



TECHNICKÁ UNIVERZITA V KOŠICIACH  
Fakulta výrobných technológií

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

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Prešov, 2021

## 1. Prehľad 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-17-0490 Detekcia erózných účinkov pulzujúceho vodného prúdu na material (2018 - 2022). (spoluriešiteľ)
- APVV - MVP-2019-0053 - Mladý vedecký pracovník (2019).

#### KEGA

- KEGA 026TUKE-4/2016 Implementácia moderných informačno-komunikačných technológií do výučby prírodovedných a technických predmetov na fakultách technického zamerania (2016 - 2018). (spoluriešiteľ)
- KEGA 039TUKE-4/2017 Transfer poznatkov výskumu zvarovania žiarupevných ocelí do študijného programu progresívne technológie (2017 - 2019). (spoluriešiteľ)
- KEGA 036TUKE-4/2017 Mikroštruktúrna koncepcia implementácie moderných technických materiálov vo výrobných technológiách a konštrukčných aplikáciách (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)
- 028TUKE-4/2021 Transfer nových poznatkov z oblasti výrobných technológií do výučby technologicky orientovaných predmetov pre súčasné potreby slovenského priemyslu. (2021 - 2023). (spoluriešiteľ)

#### VEGA

- VEGA 1/0492/16 Výskum možností eliminácie deformácií tenkostenných súčiastok s využitím vysokorýchlostného obrábania (2016 - 2019). (spoluriešiteľ)
- VEGA 1/0682/17 Výskum, vývoj a experimentálne overenie prototypových nástrojov pre tvárnenie výmenníkových rúr s tvarovo členitým vnútorným povrchom (2017 - 2020). (spoluriešiteľ)
- VEGA 1/0080/20 Výskum vplyvu vysokorýchlostných a vysokoposuvových technológií trieskového obrábania na integritu povrchových vrstiev ťažkoobrobiteľných materiálov. (2020 - 2023). (spoluriešiteľ)
- VEGA 1/0431/21 Výskum svetelno-technických parametrov vo výrobných halách použitím nástrojov digitálnej ergonomie (2021-2024). (zodpovedný riešiteľ)

## b) Grantové projekty zahraničné

### Projekty EÚ

- Vysoké školy ako motory rozvoja vedomostnej spoločnosti, ITMS kód projektu 26110230120. Inovácia študijných programov, vzdelávanie študentov v podmienkach podnikovej praxe, modernizácia výučbových priestorov (2015) (riešiteľ)
- Automatizácia a robotizácia pre výrobné procesy 21. storočia, ITMS kód projektu 313011T566. (riešiteľ)

### H2020

- H2020-MG-2016-2017 Development of 'Less than Wagon Load' transport solutions in the Antwerp Chemical cluster (spoluriešiteľ)

## 2. Prehľad patentov a autorských osvedčení, vynálezov a technických diel

- [174182] Upevňovacie zariadenie pre nosiče nákladov SK 50030-2016 U1/ Darina Matisková ... [et al.] - Banská Bystrica : ÚPV SR - 2016. - 9 s..  
[MATISKOVÁ, Darina - BALARA, Milan - DUPLÁKOVÁ, Darina - SEMANČO, Pavol]
- [180366] Redukčná prevodovka s článkovou spojkou a predĺženým vstupným hriadeľom zverejnená prihláška úžitkového vzoru SK 50106-2016 U1/ Milan Balara ... [et al.] - Banská Bystrica : ÚPV SR - 2017. - 9 s..  
[BALARA, Milan - MAJOVSKÁ, Mária - DUPLÁKOVÁ, Darina - ZBIHLEJ, Jozef]
- [219077] Kompozitná fréma na špeciálne CNC stroje Úžitkový vzor/ Jozef Zajac ... [et al.] - Banská Bystrica : ÚPV SR - 2020. - 5 s..  
[ZAJAC, Jozef - DUPLÁKOVÁ, Darina - DUPLÁK, Ján - RADCHENKO, Svetlana - POKLEMBA, Róbert]

