TECHNICKÁ UNIVERZITA V KOŠICIACH
Fakulta výrobných technológií

Prehľad vedecko-výskumnej činnosti na vysokej škole a dosiahnutých výsledkov v tejto činnosti

Ing. František Botko, PhD.

Prešov, 2022

1. Prehlaď riešených výskumných úloh

a) Grantové projekty domáce

APVV

- APVV-15-0700 Výskum nového kompozitného materiálu na výrobu CNC strojov pre progresívne obrábanie výrobkov z práškových materiálov vyrábaných aditívnou technológiou DMLS (2015 - 2020). (spoluriešiteľ)
- APVV-15-0696 Výskum, výroba a prevádzkové overenie prototypových nástrojov pre tvárnenie výmenníkových rúr s tvarovo členitým vnútorným povrchom pre zvyšovanie efektívnosti energetických zariadení (2015 - 2020). (spoluriešiteľ)
- APVV-20-0514 Výskum vplyvu technologických parametrov obrábania abrazívnym vodným prúdom na integritu povrchu nástrojových ocelí (2021 - 2025). (spoluriešiteľ)
- APVV-21-0228 Výskum a stanovenie postupov tavného zvárania kovových komponentov vyrobených aditívnymi technológiami SLM a SLS (2022 - 2026). (spoluriešiteľ)
- **SK-UA-21-0060 Zdokonalenie plánovania produkcie implementáciou počítačom podporovaného systému pre dizajn prípravkov (2022 – 2023). (zodpovedný riešiteľ)**

KEGA

- 039TUKE-4/2017 Transfer poznatkov výskumu zvárania žiarupevných ocelí do študijného programu progresívne technológie (2017 - 2019). (spoluriešiteľ)
- 025TUKE-4/2018 Transfer nových prístupov výučby technologicky orientovaných predmetov a implementácia výučby v podmienkach praxe pre súčasné potreby slovenského priemyslu (2018 - 2020). (spoluriešiteľ)
- 014TUKE-4/2020 Implementácia poznatkov výskumu inovatívnych spôsobov nedeštruktívneho testovania materiálov do študijného programu Technológie automobilovej výroby. (2020 - 2022). (spoluriešiteľ)
- 028TUKE-4/2021 Transfér nových poznatkov z oblasti výrobných technológií do výučby technologicky orientovaných predmetov pre súčasné potreby slovenského priemyslu. (2021 - 2023). (spoluriešiteľ)

VEGA

- 1/0492/16 Výskum možností eliminácie deformácií tenkostenných súčiastok s využitím vysokorýchlostného obrábania (2016 - 2019). (spoluriešiteľ)
- 1/0682/17 Výskum, vývoj a experimentálne overenie prototypových nástrojov pre tvárnenie výmenníkových rúr s tvarovo členitým vnútorným povrchom (2017 – 2020). (spoluriešiteľ)
- 1/0080/20 Výskum vplyvu vysokorýchlostných a vysokoposuvových technológií trieskového obrábania na integritu povrchových vrstiev ťažkoobrobiteľných materiálov. (2020 - 2023). (spoluriešiteľ)
- 1/0391/22 Výskum a aplikácia nových technologických postupov nedeštruktívneho testovania produktov aditívnej výroby (2022 - 2025). (spoluriešiteľ)

Projekty EÚ

- Automatizácia a robotizácia pre výrobné procesy 21. storočia, ITMS kód projektu 313011T566. (riešiteľ)
- Rozvoj excelentných výskumných kapacít v oblasti aditívnych technológií pre Priemysel 21 storočia, ITMS kód projektu 313011BWN5. (riešiteľ)

b) Prehľad patentov a autorských osvedčení, vynálezov a technických diel

- HATALA, Michal - BOTKO, František: Tvárniaci nástroj s grafitovými vložkami na zvýšenie mazacieho efektu Prihláška úžitkového vzoru č. 50127-2020/- Banská Bystrica : ÚPV SR - 2021.
- HATALA, Michal - BOTKO, František: Prípravok na kontrolu tolerancie kruhových výrobkov vírivými prúdmi Prihláška úžitkového vzoru č. 50126-2020/ - Banská Bystrica : ÚPV SR - 2021. - 5 - 2021.
- HATALA, Michal - BOTKO, František: Prípravok na kontrolu rotačných komponentov vírivými prúdmi s kompenzáciou efektu oddialenia Prihláška úžitkového vzoru č. 50125-2020/ - Banská Bystrica : ÚPV SR - 2021.

c) Spolupráca s domácimi partnermi z praxe

- Overenie vhodnosti využitia zariadenia Topaz výrobcu Zetec na PAUT kontrolu zvaru č. 111 pod parogenerátorom VVER 1000 v AE Temelín (ČEZ a.s.) SlovCert, s.r.o. (2019)
- Výskum a testovanie morfológie povrchu a kvality objemového substrátu foriem na vstrekovanie plastov s konformným chladením vyrobenými technológiou DLMS metódami NDT. 1. prešovská nástrojáreň, s.r.o. (2018)
- Výskum možností aplikácie metódy vírivých prúdov a ultrazvuku pri zisťovaní objemových necelistvostí feriticko austenitických rúr. SlovCert, s.r.o. (2018)
- Komplexná optimalizácia vybraných rezných nástrojov zo spekaných karbidov pre špecifikáciu rezných parametrov. DMK Progressive Engineering s.r.o. (2017)
- Identifikácia vstupných parametrov a výskum ovplyvňujúcich faktorov efektivity vysokoposuvového obrábania hliníkových zliatin. DMK Progressive Engineering s.r.o. (2017)

d) Rámcové priemyselné projekty

- Štúdia realizovateľnosti „Možnosti inovácií s použitím energolúčových metód vo výrobnom cykle ŽP a.s. pri delení valcovaných a presných rúr“ v podmienkach Železiarni Podbrezová a.s.na základe zmluvy o dielo č. 93/106101/2016 (2017) (riešiteľ)
- Štúdia z vybraných oblastí nedeštruktívneho testovania, tribológie, tribotechniky a vnútropodnikovej logistiky na báze RFID v podmienkach Železiarni Podbrezová a.s.na základe zmluvy o dielo č. 93/106101/2016 / ŽP VVC s.r.o. (2016) (riešiteľ)
- Simulácia procesu tvárnenia oblúkov so skutočnými parametrami a vplyv zmeny polometru tvárniaceho nástroja na tvar a rozostúp oblúka. ŽP VVC s.r.o. (2015) (riešiteľ)

2. Prehľad zahraničných mobilít a stáží

CEEPUS

- Fakulta strojní, VŠB Technická univerzita v Ostrave, Česká republika
- Fakulta inžinierstva Severnej Univerzity v Baia Mare, Rumunsko

ERASMUS+

- Fakulta strojní, VŠB Technická univerzita v Ostrave, Česká republika

Výskumné pobyty

- Téma: Virtual prototyping and Verificatication of New Concept of Flexible Fixture for Multiproduct Manufacturing. Fakulta technických systémov a energetickej techniky Štátnej univerzity v Sumy, Ukrajina
- Téma: Numerical Simulation of a Fixture for Connecting Rods Machining. Fakulta technických systémov a energetickej techniky Štátnej univerzity v Sumy, Ukrajina

3. Recenzie vedeckých príspevkov a vzdelávacích materiálov

• Vypracovanie recenzí na vedecké príspevky v rámci konania konferencie DSMIE 2020, 2021, 2022, konferencie InterPartner 2022.

