

I. VEDECKO VÝSKUMNÁ ČINNOSŤ

Výstupy kategórie A, B a C spolu	Požadované: 43	Skutočnosť: 67
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Výstupy A

Autorské osvedčenia, patenty, objavy

- 1) AGJ01 HORVÁT, František - PALICA, Igor - ŠOLTÉS, Lukáš - ČEKAN, Michal - HUČKO, Branislav. Optické skenovacie zariadenie vertikálnych deformácií chrbtice : Úžitkový vzor č. 6737. Banská Bystrica : Úrad priemyselného vlastníctva SR, 2014. 7 s.
- 2) AGJ02 HORVÁT, František - ČEKAN, Michal - HUČKO, Branislav - KOVÁČ, Tomáš - SZARVAS, Martin. Mechanická časť konštrukcie testovacieho zariadenia tenkých membrán z piezoelektrických materiálov : úžitkový vzor č. 7911. Banská Bystrica Úrad priemyselného vlastníctva SR 2017. 7 s.
- 3) AGJ03 ŠOLTÉS, Lukáš - ČEKAN, Michal - HORVÁT, František - HUČKO, Branislav - MUSIL, Miloš - BACHRATÝ, Michal. Energetický zdroj bezdrôtovej počítačovej myši : Úžitkový vzor č. 7192. Banská Bystrica : Úrad priemyselného vlastníctva SR, 2015. 6 s.
- 4) AGJ04 ŠOLTÉS, Lukáš - HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - ČAMBAL, Marek - LABAŠ, Peter. Zariadenie na stanovenie a meranie mechanických a biomechanických vlastností ciev : úžitkový vzor č. 7245. Banská Bystrica Úrad priemyselného vlastníctva SR 2015. 10 s.

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- 5) ADC01 HUČKO, Branislav - FARIA, L. Material model of metallic cellular solids. In *Computers and Structures*. Vol. 62, No. 6 (1997), s.1049-1057. ISSN 0045-7949. **V databáze: WOS**, IF nebolo v tom čase určené, súčasné **IF 3,354, časopis v je Q1**
- 6) ADC02 HUČKO, Branislav - MURÍN, J. Incremental equations for the large displacements analysis in the finite element method. In *Computers and Structures*. Vol. 29, No. 1 (1988), s.155-159. ISSN 0045-7949. **V databáze: WOS**, IF nebolo v tom čase určené, súčasné **IF 3,354, časopis v je Q1**

WOS a SCOPUS konferencie

- 7) AFC Hučko, B: Strain locking, 5th International Conference on Computational Plasticity (COMPLAS V), MAR 17-20, 1997, BARCELONA, SPAIN, pp. 431-433, **V databáze WOS.**
- 8) AFC Murín, J., Hučko, B.: Solution of non-linear problems with full stiffness matrices, European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000; Barcelona; Spain; 11 September 2000 through 14 September 2000; Code 102094, **V databáze SCOPUS.**