## 3. Spolupráca s domácimi partnermi z praxe

- Ergonomická racionalizácia osvetlenia v pracovnom prostredí výrobného podniku Ingmetal, s.r.o. (2017) (riešiteľ)
- Konštrukcia modulárneho systému LED osvetlenia komerčných priestorov LED-Solar, s.r.o. (2018) (riešiteľ)
- Možnosti nasadenia moderných logistických metód s cieľom zvýšenia produktivity práce pri manipulácii a uskladnení komponentov výroby (interierové a exteriérové tieniace prvky, glassbox, siete) vrátane overovania týchto metód M-Tech partners, s.r.o., Prešov: (2018) (riešiteľ)
- Analýza a syntéza poznatkov z aplikovaného priemyselného výskumu a vypracovanie štúdie možností nasadenia Creo Desing balíkov pre profesionálov v oblasti vývoja výrobkov. IPM Solutions, s.r.o. (2018) (riešiteľ)
- Metodológia merania kvalitatívnych a kvantitatívnych parametrov osvetľovacích sústav LED-Solar, s.r.o. (2019) (riešiteľ)
- Vypracovanie odbornej vedeckej štúdie pre obrábiteľnosť materiálov S355, C45, 100Cr6 a K100 technológiou vysokoposuvového frézovania. DMK Progressive Engineering, s.r.o. (2020) (riešiteľ)

- Identifikácia a determinácia poznatkov z aplikovaného výskumu a spracovanie vedecko - technickej štúdie integrácie a koncepčných riešení Cax systémov pre oblasť priemyslu IPM Solutions, s.r.o. (2020) (riešiteľ)

#### 4. Prehľad zahraničných mobilit a stáží

##### CEEPUS

- Fakulta mechatroniky a strojného inžinierstva Univerzity v Kielcach, Poľsko
- Fakulta inžinierska a poľnohospodárska Univerzity v Nyíregyháze, Maďarsko

##### ERASMUS+

- Don State Technical University, Rusko

##### Výskumné pobyty

- Fakulta technických systémov a energetickej techniky Štátnej univerzity v Sumy, Ukrajina

#### 5. Recenzie vedeckých príspevkov a vzdelávacích materiálov

	Názov recenzovaného príspevku	Názov časopisu	Databáza
1.	Non-real-time wireless system for lightning effect measurements	Applied Sciences (ISSN 2076-3417)	Current Contents Connect
2.	Intelligent Scheduling with Reinforcement Learning	Applied Sciences (ISSN 2076-3417)	Current Contents Connect
3.	Quality Assessment and Process Management of Welded Joints in Metallic Construction - a Review	Metals (ISSN 2075-4701)	Current Contents Connect
4.	An experimental approach on beating in vibration due to rotational unbalance	Applied Sciences (ISSN 2076-3417)	Current Contents Connect
5.	Reverse engineering and topology optimization for weight-reduction of a bell-crank	Applied Sciences (ISSN 2076-3417)	Current Contents Connect
6.	Development of a steel plant rescheduling algorithm based on batch decisions.	Applied Sciences (ISSN 2076-3417)	Current Contents Connect
7.	Performance Assessment of Minimum Quantity Castor-Palm Oil Mixtures in Hard-Milling Operation	Materials (ISSN 1996-1944)	Current Contents Connect
8.	Automated classification of evidence of respect in the communication through Twitter	Applied Sciences (ISSN 2076-3417)	Current Contents Connect
9.	Face-to-face vs online learning in the COVID-19 era: a survey research in a Spanish university	Education Sciences (ISSN 2227-7102)	Web of Science