Certifikáty

- Skúšanie vírivými prudmi – ET 2. stupeň

4. Prehľad preukázateľných citácií a ohlasov na vedecké a odborné práce (WoS)

Web of Science™ Citations	
Title	**Comparison of the influence of acoustically enhanced pulsating water jet on selected surface integrity characteristics of CW004A copper and CW614N brass**
Authors	BOTKOVÁ, Dominika - KLICHOVÁ, Dagmar - FOLDYNA, Josef - HLOCH, Sergej - HVIZDOŠ, Pavol - FIDES, Martin - BOTKO, František
Source information	Measurement. Vol. 110 (2017), p. 230-238
[1] HOU, Rongguo et al. Experimental study of the ultrasonic vibration-assisted abrasive waterjet micromachining the quartz glass In: Advances in Materials Science and Engineering (2018), Art. no. 8904234 ISSN: 1687-8434 DB: WOS [2] LIU, Xiaochu et al. Waterjet machining and research developments: a review In: International Journal of Advanced Manufacturing Technology Vol. 102, no. 5-8 (2019), p. 1257-1335 ISSN: 0268-3768 DB: WOS	

[3] ZELENAK, Michal - RIHA, Zdenek - JANDACKA, Petr Visualization and velocity analysis of a high-speed modulated water jet generated by a hydrodynamic nozzle In: Measurement Vol. 159 (2020), art no. 107753 ISSN: 0263-2241 DB: WOS
[4] Čuha, D., & Hatala, M. (2022). Effect of a modified impact angle of an ultrasonically generated pulsating water jet on aluminum alloy erosion using upward and downward stair trajectory. Wear, 500, 204369.
[5] Miao, X., Zhang, C., Wu, M., Ma, C., & Wang, Q. (2022). Application of a water jet for cleaning grease and improving the surface adhesion properties of galvanized steel wire ropes. Scientific Reports, 12(1), 1-11.
[6] Miao, X., Long, T., Wu, M., Ma, C., & Wang, Q. (2022). Study on the process of abrasive water jet peening for 316L stainless steel. *The International Journal of Advanced Manufacturing Technology*, 1-8.
[7] Michalik, P., Fabianova, J., Hrabovsky, L., Maslarić, M., Straka, L., & Macej, J. (2021). Assessment of a robot base production using CAM programming for the FANUC control system. *Open Engineering*, *11*(1), 922-928.
[8] Duplak, J., Duplakova, D., Hatala, M., Radchenko, S., & Sukic, E. (2021). Surveying the topography and examining the quality of the machined surface of selected hardened steels in the milling process. *Journal of Engineering Research*, *9*(3B).
[9] Ansari, M. A., Abdi Behnagh, R., & Salvadori, A. (2021). Numerical analysis of high-speed water jet spot welding using the arbitrary Lagrangian-Eulerian (ALE) method. The International Journal of Advanced Manufacturing Technology, 112(1), 491-504.
[10] Tirpak, P., Michalik, P., Dobransky, J., Macej, J., & Petrus, M. (2019). Intelligent programming of robotic flange production by means of CAM programming. Open Engineering, 9(1), 571-579.
[11] Tirpak, P., Michalik, P., Zajac, J., Molnar, V., Knezo, D., & Petruš, M. (2019, May). Evaluation of the Longitudinal Roughness of the Thin-Walled Cooler for the Robot Control System Made Using CAM Programming. In International Scientific-Technical Conference MANUFACTURING (pp. 285-296). Springer, Cham.
[12] Michalik, P., Molnár, V., Ambrozy, M., Petruš, M., & Tirpak, P. (2019). Assessment of the production reducer for clamping the drilling tools. In *Advances in Manufacturing Engineering and Materials* (pp. 557-566). Springer, Cham.

Title	**Pulsating water jet erosion effect on a brass flat solid surface**
Authors	BOTKOVÁ, Dominika - KLICH, Jiří - BOTKO, František - FOLDYNA, Josef - HLOCH, Sergej - KEPIČ, Ján - KOVÁĽ, Karol - KREJČÍ, Lucie - ŠTORKÁN, Zdeněk
Source information	International Journal of Advanced Manufacturing Technology. Vol. 97, no. 1-4 (2018), p. 1099-1112

[1] LIU, Xiaochu et al. Waterjet machining and research developments: a review In: International Journal of Advanced Manufacturing Technology Vol. 102, no. 5-8 (2019), p. 1257-1335 ISSN: 0268-3768 DB: WOS
[2] PEREC, Andrzej - RADOMSKA-ZALAS, Aleksandra Modeling of Abrasive Water Suspension Jet Cutting Process Using Response Surface Method In: TKI 2018 : 15th Conference Computational Technologies in Engineering : Book series: AIP Conference Proceedings : Jora Wielka, 16-19 October, 2018 Vol. 2078 (2019), article no. UNSP 020051 ISSN: 0094-243X ISBN: 978-0-7354-1806-6 DB: WOS
[3] PEREC, Andrzej Investigation of Limestone Cutting Efficiency by the Abrasive Water Suspension Jet In: ICMEM 2018 : International Conference on Manufacturing Engineering and Materials : Novy Smokovec, 18-22 Jun, 2018 P. 124-134 ISBN: 978-3-319-99353-9 DB: WOS
[4] LIANG, Zhongwei et al. Adaptive Prediction of Abrasive Impacting Pressure Effectiveness in Strengthen Jet Grinding using NSAE-ANFIS In: International Journal of Advanced Manufacturing Technology Vol. 106, no. 7-8 (2020), p. 2805-2828 ISSN: 0268-3768 DB: WOS
[5] AMEGADZIE, M. Y., MOREAU, E. D., CHRISTENSEN, B. et al.: Ultrasonic pulsed waterjet surface peening of an industrial aluminum-based metal matrix composite In: SURFACE & COATINGS TECHNOLOGY vol.426, (2021) ISSN:0257-8972 eISSN:1879-3347 Doi:10.1016/j.surfcoat.2021.127795
[6] Čuha, D., & Hatala, M. (2022). Effect of a modified impact angle of an ultrasonically generated pulsating water jet on aluminum alloy erosion using upward and downward stair trajectory. Wear, 500, 204369.