- 9) AFC01 ABOU NASSIF, Martin - HUČKO, Branislav - MAGDOLEN, Ľuboš. Biomechanical Monitoring in Hip Joint Prosthesis. In *Mechatronics : Recent Technological and Scientific Advances*. Berlin : Springer Verlag, 2011, s.591-598. ISBN 978-3-642-23243-5. **V databáze: SCOPUS**
- 10) AFD13 HUČKO, Branislav - UHERČÍK, Filip - HORVÁT, František. Improved kinematics for upper limbs prostheses. In *Procedia Engineering [elektronický zdroj] : The 6th International Conference on Modelling of Mechanical and Mechatronic Systems MMaMS 2014, 25-27 November 2014, Vysoké Tatry, Slovakia. Vol. 96, (2014), s. 164-171. ISSN 1877-7058. V databáze: SCOPUS.*
- 11) AFD08 DZUBA, Jaroslav - VANKO, Gabriel - BABCHENKO, Oleg - LALINSKÝ, Tibor - HORVÁT, František - SZARVAS, Martin - KOVÁČ, Tomáš - HUČKO, Branislav. Strain induced response of AlGaIn/GaN high electron mobility transistor located on cantilever and membrane. In *ASDAM 2016 : 11th International conference on advanced semiconductor devices and microsystems*. Smolenice, Slovakia. November 13-16, 2016. Danvers : IEEE, 2016, S. 227-230. ISBN 978-1-5090-3081-1. **V databáze: IEEE ; SCOPUS ; WOS.**
- 12) AFD12 HORVÁT, František - ČEKAN, Michal - ÉLESZTÖS, Pavel - HUČKO, Branislav - JANČO, Roland - KALOČÁNY, Daniel. Nonlinear finite element analysis of helium loop structure. In *Aplimat 2016 [elektronický zdroj] : proceedings of the 15th conference on applied mathematics 2016*. Bratislava, 2.-4. 2. 2016. 1st. ed. Bratislava : Vydavateľstvo STU, 2016, S. 505-512, CD ROM. ISBN 978-80-227-4531-4. **V databáze: SCOPUS.**
- 13) AFD15 KOVÁČ, Tomáš - HORVÁT, František - ČEKAN, Michal - HUČKO, Branislav - SZARVAS, Martin - DZUBA, Jaroslav - VANKO, Gabriel. Numerical solution of aluminium gallium nitride membrane in finite element analysis. In *Aplimat 2016 [elektronický zdroj] : proceedings of the 15th conference on applied mathematics 2016*. Bratislava, 2.-4. 2. 2016. 1st. ed. Bratislava : Vydavateľstvo STU, 2016, S. 700-710, CD ROM. ISBN 978-80-227-4531-4. **V databáze: SCOPUS.**
- 14) AFD18 KRAUS, Pavel - SZARVAS, Martin - MUSIL, Miloš - HUČKO, Branislav. FEA analysis of epoxy granite structure based on image processing using Matlab. In *Aplimat 2016 [elektronický zdroj] : proceedings of the 15th conference on applied mathematics 2016*. Bratislava, 2.-4. 2. 2016. 1st. ed. Bratislava : Vydavateľstvo STU, 2016, S. 711-720, CD ROM. ISBN 978-80-227-4531-4. **V databáze: SCOPUS.**
- 15) AFC02 BARBOLYAS, Boris - ŠUTTOVÁ, Kristína - VACHÁLEK, Ján - BELAVÝ, Cyril - HUČKO, Branislav - DEDÍK, Ladislav. Evaluation of human postural system dynamical behavior via developed statokinesigram trajectory. In *IFAC-PapersOnLine. Vol. 50, 20th World congress on the International Federation of Automatic Control*. Toulouse, France. July 9-14, 2017 (2017), s. 15627-15632, online. ISSN 2405-8963. **V databáze: SCOPUS.**
- 16) AFD17 KOVÁČ, Tomáš - HORVÁT, František - ČEKAN, Michal - HUČKO, Branislav - DZUBA, Jaroslav - VANKO, Gabriel. Comparing the effects of constants for gallium nitride based on the charge of a thin membrane. In *Aplimat 2017 [elektronický zdroj] : proceedings of the 16th conference on Applied Mathematics*. Bratislava, 31.1. -2.2. 2017. 1. vyd. Bratislava : Vydavateľstvo Spektrum STU, 2017, S. 869-877, CD ROM. ISBN 978-80-227-4650-2. **V databáze: SCOPUS.**
- 17) AFD21 RÓKOVÁ, Simona - HORVÁT, František - ČEKAN, Michal - HUČKO, Branislav - KOVÁČ, Tomáš. Description of membrane elements for

piezoelectric materials. In Aplimat 2017 [elektronický zdroj] : proceedings of the 16th conference on Applied Mathematics. Bratislava, 31.1. -2.2. 2017. 1. vyd. Bratislava : Vydavateľstvo Spektrum STU, 2017, S. 1312-1320, CD ROM. ISBN 978-80-227-4650-2. **V databáze: SCOPUS.**

- 18) AFC11 RYBÁŘ, Jan - CHYTIL, Miroslav - ĎURIŠ, Stanislav - HUČKO, Branislav - MAUKŠ, Filip - PAVLÁSEK, Peter. Use of suitable materials such as artificial cornea on eye model for calibration of optical tonometers. In Mechatronics systems and materials 2018. 1. vyd. Melville : American Institute of Physics. AIP Publishing, 2018, S. 020067-1 - 020067-8. ISBN 978-0-7354-1751-9. **V databáze: SCOPUS.**
- 19) AFC04 HORVÁT, František - ČEKAN, Michal - ŠOLTÉS, Lukáš - HUČKO, Branislav. Experimental device for reconstructing spinal deviations in to a 3D model. In Mechatronics 2013 : 10th International conference. 7 - 9 October 2013, Brno, Czech Republic. 1. vyd. Cham : Springer International Publishing, 2014, s. 779-784. ISBN 978-3-319-02293-2. **V databáze: SCOPUS.**
- 20) AFC17 PAVLÁSEK, Peter - RYBÁŘ, Jan - ĎURIŠ, Stanislav - HUČKO, Branislav - PALENČÁR, Jakub - CHYTIL, Miroslav. Developments in non-contact eye tonometer calibration. In Proceedings of the 2019 IEEE International Instrumentation and Measurement Technology Conference. 1. vyd. Piscataway : IEEE, 2019, S. 1281-1285, CD ROM. ISBN 978-1-5386-3460-8. **V databáze SCOPUS.**

