal Lubrication By Gear Milling.* The 15th International DAAAM Symposium. "Intelligent Manufacturing & Automation: Globalization - Technology - Men - Nature", 3rd - 6th November 2004, Vienna, Austria. ISSN 1726-9679 ISBN 3-901509-42-9, p.113-114.	5
Frăţilă D., Gyenge Cs., Roş O. *Effect of coolant strategy on the process efficiency, tool performance and surface quality to gear milling.* Annals of DAAAM for 2005 & Proceedings of the 16th DAAAM International Symposium "Intelligent Manufacturing & Automation: Focus on Young Researchers and Scientists " 19th–22nd October 2005. ISSN 1726-9679, pp. 135-136.	5
O. Roş, Cs. Gyenge, **D. Frăţilă.** The *Analysis of the Ecological Impact of a Product on the Environment Using LCA Method.* Acta Mechanica Slovaka 2004. Košice, ISSN 1335-2393, pp.33-38.	5
Almansa A., Bou S., **Frăţilă F.** - *Micro handling and Assembly: Project ASSEMIC.* The 3rd International Precision Assembly Seminar (IPAS 2006), 19th-22nd February 2006, Bad Hofgastein, Austria, p. 327-332. Publisher: SPRINGER, 233 Spring Street, New York, NY 10013, United States, IDS Number: BDW53, Book series: IFIP International Federation for Information Processing, ISBN 0-387-31276-5.	5
Almansa A., Bou S., **Frăţilă D.** *Methods and Tools for Microassembly: a Survey.* IPAS' 2006 3rd International Precision Assembly Seminar, Bad Hofgastein, Austria, 19-22 February 2006. Publisher: Springer, New York, IDS Number: BDW53, Book series: International Federation for Information Processing, ISBN 0-387-31276-5.	5
Almansa A., **Frăţilă D.,** Bou S., Brenner W. ASSEMIC: *A European Project for Advanced Microhandling and -assemby.* The 12th International Conference on Robotics and Applications-RA 2006, August 14-16, 2006 Honolulu, Hawaii, USA. in: "Proceedings of the 12th IASTED International Conference Robotics and applications", IASTED, (2006), ISBN 0-88986-597-3; pp.79 – 84. Publisher: Acta Press Anaheim, PO BOX 5124, Anaheim, CA 92814-5124 USA, IDS Number: BFR61, ISBN: 978-0-88986-595-2.	3.75
Frăţilă, D. - *Consequences of Cooling and Lubrication Strategy on Gear Milling Process*	15

Efficiency. Buletinul Universităţii Petrol-Gaze Ploieşti. Seria Tehnică. Vol. LIX. No.3/2007; pp. 17-24.	
Bou S., **Frăţilă D.,** Boglea A., Adrijasevic D., Almansa A., Palfinger W., Mann W., Olowinsky A., Brenner W., Moest R. – *Technologies for Microassembly- Selected Methods.* 4M 2007 – Proceedings of 3rd International conference on Multi-material micro manufacture, Borovets, Bulgaria (invited paper); 3rd-5th October 2007; 4M 2007, ISBN: 978-1904445-53-1, pp. 55-58.	1.66
Frăţilă D., Palfinger W., Bou S., Almansa A., Mann W., Wogerer C., Moest R - *A Method for Measurement and Characterization of Microdispensing Process.* IEEE International Symposium on Assembly and Manufacturing- ISAM 2007. University of Michigan, Ann Arbor, USA on July 22-25, 2007. Publisher: IEEE, 345 E 47th ST, New York, IDS Number: BGV27. ISBN: 978-1-4244-0562-6, pp.209-214.	2.14
Frăţilă D. *Study on joining techniques in micro-size world.* Acta Technica Napocensis. Series: Machine Construction. Materials. No. 52/2009, pp. 13-20, ISSN 1224-9106.	15
Radu A., **Frăţilă D.** *Manufacturing flexible molds to obtain non-metalic complex parts.* Acta Technica Napocensis. Series: Machine Construction. Materials. No. 52/2009, pp. 9-12, ISSN 1224-9106.	7.5
Frăţilă D., Balc N., Sabou A. *Macro Level Analyse of Ecological Impact of Mechanical Cutting Processes.* Academic Journal of Manufacturing Engineering, Vol.8, No.3/2010, pp.37-42. ISSN 1583-7904.	5
Frăţilă D. *Assessment of Cutting Area Temperature to the Face Milling Using Several Cooling Methods.* Acta Mecanica Slovaka, Vol. 15, No. 1 (2011), ISSN: 1335-2393, pp. 50-54.	15
Trif A., Borzan M., Popan A., **Frăţilă D.**, Rus A. and Nedezki C. *Researches regarding the Influence of Cutting Regime on Processed Surface in Aluminum Alloys Turning Process.* Volume 808 of Applied Mechanics and Materials. Selected, peer reviewed papers from 12th International Conference on Modern Technologies in Manufacturing (MTeM), 14-16 October 2015, Cluj-Napoca, pp. 15-20. ISSN 1660-9336.	2.5
Popan I.A., Bâlc N., Popan A.I., **Frăţilă D.** and Trif A. *Surface Roughness Prediction During Dry Turning of Austenitic Stainless Steel AISI 304.* Volume 808 of Applied Mechanics and Materials. Selected, peer reviewed papers from 12th International Conference on Modern Technologies in Manufacturing (MTeM), 14-16 October 2015, Cluj-Napoca, pp. 54-59. ISSN 1660-9336.	3
Frăţilă D., Rotaru H. *Additive Manufacturing – a sustainable manufacturing route.* MATEC Web of Conference, Vol. 94. The 4th International Conference on Computing and Solutions in Manufacturing Engineering 2016 – CoSME'16, 3-4 november 2016, Braşov. http://dx.doi.org/10.1051/matecconf/ 20179403004	7.5
Frăţilă, D., Popan, A. *Analysis and optimization of cutting parameters in drilling operation of EM AW-2007* aluminum alloy. Academic Journal of Manufacturing Engineering, 16(1), pp. 19-26, 2018.	7.5
Frăţilă D., Popan A, Trif A. *Study on chips' morphology at conventional and environmental-friendly turning of 42CrMo4 alloyed steel.* Acta Technica Napocensis Series: Applied Mathematics, Mechanics, and Engineering, Vol. 62, Issue 1, March, 2019.	5

Frăţilă D. Trif A., Popan A. *Analysis of cutting forces at dry and near-dry turning of AISI 316l stainless steel.* Academic Journal of Manufacturing Engineering, 17(1) 2019.	5
Popan A.I., Popan A, Carean A., **Frăţilă D.,** Trif A. *Study on chip fragmentation and hole quality in drilling of Aluminum 6061 alloy with high pressure internal cooling.* MATEC Web of Conferences 299, 04014 (2019), https://doi.org/10.1051/matecconf/201929904014	3

2.3 Articole in extenso în reviste/volumele unor manifestări ştiinţifice naţionale/internaţionale neindexate (6/nr. autori reviste, 4/nr. autori volume conferinţe) **45.16**

Gyenge, Cs., Roş O., **Frăţilă D.** *The results of the cooperation between ETH Zurich and TU Cluj-Napoca in the frame of SNCF, in the modernizing of teaching process. 5th Conference on environmental education.* Zurich, Swiss, 15th -17th April 1999.	1.33
Gyenge, Cs., Roş, O., Vuşcan, I., **Frăţilă, D.** *International co-operation in environmental training trough the CEEPUS network (Central European Exchange Program for University Studies.* 5th Conference on Environmental Education, Zürich, Swiss, 15th -17th April 1999.	1
Roş, O., Gyenge Cs., **Frăţilă D.**, Petho, L. *Analysis of the ecological impact of the products in the disassembly phase, using the DFE program.* ICIT' 99, 2nd International Conference on Industrial Tools, 18th-22nd April 1999, Maribor Slovenia. ISBN 961-90401-4-7, pp.474-477.	1
Gyenge, Cs., Pethö, L., **Frăţilă, D.** *Design Optimisation of a car-assembly using the DFA method.* ICIT '99, 2nd International Conference on Industrial Tools, 18th-22nd April 1999, Maribor Slovenia. ISBN 961-90401-4-7, pp. 428-431.	1.33
Gyenge Cs., Petho L., Roş O., **Frăţilă D.** *International cooperation in environmental training trough The CEEPUS Network.* Proceedings of the International Regional DAAAM-CEEPUS Workshop on Intelligent Machines and Technologies in the 21st century, Miskolc, Hungary, 27th -29th of May 1999, pp. 239-242.	1
Frăţilă D., Roş O., Gyenge Cs. *Research concerning the determination of the ecological impact of the cutting process.* Buletinul Ştiinţific al U.T.C.N., Acta Technica Napocensis. Nr. 42/1999. ISSN 1221-5872, pp. 25-30.	2
Roş O., **Frăţilă D.**, Pastor P. *Analysis of the DPA Type injection pump from the ecological point of view using The DFE software.* Buletinul Ştiinţific al U.T.C.N., Acta Technica Napocensis. Nr. 43/2000, ISSN 1221-5872, pp. 35-41.	2
Frăţilă D., Lierath F., Gyenge Cs., Emmer, Th. *Research concerning the cooling effect by ecological cutting of the cylindrical gears with small module.* Proceedings of MTeM 2001. Cluj-Napoca, 4th -6th October 2001, ISBN 973-85354-1-7, pp.203-204.	1
Roş O., **Frăţilă D.,** Varga, A., Goia, C. *Development of the integrated parts in the automobiles industry.* Proceedings of MTeM 2001. Cluj-Napoca, 4th -6th October 2001, ISBN 973-85354-1-7, pp.395-396.	1
M. Mera, **D. Frăţilă.** *Berechnung der linearverteilten Belastung auf der Zahnbreite des Stirnzahnrades.* Acta Technica Napocensis, Series: Applied Mathematics and Mechanics, 44, Vol. 2, 2001, ISSN 1221-5872, pp.35-40.	3
Gyenge, Cs., Roş, O., **Frăţilă, D.,** Varga, A. *Achievements of the Manufacturing Engineering Department from T.U. Cluj-Napoca in the Field of Competitive and Ecological Products Development.* Conference on Environmental Engineering, May, 22nd-23rd, 2002, Košice, ISSN 1335-2393, pp. 43-49.	1

Gyenge, Cs., Roş, O., **Frăţilă, D.** *Researches Concerning the Minimal Lubrication Technique in the Gear Cutting.* Acta Mechanica Slovaca, Košice, 2/2002, ISSN 1335-2393, pp. 49-54.	1.33
Domniţa Frăţilă, Olimpia Roş. *Analyse und Vergleich des Einflusses der Umweltfreundlichen Kühlverfahren auf den Zerspankräfte bei Drehprozess.* Acta Tehnica Napocensis a UTC-N 45/2002, ISSN 1221-5872, pp.27-34.	3
Domniţa Frăţilă, Valentina Nistor, Christine Bohm, Cristian Hoza. *Design For Environment - Friendly Products And Sustainable Development.* ICAMES 2002, 10th -18th May 2002, Istanbul, Turkey.	1
Roş, O., **Frăţilă, D.**, Nistor V. *Analyse of a thermal power station on the environment using SimaPro software.* Proceedings of MTeM 2003. Cluj-Napoca, 3rd -5th October 2003, ISBN 973-656-490-8, pp.391-394.	1.33
Frăţilă, D., Gyenge Cs., Roş, O. *Testing the providing efficiency of micro lubrication in gear manufacturing.* Proceedings of MTeM 2003. Cluj-Napoca, 3rd -5th October 2003, ISBN 973-656-490-8, pp.201-202.	1.33
Legutko, St., Gyenge Cs., **Frăţilă D.** *New Ways In Nanotechnologies.* Acta Technica Napocensis, Series: Applied Mathematics and Mechanics, 46, 2003, ISSN 1221-5872. pp. 115-122.	2
Frăţilă D., Roş O. *The use of Eco-Indicator criteria for the evaluation of environmental pollution by cutting process due to the consumption of electrical power.* Acta Tehnica Napocensis a UTC-N 46/2003, ISBN 1224 -9106, pp. 79-86.	3
Frăţilă D., Gyenge Cs. *Theoretical And Experimental Aspects Related To The Ecological Machining Of The Gear Wheels.* ICMaS Bucharest, 3rd -6th October 2004. Proceedings of the International Conference on manufacturing systems ICMaS 2004. Romanian Journal of Technical Sciences "Applied Mechanics", 49 Special number 2004, Editura Academiei Române, Bucureşti 2004, ISSN 00354074, ISBN 973-27-1102-7, pp. 245-248.	2
Frăţilă D, Gyenge Cs., Roş O. *Sustainable Development And Manufacturing Using The Minimal Lubrication Technique By The Gear Milling Process.* Computing and Solution in Manufacturing Engineering (CoSME' 04), Brasov, 16th -18th September 2004, ISBN 973-635-372-9, pp.125-127.	1.33
Gyenge Cs., **Frăţilă D.** *Environmentally Clean Gear Milling.* 11th International Tool Conference, 9th-11th September 2004 Miskolc, ISSN 1215-0851, pp.197-202.	2
Frăţilă D., Gyenge Cs., Ros R. –*Evaluation on the effects of minimal quantity lubrication and dry cutting in gear milling.* Annals of MTeM for 2005 & Proceedings of 7th MTeM Conference. Published by MTeM 2005. Cluj-Napoca, 6th-8th October 2005, ISBN 973-656-490-8, pp.203-206.	1.33
Ros O., **Frăţilă D.** – *Comparative analysis of the impact of product on the environment using LCA Method.* Annals of MTeM for 2005 & Proceedings of 7th MTeM Conference. Published by MTeM 2005. Cluj-Napoca, 6th-8th October 2005, ISBN 973-656-490-8, pp.363-364.	2
Gherman, E., **Frăţilă, D.,** Teodorescu I., Selescu L., Petruţa V. – *Linie tehnologică integrată cu fluxuri selectabile pentru producerea de preparate agroalimentare şi parafarmaceutice.* Revista Minelor nr.10/2007. ISSN 1220-2053, pp.53-56.	1.2
Frăţilă, D., Roş, O., Gyenge, Cs. *LCA as Evaluation Tool for Environment-Friendly Product*	1.33

Development. Annals of MTeM for 2007 & Proceedings of 8th MTeM Conference. Cluj-Napoca, 4rd-5th October 2007, ISBN 973-9087-83-3, pp. 151-154.	
Rozynek Z, **Frăţilă D.**, Almansa A. *Automation of MEMS chip assembly using vision alignment system and non-contact dispensing.* The International Workshop on Micro- and Nano Production Technologies and Systems Date: October, 17-18 2007, Moscow, Russia.	1.33
Frăţilă, D., Roş, O., Gyenge, Cs. *Environment-Friendly Cutting Of Cylindrical Gears.* Archive of Material Science 28(1-4) 2007, pp. 45-50.	2
Frăţilă, D., Roş, O., Gyenge, Cs. *Environment-Friendly Cutting Of Cylindrical Gears.* 12th International Research/Expert Conference - Trends in the Development of Machinery and Associated Technology, TMT 2008, Istanbul, Turkey, 26-30 August 2008. ISBN 978-9958-617-41-6, pp. 17-20.	1.33
A. Trif, M. Borzan, **D. Frăţilă**, A. Popan, V. Ceclan, A. Popescu. *Research regarding the influence of temperature on carbide inserts in turning process.* Automation in Production Planning and Manufacturing Scientific conference, 19-21 may 2014, Zilina, Slovakia 2014, pp.170-174, ISBN 978-80-554-0878-1.	0.66