10.	Methodological Experience in the Teaching-Learning of the English Language for Students with Visual Impairment	Education Sciences (ISSN 2227-7102)	Web of Science
11.	Models, resources and activities of project scheduling problems	Journal of Industrial Engineering-Theory Applications and Practice (ISSN 2007-1558)	Web of Science
12.	Human factor analysis and classification system (HFACS) in the evaluation of outpatients' medication error	International Journal of Technology (ISSN 2086-9614)	Web of Science
13.	Tactical Procurement Planning under Uncertainty in Aromatic Coconut Manufacturing	International Journal of Technology (ISSN 2086-9614)	Web of Science
14.	Noise in multi-unit residential buildings: A survey to study long-term implications for widespread teleworking	BUILDING ACOUSTICS (ISSN 2059-8025)	Web of Science
15.	A Novel Lighting Design System in Masoumeh with an Approach to Improving Technical and Economic Conditions	Journal of Applied Research and Technology (ISSN 1665-6423)	Scopus

## Certifikáty

- Education Sciences, Applied Sciences, Materials, Metals, MDPI - Certificate in Reviewing
- International Journal of Technology - Certificate of Excellence in Reviewing

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

Web of Science™ Citations	
Title	Application of a Signal Averaging Device in Robotics
Authors	BALARA, Milan - DUPLÁKOVÁ, Darina - MATISKOVÁ, Darina
Source information	Measurement, Vol. 115, p. 125-132, 2018

- [1] Time-domain signal averaging to improve microparticles detection and enumeration accuracy in a microfluidic impedance cytometer, By: Ashley, Brandon; Hassan, Umer, Biotechnology and Bioengineering, PAGES: 1-13, EARLY ACCESS: AUG 2021
- [2] Vibration forecasting by the results of synchronous control of water level changes in several observing wells, By: Panda, Anton; Nahorni, Volodymyr; Pigulevsky, Peter; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2021 Pages: 4383-4387 Published: JUN 2021
- [3] Forecasting an vibration by monitoring the dynamics of changes its precursors of various physical nature, By: Nahorni, Volodymyr; Panda, Anton; Straser, Valentino; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2021 Pages: 4396-4399 Published: JUN 2021
- [4] Gas flow simulation in the working gap of impulse gas-barrier face seal, By: Kuznetsov, Eduard; Nahorni, Volodymyr; Krenicky, Tibor, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 28 Issue: 4 Special Issue: SI Pages: 298-303 Published: DEC 2020
- [5] Enhancing efficiency by implementation of integrated management system in order to align organisational culture and daily practice, By: Zaloga, Viliam; Dyadyura, Konstantyn; Rybalka, Iryna; Pandova, Iveta; Zaborowski, T, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 28 Issue: 4 Special Issue: SI Pages: 304-311 Published: DEC 2020
- [6] ZnO coatings ON Ti6Al4V substrate: structural and antibacterial properties in literature review and research, By: Sukhodub, Leonid; Sukhodub, Luidmila; Kumeda, Mariia; Panda, Anton; Baron, Petr, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 28 Issue: 4 Special Issue: SI Pages: 318-324 Published: DEC 2020
- [7] Welding methods of filaments used in FFF/FDM 3D printing technology, By: Panda, Anton; Cehelsky, Samuel, MM SCIENCE JOURNAL Volume: 2020 Pages: 4062-4067 Published: NOV 2020
- [8] About wear resistance of linear block-polyurethanes, By: Anisimov, Volodymyr Mykolajovych; Panda, Anton; Anisimov, Volodymyr Volodymyrovych; Dyadyura, Konstantin; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2020 Pages: 4068-4073 Published: NOV 2020
- [9] Possibility and measurement of earthquake prediction based on trend study of total electron content (tec) of earth's Ionosphere. By: Nahorni, Volodymyr; Panda, Anton; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2020 Pages: 3985-3988 Published: OCT 2020
- [10] Innovation and recycling of aluminium castings in the form of plastic repair metal addition followed by machining, By: Anton, Panda; Lukas, Androvi; Iveta, Pandova, MM SCIENCE JOURNAL Volume: 2020 Pages: 3989-3994 Published: OCT 2020
- [11] Hydroxyapatite and zinc oxide based two-layer coating, deposited on Ti6AL4V substrate, By: Sukhodu, Leonid; Panda, Anton; Suchodub, Luidmila; Kumeda, Mariia; Dyadyura, Konstantyn; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2019 Pages: 3494-3499 Published: DEC 2019
- [12] The conditions for obtaining self-organized structures on the tribological surfaces of composite materials based on polytetrafluoroethylene which is used in automotive and other demanding technologies, By: Panda, Anton; Dyadyura, Kostiantyn; Harnicarova, Marta; Valicek, Jan; Pandova, Iveta; Palkova, Zuzana, MM SCIENCE JOURNAL Volume: 2019 Pages: 3500-3508 Published: DEC 2019
- [13] Implementation of integrated management system in order to enhance equipment efficiency, By: Zaloga, Viliam; Dyadyura, Konstantyn; Rybalka, Iryna; Pandova, Iveta, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 27 Issue: 4 Pages: 221-226 Published: DEC 2019
- [14] Modelling Business Process of Manufacturing for Air Compressors, By: Panda, Anton; Zaloga, Viliyam; Dyadyura, Kostiantyn; Rybalka, Iryna; Pandova, Iveta, TEM JOURNAL-TECHNOLOGY EDUCATION MANAGEMENT INFORMATICS Volume: 8 Issue: 2 Pages: 430-436 Published: MAY 2019
- [15] Effective utilization of used deposition modeling technology, By: Novakova-Marcincinova, E; Panda, A; Novakova-Marcincinova, L, MM SCIENCE JOURNAL 2018 , pp.2660-2664 Published: Dec 2018
- [16] Considering the strength aspects of the material selection for the production of plastic components using the FDM method, By: Panda, Anton; Novakova-Marcincinova, Ludmila;