Výstupy B

- 1) ADE01 ČEKAN, Michal - HORVÁT, František - ŠOLTÉS, Lukáš - HUČKO, Branislav - MUSIL, Miloš - LAJCHA, Peter. Low cost device for ground reaction force measurements in biomechanics. In Acta Technica Corviniensis - Bulletin of Engineering [elektronický zdroj]. Tome 8, fasc. 3 (2015), s. 69-72, online. ISSN 2067-3809.
- 2) ADE02 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - CHLEBO, Ondrej - BACHRATÝ, Michal - ČAMBAL, Marek. Measurement of abdominal retractor loading and its effects on the surgeons arm. In Interdisciplinary Journal of Engineering Sciences. Vol. 6, no. 1 (2018), s. 60-63. ISSN 2300-5874.
- 3) ADF01 GOGA, Vladimír - HUČKO, Branislav. Phenomenological material model of foam solids. In Journal of Mechanical engineering = Strojnícky časopis. Vol. 65, No. 1 (2015), s. 5-20. ISSN 0039-2472.
- 4) ADF02 HLAVATÝ, Michal - MUSIL, Miloš - HUČKO, Branislav. Ultrasonic quasi-Rayleigh waves - propagation properties and detection of mechanical damage. In Acta Mechanica Slovaca. Vol. 22, no. 2 (2018), s. 6-15. ISSN 1335-2393.
- 5) ADF03 HUČKO, Branislav - HORVÁT, František - KOVÁČ, Tomáš - ŠOLTÉS, Lukáš - ČEKAN, Michal. Thermal effects in electro acupuncture. In Acupuncture and Natural Medicine [elektronický zdroj]. Vol. 2015, no. 5-6 (2015), s. 42-48, online. ISSN 1339-4703.
- 6) ADF04 HUČKO, Branislav - BEREZŇÁK, Juraj - JANČO, Roland - MUSIL, Miloš. Application of magnetic field in regeneration of knee cartilage. In Akupunktúra a naturálna medicína. Roč. 2018, č. 1 (2018), s. 76-79. ISSN 1339-4703.

- 7) ADF05 MUSIL, Miloš - HAVELKA, René - CHLEBO, Ondrej - HAVELKA, Ferdinand - HUČKO, Branislav. Dynamic parameters tuning using structural dynamic modification. In Acta Mechanica Slovaca. Vol. 22, no. 3 (2018), s. 6-11. ISSN 1335-2393.
- 8) ADM01 HORVÁT, František - ČEKAN, Michal - ŠOLTÉS, Lukáš - BIATH, Peter - HUČKO, Branislav - JEDINÁK, Igor. Current ways to harvest energy using a computer mouse. In Acta Polytechnica. Vol. 54, No. 1 (2014), s. 19-21. ISSN 1210-2709. V databáze: SCOPUS, WOS.
- 9) ADN01 HLA VATÝ, Michal - STAREK, Ladislav - MUSIL, Miloš - HUČKO, Branislav. Ultrasonic defect detection of structural plates using quasi-Rayleigh waves. In Strojnícky časopis = Journal of Mechanical engineering. Vol. 67, no. 2 (2017), s. 37-50. ISSN 0039-2472.
- 10) ADN02 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František. Force analysis of bench press on stable and unstable base. In Strojnícky časopis = Journal of Mechanical engineering. Vol. 66, no. 2 (2016), s. 23-28. ISSN 0039-2472.
- 11) ADN03 KOVÁČ, Tomáš - HORVÁT, František - HUČKO, Branislav - JANČO, Roland - MUSIL, Miloš. The effects of piezoelectricity matrix constants on the charge of a thin membrane. In Strojnícky časopis = Journal of Mechanical engineering. Vol. 67, no. 2 (2017), s. 61-68. ISSN 0039-2472.
- 12) ADF MURÍN, J. – HUČKO, B.: Slabo viazaná termomechanická úloha – riešenie pomocou metódy konečných prvkov, Strojnícky časopis, Vol. 48, 1997, č.2, s. 86-96
- 13) ADF MURÍN, J. – HUČKO, B. – DUTKO, M.: Korekčná matica tuhosti nelineárneho prútového prvku, Vol. 44, 1993, č.5, s. 385-398
- 14) ADF MURÍN, J. – HUČKO, B.: Korekčná matica tuhosti priestorového prvku s nelinearitou, Strojnícky časopis, Vol. 42, 1992, č.2, s. 89-107
- 15) ADF HUČKO, B. - MURÍN, J.: Prírastkové rovnice pre geometrické nelinearity v metóde konečných prvkov, Strojnícky časopis, Vol. 39, 1988, č.4, s. 449-456
- 16) ADF HUČKO, B. - MURÍN, J.: Realizácia metódy „Element po elemente“ na riešenie sústavy algebraických rovníc v metóde konečných prvkov, Strojnícky časopis, Vol. 38, 1987, č.5, s. 561-568
- 17) ADM Ondrej Chlebo, Stanislav Žiaran, Branislav Hučko, Michal Čekan: REDUCTION OF TONAL NOISE IN RESIDENTIAL BUILDINGS, Akustika Vol. 31, 2019
- 18) AEC01 ÉCSI, Ladislav - ÉLESZTÖS, Pavel - JERÁBEK, Róbert - JANČO, Roland - HUČKO, Branislav. An alternative framework for developing material models for finite-strain elastoplasticity. In Advances in composite materials development. 1. vyd : IntechOpen, 2019, S. 1-21. ISBN 978-1-78984-130-5.