2.5 Granturi/proiecte câştigate prin competiţie sau contracte cu mediul economic - 168.85

2.5.1 Director/Responsabil (minimum 2D sau 4R)- **110.86**

2.5.1.1 internaţionale (20*val/10.000)	**97.75**
• *Research and Training Network ASSEMIC-Advanced Methods and Tools for Handling and Assembly in Micro technology.* EC FP6 Marie Curie RTN. Contract finanţat de Uniunea Europeană. Coordonator: Assoc.prof. Werner Brenner (Vienna University of Technology – Institute of Sensor and Actuator Systems); Perioada de derulare: 2004-2007. *Coordonator*: IMFT-TU Wien (Austria). Buget: 48.875€. Responsabil UTC-N	97.75
2.5.1.2 naţionale (10*val/10.000)	**13.1**
• *Cercetări privind introducerea tehnicilor de aşchiere ecologică în construcţia de maşini.* Contract tip AT cu Ministerul Educaţiei şi Cercetării, Tema nr.9 (Cod 175/2003) - Contract Nr. 33523/2003; beneficiar: Ministerul Educaţiei şi Cercetării (CNCSIS). Perioada de derulare: 2003, Buget: 2400 €. Director.	2.4
• *Cercetărilor privind producerea de noi preparate agroalimentare sau para-farmceutice competitive pe bază de legume, sare şi extracte naturale din flora spontană prin implementarea unor procese de procesare.* Program AGRAL, Subprogram S5 INDAL/2004-2006 în parteneriat cu S.C. Minesa Cluj-Napoca. perioada 2004-2006, Buget UTCN: 10.700 €. Responsabil UTC-N.	10.7

2.5.2 Membră în echipă – **58**

2.5.2.1 internaţionale (4x nr. ani)	**45**
• *Modernising of teaching and scientific research concerning the environmental aspects in the construction of machines.* TEMPUS AC-JEP-13578-98: Network of leading center on continuing education for industry. Contract Nr. 7 IP 051249. Parteneri: Swiss Naţional Science Foundation and Process Engineering, UT Cluj-Napoca şi UP Bucureşti. Director : Prof.dr.ing. Csaba Gyenge, Perioada de derulare: 1997-1998.	4

• *Umweltgerechte Zerspanung durch den Einsatz der Minimalschmiertechnik beim Wälzfräsen.* Director Dr. Thomas Emmer (Otto-von-Guericke-Universität Magdeburg, Fakultät für Maschinenbau, IFQ); Perioada de derulare: 1999-2001.	1
• *Improvement of Industrial Production Industrial Production through Integration of Macro-, Micro- and Nanotechnologies.* EC FP6 Thematic priority: Nanotechnologies and Nanosciences, knowledge-based multifunctional materials and new production processes and devices (NMP). Coordonator proiect: Dr. A. Almansa, ARCS Seibersdorf Research GmbH Austria; perioada de derulare: 2006-2009.	1
• *Tools and Technologies for the Analysis and Synthesis of Nanostructures.* EC FP6 Thematic priority: Nanotechnologies and Nanosciences, knowledge-based on multifunctional materials and new production processes and devices (NMP). Responsabil project: Dr. A. Almansa; perioada de derulare: 2005-2007.	1
• FP7 European Project, Grant No. 295016 *Adm-ERA-Reinforcing Additive Manufacturing research cooperation between the Central Metallurgical Research and Development Institute and the European Research Area*, Durata: 3 ani (2012-2014), Finalizat, Buget 496.634 €, Responsabil UTCN: Prof. N. Bâlc.	8
• Horizon 2020: Proiect European AMaTUC, Grant Agreement No. 691787*: Boosting the scientific excellence and innovation capacity in additive manufacturing of the TUC-N*, perioada 01.01.2016 – 30.12.2018, buget 999.443 €, Coordonator: Prof. N. Bâlc.	12
• Horizon 2020: DiCoMi, No.778068/RISE-2017, *Directional Composites through Manufacturing Innovation*, 2017 – 2021, buget 1.426.500 €, Responsabil UTCN: Prof. N. Bâlc.	16
2.5.2.2 naţionale (2x nr. ani)	**13**
• *Cercetări privind optimizarea etapelor ciclului de viaţă a produselor şi prelucrarea prin aşchiere ecologică a acestora.* Contract de tip A cu Ministerul Educaţiei şi Cercetării (Nr. 1546/2007-2008); Beneficiar: Ministerul Educaţiei şi Cercetării (CNCSIS); Director proiect: Prof.dr.ing. Olimpia Roş; Perioada de derulare: 2007-2008.	4
• *Instalaţie Pilot pentru studiul experimental al etanşărilor frontale cu impulsuri.* Contract Tip AT cu Ministerul Educaţiei şi Cercetării, Tema nr.14, Cod CNCSIS 156/2003; beneficiar: Ministerul Educaţiei şi Cercetării (CNCSIS). Director: Prof..dr.ing. M. Pustan; Perioada de derulare: 2003.	2
• *Cercetări privind introducerea proiectării ecologice în construcţia de maşini.* Contract de tip A cu Ministerul Educaţiei şi Cercetării (Tema 40/1998-1999); beneficiar: Ministerul Educaţiei şi Cercetării (CNCSIS); Director: Prof.dr.ing. O. Roş; Perioada de derulare: 1998-1999.	2
• *Asigurarea echităţii sociale prin extinderea accesului la studii universitare.* Domeniul vizat: Creşterea echităţii sociale, în vederea incluziunii sociale şi sporirea accesului la învăţământul superior (inclusiv cele privitoare la consilierea şi orientarea în carieră. Cod de înregistrare CNFIS-FDI-2016-0010 (ASESUN). Director Prof.dr.ing. L Hancu. Durata proiectului 2016. Coordonator grup ţintă.	1
• *Dezvoltarea posibilităţilor de prelucrare a materialelor 9iennale9 avansate prin tăiere de precizie cu jet de apă.* PN-III-P2-2.1-BG-2016-0216. Director S.l. dr. ing. Ioan	4

Alexandru Popan. Partener: SC TRAMBUS SRL.	

A3. Recunoaşterea şi impactul activităţii -1987.66

3.1 Vizibilitate în baze de date internaţionale - 1870.66

3.1.1 Citări în articole indexate ISI (10/nr. autori) - **1260**

Frăţilă D., Caizar C. Application of Taguchi method to selection of optimal lubrication and cutting conditions in face milling of $AlMg_3$, Journal of Cleaner Production, 19 (6-7) 2011, pp. 640-645			**400**
1. Ant Colony Optimization Algorithm for Total Weighted Completion Time Minimization on Non-identical Batch Machines	H Zhang, Z Jia, K Li	2020	Computers & Operations Research
2. Optimization of γ-Alumina porosity via Response Surface Methodology: The influence of engineering support on the performance of a residual oil hydrotreating catalyst	Mohammad Salimi, Ahmad Tavasoli, Lasse Rosendahl	2020	Microporous and Mesoporous Materials https://doi.org/10.1016/j.micromeso.2020.110124
3. Optimization of cutting parameters with respect to roughness for machining of hardened AISI 1040 steel	Abidin Şahinoğlu and Mohammad Rafighi	2020	Material testing https://www.hanser-elibrary.com/doi/abs/10.3139/120.111458
4. Effect of the relative position of the face milling tool towards the work piece on machined surface roughness and milling dynamics	D Yurievich Pimenov, Amauri Hassui, Szymon Wojciechowski et al.	2019	Applied Sciences-Basel 9(5):842 DOI: 10.3390/app9050842
5. Multi-objective optimization for minimum quantity lubrication assisted milling process based on hybrid response surface methodology and multi-objective genetic algorithm	Jabir Mumtaz, Zhang Li, Muhammad Imran, Lei Yue et al	2019	Advances in Mechanical Engineering https://doi.org/10.1177/1687814019829588
6. Spraying parameter optimization and micro topography evaluation in nano fluid minimum quantity lubrication grinding	X Zhang, C Li, D Jia, T Gao et al.	2019	International Journal of Advanced Manufacturing Technology, (2019) 103:2523–2539 https://doi.org/10.1007/s00170-019-03642-0
7. Performances of different eco-friendly nano fluid lubricants in the milling of Inconel X-750 super alloy	Şenol Şirin, Turgay Kıvak	2019	Tribology International 137 DOI: 10.1016/j.triboint.2019.04.042
8. A Study on the Laser-Assisted Machining of Carbon Fiber Reinforced Silicon Carbide	Khulan Erdenechimeg, Ho-In Jeong and Choon-Man Lee	2019	Materials 12(13): 2061. DOI: 10.3390/ma12132061
9. Influence of Different Cooling Methods on Tool Life, Wear Mechanisms and Surface Roughness in the Milling of Nickel-Based Waspaloy with WC Tools	Çağrı Vakkas Yıldırım, Turgay Kıvak, Fehmi Erzincanlı	2019	Arabian Journal For Science And Engineering 44, pages7979–7995(2019), DOI: 10.1007/s13369-019-03963-y
10. Optimization of Performance Characteristics of Rail Wheel Profiling using Taguchi with ANOVA	Gaurav Tyagi	2019	Journal of Transportation Engineering
11. A Study on the Laser-Assisted Machining of Carbon Fiber Reinforced Silicon Carbide K	Khulan Erdenechimeg, Ho-In Jeong, and Choon-Man Lee	2019	Materials (Basel). 2019; 12(13) :2061 DOI:10.3390/ma12132061
12. Robust optimization of surface roughness of AISI H13 hardened steel in the finishing milling using	Étory Madrilles Arruda, Anderson	2019	Precision Engineering-Journal of the International Societies

ball nose end mills.	Paulo de Paiva, Lincoln CardosoBrandão, João Roberto Ferreira		for Precision Engineering and Nanotechnology. Vol. 60, Nov 2019, pp. 194-214
13. Optimization of cutting conditions using artificial neural networks and the Edgeworth-Pareto method for CNC face-milling operations on high-strength grade-H steel	Adel Taha Abbas, Danil Yurievich Pimenov, Ivan Nikolaevich Erdakov, et al	2019	International Journal of Advanced Manufacturing Technology 105, pp. 2151–2165(2019)
14. Optimisation of saturation magnetisation of iron nanoparticles synthesized by hydrogen reduction: Taguchi technique, response surface method, and multiple linear and quadratic regression analyses	Karaagac, O., Köçkar, H.	2019	Journal of Magnetism and Magnetic Materials, 473, pp190-197
15. Turning of Inconel 718 with whisker-reinforced ceramic tools applying vegetable-based cutting fluid mixed with solid lubricants by MQL	Marques, A., Paipa Suarez, M., Falco Sales, W., Rocha Machado, Á.	2019	Journal of Materials Processing Technology 266, pp. 530-543
16. Environment Friendly Machining of Inconel 625 under Nano-Fluid Minimum Quantity Lubrication (NMQL)	Singh, T., Dureja, J.S., Dogra, M., Bhatti, M.S.	2018	International Journal of Precision Engineering and Manufacturing 19(11), pp. 1689-1697
17. High-speed drawing of al alloy wire by diamond-coated drawing die under environmentally friendly water-based emulsion lubrication	Wang, X., Wang, C., Shen, X., Sun, F.	2018	Journal of Manufacturing Science and Engineering, Transactions of the ASME 140(12),124502
18. Taguchi-Grey Relational Based Multi-Response Optimization on the Performance of Tool Coating Thickness in Pocket Milling	Santhakumar, J., Mohammed Iqbal, U., Prakash, M.	2018	Materials Today: Proceedings 5(5), pp. 13422-13428
19. Structural relationships and optimization of resin-finishing parameters using the Taguchi approach	Shafiq, F., Pervez, M.N., Jilani, M.M., (...), Hasani, H., Cai, Y.	2018	Cellulose 25(10), pp. 6175-6190
20. Performance of a Carbon Dioxide Removal Process Using a Water Scrubber with the Aid of a Water-Film-Forming Apparatus	Nguyen, M.K.D., Imai, T., Yoshida, W., et al	2018	Waste and Biomass Valorization 9(10), pp. 1827-1839
21. A comprehensive assessment of minimum quantity lubrication machining from quality, production, and sustainability perspectives	Banerjee, N., Sharma, A.	2018	Sustainable Materials and Technologies 17,e00070
22. Optimization of titanium alloys turning operation in varied cutting fluid conditions with multiple machining performance characteristics	Revuru, R.S., Zhang, J.Z., Posinasetti, N.R., Kidd, T.	2018	International Journal of Advanced Manufacturing Technology 95(1-4), pp. 1451-1463
23. Evaluation of material removal rate and electrode wear rate in die sinking EDM with tool material Al_2O_3 /Cu composite through Taguchi method	Hussain, M.Z., Khan, U.	2018	International Journal of Materials Engineering Innovation 9(2), pp. 115-139
24. Joint decisions of machining process parameters setting and lot-size determination with environmental and quality cost consideration	Awad, M.I., Hassan, N.M.	2018	Journal of Manufacturing Systems 46, pp. 79-92
25. Analysis of Machining Behavior of Al/A206-Al_2O_3 Metal Matrix Composite Using End Milling Process	Parashar, V., Purohit, R.	2017	Materials Today: Proceedings 4(2), pp. 2687-2692
26. Experimental Investigations of Surface Roughness of Inconel 718 under different Machining Conditions	Kumar, S., Singh, D., Kalsi, N.S.	2017	Materials Today: Proceedings 4(2), pp. 1179-1185