[7] Raj, P., Chattopadhyaya, S., & Mondala, A. (2021, June). The Study of Method of Acoustic Generation of Pulses for Creating Pulsating Water Jet. In International Conference on Manufacturing Engineering and Materials (pp. 155-182). Springer, Cham.

Title	**Technological assurance of high-efficiency machining of Internal rope threads on CNC milling machines**
Authors	NESHTA, Anna - KRYVORUCHKO, Dmytro - HATALA, Michal - IVANOV, Vitalii - BOTKO, František - RADCHENKO, Svetlana - MITAĽ, Dušan
Source information	Journal of manufacturing science and engineering : Transactions of the ASME B. Journal of manufacturing science. - New York (USA) : ASME Press Roč. 140, č. 7 (2018), s. 1-36

[1] KUSHNIROV, Pavlo et al. Investigation of the dynamic state of adjustable milling heads In: Lecture Notes in Mechanical Engineering : Advances in Design, Simulation and Manufacturing 2 P. 169-179 ISSN: 2195-4356 ISBN: 978-3-030-22365-6 DB: WOS
[2] Slabejová, S., Holubjak, J., Timko, P., Richtárik, M., Krajčoviech, S., & Prokein, D. (2022). Cutting Forces in the Milling of Difficult-to-Machine Material used in the Aero Space Industry Using a Monolithic Ceramic Milling Cutter. Manufacturing Technology, 22(2), 211-217.
[3] Yeh, S. S., & Chen, C. W. (2021). Integrated Design of Spindle Speed Modulation and Cutting Vibration Suppression Controls Using Disturbance Observer for Thread Milling. Materials, 14(21), 6656.
[4] Zajac, J., Duplak, J., Duplakova, D., Cizmar, P., Olexa, I., & Bittner, A. (2020). Prediction of Cutting Material Durability by T= f (vc) Dependence for Turning Processes. Processes, 8(7), 789.
[5] Panda, A., Zaloga, V., Dyadyura, K., Rybalka, I., & Pandová, I. (2019). Modelling business process of manufacturing for air compressors. TEM Journal, 8(2), 430.

Title	**Ergonomic rationalization of lighting in the working environment. Part I.: Proposal of rationalization algorithm for lighting redesign**
Authors	DUPLÁKOVÁ, Darina - FLIMEL, Marián - DUPLÁK, Ján - HATALA, Michal - RADCHENKO, Svetlana - BOTKO, František
Source information	International Journal of Industrial Ergonomics. - Amsterdam (Holandsko) : Elsevier, 1986 Roč. 71 (2019), s. 92-102

[1] LIM, Kendrik Yan Hong - ZHENG, Pai - CHEN, Chun-Hsien A state-of-the-art survey of digital twin: Techniques, engineering product lifecycle management and business innovation perspectives In: Journal of Intelligent Manufacturing Vol. 31, no. 6 (2020), p. 1313-1337 ISSN: 1572-8145 DB: WOS
[2] Kalyanam, Raghuram, Hoffmann, Sabine A Reinforcement Learning-Based Approach to Automate the Electrochromic Glass and to Enhance the Visual Comfort In: Applied sciences Roč. 11, č. 15 (2021)[online] ISSN: 2076-3417 (online) DB: WOS
[3] Kossowski, Tomasz, Matuszewski, Lukasz Non-Real-Time Wireless System for Lightning Effect Measurements In: Applied sciences Roč. 11, č. 9 (2021)[online] ISSN: 2076-3417 (online) DB: WOS
[4] CIMINO, Chiara, FERRETTI, Gianni, LEVA, Alberto: Harmonising and integrating the Digital Twins multiverse: A paradigm and a toolset proposal In: COMPUTERS IN INDUSTRY vol.132, (2021) ISSN:0166-3615 eISSN:1872-6194 Doi:10.1016/j.compind.2021.103501
[5] EO, Yun Jae, KIM, Seohyeon, LEE, Keyong Nam et al.: Fabrication of Circadian Light Meter with Non-Periodic Optical Filters to Evaluate the Non-Visual Effects of Light on Humans In: APPLIED SCIENCES-BASEL vol.11, no.18 (2021) eISSN:2076-3417 Doi:10.3390/app11188283
[6] ABDOLLAHI, Rohollah: Design of lighting system for sacred places with the approach of improving technical and economic conditions In: AIN SHAMS ENGINEERING JOURNAL vol.12, no.3 (2021) p.2899-2905 ISSN:2090-4479 eISSN:2090-4495 Doi:10.1016/j.asej.2021.02.021
[7] ZAUNER, Johannes, PLISCHKE, Herbert: Designing Light for Night Shift Workers: Application of Nonvisual Lighting Design Principles in an Industrial Production Line In: APPLIED SCIENCES-BASEL vol.11, no.22 (2021) eISSN:2076-3417 Doi:10.3390/app112210896
[8] SCORPIO, Michelangelo, LAFFI, Roberta, TEIMOORZADEH, Ainoor et al.: A calibration methodology for light sources aimed at using immersive virtual reality game engine as a tool for lighting design in buildings In: JOURNAL OF BUILDING ENGINEERING vol.48, (2022) eISSN:2352-7102 Doi:10.1016/j.jobe.2022.103998

Title	**Prediction model of surface roughness parameters of structural steel created by plasma arc cutting via full factor experiment**
Authors	DUPLÁK, Ján - HATALA, Michal - DUPLÁKOVÁ, Darina - BOTKO, František
Source information	: Materialwissenschaft und Werkstofftechnik = Materials Science and Engineering Technology. - Wenheim (Nemecko) : Wiley-VCH Roč. 50, č. 10 (2019), s. 1207-1220

[1] CHUAH, Yon Jin et al. Surface Modifications to Polydimethylsiloxane Substrate for Stabilizing Prolonged Bone Marrow Stromal Cell Culture In: Colloids and Surfaces B-Biointerfaces Vol. 191 (2020), art. no. 110995 ISSN: 0927-7765 DB: WOS
[2] MANGARAJ, Soumya Ranjan, BAGAL, Dilip Kumar, PARHI, Nirmalya, BARUA, Abhishek et al.: Experimental study of a portable plasma arc cutting system using hybrid RSM-nature inspired optimization technique In: MATERIALS TODAY-PROCEEDINGS : Phagwara vol.50, (2022) p.867-878 ISSN:2214-7853 Doi:10.1016/j.matpr.2021.06.138
[3] Priyadarshini, M., Vishwanatha, H. M., Biswas, C. K., Singhal, P., Buddhi, D., & Behera, A. (2022). Effect of grey relational optimization of process parameters on surface and tribological characteristics of annealed AISI P20 tool steel machined using wire EDM. International Journal on Interactive Design and Manufacturing (IJIDeM), 1-10.