Novakova-Marcincinova, Ema; Duplak, Jan; Zaborowski, Tadeusz, MM SCIENCE JOURNAL Volume: 2018 Pages: 2669-2672 Published: DEC 2018	
Title	<b>Determination of Optimal Production Process Using Scheduling and Simulation Software</b>
Authors	DUPLAKOVA, DARINA - TELISKOVA, MONIKA - DUPLAK, JAN - TOROK, JOZEF - HATALA, MICHAL - STERANKA, JOZEF - RADCHENKO, SVETLANA
Source information	International Journal of Simulation Modelling, Vol. 17, No. 4, p. 609-622, 2018
<p>[1] Vibration forecasting by the results of synchronous control of water level changes in several observing wells, By: Panda, Anton; Nahorny, Volodymyr; Pigulevsky, Peter; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2021 Pages: 4383-4387 Published: JUN 2021</p> <p>[2] Forecasting an vibration by monitoring the dynamics of changes its precursors of various physical nature, By: Nahorny, Volodymyr; Panda, Anton; Straser, Valentino; Pandova, Iveta, MM SCIENCE JOURNAL Volume: 2021 Pages: 4396-4399 Published: JUN 2021</p> <p>[3] Intelligent Scheduling with Reinforcement Learning, By: Cunha, Bruno; Madureira, Ana; Fonseca, Benjamim; Matos, Joao, APPLIED SCIENCES-BASEL Volume: 11 Issue: 8 Article Number: 3710 Published: APR 2021</p> <p>[4] Virtual factory as a useful tool for improving production processes, By: Debevec, Mihael; Simic, Marko; Jovanovic, Vukica; Herakovic, Niko, JOURNAL OF MANUFACTURING SYSTEMS Volume: 57 Pages: 379-389 Published: OCT 2020</p> <p>[5] Batch size optimization of multi-stage flow lines in terms of mass customization, By: Modrak, V; Soltysova, Z., INTERNATIONAL JOURNAL OF SIMULATION MODELLING Volume: 19 Issue: 2 Pages: 219-230 Published: JUN 2020</p> <p>[6] Heuristics based hybrid approach of flow shop scheduling problem, By: Lokesh, K.; Jayaprakash, J.; Alene, Tibebu, 4TH INTERNATIONAL CONFERENCE ON DESIGN, ANALYSIS, MANUFACTURING AND SIMULATION (ICDAMS 2020) Book Series: IOP Conference Series-Materials Science and Engineering Volume: 992 Article Number: 012010 Published: 2020</p> <p>[7] Using maturity model and discrete-event simulation for Industry 4.0 implementation, By: Gajsek, B.; Marolt, J.; Rupnik, B.; Lerher, T; Sternad, M., INTERNATIONAL JOURNAL OF SIMULATION MODELLING Volume: 18 Issue: 3 Pages: 488-499 Published: SEP 2019</p> <p>[8] Design of Container Terminal Handling System Based on Index Forecast and Economic Evaluation, By: Huang, Xiaoling; Dai, Xiamei; Luo, Yinzhe; Wang, Yawei, JOURNAL OF COASTAL RESEARCH Special Issue: 94 Pages: 377-384 Published: SUM 2019</p> <p>[9] Scheduling of Dynamic Multi-Objective Flexible Enterprise Job-Shop Problem Based on Hybrid QPSO, By: Chen, Wei; Yang, Hong; Hao, Yifei, IEEE ACCESS Volume: 7 Pages: 127090-127097 Published: 2019</p>	
Title	<b>Mathematical Modeling of Temperature Characteristics of RFID Tags with Their Subsequent Application in Engineering Production</b>
Authors	DUPLAKOVA, DARINA - KNAPCIKOVA, LUCIA - HATALA, MICHAL - SZILAGYI, ERIK
Source information	TEM Journal, Vol. 5, No. 4, pp.411-416, 2016
<p>[1] Gas flow simulation in the working gap of impulse gas-barrier face seal, By: Kuznetsov, Eduard; Nahorny, Volodymyr; Krenicky, Tibor, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 28 Issue: 4 Special Issue: SI Pages: 298-303 Published: DEC 2020</p> <p>[2] Enhancing efficiency by implementation of integrated management system in order to align organisational culture and daily practice, By: Zaloga, Viliam; Dyadyura, Konstantyn; Rybalka, Iryna; Pandova, Iveta; Zaborowski, T, MANAGEMENT SYSTEMS IN PRODUCTION</p>	