27.Relationships between spray parameters, microstructures and ultrasonic cavitation erosion behavior of HVOF sprayed Fe-based amorphous/nanocrystalline coatings	Qiao, L., Wu, Y., Hong, S., (...), Shi, W., Zheng, Y.	2017	Ultrasonics Sonochemistry 39, pp. 39-46
28.Ultrasonic assisted grinding of advanced materials for biomedical and aerospace applications—a review	Dambatta, Y.S., Sarhan, A.A.D., Sayuti, M., Hamdi, M.	2017	Int Journal of Advanced Manufacturing Technology 92(9-12), pp. 3825-3858
29.Influence factors and operational strategies for energy efficiency improvement of CNC machining	Li, L., Li, C., Tang, Y., Yi, Q.	2017	Journal of Cleaner Production 161, pp. 220-238
30.Energy consumption characteristics of turn-mill machining	Moradnazhad, M., Unver, H.O.	2017	Int Journal of Advanced Manufacturing Technology 91(5-8), pp. 1991-2016
31.Multi-objective robust optimization of the sustainable helical milling process of the aluminum alloy Al 7075 using the augmented-enhanced normalized normal constraint method	Pereira, R.B.D., Leite, R.R., Alvim, A.C., (...), Ferreira, J.R., Davim, J.P.	2017	Journal of Cleaner Production 152, pp. 474-496
32.Design of chassis of two-wheeled electrical vehicle by optimization of design parameters using taguchi method	Rao, K.S., Kumar, M.P., Prasad, S.S., Teja, B.S., Chandh, Y.V.S.	2017	International Journal of Mechanical Engineering and Technology 8(4), pp. 223-232
33.Design optimization for minimum technological parameters when dry turning of AISI D3 steel using Taguchi method	Zerti, O., Yallese, M.A., Khettabi, R., Chaoui, K., Mabrouki, T.	2017	International Journal of Advanced Manufacturing Technology 89(5-8), pp. 1915-1934
34.Dry cutting effect in turning of a duplex stainless steel as a key factor in clean production	Krolczyk, G.M., Nieslony, P., Maruda, R.W.,Wojciechowski, S.	2017	Journal of Cleaner Production 142, pp. 3343-3354
35.Fabrication of dimple structured surface of A390 Al-Si alloy using turning process	Dali, M.N.A.M., Ghani, J.A., Haron, C.H.C., Hassan, S.	2017	Industrial Lubrication and Tribology 69(3), pp. 348-354
36.Parametric optimisation for surface roughness of AISI 4340 steel during turning under near dry machining condition	Selvam, M.D., Senthil, P., Sivaram, N.M.	2017	Int Journal of Machining and Machinability of Materials 19(6), pp. 554-569
37.Investigation of flank wear in mql milling of ferritic stainless steel by using nano graphene reinforced vegetable cutting fluid	Uysal, A.	2016	Industrial Lubrication and Tribology 68(4), pp. 446-451
38.A normal boundary intersection with multivariate mean square error approach for dry end milling process optimization of the AISI 1045 steel	Duarte Costa, D.M., Brito, T.G., de Paiva, A.P., Leme, R.C., Balestrassi, P.P.	2016	Journal of Cleaner Production 135, pp. 1658-1672
39.A method integrating Taguchi, RSM and MOPSO to CNC machining parameters optimization for energy saving	Li, C., Xiao, Q., Tang, Y.,Li, L.	2016	Journal of Cleaner Production 135, pp. 263-275
40.Modelling and optimization of energy consumption for feature based milling	Altıntaş, R.S., Kahya, M.,Ünver, H.Ö.	2016	Int Journal of Advanced Manufacturing Technology 86(9-12), pp. 3345-3363
41.Power consumption and tool life models for the production process	Garg, A., Lam, J.S.L., Gao, L.	2016	Journal of Cleaner Production 131, pp. 754-764
42.Ultrasonic assisted grinding process with minimum quantity lubrication using oil-based nanofluids	Molaie, M.M., Akbari, J., Movahhedy, M.R.	2016	Journal of Cleaner Production 129, pp. 212-222
43.Optimization of machining parameters considering minimum cutting fluid consumption	Jiang, Z., Zhou, F., Zhang, H., Wang, Y., Sutherland, J.W.	2015	Journal of Cleaner Production 108, pp. 183-191
44.A combination of Material Flow Cost Accounting and design of experiments techniques in an SME:	Chompu-Inwai, R., Jaimjit, B.,	2015	Journal of Cleaner Production 108, pp. 1352-1364

The case of a wood products manufacturing company in northern Thailand	Premsuriyanunt, P.		
45. A multi-objective teaching-learning-based optimization algorithm to scheduling in turning processes for minimizing makespan and carbon footprint	Lin, W., Yu, D.Y., Zhang, C., (...), Liu, S., Xie, Z.	2015	Journal of Cleaner Production 101, pp. 1-11
46. Study on optimized principles of process parameters for environmentally friendly machining austenitic stainless steel with high efficiency and little energy consumption	Zhang, Y., Zou, P.,Li, B., Liang, S.	2015	International Journal of Advanced Manufacturing Technology 79(1-4), pp. 89-99
47. Numerical modeling and experimental measurement of MQL impingement over an insert in a milling tool with inner channels	Duchosal, A.,Werda, S., Serra, R.,Leroy, R.,Hamdi, H.	2015	International Journal of Machine Tools and Manufacture 94, pp. 37-47
48. Single and multiple goal optimization of structural steel face milling process considering different methods of cooling/lubricating	Simunovic, K., Simunovic, G., Saric, T.	2015	Journal of Cleaner Production 94, pp. 321-329
49. Multi-objective teaching-learning-based optimization algorithm for reducing carbon emissions and operation time in turning operations	Lin, W., Yu, D.Y., Wang, S., (...), Luo, M., Liu, S.	2015	Engineering Optimization 47(7), pp. 994-1007
50. Numerical optimization of the Minimum Quantity Lubrication parameters by inner canalizations and cutting conditions for milling finishing process with Taguchi method	Duchosal, A., Serra, R., Leroy, R., Hamdi, H.	2015	Journal of Cleaner Production 108, pp. 65-71
51. Optimization of cutting parameters using Response Surface Method for minimizing energy consumption and maximizing cutting quality in turning of AISI 6061 T6 aluminum	Camposeco-Negrete, C.	2015	Journal of Cleaner Production 91, pp. 109-117
52. Improving environmental sustainability by formulation of generalized power consumption models using an ensemble based multi-gene genetic programming approach	Garg, A., Lam, J.S.L.	2015	Journal of Cleaner Production 102, pp. 246-263
53. Piston ring-cylinder liner tribology investigation in mixed lubrication regime: Part I-correlation with bench experiment	Ba, L., He, Z., Guo, L., (...), Zhang, G., Lu, X.	2015	Industrial Lubrication and Tribology 67(6), pp. 520-530
54. Energy conservation in manufacturing operations: Modelling the milling process by a new complexity-based evolutionary approach	Garg, A., Lam, J.S.L., Gao, L.	2015	Journal of Cleaner Production 108, pp. 34-45
55. Optimisation of cutting parameters during the face milling of AA5083-H111 with coated and uncoated inserts using Taguchi method	Samtaş, G.	2015	International Journal of Machining and Machinability of Materials, 17(3-4), pp. 211-232
56. Experimental investigation on removing cutting fluid from turning of Inconel 725 with coated carbide tools	Hosseini Tazehkandi, A., Pilehvarian, F., Davoodi, B.	2014	Journal of Cleaner Production 80, pp. 271-281
57. Adapting the Robust Design Methodology to support sustainable product development	Gremyr, I., Siva, V., Raharjo, H., Goh, T.N.	2014	Journal of Cleaner Production 79, pp. 231-238
58. Experimental investigation and optimization of cutting parameters in dry and wet machining of aluminum alloy 5083 in order to remove cutting fluid	Davoodi, B., Tazehkandi, A.H.	2014	Journal of Cleaner Production 68, pp. 234-242
59. Study on performance in dry milling aeronautical titanium alloy thin-wall components with two types of tools	Huang, P.L., Li, J.F., Sun, J., Zhou, J.	2014	Journal of Cleaner Production 67, pp. 258-264
60. Eco-friendly manufacturing strategies for simultaneous consideration between	Kim, J.-Y., Jeong, S.-J., Cho, Y.-J., Kim, K.-S.	2014	Journal of Cleaner Production 67, pp. 249-257

productivity and environmental performances: A case study on a printed circuit board manufacturing			
61.Investigation on the morphology of the machined surface in end milling of aerospace AL6061-T6 for novel uses of SiO2 nanolubrication system	Sayuti, M., Erh, O.M., Sarhan, A.A.D., Hamdi, M.	2014	Journal of Cleaner Production 66, pp. 655-663
62.Tool wear performance in face milling Inconel 182 using minimum quantity lubrication with different nozzle positions	Wang, C.-D., Chen, M., An, Q.-L., Wang, M., Zhu, Y.-H.	2014	Int J of Precision Engineering and Manufacturing 15(3), pp. 557-565
63.Morphology of surface generated by end milling AL6061-T6 using molybdenum disulfide (MoS_2) nano lubrication in end milling machining	Rahmati, B., Sarhan, A.A.D., Sayuti, M.	2014	Journal of Cleaner Production 66, pp. 685-691
64.Optimization of process parameters using a Response Surface Method for minimizing power consumption in the milling of carbon steel	Campatelli, G., Lorenzini, L., Scippa, A.	2014	Journal of Cleaner Production 66, pp. 309-316
65.Investigating the Minimum Quantity Lubrication in grinding of Al_2O_3 engineering ceramic	Emami, M., Sadeghi, M.H., Sarhan, A.A.D., Hasani, F.	2014	Journal of Cleaner Production 66, pp. 632-643
66.Taguchi design and response surface methodology based analysis of machining parameters in CNC turning under MQL	Sarikaya, M.,Güllü, A.	2014	Journal of Cleaner Production 65, pp. 604-616
67.Prediction and optimization of machining parameters for minimizing power consumption and surface roughness in machining	Kant, G., Sangwan, K.S.	2014	Journal of Cleaner Production 83, pp. 151-164
68.Identification of a friction model for minimum quantity lubrication machining	Banerjee, N., Sharma, A.	2014	Journal of Cleaner Production 83, pp. 437-443
69.Concurrent multi-response optimization of austenitic stainless steel surface roughness driven by embedded lean and green indicators	Besseris, G.J., Kremmydas, A.T.	2014	Journal of Cleaner Production 85, pp. 293-305
70.Optimization of cutting parameters for minimizing energy consumption in turning of AISI 6061 T6 using Taguchi methodology and ANOVA	Camposeco-Negrete, C.	2013	Journal of Cleaner Production 53, pp. 195-203
71.Reduction of oil and gas consumption in grinding technology using high pour-point lubricants	Garcia, E., Pombo, I., Sanchez, J.A., et al	2013	Journal of Cleaner Production 51, pp. 99-108
72.Multi-objective optimization of milling parameters-the trade-offs between energy, production rate and cutting quality	Yan, J.,Li, L.	2013	Journal of Cleaner Production 52, pp. 462-471
73.Optimization of cutting fluids and cutting parameters during end milling by using D-optimal design of experiments	Kuram, E., Ozcelik, B., Bayramoglu, M., et al.	2013	Journal of Cleaner Production 42, pp. 159-166
74.Optimization of cutting parameters for minimizing power consumption and maximizing tool life during machining of Al alloy SiC particle composites	Bhushan, R.K.	2013	Journal of Cleaner Production 39, pp. 242-254
75.Effects of blended vegetable-based cutting fluids with extreme pressure on tool wear and force components in turning of Al 7075-T6	Kuram, E., Ozcelik, B., Huseyin Cetin, M., et al.	2013	Lubrication Science 25(1), pp. 39-52
76.A critical assessment of lubrication techniques in machining processes: A case for minimum quantity lubrication using vegetable oil-based lubricant	Lawal, S.A., Choudhury, I.A., Nukman, Y.	2013	Journal of Cleaner Production 41, pp. 210-221
77.Tool life and cutting forces in end milling Inconel 718 under dry and minimum quantity cooling lubrication cutting conditions	Zhang, S., Li, J.F., Wang, Y.W.	2012	Journal of Cleaner Production 32, pp. 81-87
78.Impact of green machining strategies on achieved surface quality	Helu, M., Behmann, B., Meier, H., et al.	2012	CIRP Annals – Manufacturing Technology 61(1), pp. 55-58

79. Evaluation of vegetable based cutting fluids with extreme pressure and cutting parameters in turning of AISI 304L by Taguchi method	Cetin, M.H., Ozcelik, B., Kuram, E., Demirbas, E.	2011	Journal of Cleaner Production 19(17-18), pp. 2049-2056
80. Experimental investigations of vegetable based cutting fluids with extreme pressure during turning of AISI 304L	Ozcelik, B., Kuram, E., Huseyin Cetin, M., Demirbas, E.	2011	Tribology International 44(12), pp. 1864-1871
Frățilă, D. Evaluation of near-dry machining effects on gear milling process efficiency, Journal of Cleaner Production 17(9) 2009, pp. 839-845			**310**
1. Feasibility study of taking high-speed dry milling as the final manufacturing process by the standard of service performance	Liu, G., Huang, C., Zou, B., (...), Liu, Y., Li, C.	2018	International Journal of Advanced Manufacturing Technology 95(5-8), pp. 2897-2906
2. Improving applied roughness measurement of involute helical gears	Koulin, G., Zhang, J., Frazer, R.C., Wilson, S.J., Shaw, B.A.	2017	Measurement Science and Technology 28(12),124006
3. Dry machining: A step towards sustainable machining – Challenges and future directions	Goindi, G.S., Sarkar, P.	2017	Journal of Cleaner Production 165, pp. 1557-1571
4. The influence of cryogenic supercritical carbon dioxide cooling on tool wear during machining high thermal conductivity steel	Mulyana, T., Rahim, E.A., Md Yahaya, S.N.	2017	Journal of Cleaner Production 164, pp. 950-962
5. Multi-variable driving thermal energy control model of dry hobbing machine tool	Zhu, L., Cao, H., Zeng, D., Yang, X., Li, B.	2017	International J of Advanced Manufacturing Technology 92(1-4), pp. 259-275
6. Dry cutting effect in turning of a duplex stainless steel as a key factor in clean production	Krolczyk, G.M., Nieslony, P., Maruda, R.W.,Wojciechowski, S.	2017	Journal of Cleaner Production 142, pp. 3343-3354
7. Recent progress on the application of nanofluids in minimum quantity lubrication machining: A review	Sidik, N.A.C., Samion, S., Ghaderian, J., Yazid, M.N.A.W.M.	2017	International Journal of Heat and Mass Transfer 108, pp. 79-89
8. Recent developments in sustainable manufacturing of gears: A review	Gupta, K., Laubscher, R.F., Davim, J.P., Jain, N.K.	2016	Journal of Cleaner Production 112, pp. 3320-3330
9. Energy consumption model and energy efficiency of machine tools: A comprehensive literature review	Zhou, L., Li, J., Li, F., (...), Li, J., Xu, X.	2016	Journal of Cleaner Production 112, pp. 3721-3734
10. Optimization of machining parameters considering minimum cutting fluid consumption	Jiang, Z., Zhou, F., Zhang, H., Wang, Y., Sutherland, J.W.	2015	Journal of Cleaner Production 108, pp. 183-191
11. Study on optimized principles of process parameters for environmentally friendly machining austenitic stainless steel with high efficiency and little energy consumption	Zhang, Y.,Zou, P.,Li, B., Liang, S.	2015	International Journal of Advanced Manufacturing Technology 79(1-4), pp. 89-99
12. Fuzzy logic-based approach to investigate the novel uses of nano suspended lubrication in precise machining of aerospace AL tempered grade 6061	Ooi, M.E., Sayuti, M., Sarhan, A.A.D.	2015	Journal of Cleaner Production 89, pp. 286-295
13. Environmental friendly cutting fluids and cooling techniques in machining: A review	Debnath, S., Reddy, M.M., Yi, Q.S.	2014	Journal of Cleaner Production 83, pp. 33-47
14. Novel uses of SiO_2 nano-lubrication system in hard turning process of hardened steel AISI4140 for less tool wear, surface roughness and oil consumption	Sayuti, M., Sarhan, A.A.D., Salem, F.	2014	Journal of Cleaner Production 67, pp. 265-276