Výstupy C

- 1) AFC05 HUČKO, Branislav - SEDLÁKOVÁ, Mária - ČEKAN, Michal. Force analyses in hip joint using simulation and measuring. In 11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010. b.m. : ABCM, 2010, s.[[6]. ISBN 978-85-85205-97-3.
- 2) AFC06 HUČKO, Branislav - KOSTELNÁ, Jana - BELÁČEK, Jozef - BELÁČEK, Jozef. Numerical analysis of blood vessel containing vascular stent. In Proceedings of ICCB '2007. III International Congress on Computational Bioengineering : Caracas, Venezuela, September 17-19, 2007. Karakas : INABIO, 2007, s.41-44. ISBN 978-980-6939-10-3.
- 3) AFC07 HUČKO, Branislav. Experimental measurement of arterial mechanical properties. In 11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010. b.m. : ABCM, 2010, s.[5]. ISBN 978-85-85205-97-3.
- 4) AFC08 HUČKO, Branislav - ČEKAN, Michal - ŠOLTÉS, Lukáš. Gait analysis using IMU sensors. In VII Congreso Bolivariano de Ingenieria Mecanica [elektronický zdroj] : Cusco, October 23-25, 2012. Lima : Universidad Católica del Perú, 2012, s.CD ROM, [7].
- 5) AFC09 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - CHLEBO, Ondrej - BACHRATÝ, Michal - ČAMBAL, Marek. Measurement of abdominal retractor loading and its effects on the surgeons arm. In Współczesne trendy w teorii maszyn i układów mechatronicznych = Modern trends in theory of machines and mechatronic systems. 1. vyd. Wrocław : Oficyna Wydawnicza Politechniki Wrocławskiej, 2018, S. 61-62. ISBN 978-83-7493-024-6.
- 6) AFC11 ŠOLTÉS, Lukáš - ČEKAN, Michal - HUČKO, Branislav - PLUTOVÁ, Zuzana. Obtaining kinematic gait parameters from IMU sensors. In TEAM 2012 : Proceedings of 4th International Scientific and Expert Conference of the International TEAM Society (Technique, Education, Agriculture & Management). Slavonski Brod, 17th -19th October 2012, Croatia. Vol. 4, No. 1 (2012), s.51-53. ISSN 1847-9065.
- 7) AFC14 MURÍN, Justín - KUTIŠ, Vladimír - VESELOVSKÝ, Ján - HUČKO, Branislav. Thermokinetic Analysis of Luminaire Model. In Světlo 2004 = Light 2004 : Sborník přednášek 6. mezinárodní konference. Brno, Česká republika 22.- 24. June 2004. Brno : Česká společnost pro osvětlování, 2004, s.284-289. ISBN 80-238-8928-1.
- 8) AFC06 HUČKO, Branislav - CHMELKO, Vladimír. Foamed thin-walled members - fatigue analysis. In Euromech colloquium 459: Mechanical behaviour of cellular solids : Nancy/France/, June 7-10, 2004. Nancy : Euromech, 2004, s.CD ROM.
- 9) AFC07 HUČKO, Branislav - CHMELKO, Vladimír. Fatigue life of thin-walled members filled by foam. In 7th Conference on Dynamical Systems Theory and Applications : Proceedings. Vol. 2. Łódź : Department of Automatics and Biomechanics, 2003, s.787-790. ISBN 83-911746-5-4.
- 10) AFC08 HUČKO, Branislav - VANĚK, Oldřich - REMIŠ, Andrej. Classical Mechanics in Design of Nano-Structures. In 47. Internationales Wissenschaftliches Kolloquium : Ilmenau, Germany. 23.- 26. Sept. 2002. Ilmenau : Technische Universität Ilmenau, 2002, s.213-214.