ENGINEERING Volume: 28 Issue: 4 Special Issue: SI Pages: 304-311 Published: DEC 2020	
[3] ZnO coatings ON Ti6Al4V substrate: structural and antibacterial properties in literature review and research, By: Sukhodub, Leonid; Sukhodub, Luidmila; Kumeda, Mariia; Panda, Anton; Baron, Petr, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 28 Issue: 4 Special Issue: SI Pages: 318-324 Published: DEC 2020	
[4] Assessment of production process capability in the serial production of components for the automotive industry, By: Dobransky, Jozef; Pollak, Martin; Dobos, Zigmund, MANAGEMENT SYSTEMS IN PRODUCTION ENGINEERING Volume: 27 Issue: 4 Pages: 255-258 Published: DEC 2019	
[5] Identification of tool wear intensity during miniature machining of austenitic steels and titanium, By: Kamenik, Roman; Pilc, Jozef; Varga, Daniel; Martincek, Juraj; Sadilek, Marek, 12TH INTERNATIONAL SCIENTIFIC CONFERENCE OF YOUNG SCIENTISTS ON SUSTAINABLE, MODERN AND SAFE TRANSPORT Book Series: Procedia Engineering Volume: 192 Pages: 410-415 Published: 2017	
[6] Experimental quantification of the austenitic phase in steels using the Average peak method of X-ray diffractometry, By: Piesova, Marianna; Czan, Andrej; Sajgalik, Michal; Czanova, Tatiana; Cep, Robert, 12TH INTERNATIONAL SCIENTIFIC CONFERENCE OF YOUNG SCIENTISTS ON SUSTAINABLE, MODERN AND SAFE TRANSPORT Book Series: Procedia Engineering Volume: 192 Pages: 689-694 Published: 2017	
[7] Triaxial measurement of residual stress after high feed milling using x-ray diffraction, By: Zauskova, Lucia; Czan, Andrej; Sajgalik, Michal; Drbul, Mario; Rysava, Zdenka, 12TH INTERNATIONAL SCIENTIFIC CONFERENCE OF YOUNG SCIENTISTS ON SUSTAINABLE, MODERN AND SAFE TRANSPORT Book Series: Procedia Engineering Volume: 192 Pages: 982-987 Published: 2017	
[8] Identification of surface characteristics created by miniature machining of dental implants made of titanium based materials, By: Babik, Ondrej; Czan, Andrej; Holubjak, Jozef; Kamenik, Roman; Pilc, Jozef; 12TH INTERNATIONAL SCIENTIFIC CONFERENCE OF YOUNG SCIENTISTS ON SUSTAINABLE, MODERN AND SAFE TRANSPORT Book Series: Procedia Engineering Volume: 192 Pages: 1016-1021 Published: 2017	
Title	<b>Effect Verification of External Factor to Readability of RFID Transponder Using Least Square Method</b>
Authors	BALOG, MICHAL - SZILAGYI, ERIK - DUPLAKOVA, DARINA - MINDAS, MIROSLAV
Source information	Measurement, Vol. 94, p. 233-238, 2016
[1] A novel 3D position measurement and structure prediction method for RFID tag group based on deep belief network, By: Zhuang, Xiao; Yu, Xiaolei; Zhou, Di; Zhao, Zhimin; Zhang, Wenjie; Li, Lin; Liu, Zhenlu, MEASUREMENT Volume: 136 Pages: 25-35 Published: MAR 2019	
[2] Signal Strength and Read Rate Prediction Modeling Using Machine Learning Algorithms for Vehicular Access Control and Identification, By: Priyashman, Vimal; Ismail, Widad, IEEE SENSORS JOURNAL Volume: 19 Issue: 4 Pages: 1400-1411 Published: 2019	
[3] Production monitoring of multilateral wells by multivariate dynamic interfacial tension, By: Mokhtari, Bahram; Bahramian, Alireza, MEASUREMENT Volume: 134 Pages: 794-803 Published: FEB 2019	
[4] Industry 4.0: A bibliometric analysis and detailed overview, By: Muhuri, Pranab K.; Shukla, Amit K.; Abraham, Ajith, ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE Volume: 78 Pages: 218-235 Published: FEB 2019	
[5] Innovations in Monitoring Conveyor Belts with Implemented RFID Technology, By: Marasova, Daniela; Cehlar, Michal; Ambrisko, Lubomir; Taraba, Vladimir; Staricna, Nikola, IVTH INTERNATIONAL INNOVATIVE MINING SYMPOSIUM Book Series: E3S Web of Conferences Volume: 105 Article Number: 03002 Published: 2019	
[6] RFID System with Passive RFID Tags for Textiles, By: Moraru, Aurelian; Helerea, Elena; Ursachi, Corneliu; Calin, Marius Daniel, 2017 10TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE) Book Series: International Symposium on Advanced Topics in Electrical Engineering Pages: 410-415 Published: 2017	