15.Investigation on the morphology of the machined surface in end milling of aerospace AL6061-T6 for novel uses of SiO2 nanolubrication system	Sayuti, M., Erh, O.M., Sarhan, A.A.D., Hamdi, M.	2014	Journal of Cleaner Production 66, pp. 655-663
16.Morphology of surface generated by end milling AL6061-T6 using molybdenum disulfide (MoS_2) nanolubrication in end milling machining	Rahmati, B., Sarhan, A.A.D., Sayuti, M.	2014	Journal of Cleaner Production 66, pp. 685-691
17.Identification of a friction model for minimum quantity lubrication machining	Banerjee, N., Sharma, A.	2014	Journal of Cleaner Production 83, pp. 437-443
18.Reduction of oil and gas consumption in grinding technology using high pour-point lubricants	Garcia, E., Pombo, I., Sanchez, J.A., et al.	2013	Journal of Cleaner Production 51, pp. 99-108
19.Optimization of cutting fluids and cutting parameters during end milling by using D-optimal design of experiments	Kuram, E., Ozcelik, B., Bayramoglu, M., et al.	2013	Journal of Cleaner Production 42, pp. 159-166
20.Effects of blended vegetable-based cutting fluids with extreme pressure on tool wear and force components in turning of Al 7075-T6	Lawal, S.A., Choudhury, I.A., Nukman, Y.	2013	Lubrication Science 25(1), pp. 39-52
21.A critical assessment of lubrication techniques in machining processes: A case for minimum quantity lubrication using vegetable oil-based lubricant	Ulutas, F., Alkaya, E., Bogurcu, M., Demirer, G.N.	2013	Journal of Cleaner Production 41, pp. 210-221
22.Investigation of the influence of process parameters and cooling method on the surface quality of AISI-1045 during turning	Zhang, S., Li, J.F., Wang, Y.W.	2012	Materials and Manufacturing Processes 27(10), pp. 1123-1128
23.Tool life and cutting forces in end milling Inconel 718 under dry and minimum quantity cooling lubrication cutting conditions	Ingarao, G., Ambrogio, G., Gagliardi, F., Di Lorenzo, R.	2012	Journal of Cleaner Production 32, pp. 81-87
24.A sustainability point of view on sheet metal forming operations: Material wasting and energy consumption in incremental forming and stamping processes	Ulutas, F., Alkaya, E., Bogurcu, M., Demirer, G.N.	2012	Journal of Cleaner Production 29-30, pp. 255-268
25.Minimum quantity lubrication in grinding: Effects of abrasive and coolant-lubricant types	Cetin, M.H., Ozcelik, B., Kuram, E., Demirbas, E.	2011	Journal of Cleaner Production 19(17-18), pp. 2088-2099
26.Evaluation of vegetable based cutting fluids with extreme pressure and cutting parameters in turning of AISI 304L by Taguchi method	Ozcelik, B., Kuram, E., Huseyin Cetin, M., Demirbas, E.	2011	Journal of Cleaner Production 19(17-18), pp. 2049-2056
27.Experimental investigations of vegetable based cutting fluids with extreme pressure during turning of AISI 304L	Avram, O.I., Xirouchakis, P.	2011	Tribology International 44(12), pp. 1864-1871
28.Evaluating the use phase energy requirements of a machine tool system	Sanchez, J.A., Pombo, I., Alberdi, R., et al.	2011	Journal of Cleaner Production 19(6-7), pp. 699-711
29.Machining evaluation of a hybrid MQL-CO_2 grinding technology	Pusavec, F., Kramar, D., Krajnik, P., Kopac, J.	2010	Journal of Cleaner Production 18(18), pp. 1840-1849
30.Transitioning to sustainable production – Part II: Evaluation of sustainable machining technologies	Shen, L.-y., Tam, V.W.Y., Tam, L., Ji, Y.	2010	Journal of Cleaner Production 18(12), pp. 1211-1221
31.Project feasibility study: the key to successful implementation of sustainable and socially responsible construction management practice	Zhang, Y., Zou, P., Li, B., Liang, S.	2010	Journal of Cleaner Production 18(3), pp. 254-259

Frățilă D. Macro-level environmental comparison of near-dry machining and flood machining. Journal of Cleaner Production, 18(10-11), July 2010, pp. 1031-1039.			270
1. Comparing energy and water use of aqueous and gas-based metalworking fluids	Sarang D. Supekar Diane J. Graziano Steven J. Skerlos Joseph Cresko	2020	Journal of Industrial Ecology https://doi.org/10.1111/jiec.12992
2. Effects of hybrid Al_2O_3-CNT nano fluids and cryogenic cooling on machining of Ti–6Al–4V	Muhammad Jamil, Aqib Mashood Khan et al.	2019	International Journal of Advanced Manufacturing Technology Vol. 102, Issue 9–12, pp 3895–3909
3. Resource efficiency analysis of lubricating strategies for machining processes using life cycle assessment methodology	Alessio Campitelli, Jorge Cristóbal et al.	2019	Journal of Cleaner Production 222, DOI: 10.1016/j.jclepro.2019.03.073 ner Production
4. Performance evaluation of vegetable-based cutting fluids in turning of AISI 1050 steel	Déborah Oliveira Almeida Carvalho, Leonardo Rosa Ribeiro da Silva et al.	2019	International Journal of Advanced Manufacturing Technology 103, pages1603–1619(2019)
5. Energy efficiency in discrete-manufacturing systems: Insights, trends, and control strategies	Jenny L., Diaz C., Carlos Ocampo-Martinez	2019	Journal of Manufacturing Systems Vol. 52, Part A, July 2019, Pages 131-145
6. Multi-objective optimization and life cycle assessment of eco-friendly cryogenic N2 assisted turning of Ti-6Al-4V	Mozammel Mia, Munish Kumar Gupta et al	2019	Journal of Cleaner Production Vol. 210, 10 February 2019, Pages 121-133
7. Feasibility study of taking high-speed dry milling as the final manufacturing process by the standard of service performance	Liu, G., Huang, C., Zou, B., (...), Liu, Y., Li, C.	2018	International Journal of Advanced Manufacturing Technology 95(5-8), pp. 2897-2906
8. Assessing near-dry lubrication (35 ml/h) performance in hard turning process of hardened (48 HRC) AISI 1060 carbon steel	Panday, G., Ashraf, M.Z.I., Ibn Muneer, K., (...), Ashik, M.F.K., Kamruzzaman, M.	2018	International Journal of Advanced Manufacturing Technology 99(5-8), pp. 2045-2057
9. Influence of the condition of the surface layer of a hob cutter sharpened using the MQL-CCA hybrid method of coolant provision on its operational wear	Stachurski, W., Nadolny, K.	2018	International Journal of Advanced Manufacturing Technology 98(5-8), pp. 2185-2200
10. Comparative study on the performance of the MQL nanolubricant and conventional flood lubrication techniques during grinding of Si_3N_4 ceramic	Dambatta, Y.S., Sayuti, M., Sarhan, A.A.D., Hamdi, M.	2018	International Journal of Advanced Manufacturing Technology 96(9-12), pp. 3959-3976
11. Influence of application of hybrid MQL-CCA method of applying coolant during hob cutter sharpening on cutting blade surface condition	Stachurski, W., Sawicki, J., Wójcik, R., Nadolny, K.	2018	Journal of Cleaner Production 171, pp. 892-910
12. Towards zero waste manufacturing: A multidisciplinary review	Singh, S., Ramakrishna, S., Gupta, M.K.	2017	Journal of Cleaner Production 168, pp. 1230-1243
13. Dry machining: A step towards sustainable machining – Challenges and future directions	Goindi, G.S., Sarkar, P.	2017	Journal of Cleaner Production 165, pp. 1557-1571
14. The influence of cryogenic supercritical carbon dioxide cooling on tool wear during machining high thermal conductivity steel	Mulyana, T., Rahim, E.A., Md Yahaya, S.N.	2017	Journal of Cleaner Production 164, pp. 950-962
15. Experimental investigation on the feasibility of dry and cryogenic machining as sustainable strategies when turning Ti6Al4V produced by Additive Manufacturing	Bordin, A., Sartori, S., Bruschi, S., Ghiotti, A.	2017	Journal of Cleaner Production 142, pp. 4142-4151

16. Cryogenic and minimum quantity lubrication for an eco-efficiency turning of AISI 304	Pereira, O., Rodríguez, A., Fernández-Abia, A.I., et al.	2016	Journal of Cleaner Production 139, pp. 440-449
17. Future perspectives of sustainable manufacturing and applications based on research databases	Yoon, H.-S., Kim, M.-S., Jang, K.-H., Ahn, S.-H.	2016	Int J of Precision Engineering and Manufacturing 17(9), pp. 1249-1263
18. An economic and environmental assessment model for microchannel device manufacturing: Part 1 – Methodology	Gao, Q., Lizarazo-Adarme, J., Paul, B.K., Haapala, K.R.	2016	Journal of Cleaner Production 120, pp. 135-145
19. Single and multiple goal optimization of structural steel face milling process considering different methods of cooling/lubricating	Simunovic, K., Simunovic, G., Saric, T.	2015	Journal of Cleaner Production 94, pp. 321-329
20. Fuzzy logic-based approach to investigate the novel uses of nano suspended lubrication in precise machining of aerospace AL tempered grade 6061	Ooi, M.E., Sayuti, M., Sarhan, A.A.D.	2015	Journal of Cleaner Production 89, pp. 286-295
21. Sustainable machining of high temperature Nickel alloy – Inconel 718: Part 1 – Predictive performance models	Pusavec, F., Deshpande, A., Yang, S., et al.	2014	Journal of Cleaner Production 81, pp. 255-269
22. Control of machining parameters for energy and cost savings in micro-scale drilling of PCBs	Yoon, H.-S., Moon, J.-S., Pham, M.-Q., Lee, G.-B., Ahn, S.-H.	2013	Journal of Cleaner Production 54, pp. 41-48
23. Optimization of cutting fluids and cutting parameters during end milling by using D-optimal design of experiments	Kuram, E., Ozcelik, B., Bayramoglu, M., Demirbas, E., Simsek, B.T.	2013	Journal of Cleaner Production 42, pp. 159-166
24. Performance of supercritical carbon dioxide sprays as coolants and lubricants in representative metalworking operations	Supekar, S.D., Clarens, A.F., Stephenson, D.A., Skerlos, S.J.	2012	Journal of Materials Processing Technology 212(12), pp. 2652-2658
25. Optimization of machining processes from the perspective of energy consumption: A case study	Bi, Z.M., Wang, L.	2012	Journal of Manufacturing Systems 31(4), pp. 420-428
26. Micromachining of various metals by using Acidithiobacillus ferrooxidans 13820 culture supernatant experiments	Hocheng, H., Chang, J.-H., Jadhav, U.U.	2012	Journal of Cleaner Production 20(1), pp. 180-185
27. Evaluating the use phase energy requirements of a machine tool system	Avram, O.I., Xirouchakis, P.	2011	Journal of Cleaner Production 19(6-7), pp. 699-711

Frăţilă, D., Caizar, C. Investigation of the influence of process parameters and cooling method on the surface quality of AISI-1045 during turning. Materials and Manufacturing Processes 27(10) 2012, pp. 1123-1128	**65**

1. A critical review on the chemical wear and wear suppression of diamond tools in diamond cutting of ferrous metals	Guo Jiang et al.	2020	International Journal of Extreme Manufacturing
2. Optimization of Multiple Objectives by Genetic Algorithm for Turning of AISI 1040 Steel Using Al2O3 Nano Fluid with MQL	Usha, M.; Rao, G. S.	2020	Tribology in Industry. 2020, Vol. 42 Issue 1, p70-80. 11p.
3. Measurement and uncertainty analysis of surface roughness and material removal rate in micro turning operation and process parameters optimization	S. P. Leo Kumar	2019	Measurement Volume 140, July 2019, pp. 538-547 https://doi.org/10.1016/j.measurement.2019.04.029
4. Effect of cryogenic minimum quantity lubrication on machinability of diamond tool in ultraprecision turning of 3Cr2NiMo steel	Zou, L., Huang, Y., Zhou, M., Yang, Y.	2018	Materials and Manufacturing Processes 33(9), pp. 943-949

5. Environment Friendly Machining of Inconel 625 under Nano-Fluid Minimum Quantity Lubrication (NMQL)	Singh, T., Dureja, J.S., Dogra, M., Bhatti, M.S.	2018	International Journal of Precision Engineering and Manufacturing 19(11), pp. 1689-1697
6. Formulation and performance evaluation of a novel coconut oil–based metalworking fluid	Wickramasinghe, K.C., Perera, G.I.P., Herath, H.M.C.M.	2017	Materials and Manufacturing Processes 32(9), pp. 1026-1033
7. An Investigation on Turning Hardened Steel Using Different Tool Inserts	Mondal, K., Das, S., Mandal, B., Sarkar, D.	2016	Materials and Manufacturing Processes 31(13), pp. 1770-1781
8. Environment Friendly Machining of Ni-Cr-Co Based Super Alloy using Different Sustainable Techniques	Chetan, Ghosh, S., Rao, P.V.	2016	Materials and Manufacturing Processes 31(7), pp. 852-859
9. A study on droplets sizes, their distribution and heat exchange for minimum quantity cooling lubrication (MQCL)	Maruda, W., Krolczyk, G.M., Feldshtein, E., et al.	2016	International Journal of Machine Tools and Manufacture 100, pp. 81-92
10. Taguchi design and response surface methodology based analysis of machining parameters in CNC turning under MQL	Sarikaya, M., Güllü, A.	2014	Journal of Cleaner Production 65, pp. 604-616
11. Ceramic tools with ordinary and wiper inserts in near dry machining with high speed on super alloy monel K500	Amini, S., Paktinat, H.	2014	Materials and Manufacturing Processes 29(5), pp. 579-584
12. Diamond tool wear in precision turning of titanium alloy	Zhang, Y., Zhou, Z., Wang, J., Li, X.	2013	Materials and Manufacturing Processes 28(10), pp. 1061-1064
13. Effects of grinding process parameters and coolants on the grindability of GFRP laminates	Chockalingam, P., Kuang, K.C., Vijayaram, T.R.	2013	Materials and Manufacturing Processes 28(10), pp. 1071-1076

Frățilă, D. Numerical and Experimental Approach of Cutting Temperatures to Green Turning of 42CrMo4 Steel. Materials and Manufacturing Processes 31(5) 2016, pp. 657-666	**60**