- 11) AFD01 BACHÁROVÁ, Livia - HUČKO, Branislav. Stress analysis of the intervertebral disc. In International Doctoral Seminar 2010 : Proceeding. Smolenice, 16-19 May 2010. Trnava : AlumniPress, 2010, s.[10]. ISBN 978-80-8096-118-3.
- 12) AFD02 BACHÁROVÁ, Livia - HUČKO, Branislav. The impact analysis of the intervertebral disc. In ELITECH'10 : 12th Conference of Doctoral Students. Bratislava, Slovak Republic, 26.5.2010. Bratislava : STU v Bratislave, 2010, s.[4]. ISBN 978-80-227-3303-8.
- 13) AFD04 ČEKAN, Michal - HUČKO, Branislav. Mechanical properties determination by ball indentation. In Mechanical Engineering 2008 : 12th International Scientific Conference, Bratislava, Slovak Republic, 13.-14.11. 2008. Bratislava : STU v Bratislave, 2008, s.CD-Rom. ISBN 978-80-227-2987-1.
- 14) AFD05 ČEKAN, Michal - HUČKO, Branislav - LABAŠ, Vladimír - KOSNÁČ, Ján - SVOBODA, Zdenek. Measurement of lower limb segment through accelerometry and videography. In Mechanical Engineering 2010 : 13th international conference on the occasion of the 70th anniversary of the beginning of education of mechanical engineering students at the Slovak University of Technology in Bratislava. Bratislava, 21.10. 2010. Proceedings of the papers. Bratislava : Slovak University of Technology in Bratislava, 2010, s.S1-16 - S1-22. ISBN 978-80-227-3304-5.
- 15) AFD06 ČEKAN, Michal - ŠOLTÉS, Lukáš - HORVÁT, František - HUČKO, Branislav - MELEG, Tatjana - ZEMKOVÁ, Erika. Kinematic analysis of a swimmers center of mass when swimming. In Od výskumu k praxi [elektronický zdroj] : 17. ročník medzinárodnej vedeckej konferencie. Bratislava, 29.-30.11. 2012. Bratislava : Nakladateľstvo STU, 2012, s.CD-ROM, s. 280-284. ISBN 978-80-227-3828-6.
- 16) AFD07 ČENTEOVÁ, Jana - HUČKO, Branislav. Finite deformation behaviours of biphasic articular cartilage. In Mechanical Engineering 2008 : 12th International Scientific Conference, Bratislava, Slovak Republic, 13.-14.11. 2008. Bratislava : STU v Bratislave, 2008, s.CD-Rom. ISBN 978-80-227-2987-1.
- 17) AFD09 GELANYI, Alexander - HUČKO, Branislav. Analytical and numerical analysis of beams torsionally loaded by bending and warping. In Mechanical Engineering 2008 : 12th International Scientific Conference, Bratislava, Slovak Republic, 13.-14.11. 2008. Bratislava : STU v Bratislave, 2008, s.CD-Rom. ISBN 978-80-227-2987-1.
- 18) AFD10 GOGA, Vladimír - HUČKO, Branislav. Compression Stress-Strain Curve Modelling of Cellular Solids. In Mechanical Engineering 2008 : 12th International Scientific Conference, Bratislava, Slovak Republic, 13.-14.11. 2008. Bratislava : STU v Bratislave, 2008, s.CD-Rom. ISBN 978-80-227-2987-1.
- 19) AFD16 KOVÁČ, Tomáš - HORVÁT, František - ČEKAN, Michal - HUČKO, Branislav. Riešenie alumínium-gálium-nitridovej membrány pomocou numerického výpočtu v ANSYS Multiphysics. In Mechatronika 2016 : proceedings of 14th international symposium MEMS 2016. Bratislava, 25.-27. 5. 2016. 1. vyd. Bratislava : Vydavateľstvo STU, 2016, S. 97-108. ISBN 978-80-227-4564-2.
- 20) AFD19 LABAŠ, Vladimír - HUČKO, Branislav. Numerical simulation of perforated plate due to impact. In ELITECH'10 : 12th Conference of Doctoral Students. Bratislava, Slovak Republic, 26.5.2010. Bratislava : STU v Bratislave, 2010, s.[4]. ISBN 978-80-227-3303-8.
- 21) AFD20 LABAŠ, Vladimír - HUČKO, Branislav - ČEKAN, Michal - KOSNÁČ, Ján. Deformation of perforated material at low speed impact. In Mechanical Engineering 2010 : 13th international conference on the occasion of the 70th

anniversary of the beginning of education of mechanical engineering students at the Slovak University of Technology in Bratislava. Bratislava, 21.10. 2010. Proceedings of the papers. Bratislava : Slovak University of Technology in Bratislava, 2010, s.S1-88 - S1-93. ISBN 978-80-227-3304-5.