Title	<b>Comprehensive Analysis and Study of the Machinability of a High Strength Aluminum Alloy (EN AW-AlZn5.5MgCu) in the High-feed Milling</b>
Authors	DUPLAK, JAN - HATALA, MICHAL - DUPLAKOVA, DARINA - STERANKA, JOZEF
Source information	Advances in Production Engineering & Management, Vol. 13, No. 4, p. 455-465, 2018
	<p>[1] Surface Roughness Evaluation in Thin EN AW-6086-T6 Alloy Plates after Face Milling Process with Different Strategies, By: Chuchala, Daniel; Dobrzynski, Michal; Pimenov, Danil Yurievich; Orłowski, Kazimierz; Krolczyk, Grzegorz; Giasin, Khaled, MATERIALS Volume: 14 Issue: 11 Published: JUN 2021</p> <p>[2] Comparison of Elemental Analysis Techniques for the Characterization of Commercial Alloys, By: Seidel, Peter; Ebert, Doreen; Schinke, Robert; Moeckel, Robert; Raatz, Simone; Chao, Madlen; Niederschlag, Elke; Kreschel, Thilo; Gloaguen, Richard; Renno, Axel D., METALS Volume: 11 Issue: 5 Article Number: 736 Published: MAY 2021</p> <p>[3] Effect of pulsating water jet disintegration on hardness and elasticity modulus of austenitic stainless steel AISI 304L, By: Lehecka, Dominika; Botko, Frantisek; Klich, Jiri; Sitek, Libor; Hvizdos, Pavol; Fides, Martin; Cep, Robert, INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY Volume: 107 Issue: 5-6 Pages: 2719-2730 Published: MAR 2020</p> <p>[4] The evaluation of the production of the shaped part using the workshop programming method on the two-spindle multi-axis CTX alpha 500 lathe, By: Petrus, Michal; Michalik, Peter; Straka, Luboslav; Hrabovsky, Leopold; Macej, Jozef; Tirpak, Peter; Jusko, Jozef, OPEN ENGINEERING Volume: 9 Issue: 1 Pages: 660-667 Published: DEC 24 2019</p> <p>[5] Intelligent programming of robotic flange production by means of CAM programming, By: Tirpak, Peter; Michalik, Peter; Dobransky, Jozef; Macej, Jozef; Petrus, Michal, OPEN ENGINEERING Volume: 9 Issue: 1 Pages: 571-579 Published: DEC 10 2019</p>
Title	<b>Rheological Behavior Modelling of Composite Materials Used in Engineering Industry</b>
Authors	KNAPCIKOVA, LUCIA - DUPLAKOVA, DARINA - RADCHENKO, SVETLANA - HATALA, MICHAL
Source information	TEM Journal, Vol. 6, No. 2, p. 242-245, 2017
	<p>[1] Research and Evaluation of the Influence of the Construction of the Gate and the Influence of the Piston Velocity on the Distribution of Gases into the Volume of the Casting, By: Majernik, Jan; Gaspar, Stefan; Husar, Jozef; Pasko, Jan; Kolinsky, Jan, MATERIALS Volume: 14 Issue: 9 Article Number: 2264 Published: MAY 2021</p> <p>[2] Big Data Analytics of a Waste Recycling Simulation Logistics System, By: Straka, Martin; Tausova, Marcela; Rosova, Andrea; et al. POLISH JOURNAL OF ENVIRONMENTAL STUDIES Volume: 29 Issue: 3 Pages: 2355-2364 Published: 2020</p> <p>[3] Using continuous simulation for identifying bottlenecks in specific operation, By: Straka, M.; Hurna, S.; Bozogan, M.; Spirkova, D., INTERNATIONAL JOURNAL OF SIMULATION MODELLING Volume: 18 Issue: 3 Pages: 408-419 Published: SEP 2019</p> <p>[4] Utilization of computer simulation for waste separation design as a logistics system, By: Straka, M.; Khouri, S.; Rosova, A.; Caganova, D.; Culkova, K., INTERNATIONAL JOURNAL OF SIMULATION MODELLING Volume: 17 Issue: 4 Pages: 583-596 Published: DEC 2018</p>
Title	<b>Evaluation of Foreign Languages Teaching in LMS Conditions by Facility and Discrimination Index</b>
Authors	HUSAR, JOZEF - DUPLAKOVA, DARINA
Source information	TEM Journal, Vol. 5, No. 1, p.44-49, 2016
	<p>[1] Online blended learning in small private online course, By: Han, Yong; Wu, Wenjun; Zhang, Lijun; Liang, Yu, APPLIED SCIENCES-BASEL Volume: 11 Article Number: 7100 Published: JULY 2021</p>