Title	**Comparison of ultrasonically enhanced pulsating water jet erosion efficiency on mechanical surface treatment on the surface of aluminum alloy and stainless steel**
Authors	BOTKOVÁ, Dominika - KLICH, Jiří - BOTKO, František - SIMKULET, Vladimír - FOLDYNA, Josef - KREJČÍ, Lucie - ŠTORKÁN, Zdeněk - KEPIČ, Ján - HATALA, Michal
Source information	The International Journal of Advanced Manufacturing Technology. - Berlin (Nemecko) : Springer International Publishing AG Roč. 103, č. 5-8 (2019), s. 1647-1656

[1] AMEGADZIE, M. Y., MOREAU, E. D., CHRISTENSEN, B. et al.: Ultrasonic pulsed waterjet surface peening of an industrial aluminum-based metal matrix composite In: SURFACE & COATINGS TECHNOLOGY vol.426, (2021) ISSN:0257-8972 eISSN:1879-3347 Doi:10.1016/j.surfcoat.2021.127795
[2] PEREC, Andrzej, WATROBSKI, J, SALABUN, W et al.: Multiple Response Optimization of Abrasive Water Jet Cutting Process using Response Surface Methodology (RSM) In: KNOWLEDGE-BASED AND INTELLIGENT INFORMATION & ENGINEERING SYSTEMS (KSE 2021) : Szczecin vol.192, (2021) p.931-940 ISSN:1877-0509 Doi:10.1016/j.procs.2021.08.096
[3] Amegadzie, M. Y., Moreau, E. D., Christensen, B., Donaldson, I. W., Tieu, A., & Plucknett, K. P. (2022). The impact of sintered density upon the microstructural and residual stress development in an ultrasonic pulsed waterjet peened Al-alloy/AlN composite. Surface and Coatings Technology, 448, 128915.
[4] Perec, A., Radomska-Zalas, A., Fajdek-Bieda, A., & Kawecka, E. (2022). Efficiency of Tool Steel Cutting by Water Jet with Recycled Abrasive Materials. Materials, 15(11), 3978.
[5] Pavlenko, I., Zajac, J., Kharchenko, N., Duplák, J., Ivanov, V., & Kostyk, K. (2021). Estimation of wear resistance for multilayer coatings obtained by nitrogenchroming. Metals, 11(8), 1153.
[6] Perec, A., & Musial, W. (2021, June). Multiple Criteria Optimization of Abrasive Water Jet Cutting Using Entropy-VIKOR Approach. In International Conference on Manufacturing Engineering and Materials (pp. 50-62). Springer, Cham.
[7] Portaro, R., Sadek, J., & Ng, H. D. (2019). On the application of gas detonation-driven water jet for material surface treatment process. Manufacturing Letters, 21, 70-74.

Title	**Effect of pulsating water jet disintegration on hardness and elasticity modulus of austenitic stainless steel AISI 304L**
Authors	BOTKOVÁ, Dominika - BOTKO, František - KLICH, Jiří - SITEK, Libor - HVIZDOŠ, Pavol - FIDES, Martin - ČEP, Robert
Source information	The International Journal of Advanced Manufacturing Technology. - Berlin (Nemecko) : Springer International Publishing AG Roč. 107, č. 5-6 (2020), s. 2719-2730

[1] LANTO, Jennifer Milaor, VAFADAR, Ana, AAMIR, Muhammad et al.: Analysis and Optimization of Process Parameters in Abrasive Waterjet Contour Cutting of AISI 304L In: METALS vol.11, no.9 (2021) eISSN:2075-4701 Doi:10.3390/met11091362 [2] Yao, S., Wang, G., Li, K., Wang, N., Zhang, C., Liu, S., ... & Tu, S. (2022). Cavitation abrasive integrated waterjet peening process and the effect of process parameters on the surface integrity of TA19 titanium alloy. Surface and Coatings Technology, 440, 128477.	
Title	**Effect of Traverse Speed on Surface Roughness Parameters after Laser Cutting of Non-alloy Structural Steel**
Authors	HATALA, MICHAL - DUPLÁK, JAN - DUPLÁKOVÁ, DARINA - BOTKO, FRANTISEK
Source information	TEM Journal, Vol. 8, No. 2, p. 402-408, 2019
[1] MILEȘAN, Mihaela et al. Mathematical Modelling Study of Hardox400 Steel Parts' Roughness and Hardness, Cut with CO 2 Laser In: Strojniski Vestnik-Journal of Mechanical Engineering Vol. 66, no. 2 (2020), p. 127-141 ISSN: 0039-2480 DB: WOS	
Title	**Influence of Residual Stress Induced in Steel Material on Eddy Currents Response Parameters**
Authors	BOTKO, František - ZAJAC, Jozef - CZÁN, Andrej - RADCHENKO, Svetlana - BOTKOVÁ, Dominika - DUPLÁK, Ján
Source information	Advances in Manufacturing II : Volume 4 - Mechanical Engineering. - Cham (Švajčiarsko) : Springer Nature s. 551-560
[1] Bai, Peigen et al. Joint effect of residual stress and plastic deformation on pulsed eddy current response signals in 304 austenitic stainless steel In: International Journal of Applied Electromagnetics and Mechanics Roč. 63, č. 1 (2020), 19-30 [print] ISSN: 1383-5416 DB: WOS [2] ELBAKIAN, Anri et al. Reasons for the formation of non-fibrous inclusions when preparing basalt fibers by the duplex method In: Materials Vol. 13, no. 21 (2020), art no. 5033 ISSN: 1996-1944 DB: WOS	
Title	**Evaluation of strain in cold drawing of tubes with internally shaped surface**
Authors	HATALA, Michal - BOTKO, František - PETERKA, Jozef - BELLA, Peter - RADIČ, Pavol
Source information	International conference on Nanomaterials and Biomaterials. - Amsterdam (Holandsko) : Elsevier s. 287-292 [online]. - ISSN 2214-7853
[1] SENTYAKOV, Kirin, PETERKA, Jozef, SMIRNOV, Vitalii et al.: Modeling of Boring Mandrel Working Process with Vibration Damper In: MATERIALS vol.13, no.8 (2020) eISSN:1996-1944 Doi:10.3390/ma13081931 [2] Okulov, R. A., Semenova, N. V. Modeling the Drawing of Square-Cross-Section Pipes/Tubes Made from Various Materials In: Metallurgist = Metallurg Roč. 65 (2021), s. 571-577 [print] ISSN: 0026-0894 DB: WOS [3] Li, Wei et al. Numerical and experimental investigation on precision forming of ribbed tube by cold drawing process In: Archives of Civil and Mechanical Engineering Roč. 22, č. 3 (2022)[print] ISSN: 1644-9665 DB: WOS	
Title	**Surface integrity evaluation of brass CW614N after impact of acoustically excited pulsating water jet**
Authors	BOTKOVÁ, Dominika - KLICH, Jiří - FOLDYNA, Josef - HLOCH, Sergej - HVIZDOŠ, Pavol - FIDES, Martin - BOTKO, František - CÁRACH, Ján
Source information	Procedia Engineering : ICMEN 2016. - S.l. : Elsevier, 2016 S. 236-244
[1] LIU, Xiaochu et al. Waterjet machining and research developments: a review In: International Journal of Advanced Manufacturing Technology Vol. 102, no. 5-8 (2019), p. 1257-1335 ISSN: 0268-3768 DB: WOS	
Title	**Hydro-abrasive disintegration of alloy Monel K-500 – the influence of technological and abrasive factors on the surface quality**

Authors	CÁRACH, Ján - HLOCH, Sergej - HLAVÁČEK, Petr - GOMBÁR, Miroslav - KLICHOVÁ, Dagmar - BOTKO, František - MITAĽ, Dušan - BOTKOVÁ, Dominika
Source information	Procedia Engineering : ICMEM 2016. - S.l.. : Elsevier , 2016 Vol. 149 (2016), p. 17-23.