- 22) AFD22 SEDLÁKOVÁ, Mária - HUČKO, Branislav. Hip joint loading during poling phase of cross - country skiing. In Mechanical Engineering 2008 : 12th International Scientific Conference, Bratislava, Slovak Republic, 13.-14.11. 2008. Bratislava : STU v Bratislave, 2008, s.CD-Rom. ISBN 978-80-227-2987-1.
- 23) AFD23 SEDLÁKOVÁ, Mária - HUČKO, Branislav. Possibilities of in vivo load measuring in a human skeleton. In Optimalizácia zaťaženia v telesnej a športovej výchove : Vedecký seminár s medzinárodnou účasťou. - Bratislava, 26.4. 2007. Zborník príspevkov. Bratislava : STU v Bratislave, 2007, s.CD Rom. ISBN 978-80-227-2633-7.
- 24) AFD24 SEDLÁKOVÁ, Mária - HUČKO, Branislav. Telemetry in the endoprosthesis of the hip joint. In ERIN 2008. Education, Research, Innovation : 2. medzinárodná konferencia mladých výskumníkov a doktorandov. Bratislava, 23.-24.4. 2008. - Zborník abstraktov. 1. vyd. Bratislava : STU v Bratislave, 2008, s.nestr. ISBN 978-80-227-2849-2.
- 25) AFD25 SEDLÁKOVÁ, Mária - KOSTELNÁ, Jana - HUČKO, Branislav. Intelligent prostheses. In Mechanical Engineering 2007 : the 11th International Scientific Conferenc. Bratislava, November 29-30, 2007. Bratislava : STU v Bratislave, 2007, s.nestr. ISBN 978-80-227-2768-6.
- 26) AFD26 SEDLÁKOVÁ, Mária - HUČKO, Branislav. Computer simulation of HIP joint loading during poling phase of cross-country skiing. In Optimalizácia zaťaženia v telesnej a športovej výchove : Medzinárodná vedecká konferencia. - Bratislava, 24.4. 2008. Bratislava : STU v Bratislave, 2008, s.164-170. ISBN 978-80-227-2852-2.
- 27) AFD27 ŠOLTÉS, Lukáš - ČEKAN, Michal - HORVÁT, František - HUČKO, Branislav. Determining biomechanical parameters for passenger comfort in automobiles. In Noise and vibration in practice. Hluk a kmitanie v praxi. : Proceedings of the 18th international acoustic conference. Kočovce, Slovakia, June 3-4, 2013. 1st.ed. Bratislava : Nakladateľstvo STU, 2013, s.p. 111-116. ISBN 978-80-227-3946-7.
- 28) AFD28 ŠTUBŇA, Boris - HUČKO, Branislav. Stress-strain analysis of roll-over protective structure (ROPS). In Mechanical Engineering 2007 : the 11th International Scientific Conferenc. Bratislava, November 29-30, 2007. Bratislava : STU v Bratislave, 2007, s.nestr. ISBN 978-80-227-2768-6.
- 29) AFD30 UHERČÍK, Filip - HUČKO, Branislav. Musculoskeletal modeling. In Od výskumu k praxi [elektronický zdroj] : 17. ročník medzinárodnej vedeckej konferencie. Bratislava, 29.-30.11. 2012. Bratislava : Nakladateľstvo STU, 2012, s.CD-ROM, s. 315-321. ISBN 978-80-227-3828-6.

Z toho časopisy	Požadované: 23	Skutočnosť: 23
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Časopisy