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Authors	DUPLAKOVA, DARINA - KNAPCIKOVA, LUCIA - RADCHENKO, SVETLANA - HATALA, MICHAL
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Authors	TELIŠKOVÁ, MONIKA - TÖRÖK, JOZEF - DUPLÁKOVÁ, DARINA - KAŠČÁK, JAKUB - MEZENECVOVÁ, VIKTÓRIA - BIRČÁK, JAROSLAV
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Title	<b>Prediction of Cutting Material Durability by <math>T = f(vc)</math> Dependence for Turning Processes</b>
Authors	ZAJAC, JOZEF - DUPLAK, JAN - DUPLAKOVA, DARINA - CIZMAR, PETER - OLEXA, IGOR - BITTNER, ANTON
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Authors	HATALA, MICHAL - DUPLÁK, JAN - DUPLÁKOVÁ, DARINA - BOTKO, FRANTISEK
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Authors	MITAL, DUŠAN - DUPLÁKOVÁ, DARINA - DUPLÁK, JÁN - MITALOVÁ, ZUZANA - RADCHENKO, SVETLANA
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Authors	MITAL, DUŠAN - DUPLÁKOVÁ, DARINA - DUPLÁK, JÁN - MITALOVÁ, ZUZANA - RADCHENKO, SVETLANA
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Authors	DUPLÁK, JAN - HATALA, MICHAL - DUPLÁKOVÁ, DARINA - STERANKA, JOZEF
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Title	<b>Experimental High Speed Milling of the Selected Thin-Walled Component</b>
Authors	ZAJAC, JOZEF - HATALA, MICHAL - DUPLÁK, JAN - DUPLÁKOVÁ, DARINA - STERANKA, JOZEF
Source information	TEM Journal, Vol. 6, No. 4, p. 678-682, 2017
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Title	<b>Application of a Signal Averaging Device in Robotics</b>
Authors	BALARA, Milan - DUPLÁKOVÁ, Darina - MATISKOVÁ, Darina
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Title	<b>Software Support of Modelling using Ergonomic Tools in Engineering</b>
Authors	DUPLAKOVA, DARINA - KNAPCIKOVA, LUCIA - RADCHENKO, SVETLANA - HATALA, MICHAL