1. Investigation of monolayer coated WC inserts on turning Ti-alloy	S Lakshmanan, M Pradeep Kumar et al	2020	Materials and Manufacturing Processes https://doi.org/10.1080/10426914.2020.1711930
2. Effects of hybrid Al2O3-CNT nano fluids and cryogenic cooling on machining of Ti–6Al–4V	Muhammad Jamil Aqib, Mashood Khan et al,	2019	International Journal of Advanced Manufacturing Technology Vol. 102, Issue 9–12, pp 3895–3909
3. An extensive review of the water consumption and cutting fluid based sustainability concerns in the metal cutting sector	Pervaiz, S., Kannan, S., Kishawy, H.A.	2018	Journal of Cleaner Production 197, pp. 134-153
4. Experimental investigation into the effects of nozzle position, work piece hardness, and tool type in MQL turning of AISI 1045 steel	Masoudi, S., Vafadar, A., Hadad, M., Jafarian, F.	2018	Materials and Manufacturing Processes 33(9), pp. 1011-1019
5. Relationship between cutting process parameters and white layer thickness in orthogonal cutting	Arfaoui, S., Zemzemi, F., Tourki, Z.	2018	Materials and Manufacturing Processes 33(6), pp. 661-669
6. Study of effect of nanofluid concentration on response characteristics of machining process for cleaner production	Garg, A., Sarma, S., Panda, B.N., Zhang, J., Gao, L.	2016	Journal of Cleaner Production 135, pp. 476-489

Frățilă, D., Caizar C. Assessment of Cooling Effect and Surface Quality to Face Milling of AlMg3 Using Several Cooling Lubrication Methods. Materials and Manufacturing Processes, 27(3), 2012, pp 291-296.	**20**

1. Taguchi design and response surface methodology based analysis of machining parameters in CNC turning under MQL	Sarikaya, M.,Güllü, A.	2014	Journal of Cleaner Production 65, pp. 604-616	
2. Experimental investigation and optimization of process parameters in milling of hybrid metal matrix composites	AA Premnath, T Alwarsamy	2012	Materials and Manufacturing Processes 27(10), 2012, pp. 1035-1044	
3. Single and multiple goal optimization of structural steel face milling process considering different methods of cooling/lubricating	Simunovic, K.; Simunovic, G.; Saric, T	2015	Journal of Cleaner Production, 94, pp. 321-329	
4. Ceramic tools with ordinary and wiper inserts in near dry machining with high speed on super alloy monel K500	Amini, S., Paktinat, H.	2014	Materials and Manufacturing Processes 29(5), pp. 579-584	
Frăţilă, D.-F. Research of environment-friendly techniques influence on gear accuracy in context of sustainable manufacturing. Proceedings of the Romanian Academy Series A – Mathematics Physics Technical Sciences Information Science 14(1) 2013, pp. 56-63				**10**
1. Recent developments in sustainable manufacturing of gears: A review	Gupta, K., Laubscher, R.F., Davim, J.P., Jain, N.K.	2016	Journal of Cleaner Production 112, pp. 3320-3330	
Frăţilă, D., Radu, A. Modeling and comparing of steady thermal state at gear milling by conventional and environment-friendly cooling method. International Journal of Advanced Manufacturing Technology 47(9-12) 2010, pp. 1003-1012				**5**
1. Recent developments in sustainable manufacturing of gears: A review	Gupta, K., Laubscher, R.F., Davim, J.P., Jain, N.K.	2016	Journal of Cleaner Production 112, pp. 3320-3330	
Frătilă, D. Environmentally friendly Manufacturing Processes in the Context of Transition to Sustainable Production (Book Chapter). Comprehensive Materials Processing 8, 2014, pp. 163-175				**60**
1. Development of a model for the optimization of energy consumption during the milling operation of titanium alloy (Ti6Al4V)	I Tlhabadira, IA Daniyan, L Masu, K Mpofu	2020	Materials Today: Proceedings Available online 12 April 2020	
2. Dry Generating Gear Grinding: Hierarchical Two-Step Finite Element Model for Process Optimization	Giacomo GuerriniAdrian H.A. Lutey et al.	2019	Journal of Manufacturing Science and Engineering-Transactions of the ASME 141(6):1 DOI: 10.1115/1.4043309	
3. On the sustainability of machining processes. Proposal for a unified framework through the triple bottom-line from an understanding review	Peralta Álvarez, M.E., Marcos Bárcena, M., Aguayo González, F.	2017	Journal of Cleaner Production 142, pp. 3890-3904	
4. Recent developments in sustainable manufacturing of gears: A review	Gupta, K., Laubscher, R.F., Davim, J.P., Jain, N.K.	2016	Journal of Cleaner Production 112, pp. 3320-3330	
5. Single and multiple goal optimization of structural steel face milling process considering different methods of cooling/lubricating	Simunovic, K.; Simunovic, G.; Saric, T	2015	Journal of Cleaner Production, 94, pp. 321-329	
6. Taguchi design and response surface methodology based analysis of machining parameters in CNC turning under MQL	Sarikaya,M.; Gullu, A.	2014	Journal of Cleaner Production, 65, pp. 604-616	
Frătilă D. (2013) Sustainable Manufacturing Through Environmentally-Friendly Machining. Chapter in: Davim J. (eds) Green Manufacturing Processes and Systems. Materials Forming, Machining and Tribology. Springer, Berlin, Heidelberg				**50**

1. Effects of cooling conditions and grinding depth on sustainable surface grinding of Ti-6Al-4V: Taguchi approach	Kipkurui N Ronoh, Fredrick M Mwema, Stephen A Akinlabi et al	2019	Materials Science 6(5): 697–712. DOI: 10.3934/matersci.2019.5.697
2. Estimating the effect of cutting data on surface roughness and cutting force during WC-Co turning with PCD tool using Taguchi design and ANOVA analysis	W Zębala, R Kowalczyk	2015	The International Journal of Advanced Manufacturing Technology, April 2015, 77(9–12), pp. 2241–2256
3. A note on the use of the minimum quantity lubrication (MQL) system in turning	D Carou, EM Rubio, JP Davim	2015	Industrial Lubrication and Tribology, 67(3), pp. 256-261,
4. An integrated sustainability assessment framework: a case of turning process	N Bhanot, PV Rao, SG Deshmukh	2016	Clean Technologies and Environmental Policy June 2016, 18(5) pp. 1475–1513
5. Process level environmental performance of electrodischarge machining of aluminium (3003) and steel (AISI P20)	JR Gamage, AKM DeSilva, CS Harrison	2016	Journal of Cleaner Production 137, 20 November 2016, pp. 291-299

Leordean, D., Radu, S.A.; Frățilă, D.. Berce. P. Studies on design of customized orthopedic endoprostheses of titanium alloy manufactured by SLM, International Journal of Advanced Manufacturing Technology 79(5-8) 2015, pp. 905-920	**10**

1. Research on mechanical properties and microstructure by selective laser melting of 316L stainless steel	Pan Lu, Zhang Cheng-Lin, Wang Liang, Liu Tong and Li Xiao-Cheng	2020	Materials Research Express, Volume 6, Number 12
2. Effect of the heat treatment on corrosion and mechanical properties of CoCrMo alloys manufactured by selective laser melting	Zhang, M., Yang, Y., Song, C., Bai, Y., Xiao, Z.	2018	Rapid Prototyping Journal 24(7), pp. 1235-1244
3. A review on metallic porous materials: pore formation, mechanical properties, and their applications	Zhao, B., Gain, A.K., Ding, W., (...), Li, X., Fu, Y.	2018	International J of Advanced Manufacturing Technology 95(5-8), pp. 2641-2659
4. Customized UHMWPE tibial insert directly fabricated by selective laser sintering	Changhui, S., Aibing, H., Yongqiang, Y., Di, W., Jia-kuo, Y.	2016	International Journal of Advanced Manufacturing Technology 85(5-8), pp. 1217-1226

Frățilă D., Rotaru H. Additive Manufacturing – a sustainable manufacturing route. MATEC Web of Conference, Vol. 94. The 4th International Conference on Computing and Solutions in Manufacturing Engineering 2016 – CoSME'16	

1. Additive manufacturing in military and humanitarian missions: Advantages and challenges in the spare parts supply chain	Jelmar den Boer, Wim Lambrechts, Harold Krikke	2020	Journal of Cleaner Production, https://doi.org/10.1016/j.jclepro.2020.120301
2. Study of the Environmental Implications of Using Metal Powder in Additive Manufacturing and Its Handling	Arrizubieta, J.I.; Ukar, O.; Ostolaza, M.; Mugica	2020	Metals 10(2) : (2020) // Article ID 261

3.1.2 Citări în articole indexate BDI (5/nr. autori) - **541.66**

Frățilă D., Caizar C. Application of Taguchi method to selection of optimal lubrication and cutting conditions in face milling of $AlMg_3$, Journal of Cleaner Production, 19 (6-7) 2011, pp. 640-645	**152.5**

1. Nonintrusive Stochastic Finite Elements for Crashworthiness with VPS/Pamcrash	M Rocas, A García-González, et al	2020	Archives of Computational Methods in Engineering https://doi.org/10.1007/s11831-019-09397-x

2. Societal Application of Taguchi Method for Optimization of Process Parameters in the Melting Process in the Foundry	Ranjitsinh Deshmukh, Rahul Hiremath	2020	Techno-Societal 2018, Issue 2020, pp 215-221 https://doi.org/10.1007/978-3-030-16962-6_22
3. Experimental Analysis and Optimization of the Controllable Parameters In Turning of EN AW-2011 Alloy; Dry Machining And Alternative Cooling Techniques	S Jozić, I Dumanić, D Bajić	2020	Facta Universitatis, Series:Mechanical Engineering https://doi.org/10.22190/FUME191024009J
4. Optimization Condition for Aluminum Alloy 6066 Anodizing	Hossam Jalal, Yones Saoud , François Karabet	2019	Journal of Surface Science and Technology Volume 34, Issue 3-4, December 2018 | https://doi.org/10.18311/jsst/2018/19839
5. An experimental study on surface roughness and frictional property of ultrasonic-vibration-assisted milled surface	Girish C Verma, Pulak M Pandey, Uday S Dixit	2019	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Vol 233, Issue 12, 2019 https://doi.org/10.1177/0954406219834587
6. Application of Taguchi method for parametric optimization of through transmission laser welding of acrylic plastics	Ramesh Rudrapati, Nikhil Kumar, Pradip Kumar Pal	2019	AIP Conference Proceedings 2057(1):020013 DOI: 10.1063/1.5085584
7. Effect of the Relative Position of the Face Milling Tool towards the Workpiece on Machined Surface Roughness and Milling Dynamics	Danil Yurievich Pimenov, Amauri Hassui, Szymon Wojciechowski et al.	2019	Applied Science 9(5):842 DOI: 10.3390/app9050842
8. Fuzzy Logic Method to Investigate Grinding of Alumina Ceramic using Minimum Quantity Lubrication	Yusuf Dambatta, Ahmed A. D. Sarhan, Mohd Bin Ab Karim Sayuti, Mohammd Hamdi	2019	International Journal of Applied Ceramic Technology 16(20) DOI: 10.1111/ijac.13219
9. Experimental investigation and multi-objective optimization of controllable parameters in turning process using Taguchi Method and Grey Relational Analysis	Dumanic, Ivana; Jozic, Sonja; Bajic, Drazen; Sucic, Mihovil	2019	Mechanical Technology and Structural Materials p. 13-21
10. Performance assessment of CaF2 solid lubricant assisted minimum quantity lubrication in turning	Mayur A., Makhesana, K.M.Patel	2019	Procedia Manufacturing, 33, pp. 43-50.
11. Minimization of Cutting Force by Optimizing the Cutting Parameters Using Taguchi Method in Turning	M S H Bhuiyan	2019	IOP Conf. Series: Materials Science and Engineering 530 (2019) DOI: 10.1088/1757-899X/530/1/012006
12. Characteristics of wood sawdust/EPDM rubber composites processed by irradiation	G. Craciun, E. Manaila, M.D. Stelescu and D. Ighigeanu	2019	Acta Physica Polonica A, 135(5), pp. 1058-1060, 2019
13. Optimization of cutting parameters in pocket milling of tempered and cryogenically treated 5754 aluminum alloy	G. Samtaş and S. Korucu	2019	Bulletin of the Polish Academy of Sciences: Technical Sciences. Vol. 67, Issue 4, 2019, pp. 697-707
14. The effect of bio-cutting fluids on surface roughness during end milling of A359	Arulmozhivarma J. et al.,	2019	International Journal of Mechanical and Production

aluminium alloy			Engineering Research and Development, 9, pp. 987-996.
15. Experimental investigation of nanofluids in minimum quantity lubrication during turning of EN-24 steel	Archana Thakur, Alakesh Manna, Sushant Samir	2019	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology. 1994-1996 (Vols 208-210) DOI:10.1177/1350650119878286
16. Selection of heat transfer fluids for solar thermal applications using multi-criteria decision-making tools	P. G Kumar, N. Yuvaraj, R. Velraj	2019	Journal of Testing and Evaluation 48(1),JTE20180539
17. A comprehensive optimization of ultrasonic burnishing process regarding energy efficiency and workpiece quality	RezaTeimouri, Saeid Amini	2019	Surface and Coatings Technology 375, pp. 229-242
18. Investigations on effect of nanofluid based minimum quantity lubrication technique for surface milling of Al7075-T6 aerospace alloy	Harshit B Kulkarni, Nadakatti Mahantesh et al	2019	Materials today: proceedings DOI: 10.1016/j.matpr.2019.10.127
19. Modified Taguchi Approach for optimizing the process parameter using the fictitious parameter	G Charan Kumar, M Varalakshmi, Ankita et al	2019	Journal of Physics: Conference Series, 1344(1), art. no. 012024.
20. A Comparison of Central composite design and Modified Taguchi approach to optimize the process parameters	G Charan KumarK. Rajyalakshmi	2019	Journal of Physics: Conference Series, 1344(1), art. no. 012024.
21. Investigation of Oil Droplet Coverage Rate and Droplet Size Distribution under Minimum Quantity Lubrication Condition	Zhang, S., Zhang, C., Shi, W., Lü, Y., Chen, J.	2018	Journal of Mechanical Engineering 54(3), pp. 169-177
22. Development of energy consumption map for orthogonal machining of Al 6061-T6 alloy	Warsi, .S., Jaffery, S.H.I., Ahmad, R., (...), Agha, M.H., Akram, S.	2018	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 232(14), pp. 2510-2522
23. Effect of coating on tool inserts and cutting fluid flow rate on the machining performance of AISI 1015 steel	Moganapriya, C., Rajasekar, R., Ponappa, K., (...), Pal, S.K., Kumar, J.S.	2018	Materialpruefung/Materials Testing 60(12), pp. 1202-1208
24. A review on application of nanofluid MQL in machining	Rifat, M., Rahman, M.H., Das, D.	2017	AIP Conference Proceedings 1919,020015
25. Handmade Trileaflet Valve Design and Validation for Pulmonary Valved Conduit Reconstruction Using Taguchi Method and Cascade Correlation Machine Learning Model	Kan, C.-D., Chen, W.-L., Lin, C.-H., et al.	2017	IEEE Access 6, pp. 7088-7099
26. An investigation into the dependence of energy efficiency on CNC process parameters with a sustainable consideration of electricity and materials	Xiao, Q., Li, C., Chen, X., Tang, Y.	2017	IEEE International Conference on Systems, Man, and Cybernetics, SMC 2017, pp. 1621-1626
27. Multi-objective optimization of machining parameters in multi-pass turning operations for low-carbon manufacturing	Lin, W.,Yu, D., Zhang, C., (...), Liu, S., Luo, M.	2017	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 231(13), pp. 2372-2383
28. Energy efficiency of machining operations: A review	Moradnazhad, M., Unver, H.O.	2017	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture

			231(11), pp. 1871-1889
29. Multi-objective Machining Parameters Optimization for Low Energy and Minimum Cutting Fluid Consumption	Ma, F., Zhang, H., Cao, H.	2017	Journal of Mechanical Engineering 53(11), pp. 157-163
30. Performance assessment of MQSL: Minimum quantity solid lubricant during turning of Inconel 718	Marques, A., Narala, S.K.R., Machado, A.R., et al.	2017	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 231(7), pp. 1144-1159
31. Implementation of Taguchi methodology in optimization of developed jigs and fixtures for production of paddy weeder	Shrivastava, A., Verma, A.	2017	Paddy and Water Environment 15(1)
32. Measuring of friction factor of cutting environment	Králik, M., Bachratý, M., Pokusová, M., Durakbasa, N.M.	2017	Annals of DAAAM and Proceedings of the International DAAAM Symposium pp. 118-123
33. Application of the Taguchi technique for the optimization of surface roughness and tool life during the milling of Hastelloy C22	Kıvak, T., Mert, Ş.	2017	Materialpruefung/Materials Testing 59(1), pp. 69-76
34. Taguchi optimization of photodegradation of yellow water of trinitrotoluene production catalyzed by nanoparticles TiO_2/N under visible light	Pouretedal, H.R., Fallahgar, M., Pourhasan, F.S., Nasiri, M.	2017	Iranian Journal of Catalysis 7(4), pp. 317-326
35. Minimum quantity lubrication and carbon footprint: A step towards sustainability	Omair, M.,Sarkar, B., Cárdenas-Barrón, L.E.	2017	Sustainability (Switzerland) 9(5),714
36. Analysis of power efficiency for dry milling machines based on response surface of machining parameters	Zhao, G., Wang, Q., Ruan, D., Zhang, X.	2016	China Mechanical Engineering 27(21), pp. 2944-2948
37. A quality function deployment-based model for cutting fluid selection	Prasad, K., Chakraborty, S.	2016	Advances in Tribology 2016, 3978102
38. A review of sustainable machining engineering: optimization process through triple bottom line	Alvarez, M.E.P., Barcena, M.M., Gonzalez, F.A.	2016	Journal of Manufacturing Science and Engineering, Transactions of the ASME 138(10),100801
39. Evaluation of surface roughness and material removal rate in the wire electrical discharge machining of Al/B_4C composites via the Taguchi method	Ekici, E.,Motorcu, A.R., Kuş, A.	2016	Journal of Composite Materials 50(18), pp. 2575-2586
40. Environmental impacts and hazards associated with metal working fluids and recent advances in the sustainable systems: A review	Najiha, M.S., Rahman, M.M., Yusoff, A.R.	2016	Renewable and Sustainable Energy Reviews 60, pp. 1008-1031
41. Experimental method to analyze the oil mist impingement over an insert used in MQL milling process	Duchosal, A.,Werda, S., Serra, R., et al.	2016	Measurement: J of the Int Measurement Confederation 86, pp. 283-292
42. Investigation of surface roughness and chip forms in milling of stainless steel by MQL method	Uysal, A., Demiren, F., Altan, E.	2016	Acta Physica Polonica A 129(4), pp. 439-441
43. Effect of cutting conditions on dimensional accuracy and surface roughness in traditional milling of steel	Stringer, B., Liu, R., Aznar, A.F., Iglesias, P.	2016	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) 2
44. Optimization of minimum quantity lubricant conditions and cutting parameters in hard milling of AISI H13 steel	Do, T.-V., Hsu, Q.-C.	2016	Applied Sciences (Switzerland) 6(3),83
45. Optimization of drilling parameters using Taguchi technique and response surface	Çiçek, A., Kıvak, T., Ekici, E.	2015	Journal of Intelligent Manufacturing 26(2), pp.

methodology (RSM) in drilling of AISI 304 steel with cryogenically treated HSS drills			295-305
46. Multi-objective parameter optimization of multi-pass CNC machining	Chen, X., Tang, Y., Li, C., Yi, Q.	2015	IEEE International Conference on Automation Science and Engineering 2015-October, , pp. 45-50
47. Optimization of Heavy Oil Upgrading Using Dispersed Nanoparticulate Iron Oxide as a Catalyst	Al-Marshed, A., Hart, A., Leeke, G., Greaves, M., Wood, J.	2015	Energy and Fuels 29(10), pp. 6306-6316
48. Investigation on optimum cutting condition in face milling of copper with HSS cutter using response surface methodology and genetic algorithm	Kannan, S., Baskar, N., Suresh KB., Varatharajulu,M.	2015	International Journal of Applied Engineering Research 10(76), pp. 243-248
49. Modeling and optimization of face milling parameters on brass component using response surface methodology and genetic algorithm	Kannan, S., Baskar, N., Varatharajulu, M., et al.	2015	International Journal of Applied Engineering Research 10(76), pp. 219-224
50. Application of Life Cycle Assessment (LCA) and Design of Experiments (DOE) to the monitoring and control of a grinding process	Silva, D.A.L., Filleti, R.A.P., Christoforo, A.L., et al.	2015	Procedia CIRP 29, pp. 508-513
51. Novel uses of SiO_2 nanolubrication in end milling of medium carbon steel for higher compressive residual stress measured by high-energy X-ray diffraction data	Nikpa, N.M., Sarhan, A.A.D., Abdelnaeim Hassan, M., et al.	2015	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology 230(6), pp. 697-708
52. Analysis of power and specific cutting energy consumption in orthogonal machining of al 6061-T6 alloys at transitional cutting speeds	Warsi, S.S., Jaffery, H.I., Ahmad, R., Khan, M., Akram, S.	2015	ASME International Mechanical Engineering Congress and Exposition, Proceedings 2B-2015
53. Optimal workpiece orientation to reduce the energy consumption of a milling process	Campatelli, G., Scippa, A., Lorenzini, L., Sato, R.	2015	International Journal of Precision Engineering and Manufacturing – Green Technology 2(1), pp. 5-13
54. Workpiece orientation and tooling selection to reduce the environmental impact of milling operations	Campatelli, G., Scippa, A., Lorenzini, L.	2014	Procedia CIRP 14, pp. 575-580
55. Analysis of lubrication strategies for sustainable machining during turning of titanium ti-6al-4v alloy	Deiab, I., Raza, S.W., Pervaiz, S.	2014	Procedia CIRP 17, pp. 766-771
56. Modeling and optimization of face milling operation based on response surface methodology and genetic algorithm	Kannan, S., Baskar, N.	2013	International Journal of Engineering and Technology 5(5), pp. 4164-4175
57. Investigate the lubrication effects on cutting force and power consumption in up and down end milling	Pa, N.M.N., Sarhan, A.A.D., Shukor, M.H.A., Mohamed, M.	2013	Advanced Materials Research 748, pp. 264-268
58. Optimization of minimum quantity lubrication in grinding with CBN wheels (Book Chapter)	Bianchi, E.C., Aguiar, P.R., Canarim, R.C., Diniz, A.E.	2013	Machining and Machine-Tools: Research and Development pp. 113-133
59. Optimization of cutting parameters in turning of AISI 1018 steel with constant material removal rate using robust design for minimizing cutting power	Camposeco Negrete, C., Calderón-Nájera, J., Miranda-Valenzuela, J.C.	2013	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) 2 B
60. Optimization of methyl orange bioremoval by Prunus amygdalus L. (almond) shell waste:	Deniz, F.	2013	Desalination and Water Treatment 51(37-39), pp.

Taguchi methodology approach and biosorption system design			7067-7073
61. Optimization of biosorption conditions for color removal by Taguchi DOE methodology	Deniz, F.	2013	Environmental Progress and Sustainable Energy 32(4), pp. 1129-1133
Frăţilă, D. Evaluation of near-dry machining effects on gear milling process efficiency, Journal of Cleaner Production 17(9) 2009, pp. 839-845			**125**
1. Effectiveness of alumina nanofluid on slotting end milling performance of SKD 11 tool steel.	Minh Duc, The, Long, Bao Ngoc	2020	Journal of Computational & Applied Research in Mechanical Engineering https:doi.org/10.22061/jcarme.2019.4041.1484
2. Numerical optimization of the system supplying the cooling and lubricating fluid to the cutting zone	K.Krupanek, J. Sawicki, W. Stachurski, and M. Przybysz	2019	AIP Conference Proceedings 2078 https://doi.org/10.1063/1.5092072
3. Effect of cutting fluid on precision machined surface integrity of heat-resistant stainless steel	Yan, P.,Rong, Y., Wang, X., (...), Jiao, L., Liang, Z.	2018	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 232(9), pp. 1535-1548
4. Effect of coating on tool inserts and cutting fluid flow rate on the machining performance of AISI 1015 steel	Moganapriya, C., Rajasekar, R., Ponappa, K., (...), Pal, S.K., Kumar, J.S.	2018	Materialpruefung/Materials Testing 60(12), pp. 1202-1208
5. Investigation of Oil Droplet Coverage Rate and Droplet Size Distribution under Minimum Quantity Lubrication Condition	Zhang, S., Zhang, C., Shi, W., Lü, Y., Chen, J.	2018	Journal of Mechanical Engineering 54(3), pp. 169-177
6. Investigation of the effect of minimum quantity lubrication (MQL) on the machining of titanium and its alloys a review	Cagan, S.C., Buldum, B.B.	2017	Int Journal of Mechanical and Production Engineering Research and Development 7(6), pp. 453-462
7. Effect of cutting fluids on corrosion properties and turning surface quality of Fe-based superalloy	Zhu, J., Yan, P., Jiao, L., (...), Wang, X., Rong, Y.	2017	Advances in Mechanical Engineering 9(11)
8. Minimum quantity lubrication and carbon footprint: A step towards sustainability	Omair, M., Sarkar, B., Cárdenas-Barrón, L.E.	2017	Sustainability (Switzerland) 9(5),714
9. Advanced Gear Manufacturing and Finishing: Classical and Modern Processes (Book)	Gupta, K., Jain, N.K., Laubscher, R.	2017	Advanced Gear Manufacturing and Finishing: Classical and Modern Processes pp. 1-230
10. Future perspectives of sustainable manufacturing and applications based on research databases	Yoon, H.-S., Kim, M.-S., Jang, K.-H., Ahn, S.-H.	2016	International Journal of Precision Engineering and Manufacturing 17(9), pp. 1249-1263
11. Metal cutting theory and practice, Third edition (Book)	Stephenson, D.A., Agapiou, J.S.	2016	Metal Cutting Theory and Practice, Third Edition pp. 1-931
12. Sustainable manufacturing and its application in machining processes: A review	Ghandehariun, A., Nazzal, Y., Kishawy, H.	2016	International Journal of Global Warming 9(2), pp. 198-228
13. Effect of cutting conditions on dimensional accuracy and surface roughness in traditional milling of steel	Stringer, B., Liu, R., Aznar, A.F., Iglesias, P.	2016	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) 2
14. Mathematical model describing the course of	Stachurski, W.,	2016	Eksploatacja i

the process of wear of a hob cutter for various methods of cutting fluid supply	Midera, S., Kruszyński, B.		Niezawodnosc 18(1), pp. 123-127
15. Influence of cutting fluid conditions and cutting parameters on surface roughness and tool wear in turning process using Taguchi method	Debnath, S., Reddy, M.M., Yi, Q.S.	2016	Measurement: Journal of the International Measurement Confederation 78, pp. 111-119
16. The effect of cutting fluids applied in metal cutting process	Yan, P., Rong, Y., Wang, G.	2016	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 230(1), pp. 19-37
17. Towards greener machine tools – A review on energy saving strategies and technologies	Yoon, H.-S., Kim, E.-S., Kim, M.-S., et al.	2015	Renewable and Sustainable Energy Reviews 48, pp. 870-891
18. Influence of minimal quantity lubrication on machined residual stress	He, A.-D., Ye, B.-Y., Qin, M.-Y., Xu, L.-Y., Ling, L.-D.	2015	Journal of Hunan University Natural Sciences 42(10), pp. 48-53
19. Sustainability performance assessment of alternate machining technologies	Singh, K., Madan, J.	2015	ASME 2015 International Manufacturing Science and Engineering Conference, MSEC 2015 2
20. Sustainable agriculture – the potential to increase wheat and rapeseed yields in Poland	Królczyk, J.B., Latawiec, A.E., Kuboń, M.	2014	Polish Journal of Environmental Studies 23(3), pp. 663-672
21. An evaluation on machining processes for sustainable manufacturing	Günay, M., Yücel, E.	2013	Gazi University Journal of Science 26(2), pp. 241-252
22. Research of environment-friendly techniques influence on gear accuracy in context of sustainable manufacturing	Kuram, E., Ozcelik, B., Huseyin Cetin, M., Demirbas, E., Askin, S.	2013	Proceedings of the Romanian Academy Series A – Mathematics Physics Technical Sciences Information Science 14(1), pp. 56-63
23. The national capacity assessment on cleaner (sustainable) production in Turkey	Pombo, I., Sanchez, J.A., García, E., et al.	2012	Sustainable Cities and Society 5(1), pp. 30-36
24. Determination of the framework conditions and research-development needs for the dissemination of cleaner (sustainable) production applications in Turkey	Helu, M., Behmann, B., Meier, H., et al.	2012	International Journal of Sustainable Development and World Ecology 19(3), pp. 203-209
25. Total cost analysis of process time reduction as a green machining strategy	Tawakoli, T., Hadad, M., Sadeghi, M.H., Daneshi, A., Sadeghi, B.	2012	Proceedings of the 19th CIRP Conference on Life Cycle Engineering pp. 299-304
Frățilă D. Macro-level environmental comparison of near-dry machining and flood machining. Journal of Cleaner Production, 18(10-11), July 2010, pp. 1031-1039.			**115**
1. A review on the impact of process energy on the environmental performance of milling	Manoj Kurukulasuriya, J.R. Gamage, Janaka Mangala	2019	International Conference on Production and Operations Management Society DOI: 10.1109/POMS.2018.8629490
2. Fuzzy logic method to investigate grinding of alumina ceramic using minimum quantity lubrication	Yusuf Dambatta Ahmed A. D. Sarhan et al	2019	International Journal of Applied Ceramic Technology 16(20) DOI: 10.1111/ijac.13219
3. Modeling the impact of cutting fluid strategies on environmentally conscious machining systems	N. Madanchi, S. Thiede, T. Gutowski, Ch. Herrmanna	2019	Procedia CIRP, 80, pp. 150-155 https://doi.org/10.1016/j.procir.2019.01.068