[1] UTHAYAKUMAR, M. et al. Performance Study of LaPO4-Y2O3 Composite Fabricated by Sol-Gel Process Using Abrasive Waterjet Machining In: Handbook of Research on green engineering techniques for modern manufacturing : Advances in Mechatronics and Mechanical Engineering P. 143-161 ISSN: 2328-8205 ISBN: 978-1-5225-5446-2 DB: WOS
[2] ARAVINDAN, M. et al. Handbook of Research on Green Engineering Techniques for Modern Manufacturing Foreword In: Handbook of Research on green engineering techniques for modern manufacturing : Advances in Mechatronics and Mechanical Engineering ISSN: 2328-823X ISBN: 978-1-5225-5446-2 DB: WOS
[3] LIU, Xiaochu, LIANG, Zhongwei, WEN, Guilin et al.: Waterjet machining and research developments: a review (vol 102, pg 1257, 2019) In: INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY vol.102, no.5-8 (2019) p.1337-1338 ISSN:0268-3768 eISSN:1433-3015 Doi:10.1007/s00170-019-03556-x
[4] BALAMURUGAN, K. et al. Process optimisation and exhibiting correlation in the exploitable variable of AWJM In: International Journal of Materials and Product Technology Vol. 61, no. 1 (2020), p. 16-33 ISSN: 0268-1900 DB: WOS
[5] SINGH, Navneet K., ANG, Andrew S. M., MAHAJAN, Dhiraj K., SINGH, Harpreet: Cavitation erosion resistant nickel-based cermet coatings for monel K-500 In: TRIBOLOGY INTERNATIONAL vol.159, (2021) ISSN:0301-679X eISSN:1879-2464 Doi:10.1016/j.triboint.2021.106954
[6] SINGH, Navneet K., KUMAR, Avneesh, ANG, Andrew S. M., SINGH, Harpreet et al.: Characterization and Slurry Erosion Mechanisms of Nickel-Based Cermet Coatings on Monel K-500 In: JOURNAL OF THERMAL SPRAY TECHNOLOGY vol.30, no.8 (2021) p.2138-2154 ISSN:1059-9630 eISSN:1544-1016 Doi:10.1007/s11666-021-01267-y

5. Prehľad preukázateľných citácií a ohlasov na vedecké a odborné práce od rôznych zahraničných autorov

Web of Science™, SCOPUS Citations	
Title	**Comparison of the influence of acoustically enhanced pulsating water jet on selected surface integrity characteristics of CW004A copper and CW614N brass**
Authors	BOTKOVÁ, Dominika - KLICHOVÁ, Dagmar - FOLDYNA, Josef - HLOCH, Sergej - HVIZDOŠ, Pavol - FIDES, Martin - BOTKO, František
Source information	Measurement. Vol. 110 (2017), p. 230-238

[1] HOU, Rongguo et al. Experimental study of the ultrasonic vibration-assisted abrasive waterjet micromachining the quartz glass In: Advances in Materials Science and Engineering (2018), Art. no. 8904234 ISSN: 1687-8434 DB: WOS
[2] LIU, Xiaochu et al. Waterjet machining and research developments: a review In: International Journal of Advanced Manufacturing Technology Vol. 102, no. 5-8 (2019), p. 1257-1335 ISSN: 0268-3768 DB: WOS
[3] ZELENAK, Michal - RIHA, Zdenek - JANDACKA, Petr Visualization and velocity analysis of a high-speed modulated water jet generated by a hydrodynamic nozzle In: Measurement Vol. 159 (2020), art no. 107753 ISSN: 0263-2241 DB: WOS
[4] ANSARI, M.A., ABDI BEHNAGH, R., SALVADORI, A. Numerical analysis of high-speed water jet spot welding using the arbitrary Lagrangian-Eulerian (ALE) method In: International Journal of Advanced Manufacturing Technology DOI: 10.1007/s00170-020-06358-8 (2020) ISSN: 0268-3768 DB: Scopus