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## 8. Prehľad členstiev v redakčných a recenzných radách časopisov, vedeckých komunitách a konferenčných výboroch

- Členka redakčnej rady časopisu TEM Journal (Technology, Education, Management, Informatics), ISSN 2217-8309 (2021 - súčasnosť)
- Členka redakčnej rady časopisu STED Journal (Journal of Social and Technological Development), ISSN 2637-2614 (2019 - súčasnosť)
- Členka redakčnej rady časopisu SAR Journal (Science and Research Journal), ISSN 2619-9955 (2018 - súčasnosť)
- Členka recenznej rady časopisu Machines, ISSN 2075-1702 (2021 - súčasnosť)
- Členka recenznej rady časopisu Metals, ISSN 2075-4701 (2021 - súčasnosť)
- Členka vedeckého výboru medzinárodnej vedeckej konferencie - International Conference on Social and Technological Development (2019 - súčasnosť)
- The Senior Member in the EAI Community (2020 - súčasnosť)
- The Member of UIKTEN Community (2020 - súčasnosť)

## 9. Prehľad získaných ocenení

- 2018 - ocenenie dekana FVT TUKE za prínos pre rozvoj Fakulty výrobných technológií Technickej univerzity v Košiciach so sídlom v Prešove za publikačnú činnosť do 35 rokov.
- 2019 - ocenenie dekana FVT TUKE za prínos pre rozvoj Fakulty výrobných technológií Technickej univerzity v Košiciach so sídlom v Prešove za publikačnú činnosť do 35 rokov.
- 2019 - ocenenie Ministerstva školstva, vedy, výskumu a športu Slovenskej republiky - Osobnosť vedy a techniky do 35 rokov za excelentné vedecké výsledky v oblasti svetelnej techniky, podiel a riešení viacerých významných medzinárodných a národných výskumných projektov.