4. Experimental Investigation of Aluminum 7075 using Dry, Wet and MQL Condition	N.D. Bankar, G.D. Shelke, M.D. Irfan	2019	International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 06 Issue: 10 Oct 2019
5. Energy conscious cryogenic machining of Ti-6Al-4V titanium alloy	Shokrani, A., Dhokia, V., Newman, S.T.	2018	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 232(10), pp. 1690-1706
6. Future perspectives of sustainable manufacturing and applications based on research databases	Yoon, H.-S., Kim, M.-S., Jang, K.-H., Ahn, S.-H.	2016	International Journal of Precision Engineering and Manufacturing 17(9), pp. 1249-1263
7. Towards greener machine tools – A review on energy saving strategies and technologies	Yoon, H.-S., Kim, E.-S., Kim, M.-S., et al.	2015	Renewable and Sustainable Energy Reviews 48, pp. 870-891
8. Sustainability performance assessment of alternate machining technologies	Singh, K., Madan, J.	2015	ASME 2015 International Manufacturing Science and Engineering Conference, MSEC 2015
9. Health and Environmental Impacts in Metal Machining Processes (Book Chapter)	Haider, J., Hashmi, M.S.J.	2014	Comprehensive Materials Processing 8, pp. 7-33
10. A process planning method for reduced carbon emissions	Yin, R., Cao, H., Li, H., Sutherland, J.W.	2014	International Journal of Computer Integrated Manufacturing 27(12), pp. 1175-1186
11. A review of engineering research in sustainable manufacturing	Haapala, K.R., Zhao, F., Camelio, J., (...), Clarens, A.F., Rickli, J.L.	2013	Journal of Manufacturing Science and Engineering, Transactions of the ASME 135(4),041013
12. An evaluation on machining processes for sustainable manufacturing	Günay, M., Yücel, E.	2013	Gazi University Journal of Science 26(2), pp. 241-252
13. Comparative life cycle assessment of servo press and flywheel press	Yu, S., Liu, Y., Li, L.	2013	Re-Engineering Manufacturing for Sustainability – Proceedings of the 20th CIRP Int Conference on Life Cycle Engineering pp. 515-521
14. Study on life cycle assessment of servo press with comparison to flywheel press	Yu, S., Liu, Y., Li, L., Peng, Q.	2013	Proceedings of the ASME Design Engineering Technical Conference 4,V004T05A031
15. Water consumption due to electricity generation versus manufacturing processes in an automotive life-cycle	Semmens, J., Bras, B., Guldberg, T.	2013	ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) 6 B
16. Direct and indirect water consumption in vehicle manufacturing	Tejada, F., Bras, B., Guldberg, T.	2012	Proceedings of the ASME Design Engineering Technical Conference 5, pp. 465-475
17. A study on optimal machine setups using an energy modeling approach	Bi, Z.M., Wang, L.	2012	Transactions of the North American Manufacturing Research Institution of SME 40, pp. 571-579
18. Quantifying the life cycle water consumption of a passenger vehicle	Bras, B., Tejada, F., Yen, J., et al.	2012	SAE Technical Papers
19. Evaluation method and application for carbon emissions of machine tool based on life cycle	Cao, H.-J., Li, H.-C., Song, S.-L., Du,	2011	Computer Integrated Manufacturing Systems,

assessment	Y.-B., Chen, P.		CIMS 17(11), pp. 2432-2437
20. Structure principles of energy efficient machine tools	Neugebauer, R., Wabner, M., Rentzsch, H., Ihlenfeldt, S.	2011	CIRP Journal of Manufacturing Science and Technology 4(2), pp. 136-147
21. Evaluating the use phase energy requirements of a machine tool system	Avram, O.I., Xirouchakis, P.	2011	J of Cleaner Production 19(6-7), pp. 699-711
22. Towards data-driven sustainable machining – Combining MTConnect production data and Discrete Event Simulation	Bengtsson, N., Michaloski, J., Proctor, F., Shao, G., Venkatesh, S.	2010	ASME 2010 International Manufacturing Science and Engineering Conference, MSEC 2010 1, pp. 379-387
23. Evaluation method and application for carbon emissions of machine tools based on LCA	Song, S., Cao, H., Li, H.	2010	IET Conference Publications 2010(576 CP), pp. 74-78
Frăţilă, D., Caizar, C. Investigation of the influence of process parameters and cooling method on the surface quality of AISI-1045 during turning. Materials and Manufacturing Processes 27(10) 2012, pp. 1123-1128			**17.5**
1. Design and manufacturing orthotics shoe insole with optimum surface roughness using the CNC milling	P. W. Anggoro, B. Bawono et al	2019	Journal of Engineering Science and Technology, 14(4), pp. 1799-1819.
2. Determination of MQL Parameters Contributing to Sustainable Machining in the Milling of Nickel-Base Superalloy Waspaloy	Yıldırım, Ç.V., Kıvak, T., Sarıkaya, M., Erzincanlı, F.	2017	Arabian Journal for Science and Engineering 42(11), pp. 4667-4681
3. Optimization of MQL parameters using the Taguchi method in milling of nickel based waspaloy	Yildirim, Ç.V., Kivak, T., Erzincanli, F., et al	2017	Gazi University Journal of Science 30(2), pp. 173-186
4. Minimum Quantity Lubrication (MQL) Milling of Stainless Steel 304 Using Coated Carbide Tool Inserts	S Singh, P Singh, T Singh, J. Dureja, M Dogra	2017	IJAMR – Serials Publications 9(1) 2017, pp. 61-66
5. Factors Affecting Surface Roughness in Finish Turning (Book Chapter)	Ratnam, M.M.	2016	Comprehensive Materials Finishing 1-3, pp. 1-25
6. A review of near dry machining/minimum quantity lubrication machining of difficult to machine alloys	Singh, T., Singh, P., Dureja, J.S., (...), Singh, H., Bhatti, M.S.	2016	International Journal of Machining and Machinability of Materials 18(3), pp. 213-251
7. Performance evaluation of coated carbide tool in machining of stainless steel (AISI 202) under minimum quantity lubrication (MQL)	Dureja, J.S., Singh, R., Singh, T., (...), Dogra, M., Bhatti, M.S.	2015	Int J of Precision Engineering and Manuf – Green Technology 2(2), pp. 123-129
Frăţilă, D., Caizar C. Assessment of Cooling Effect and Surface Quality to Face Milling of AlMg3 Using Several Cooling Lubrication Methods. Materials and Manufacturing Processes, 27(3), 2012, pp 291-296.			**20**
1. Experimental Investigation during Micro-Milling of Hybrid Al6063 MMC Reinforced with SiC and ZrO2	P. Tripathy, K.P. Maity	2019	Advanced Engineering Forum, Vol 33 DOI: 10.4028/www.scientific.net /AEF.33.1
2. Determination of MQL Parameters Contributing to Sustainable Machining in the Milling of Nickel-Base Superalloy Waspaloy	Yıldırım, Ç.V., Kıvak, T., Sarıkaya, M., Erzincanlı, F.	2017	Arabian Journal for Science and Engineering 42(11), pp. 4667-4681
3. Minimum Quantity Lubrication (MQL) Milling of Stainless Steel 304 Using Coated Carbide Tool Inserts	S Singh, P Singh, T Singh, J Dureja, M Dogra	2017	IJAMR – Serials Publications 9(1) 2017 January-June, pp. 61-66
4. A review of near dry machining/minimum quantity lubrication machining of difficult to machine alloys	Singh, T., Singh, P., Dureja, J.S., (...), Singh, H., Bhatti, M.S.	2016	International Journal of Machining and Machinability of Materials 18(3), pp. 213-251

5. Surface roughness prediction by response surface methodology in milling of hybrid aluminum composites	T Alwarsamy, T Abhinav, CA Krishnakant	2012	Procedia Engineering 38, 2012, pp. 745-752	
6. Analysis of contact phenomena and heat exchange in the cutting zone under minimum quantity cooling lubrication conditions	RW Maruda, E Feldshtein, S Legutko	2016	Arabian Journal for Science and Engineering February 2016, 41(2), pp 661–668	
7. Tool wear and surface quality of metal matrix composites due to machining: A review	F Hakami, A Pramanik	2017	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture.	
8. The effect of cooling conditions on the texture of machined surface when milling of aluminum alloy en aw 6060.	E Feldshtein, R Maruda, D Jęśko	2014	ObróbkMetalu, 2014, 2, pp.56-60	
Frăţilă, D.-F. Research of environment-friendly techniques influence on gear accuracy in context of sustainable manufacturing. Proceedings of the Romanian Academy Series A – Mathematics Physics Technical Sciences Information Science 14(1) 2013, pp. 56-63				**10**
1. Advanced Gear Manufacturing and Finishing: Classical and Modern Processes (Book)	Gupta, K., Jain, N.K., Laubscher, R.	2017	Advanced Gear Manufacturing and Finishing: Classical and Modern Processes pp. 1-230	
2. Multi-objective optimization of minimum quantity lubrication in end milling of aluminum alloy AA6061T6	Najiha, M.S., Rahman, M.M., Kadirgama, K., et al.	2015	International Journal of Automotive and Mechanical Engineering 12(1), pp. 3003-3017	
Frătilă, D. Environmentally friendly Manufacturing Processes in the Context of Transition to Sustainable Production (Book Chapter). Comprehensive Materials Processing 8, 2014, pp. 163-175				**25**
1. Remanufacturing of Aero-engine Components by Laser Cladding	W Wang, H Lin	2014	International Conference on Mechatronics, Control and Electronic Engineering (MCE-14) DOI: 10.2991/mce-14.2014.133	
2. Performance of environmentally friendly machining using compressed cold air cooling: focusing on process level activities and improvements	L Celent, D Bajić, S Jozić, B Lela	2015	Journal of Trends in the Development of Machinery and Associated Technology, 19(1), 2015, ISSN 2303-4009, pp. 9-12	
3. Mit Kälte smart ins Harte GP	D. Biermann, JP Jaeger	2018	werkstatt-betrieb.de, file:///C:/Users/Admin/Downloads/WB_2018_04_Mit-Kaelte-smart-ins-Harte.pdf	
4. Determination of MQL Parameters Contributing to Sustainable Machining in the Milling of Nickel-Base Superalloy Waspaloy	Yildirim, C. Vakkas; K., T., Sarikaya, M.; et al.	2017	Arabian Journal for Science and Engineering 42(11), pp. 4667-4681	
5. Analysis of Contact Phenomena and Heat Exchange in the Cutting Zone Under Minimum Quantity Cooling Lubrication conditions	Maruda, R.W.; Feldshtein, E.; Legutko, S.; et al.	2016	Arabian Journal for Science and Engineering 41(2) pp. 661-668	
Frătilă D. (2013) Sustainable Manufacturing Through Environmentally-Friendly Machining. Chapter in: Davim J. (eds) Green Manufacturing Processes and Systems. Materials Forming, Machining and Tribology. Springer, Berlin, Heidelberg				**40**

1. Metalworking fluids	JP Byers	2017	CRC Press Published September 20, 2017, 515p. ISBN 9781498722223. Series: Manufacturing Engineering and Materials Processing
2. Assessment of research needs for sustainability of unconventional machining processes	JR Gamage, AKM DeSilva	2015	Procedia CIRP, 2015 – Elsevier
3. Energy conscious cryogenic machining of Ti-6Al-4V titanium alloy	Shokrani, A., Dhokia, V., Newman, S.T.	2018	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture 232(10), pp. 1690-1706
4. Analysis of the surface roughness after the sintered carbides turning with PCD tools	R Kowalczyk, A Matras	2014	Proceedings Volume 9290, Photonics Applications in Astronomy, Communications, Industry, and High-Energy Physics Experiments;doi.org/10.1117/12.2074241
5. Analysis and optimization of sintered carbides turning with PCD tools	W Zębala, R Kowalczyk, A Matras	2015	Procedia Engineering 100, 2015, pp. 283-290
6. Optimization for sustainable manufacturing based on axiomatic design principles: a case study of machining processes	GB Lee, O Badrul	2014	Advances in Production Eng & Management ISSN1854-6250, 9(1)2014, pp. 31–43,
7. Hybrid Model for Evaluation of Manufacturing Sustainability using Axiomatic Design Principles: A Case of Machining Processes.	LG Beng, B Omar	2014	Applied Mechanics and Materials, 554, pp. 546-550, 2014
8. Comparison of sintered carbide shafts turning with PCD and CBN tools.	A Matras, R Kowalczyk	2016	Key Engineering Materials, 686, pp. 234-239, 2016
Leordean, D., Radu, S.A.; Frăţilă, D.. Berce. P. Studies on design of customized orthopedic endoprostheses of titanium alloy manufactured by SLM, International Journal of Advanced Manufacturing Technology 79(5-8) 2015, pp. 905-920			**7.5**
1. Manufacturing technology and mechanical properties of modified recycled aggregate concrete	W Yonggui, NIU Haicheng, FAN Yuhui	2019	Cademic Journal of Manufacturing Engineering, 2019
2. Additive Manufacturing of Titanium Alloys for Orthopedic Applications: A Materials Science Viewpoint	Majumdar, T., Eisenstein, N., Frith, J.E., et al.	2018	Advanced Engineering Materials 20(9),1800172
3. Osteogenesis of 3D printed porous Ti6Al4V implants with different pore sizes	Ran, Q., Yang, W., Hu, Y., (...), Xiang, Y., Cai, K.	2018	Journal of the Mechanical Behavior of Biomedical Materials 84, pp. 1-11
4. Paraprosthetic Complications After Endoprosthesis Replacement of Pelvis Joint with Implants	Baimagambetov, S.A., Balgazarov, S.S., et al.	2018	Journal of the National Medical Association 110(3), pp. 231-241
5. Development of finite element model for customized prostheses design for patient with pelvic bone tumor	Iqbal, T., Shi, L., Wang, L., (...), Qin, M., Jin, Z.	2017	Proceedings of the Institution of Mechanical Engineers, Part H: J of Eng in Medicine 231(6), pp. 525-533
6. X-ray computed tomography and additive manufacturing in medicine: A review	Thompson, A., McNally, D., Maskery, I., Leach, R.K.	2017	International Journal of Metrology and Quality Engineering 8-17
Radu, S.-A., Frăţilă, D.-F. Simulation and experimental research on the vacuum casting of non-metallic complex parts using flexible molds. Proceedings of the Romanian Academy			**7.5**