[5] Miao, X., Zhang, C., Wu, M., Ma, C., & Wang, Q. (2022). Application of a water jet for cleaning grease and improving the surface adhesion properties of galvanized steel wire ropes. Scientific Reports, 12(1), 1-11.	
Title	**Pulsating water jet erosion effect on a brass flat solid surface**
Authors	BOTKOVÁ, Dominika - KLICH, Jiří - BOTKO, František - FOLDYNA, Josef - HLOCH, Sergej - KEPIČ, Ján - KOVÁĽ, Karol - KREJČÍ, Lucie - ŠTORKÁN, Zdeněk
Source information	International Journal of Advanced Manufacturing Technology. Vol. 97, no. 1-4 (2018), p. 1099-1112
[1] LIU, Xiaochu et al. Waterjet machining and research developments: a review In: International Journal of Advanced Manufacturing Technology Vol. 102, no. 5-8 (2019), p. 1257-1335 ISSN: 0268-3768 DB: WOS [2] PEREC, Andrzej - RADOMSKA-ZALAS, Aleksandra Modeling of Abrasive Water Suspension Jet Cutting Process Using Response Surface Method In: TKI 2018 : 15th Conference Computational Technologies in Engineering : Book series: AIP Conference Proceedings : Jora Wielka, 16-19 October, 2018 Vol. 2078 (2019), article no. UNSP 020051 ISSN: 0094-243X ISBN: 978-0-7354-1806-6 DB: WOS [3] PEREC, Andrzej Investigation of Limestone Cutting Efficiency by the Abrasive Water Suspension Jet In: ICMEM 2018 : International Conference on Manufacturing Engineering and Materials : Novy Smokovec, 18-22 Jun, 2018 P. 124-134 ISBN: 978-3-319-99353-9 DB: WOS [4] LIANG, Zhongwei et al. Adaptive Prediction of Abrasive Impacting Pressure Effectiveness in Strengthen Jet Grinding using NSAE-ANFIS In: International Journal of Advanced Manufacturing Technology Vol. 106, no. 7-8 (2020), p. 2805-2828 ISSN: 0268-3768 DB: WOS [5] LIN, B., WANG, Z., WANG, R. Fracture extension and coal breaking performance by high-pressure gas-liquid jet flow In: Zhongguo Kuangye Daxue Xuebao/Journal of China University of Mining and Technology Vol. 49, no. 1 (2020), p. 1-12 ISSN: 1000-1964 DB: Scopus [6] AMEGADZIE, M. Y., MOREAU, E. D., CHRISTENSEN, B. et al.: Ultrasonic pulsed waterjet surface peening of an industrial aluminum-based metal matrix composite In: SURFACE & COATINGS TECHNOLOGY vol.426, (2021) ISSN:0257-8972 eISSN:1879-3347 Doi:10.1016/j.surfcoat.2021.127795 [7] Raj, P., Chattopadhyaya, S., & Mondala, A. (2021, June). The Study of Method of Acoustic Generation of Pulses for Creating Pulsating Water Jet. In International Conference on Manufacturing Engineering and Materials (pp. 155-182). Springer, Cham	
Title	**Technological assurance of high-efficiency machining of Internal rope threads on CNC milling machines**
Authors	NESHTA, Anna - KRYVORUCHKO, Dmytro - HATALA, Michal - IVANOV, Vitalii - BOTKO, František - RADCHENKO, Svetlana - MITAĽ, Dušan
Source information	Journal of manufacturing science and engineering : Transactions of the ASME B. Journal of manufacturing science. - New York (USA) : ASME Press Roč. 140, č. 7 (2018), s. 1-36
[1] KUSHNIROV, Pavlo et al. Investigation of the dynamic state of adjustable milling heads In: Lecture Notes in Mechanical Engineering : Advances in Design, Simulation and Manufacturing 2 P. 169-179 ISSN: 2195-4356 ISBN: 978-3-030-22365-6 DB: WOS [2] Yeh, S. S., & Chen, C. W. (2021). Integrated Design of Spindle Speed Modulation and Cutting Vibration Suppression Controls Using Disturbance Observer for Thread Milling. Materials, 14(21), 6656.	
Title	**Ergonomic rationalization of lighting in the working environment. Part I.: Proposal of rationalization algorithm for lighting redesign**
Authors	DUPLÁKOVÁ, Darina - FLIMEL, Marián - DUPLÁK, Ján - HATALA, Michal - RADCHENKO, Svetlana - BOTKO, František
Source information	International Journal of Industrial Ergonomics. - Amsterdam (Holandsko) : Elsevier, 1986 Roč. 71 (2019), s. 92-102
[1] CIMINO, C., NEGRI, E., FUMAGALLI, L. Review of digital twin applications in manufacturing In: Computers in Industry Vol. 113 (2019), article no. 103130 ISSN: 0166-3615 DB: Scopus	

[2] ABDOLLAHIA, R., AREF, M.H. A Novel Lighting Design System in Masoumeh With an Approach to Improving Technical and Economic Conditions In: Journal of Applied Research and Technology Vol. 18, no. 4 (2020), p. 161-168 ISSN: 1665-6423 DB: Scopus
[3] LIM, Kendrik Yan Hong - ZHENG, Pai - CHEN, Chun-Hsien A state-of-the-art survey of digital twin: Techniques, engineering product lifecycle management and business innovation perspectives In: Journal of Intelligent Manufacturing Vol. 31, no. 6 (2020), p. 1313-1337 ISSN: 1572-8145 DB: WOS
[4] Kalyanam, Raghuram, Hoffmann, Sabine A Reinforcement Learning-Based Approach to Automate the Electrochromic Glass and to Enhance the Visual Comfort In: Applied sciences Roč. 11, č. 15 (2021)[online] ISSN: 2076-3417 (online) DB: WOS
[5] Kossowski, Tomasz, Matuszewski, Lukasz Non-Real-Time Wireless System for Lightning Effect Measurements In: Applied sciences Roč. 11, č. 9 (2021)[online] ISSN: 2076-3417 (online) DB: WOS
[6] CIMINO, Chiara, FERRETTI, Gianni, LEVA, Alberto: Harmonising and integrating the Digital Twins multiverse: A paradigm and a toolset proposal In: COMPUTERS IN INDUSTRY vol.132, (2021) ISSN:0166-3615 eISSN:1872-6194 Doi:10.1016/j.compind.2021.103501
[7] EO, Yun Jae, KIM, Seohyeon, LEE, Keyong Nam et al.: Fabrication of Circadian Light Meter with Non-Periodic Optical Filters to Evaluate the Non-Visual Effects of Light on Humans In: APPLIED SCIENCES-BASEL vol.11, no.18 (2021) eISSN:2076-3417 Doi:10.3390/app11188283
[8] ABDOLLAHI, Rohollah: Design of lighting system for sacred places with the approach of improving technical and economic conditions In: AIN SHAMS ENGINEERING JOURNAL vol.12, no.3 (2021) p.2899-2905 ISSN:2090-4479 eISSN:2090-4495 Doi:10.1016/j.asej.2021.02.021
[9] ZAUNER, Johannes, PLISCHKE, Herbert: Designing Light for Night Shift Workers: Application of Nonvisual Lighting Design Principles in an Industrial Production Line In: APPLIED SCIENCES-BASEL vol.11, no.22 (2021) eISSN:2076-3417 Doi:10.3390/app112210896
[10] SCORPIO, Michelangelo, LAFFI, Roberta, TEIMOORZADEH, Ainoor et al.: A calibration methodology for light sources aimed at using immersive virtual reality game engine as a tool for lighting design in buildings In: JOURNAL OF BUILDING ENGINEERING vol.48, (2022) eISSN:2352-7102 Doi:10.1016/j.jobe.2022.103998

Title	**Prediction model of surface roughness parameters of structural steel created by plasma arc cutting via full factor experiment**
Authors	DUPLÁK, Ján - HATALA, Michal - DUPLÁKOVÁ, Darina - BOTKO, František
Source information	Materialwissenschaft und Werkstofftechnik = Materials Science and Engineering Technology. - Wenheim (Nemecko) : Wiley-VCH Roč. 50, č. 10 (2019), s. 1207-1220

[1] CHUAH, Yon Jin et al. Surface Modifications to Polydimethylsiloxane Substrate for Stabilizing Prolonged Bone Marrow Stromal Cell Culture In: Colloids and Surfaces B-Biointerfaces Vol. 191 (2020), art. no. 110995 ISSN: 0927-7765 DB: WOS
[2] MANGARAJ, Soumya Ranjan, BAGAL, Dilip Kumar, PARHI, Nirmalya, BARUA, Abhishek et al.: Experimental study of a portable plasma arc cutting system using hybrid RSM-nature inspired optimization technique In: MATERIALS TODAY-PROCEEDINGS : Phagwara vol.50, (2022) p.867-878 ISSN:2214-7853 Doi:10.1016/j.matpr.2021.06.138
[3] AGBONOGA, Ekhaesomi A. Effect of Process Parameters on the Surface Roughness and Kerf Width of Mild Steel during Plasma Arc Cutting Using Response Surface Methodology In: FUOYE Journal of Engineering and Technology Vol. 5, no. 1 (2020), p. 67-71 ISSN: 2579-0625
[4] Priyadarshini, M., Vishwanatha, H. M., Biswas, C. K., Singhal, P., Buddhi, D., & Behera, A. (2022). Effect of grey relational optimization of process parameters on surface and tribological characteristics of annealed AISI P20 tool steel machined using wire EDM. International Journal on Interactive Design and Manufacturing (IJIDeM), 1-10.