- 1) ADC01 HUČKO, Branislav - FARIA, L. Material model of metallic cellular solids. In *Computers and Structures*. Vol. 62, No. 6 (1997), s.1049-1057. ISSN 0045-7949. V databáze: WOS.
- 2) ADC02 HUČKO, Branislav - MURÍN, J. Incremental equations for the large displacements analysis in the finite element method. In *Computers and Structures*. Vol. 29, No. 1 (1988), s.155-159. ISSN 0045-7949. V databáze: WOS.
- 3) ADE01 ČEKAN, Michal - HORVÁT, František - ŠOLTÉS, Lukáš - HUČKO, Branislav - MUSIL, Miloš - LAJCHA, Peter. Low cost device for ground reaction force measurements in biomechanics. In *Acta Technica Corviniensis - Bulletin of Engineering [elektronický zdroj]*. Tome 8, fasc. 3 (2015), s. 69-72, online. ISSN 2067-3809.
- 4) ADE02 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - CHLEBO, Ondrej - BACHRATÝ, Michal - ČAMBAL, Marek. Measurement of abdominal retractor loading and its effects on the surgeons arm. In *Interdisciplinary Journal of Engineering Sciences*. Vol. 6, no. 1 (2018), s. 60-63. ISSN 2300-5874.
- 5) ADE03 RYBÁŘ, Jan - SEDLAČKO PETER - ĎURIŠ, Stanislav - PAVLÁSEK, Peter - GROSINGER, Patrik - DUNAJ, Štefan - CHYTIL, Miroslav - HUČKO, Branislav - PLUHÁČEK, František. Modelové oko pro účely kalibrace bezkontaktních očních tonometrů. In *Jemná mechanika a optika*. Roč. 64, č. 6 (2019), s. 164-168. ISSN 0447-6441.
- 6) ADF01 GOGA, Vladimír - HUČKO, Branislav. Phenomenological material model of foam solids. In *Journal of Mechanical engineering = Strojnícky časopis*. Vol. 65, No. 1 (2015), s. 5-20. ISSN 0039-2472.
- 7) ADF02 HLAVATÝ, Michal - MUSIL, Miloš - HUČKO, Branislav. Ultrasonic quasi-Rayleigh waves - propagation properties and detection of mechanical damage. In *Acta Mechanica Slovaca*. Vol. 22, no. 2 (2018), s. 6-15. ISSN 1335-2393.
- 8) ADF03 HUČKO, Branislav - HORVÁT, František - KOVÁČ, Tomáš - ŠOLTÉS, Lukáš - ČEKAN, Michal. Thermal effects in electro acupuncture. In *Acupuncture and Natural Medicine [elektronický zdroj]*. Vol. 2015, no. 5-6 (2015), s. 42-48, online. ISSN 1339-4703.
- 9) ADF04 HUČKO, Branislav - BEREZŇÁK, Juraj - JANČO, Roland - MUSIL, Miloš. Application of magnetic field in regeneration of knee cartilage. In *Akupunktúra a naturálna medicína*. Roč. 2018, č. 1 (2018), s. 76-79. ISSN 1339-4703.
- 10) ADF05 MUSIL, Miloš - HAVELKA, René - CHLEBO, Ondrej - HAVELKA, Ferdinand - HUČKO, Branislav. Dynamic parameters tuning using structural dynamic modification. In *Acta Mechanica Slovaca*. Vol. 22, no. 3 (2018), s. 6-11. ISSN 1335-2393.
- 11) ADF06 PAVLÁSEK, Peter - RYBÁŘ, Jan - CHYTIL, Miroslav - ĎURIŠ, Stanislav - PALENČÁR, Jozef - HUČKO, Branislav. European project on developing research capabilities for traceable intraocular pressure measurements. In *Zdravotníctvo a sociálna práca*. Roč. 14, č. 1 (2019), s. 30-36. ISSN 1336-9326.
- 12) ADF07 RYBÁŘ, Jan - ĎURIŠ, Stanislav - PAVLÁSEK, Peter - HUČKO, Branislav - DUNAJ, Štefan - JAVORSKÁ, Alexandra - GROSINGER, Patrik - CHYTIL, Miroslav. Řešené projekty k zabezpečení metrologické návaznosti měření

nitroočného tlaku na SjF STU Bratislava. In *Metrológia a skúšobníctvo*. Roč. 24, č. 1 (2019), s. 21-24. ISSN 1335-2768.

- 13) ADM01 HORVÁT, František - ČEKAN, Michal - ŠOLTÉS, Lukáš - BIATH, Peter - HUČKO, Branislav - JEDINÁK, Igor. Current ways to harvest energy using a computer mouse. In *Acta Polytechnica*. Vol. 54, No. 1 (2014), s. 19-21. ISSN 1210-2709. V databáze: SCOPUS, WOS.
- 14) ADM02 CHLEBO, Ondrej - ŽIARAN, Stanislav - HUČKO, Branislav - ČEKAN, Michal. Reduction of tonal noise in residential buildings = Obťažovanie rezidentov tónovým hlukom v bytových priestoroch a jeho redukcia. In *Akustika*. Vol. 31, March (2019), s. 36-44. ISSN 1801-9064 (2017: 0.190 - SJR, Q4 - SJR Best Q). V databáze: WOS: 000460341500005.
- 15) ADN01 HLAVATÝ, Michal - STAREK, Ladislav - MUSIL, Miloš - HUČKO, Branislav. Ultrasonic defect detection of structural plates using quasi-Rayleigh waves. In *Strojnícky časopis = Journal of Mechanical engineering*. Vol. 67, no. 2 (2017), s. 37-50. ISSN 0039-2472.
- 16) ADN02 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František. Force analysis of bench press on stable and unstable base. In *Strojnícky časopis = Journal of Mechanical engineering*. Vol. 66, no. 2 (2016), s. 23-28. ISSN 0039-2472.
- 17) ADN03 KOVÁČ, Tomáš - HORVÁT, František - HUČKO, Branislav - JANČO, Roland - MUSIL, Miloš. The effects of piezoelectricity matrix constants on the charge of a thin membrane. In *Strojnícky časopis = Journal of Mechanical engineering*. Vol. 67, no. 2 (2017), s. 61-68. ISSN 0039-2472.
- 18) ADN HUČKO Branislav, FERKOVÁ Sylvia Lea, ĎURIŠ Stanislav, RYBÁŘ Jan, PAVLÁSEK Peter. GLAUCOMA VS. BIOMECHANICAL PROPERTIES OF CORNEA. In *Strojnícky časopis = Journal of Mechanical engineering*. Vol. 69, no. 2 (2019), s. 111-116. ISSN 0039-2472
- 19) ADF MURÍN, J. – HUČKO, B.: Slabo viazaná termomechanická úloha – riešenie pomocou metódy konečných prvkov, *Strojnícky časopis*, Vol. 48, 1997, č.2, s. 86-96
- 20) ADF MURÍN, J. – HUČKO, B. – DUTKO, M.: Korekčná matica tuhosti nelineárneho prútového prvku, Vol. 44, 1993, č.5, s. 385-398
- 21) ADF MURÍN, J. – HUČKO, B.: Korekčná matica tuhosti priestorového prvku s nelinearitou, *Strojnícky časopis*, Vol. 42, 1992, č.2, s. 89-107
- 22) ADF HUČKO, B. - MURÍN, J.: Prírastkové rovnice pre geometrické nelinearity v metóde konečných prvkov, *Strojnícky časopis*, Vol. 39, 1988, č.4, s. 449-456
- 23) ADF HUČKO, B. - MURÍN, J.: Realizácia metódy „Element po elemente“ na riešenie sústavy algebraických rovníc v metóde konečných prvkov, *Strojnícky časopis*, Vol. 38, 1987, č.5, s. 561-568