Series A – Mathematics Physics Technical Sciences Information Science 13(4) 2012, pp. 343-350.				
1. Flow Analysis of Five-Axis Impeller in Vacuum Casting by Computer Simulation	M N Ahmad, M K Wahid, N AIN Maidin et al	2019	Journal of Advanced Research in Fluid Mechanics and Thermal Sciences61, Issue 2(2019)	
2. Shrinkage Effect of Vacuum Casting Process Parameters using Taguchi Method	M N Ahmad, M K Wahid	2019	International Journal of Integrated Engineering Vol. 11 No. 3 (2019) 248–254	
3. Numerical simulation and additive manufacturing technology in design of knee implant patterns	Rajic, A., Desnica, E., Stojadinovic, S., Nedelcu, D.	2014	Journal of Optoelectronics and Advanced Materials 16(9-10), pp. 1180-1190	
Frăţilă, D., Palfinger, W., Bou, S., (...), Wögerer, C., Möst, R. A method for measurement and characterization of microdispensing process. ISAM 2007 – IEEE International Symposium on Assembly and Manufacturing. 4288474, 2007, pp. 209-214				**1.66**
1. Technology developments of micro fluid dispensing	Li, F., Xu, D., Zhang, T., Yang, Y.	2016	Lecture Notes in Electrical Engineering 360, pp. 171-180	
Ros, O., Gyenge, C., Frăţilă, D. Sustainable product development by considering the environmental consequences. Annals of DAAAM and Proceedings of the International DAAAM Symposium 2007, pp. 645-646				**1.66**
1. Life cycle evaluation strategies of biodiesel fuel along the supply chain in public transport	Nelson, D.M., Vonderembse, M.A., Rao, S.S.	2011	International Journal of Logistics Systems and Management 9(2), pp. 186-203	
Frăţilă, D. Numerical and experimental approach of cutting temperatures to green turning of 42CrMo4 steel				**5**
1. Application of fuzzy QFD for improving the process sustainability characteristics: a case study	K.E.K. Vimal, Sekar Vinodh, Jayakrishna Kandasamy	2019	International Journal of Services and Operations Management 32(2):173 DOI:10.1504/IJSOM.2019.097528	
Frăţilă, D. , Popan A. Analysis and optimization of cutting parameters in drilling operation of EM AW-2007 aluminum alloy. Academic Journal of Manufacturing Engineering, 16(1), pp. 19-26, 2018.				**2.5**
1. Study of the influencing factors within the CNC Dry milling of the aluminum parts	Vlad Coste , Ian Campbell, Nicolae Bâlc	2019	Academic Journal of Manufacturing Engineering, 17(2), pp. 165-173. 2019	
Frăţilă D., Rotaru H. Additive Manufacturing – a sustainable manufacturing route. MATEC Web of Conference, Vol. 94. The 4th International Conference on Computing and Solutions in Manufacturing Engineering 2016 – CoSME'16				**7.5**
1. Green Material for Fused Filament Fabrication: A Review	M M. Taha, R Jumaidin, N M. Razali and S Ikhwan Kudus	2020	Source: Implementation and Evaluation of Green Materials in Techn Dev: Emerging Research and Opportunities DOI: 10.4018/978-1-7998-1374-3.ch001	
2. Additive manufacturing from the sustainability perspective: Proposal for a self-assessment tool	Carla Gonçalves Machado, Mélanie Despeisse et al	2019	Procedia CIRP, 81, pp. 482-487.	
3. Design and Manufacturing Strategies for Fused Deposition Modeling in Additive Manufacturing: A Review	Hugo I. Medellin-Castillo, Jorge Zaragoza-Siqueiros	2019	Chinese Journal of Mechanical Engineering 32:53	
Frăţilă D. Evaluation of near-dry machining effects on gear milling process efficiency. Journal of Cleaner Production 17(9) 2009, pp. 839-845				**5**

1. Numerical optimization of the system supplying the cooling and lubricating fluid to the cutting zone	Krzysztof Krupanek, Jacek Sawicki et al.	2019	AIP Conference Proceedings Vol. 2078, Issue 1 DOI: 10.1063/1.5092072

3.1.3 Citări în alte publicaţii (3/nr. autori) - **69**

Frăţilă D., Caizar C. Application of Taguchi method to selection of optimal lubrication and cutting conditions in face milling of $AlMg_3$, Journal of Cleaner Production, 19 (6-7) 2011, pp. 640-645	**15**
1. Nur R. Calculating the Power Demand in Turning of AISI 316L Stainless Steel Through the Cutting Forces Data	Journal INTEK. 2016, 3 (1): 43-49
2. Samtaş G. Optimization of cutting parameters using Taguchi method during the face milling of AISI 1040 with coated and uncoated inserts	Düzce Üniversitesi Bilim ve Teknoloji Dergisi, 2016, http://fbedergi.duzce.edu.tr
3. Patyal V.S., S. Application of Taguchi Method of Experimental Design for Chemical Process Optimisation: A Case Study	Asia-Pacific Journal of Management Research and Innovation, 9(3), 2013, http://journals.sagepub.com
4. Chiang F..T., Chu K.H., Chen C.Y., Chen C.Y., Pan L.K. Taguchi's analysis to optimize descending aortography for patent ductus arteriosus, with clinical verification.	Hell J Nucl Med. 2016 May-Aug;19(2):118-23. Doi: 10.1967/s002449910364
5. Takenouchi M.M. Otimização do processo de usinagem da superliga nimonic 80A utilizando o Método de Taguchi	Universidade Estadual Paulista "Júlio de Mesquita Filho". Repositório Institucional UNESP, 2011, http://repositorio.unesp.br
6. Llano Martínez J.F. Propuesta de programa piloto de indicadores de gestión energética para empresas del sector metalmecánico de la ciudad de Ibagué que llevan a cabo procesos de torneado	Universidad de ibagué, Facultad de ingeniería, Maestría en gestión industrial Ibagué, 2016, http://repositorio.unibague.edu.co
7. Toprak I., Çağlar M.F., Çolak O. , K Kiran K. Tİ6Al4V süper alaşiminin yüksek basinçli soğutma şartlarinda frezelenmesinde yüzey pürüzlülüğünün Taguchi yöntemi ile optimizasyonu	SDU International Technologic Science. 4(2), November 2012 pp. 30-39, http://dergipark.gov.tr
8. Almarshed A. Laboratory investigation of nanoscale dispersed catalyst for inhibition coke formation and upgrading of heavy oil during THAI process	Ph.D. thesis, University of Birmingham, 2016, http://etheses.bham.ac.uk
9. Chowdhury S.A. A Numerical and Experimental Investigation of the Effects of Cutting Fluid on Machining Performance	espace – Curtin's institutional repository 2016, http://espace.curtin.edu.au
10. Kaushik Kumar, Divya Zindani, J. Paulo Davim Optimizing Engineering Problems through Heuristic Techniques	Book 2019-CRC Press, Published December 2, 2019. Reference- 138 Pages ISBN 9781138485365
Frăţilă, D. Evaluation of near-dry machining effects on gear milling process efficiency, Journal of Cleaner Production 17(9) 2009, pp. 839-845	**27**
1. Rao R.V. Advanced modeling and optimization of manufacturing processes: international research and development	https://www.springer.com/br/book/9780857290144
2. Stachurski W, Midera S, Kruszyński B. Mathematical model describing the course of the process of wear of a hob cutter for various methods of cutting fuid supply.	Eksploatacja i Niezawodnosc – Maintenance and Reliability 2016; 18 (1): 123–127, http://dx.doi.org/10.17531/ein.2016.1.16.
3. Simeone A., Woolley E., Luo Y., Williams O., Rahimifard S. Infrared monitoring of aluminium milling processes for reduction of environmental impacts	Loughborough University Institutional Repository , 2017, dspace.lboro.ac.uk/dspace jspui/bitstream/2134/24094//B6610821.pdf
4. Pereira Neto O.M. Disminución del impacto medioambiental de procesos de mecanizado mediante combinación de micropulverización MQL y refrigeración criogénica	Universidad de la Rioja, Dialnet, 2017, https://dialnet.unirioja.es/servlet/tesis?codigo=122549

5. Sujan Debnath, Moola Mohan Reddy, Alokesh Pramanik - Dry and Near-Dry Machining Techniques for Green Manufacturing. Part of the Materials Forming, Machining and Tribology book series	Book 2019, https://doi.org/10.1007/978-3-030-03276-0, Springer Nature Switzerland AG 2019 Springer
6. Senol Bayraktar - High Speed Machining, Chapter 8 - Cryogenic cooling-based sustainable machining,	Chapter in Book, Pages 223-241, https://doi.org/10.1016/B978-0-12-815020-7.00008-4
7. Debnath S., Reddy M.M., Pramanik A. (2019) Dry and Near-Dry Machining Techniques for Green Manufacturing.	Chapter in Book, In: Gupta K. (eds) Innovations in Manufacturing for Sustainability. Materials Forming, Machining and Tribology. Springer, Cham DOI https://doi.org/10.1007/978-3-030-03276-0_1
8. Anand R., Haq M.I.U., Raina A. (2020) Bio-Based Nano-Lubricants for Sustainable Manufacturing	Chapter in: Bhushan I., Singh V., Tripathi D. (eds) Nanomaterials and Environmental Biotechnology. Nanotechnology in the Life Sciences. Springer, https://doi.org/10.1007/978-3-030-34544-0_18
9. Gajrani K.K., Sankar M.R. (2020) Role of Eco-friendly Cutting Fluids and Cooling Techniques in Machining.	Chpater in: Gupta K. (eds) Materials Forming, Machining and Post Processing. Materials Forming, Machining and Tribology. Springer
Frăţilă D. Macro-level environmental comparison of near-dry machining and flood machining. Journal of Cleaner Production, 18(10-11), July 2010, pp. 1031-1039.	**9**
1. Bras B., Tejada F., Yen J., Zullo J., Guldberg T. Quantifying the life cycle water consumption of a passenger vehicle	SAE International 2012, doi:10.4271/2012-01-0646
2. Schmitt T. Mécanismes de dégradation de revêtements base CrN élaborés par arc-PVD: intérêt d'une nano-architecture	PhD Thesis, Ingénieur Matériaux ENSIL Ecole doctorale :Matériaux de Lyon 2010, file:///C:/Users/Admin/Downloads/TH_T2222_tschmitt.pdf
3. Tejada F.J. Quantifying the life cycle water consumption of a passenger vehicle	Master Thesis, Georgia Institute of Technology, May 2012, https://smartech.gatech.edu/bitstream/handle/1853/43637/tejada_francisco_j_201205_mast.pdf
Frăţilă D. (2013) Sustainable Manufacturing Through Environmentally-Friendly Machining. Chapter in: Davim J. (eds) Green Manufacturing Processes and Systems. Materials Forming, Machining and Tribology. Springer, Berlin, Heidelberg	**18**
1. Kowalczyk R., Zębala W. Analiza sił skrawania podczas toczenia węglików spiekanych WC-Co narzędziami z PCD	Inżynieria Maszyn, 2013 – yadda.icm.edu.pl
2. Espindola ESC. Aplicação de técnicas de usinagem anbientalmente amigáveis no processo de torneamento radial do aço SAE 1045	Universidade Federal Do Rio Grande Do Sul, Programa De Pós-Graduação Em Engenharia Mecânica, 2016 – lume.ufrgs.br
3. Kowalczyk R., Zębala W. Analiza składowych sił skrawania oraz chropowatości powierzchni podczas toczenia węglików spiekanych narzędziami z ostrzami diamentowymi	Mechanik, 2 2015 – 34iennale.media.pl
4. Dornhöfer M.J. Green Knowledge Management zur Unterstützung ökologischer Nachhaltigkeit	Phd Thesis, Naturwissenschaftlich-Technischen Fakultät der Universität Siegen 2017 – dokumentix.ub.uni-siegen.de
5. Hashemzadeh M. Analytical Hierarchy Process Application in Greenness Comparison of Machine Tool System	Master thesis, Universiti Teknologi Malaysia, Faculty of Mechanical Engineering.
6. Jagadish Kapil Gupta - Abrasive Water Jet Machining of Metallic Materials. In: Abrasive Water Jet Machining of Engineering Materials	Book 2019, eBook ISBN 978-3-030-36001-6 DOI: 10.1007/978-3-030-36001-6

3.3 Membră în colectivele de redacție sau comitete științifice ale revistelor și manifestrilor științifice, organizator manifestări științifice, Recenzor pentru reviste și manifestări științifice naționale și internaționale indexate ISI – 89

3.3.1 Indexate ISI	**50**
Recenzor pentru *International Journal of Advanced Manufacturing Technologies* (http://www.springer.com/engineering/production+engineering/journal/170)	10
Recenzor pentru *Materials & Manufacturing Processes Journal* (http://www.tandfonline.com/toc/lmmp20/)	10
Recenzor pentru *Journal of Cleaner Production* (http://www.journals.elsevier.com/journal-of-cleaner-production/)	10
Recenzor pentru *Tribology International* (http://www.journals.elsevier.com/tribology-international/)	10
Recenzor pentru *Journal of Machining Science and Technology* (http://www.tandfonline.com/toc/lmst20/)	10
3.3.2 Indexate BDI	**24**
Membră a comitetului de organizare al Conferinței Internaționale 35iennale *Modern Technologies in Manufacturing (MteM)* în perioada 2001-2017 și membră în comitetul științific al aceleiași conferințe în 2017 (http://www.mtem.utcluj.ro/)	8
Membră a comitetului editorial al *Open Engineering (formerly Central European Journal of Engineering)* (https://www.degruyter.com/view/j/eng)	8
Recenzor pentru *Scientific Research and Essays* (http://www.academicjournals.org/SRE)	8
3.3.3 Naționale și internaționale neindexate	**15**
Membră a comitetului editorial al *International Journal of Materials Forming and Machining Processes* (http://www.igi-global.com/journal/international-journal-materials-forming-machining/69666)	5
Membră a comitetului editorial al *International Journal of Applied Management Sciences and Engineering* (http://www.igi-global.com/journal/international-journal-applied-management-sciences/68203)	5
Membră a comitetului editorial al *Journal of Mechanics & Industry Research* (http://www.sciknow.org/journals/show/id/jmir)	5

3.4 Experiență de management, analiză și evaluare în cercetare și învățământ -28

3.4.2 membru (2 x nr. ani)	
Expert evaluator UEFISCDI în competițiile: *Joint Applied Research Projects* (PCCA) din cadrul Planului Național de Cercetare, Dezvoltare și Inovare 2007-2013, PNII, *Black See ERA – NET* și în cadrul Programului *Capacități*, Subprogramul *Cooperări bilaterale – Programul de cooperare bilaterală România – Austria*, din cadrul Planului Național de Cercetare, Dezvoltare și Inovare 2007-2013, PN-II.	4

Expert evaluator pentru National Science Centre (Narodowe Centrum Nauki) Polonia, în cadrul competițiilor SONATA 8 și Preludium 8, 2015-2016 (https://osf.opi.org.pl).	4
Membră în comisii de licență și dizertație (2013-2018)	10
Membră în comisii de îndrumare pentru stagii de pregătire doctorală (2017-2020)	6
Membră a comisiei de selecție *DAAD-Studienstipendien /Master (*2018, 2019)	4

3.6 Membră în academii, asociații profesionale naționale și internționale - 6

3.6.4.2 Asociații profesionale naționale	
Asociația Universitară de Ingineria Fabricației (AUIF) (http://eng.upt.ro/auif/index.php)	3
DAAAM International Association-Young Researches' and Scientists' Committee 2005 (www.daaam.info)	3

Conf.dr.ing Domnița Florina FRĂȚILĂ