Title	**Comparison of ultrasonically enhanced pulsating water jet erosion efficiency on mechanical surface treatment on the surface of aluminum alloy and stainless steel**
Authors	BOTKOVÁ, Dominika - KLICH, Jiří - BOTKO, František - SIMKULET, Vladimír - FOLDYNA, Josef - KREJČÍ, Lucie - ŠTORKÁN, Zdeněk - KEPIČ, Ján - HATALA, Michal

Source information	The International Journal of Advanced Manufacturing Technology. - Berlin (Nemecko) : Springer International Publishing AG Roč. 103, č. 5-8 (2019), s. 1647-1656

[1] PORTARO, R., SADEK, J., NG, H.D. On the application of gas detonation-driven water jet for material surface treatment proces In: Manufacturing Letters Vol. 21 (2019), p. 70-74 ISSN: 2213-8463 DB: Scopus
[2] PEREC, A. et al. Multi-criteria Optimization of the Abrasive Waterjet Cutting Process for the High-Strength and Wear-Resistant Steel Hardox® 500 In: Lecture Notes in Mechanical Engineering P. 145-154 (2021) ISSN: 2195-4356 ISBN: 978-303053490-5 DB: Scopus
[3] AMEGADZIE, M. Y., MOREAU, E. D., CHRISTENSEN, B. et al.: Ultrasonic pulsed waterjet surface peening of an industrial aluminum-based metal matrix composite In: SURFACE & COATINGS TECHNOLOGY vol.426, (2021) ISSN:0257-8972 eISSN:1879-3347 Doi:10.1016/j.surfcoat.2021.127795
[4] PEREC, Andrzej, WATROBSKI, J, SALABUN, W et al.: Multiple Response Optimization of Abrasive Water Jet Cutting Process using Response Surface Methodology (RSM) In: KNOWLEDGE-BASED AND INTELLIGENT INFORMATION & ENGINEERING SYSTEMS (KSE 2021) : Szczecin vol.192, (2021) p.931-940 ISSN:1877-0509 Doi:10.1016/j.procs.2021.08.096
[5] Perec, A., & Musial, W. (2021, June). Multiple Criteria Optimization of Abrasive Water Jet Cutting Using Entropy-VIKOR Approach. In International Conference on Manufacturing Engineering and Materials (pp. 50-62). Springer, Cham.

Title	**Effect of pulsating water jet disintegration on hardness and elasticity modulus of austenitic stainless steel AISI 304L**
Authors	BOTKOVÁ, Dominika - BOTKO, František - KLICH, Jiří - SITEK, Libor - HVIZDOŠ, Pavol - FIDES, Martin - ČEP, Robert
Source information	The International Journal of Advanced Manufacturing Technology. - Berlin (Nemecko) : Springer International Publishing AG Roč. 107, č. 5-6 (2020), s. 2719-2730

[1] LANTO, Jennifer Milaor, VAFADAR, Ana, AAMIR, Muhammad et al.: Analysis and Optimization of Process Parameters in Abrasive Waterjet Contour Cutting of AISI 304L In: METALS vol.11, no.9 (2021) eISSN:2075-4701 Doi:10.3390/met11091362
[2] [2] Yao, S., Wang, G., Li, K., Wang, N., Zhang, C., Liu, S., ... & Tu, S. (2022). Cavitation abrasive integrated waterjet peening process and the effect of process parameters on the surface integrity of TA19 titanium alloy. Surface and Coatings Technology, 440, 128477.

Title	**Effect of friction coefficient change on internally shaped tubes drawing process using finite elements method**
Authors	BOTKO, František - BELLA, Peter - HATALA, Michal - BERAXA, Pavol - BOTKOVÁ, Dominika - ŠUŤÁK, Dušan
Source information	Materialwissenschaft und Werkstofftechnik = Materials Science and Engineering Technology. - Wenheim (Nemecko) : Wiley-VCH Roč. 51, č. 7 (2020), s. 948-956 [print, online]. - ISSN 0933-5137

[1] Belarhzal, Samya, Boudi, El Mostapha Effect of profile shift factor on contact stress and natural frequencies of spur gear In: International Review on Modelling and Simulations = IREMOS Roč. 13, č. 6 (2020), 400-409 [print] ISSN: 1974-9821 DB: Scopus

Title	**Qualitative evaluation of machined surface of aluminum alloy AlCu4Mg1 depend on feed rate**
Authors	BOTKO, František - HATALA, Michal - MITAĽOVÁ, Zuzana - ČEP, Robert - RIMÁR, Miroslav - BERNÁT, Andrej - VÝBOŠTEK, Jaroslav
Source information	Manufacturing Technology. - Ústí nad Labem (Česko) : Univerzita Jana Evangelisty Purkyně v Ústí nad Labem Roč. 18, č. 2 (2018), s. 201-207

[1] HAUSNEROVÁ, B., Sanétrník, D., PATA, V. Surface properties of powder injection moulded parts related to processing conditions In: Manufacturing Technology Vol. 18, no. 6 (2018), p. 895-899 ISSN: 1213-2489 DB: Scopus
[2] HERMAWAN, Y. et al. Cutting Forces, Chips Formation and Surface Roughness in Rock Cutting Using Negative Rake Angle In: Manufacturing Technology Vol. 20, no. 1 (2020), p. 27-35 ISSN: 1213-2489 DB: Scopus

[3] Lipinski, Tomasz Effect of Sr, Ti and B additions as powder and a preliminary alloy with al on microstructure and tensile strength AlSi9Mg alloy In: Manufacturing Technology Roč. 19, č. 5 (2019), s. 807-812 [print, online] ISSN: 1213-2489 DB: Scopus	
Title	**Effect of Traverse Speed on Surface Roughness Parameters after Laser Cutting of Non-alloy Structural Steel**
Authors	HATALA, MICHAL - DUPLÁK, JAN - DUPLÁKOVÁ, DARINA - BOTKO, FRANTISEK
Source information	TEM Journal, Vol. 8, No. 2, p. 402-408, 2019
[1] MILEȘAN, Mihaela et al. Mathematical Modelling Study of Hardox400 Steel Parts' Roughness and Hardness, Cut with CO 2 Laser In: Strojniski Vestnik-Journal of Mechanical Engineering Vol. 66, no. 2 (2020), p. 127-141 ISSN: 0039-2480 DB: WOS	
Title	**Influence of Residual Stress Induced in Steel Material on Eddy Currents Response Parameters**
Authors	BOTKO, František - ZAJAC, Jozef - CZÁN, Andrej - RADCHENKO, Svetlana - BOTKOVÁ, Dominika - DUPLÁK, Ján
Source information	Advances in Manufacturing II : Volume 4 - Mechanical Engineering. - Cham (Švajčiarsko) : Springer Nature s. 551-560
[1] Bai, Peigen et al. Joint effect of residual stress and plastic deformation on pulsed eddy current response signals in 304 austenitic stainless steel In: International Journal of Applied Electromagnetics and Mechanics Roč. 63, č. 1 (2020), 19-30 [print] ISSN: 1383-5416 DB: WOS [2] ELBAKIAN, Anri et al. Reasons for the formation of non-fibrous inclusions when preparing basalt fibers by the duplex method In: Materials Vol. 13, no. 21 (2020), art no. 5033 ISSN: 1996-1944 DB: WOS	
Title	**Evaluation of strain in cold drawing of tubes with internally shaped surface**
Authors	HATALA, Michal - BOTKO, František - PETERKA, Jozef - BELLA, Peter - RADIČ, Pavol
Source information	International conference on Nanomaterials and Biomaterials. - Amsterdam (Holandsko) : Elsevier s. 287-292 [online]. - ISSN 2214-7853
[1] Okulov, R. A., Semenova, N. V. Simulaling the Faceted Tube Drawing In: International Russian Conference on Materials Science and Metallurgical Technology 2020 DB: Scopus [2] SENTYAKOV, Kirin, PETERKA, Jozef, SMIRNOV, Vitalii et al.: Modeling of Boring Mandrel Working Process with Vibration Damper In: MATERIALS vol.13, no.8 (2020) eISSN:1996-1944 Doi:10.3390/ma13081931 [3] Okulov, R. A., Semenova, N. V. Modeling the Drawing of Square-Cross-Section Pipes/Tubes Made from Various Materials In: Metallurgist = Metallurg Roč. 65 (2021), s. 571-577 [print] ISSN: 0026-0894 DB: WOS [4] Li, Wei et al. Numerical and experimental investigation on precision forming of ribbed tube by cold drawing process In: Archives of Civil and Mechanical Engineering Roč. 22, č. 3 (2022)[print] ISSN: 1644-9665 DB: WOS	
Title	**Surface integrity evaluation of brass CW614N after impact of acoustically excited pulsating water jet**
Authors	BOTKOVÁ, Dominika - KLICH, Jiří - FOLDYNA, Josef - HLOCH, Sergej - HVIZDOŠ, Pavol - FIDES, Martin - BOTKO, František - CÁRACH, Ján
Source information	Procedia Engineering : ICMEN 2016. - S.l. : Elsevier, 2016 S. 236-244
[1] POPAN, I.A., CONTIU, G., CAMPBELL, I. Investigation on standoff distance influence on kerf characteristics in abrasive water jet cutting of composite materials In: MATEC Web of Conferences : MTeM - AMaTUC 2017 : 13th International Conference on Modern Technologies in Manufacturing : Cluj-Napoca, 12-13 October, 2017 Vol. 137 (2017), art. number 01009 ISSN: 2261-236X ISBN: 978-275989027-9 DB: Scopus	

[2] LIU, Xiaochu et al. Waterjet machining and research developments: a review In: International Journal of Advanced Manufacturing Technology Vol. 102, no. 5-8 (2019), p. 1257-1335 ISSN: 0268-3768 DB: WOS	
Title	**Hydro-abrasive disintegration of alloy Monel K-500 – the influence of technological and abrasive factors on the surface quality**
Authors	CÁRACH, Ján - HLOCH, Sergej - HLAVÁČEK, Petr - GOMBÁR, Miroslav - KLICHOVÁ, Dagmar - BOTKO, František - MITAĽ, Dušan - BOTKOVÁ, Dominika
Source information	Procedia Engineering : ICMEM 2016. - S.l.. : Elsevier , 2016 Vol. 149 (2016), p. 17-23.

[1] UTHAYAKUMAR, M. et al. Performance Study of LaPO4-Y2O3 Composite Fabricated by Sol-Gel Process Using Abrasive Waterjet Machining In: Handbook of Research on green engineering techniques for modern manufacturing : Advances in Mechatronics and Mechanical Engineering P. 143-161 ISSN: 2328-8205 ISBN: 978-1-5225-5446-2 DB: WOS
[2] ARAVINDAN, M. et al. Handbook of Research on Green Engineering Techniques for Modern Manufacturing Foreword In: Handbook of Research on green engineering techniques for modern manufacturing : Advances in Mechatronics and Mechanical Engineering ISSN: 2328-823X ISBN: 978-1-5225-5446-2 DB: WOS
[3] LIU, Xiaochu, LIANG, Zhongwei, WEN, Guilin et al.: Waterjet machining and research developments: a review (vol 102, pg 1257, 2019) In: INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY vol.102, no.5-8 (2019) p.1337-1338 ISSN:0268-3768 eISSN:1433-3015 Doi:10.1007/s00170-019-03556-x
[4] BALAMURUGAN, K. et al. Process optimisation and exhibiting correlation in the exploitable variable of AWJM In: International Journal of Materials and Product Technology Vol. 61, no. 1 (2020), p. 16-33 ISSN: 0268-1900 DB: WOS
[5] BACHCHHAV, Bhanudas Investigation on Abrasive Water Jet Machining of Al-Al2O3 MMC In: International Journal of Industrial Engineering and Production Research Vol. 32, no.1 (2021), p. 93-103 ISSN: 2345-363X
[6] SINGH, Navneet K., ANG, Andrew S. M., MAHAJAN, Dhiraj K., SINGH, Harpreet: Cavitation erosion resistant nickel-based cermet coatings for monel K-500 In: TRIBOLOGY INTERNATIONAL vol.159, (2021) ISSN:0301-679X eISSN:1879-2464 Doi:10.1016/j.triboint.2021.106954
[7] SINGH, Navneet K., KUMAR, Avneesh, ANG, Andrew S. M., SINGH, Harpreet et al.: Characterization and Slurry Erosion Mechanisms of Nickel-Based Cermet Coatings on Monel K-500 In: JOURNAL OF THERMAL SPRAY TECHNOLOGY vol.30, no.8 (2021) p.2138-2154 ISSN:1059-9630 eISSN:1544-1016 Doi:10.1007/s11666-021-01267-y