Z toho zahraničné publikácie v cudzom jazyku	Požadované: 23	Skutočnosť: 28
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- 1) ADC01 HUČKO, Branislav - FARIA, L. Material model of metallic cellular solids. In *Computers and Structures*. Vol. 62, No. 6 (1997), s.1049-1057. ISSN 0045-7949. V databáze: WOS.
- 2) ADC02 HUČKO, Branislav -MURÍN, J. Incremental equations for the large displacements analysis in the finite element method. In *Computers and Structures*. Vol. 29, No. 1 (1988), s.155-159. ISSN 0045-7949. V databáze: WOS.
- 3) AFC01 ABOU NASSIF, Martin - HUČKO, Branislav - MAGDOLEN, Ľuboš. Biomechanical Monitoring in Hip Joint Prosthesis. In *Mechatronics : Recent Technological and Scientific Advances*. Berlin : Springer Verlag, 2011, s.591-598. ISBN 978-3-642-23243-5.
- 4) AFC02 BARBOLYAS, Boris - ŠUTTOVÁ, Kristína - VACHÁLEK, Ján - BELAVÝ, Cyril - HUČKO, Branislav - DEDÍK, Ladislav. Evaluation of human postural system dynamical behavior via developed statokinesigram trajectory. In *IFAC-PapersOnLine*. Vol. 50, 20th World congress on the International Federation of Automatic Control. Toulouse, France. July 9-14, 2017 (2017), s. 15627-15632, online. ISSN 2405-8963. V databáze: SCOPUS.
- 5) AFC11 RYBÁŘ, Jan - CHYTIL, Miroslav - ĎURIŠ, Stanislav - HUČKO, Branislav - MAUKŠ, Filip - PAVLÁSEK, Peter. Use of suitable materials such as artificial cornea on eye model for calibration of optical tonometers. In *Mechatronics systems and materials 2018*. 1. vyd. Melville : American Institute of Physics. AIP Publishing, 2018, S. 020067-1 - 020067-8. ISBN 978-0-7354-1751-9. V databáze: SCOPUS: 2-s2.0-85056361212.
- 6) AFC17 PAVLÁSEK, Peter - RYBÁŘ, Jan - ĎURIŠ, Stanislav - HUČKO, Branislav - PALENČÁR, Jakub - CHYTIL, Miroslav. Developments in non-contact eye tonometer calibration. In *Proceedings of the 2019 IEEE International Instrumentation and Measurement Technology Conference*. 1. vyd. Piscataway : IEEE, 2019, S. 1281-1285, CD ROM. ISBN 978-1-5386-3460-8.
- 7) AFC04 HORVÁT, František - ČEKAN, Michal - ŠOLTĚS, Lukáš - HUČKO, Branislav. Experimental device for reconstructing spinal deviations in to a 3D model. In *Mechatronics 2013 : 10th International conference*. 7 - 9 October 2013, Brno, Czech Republic. 1. vyd. Cham : Springer International Publishing, 2014, s. 779-784. ISBN 978-3-319-02293-2. V databáze: SCOPUS.
- 8) AFC Murín, J., Hučko, B.: Solution of non-linear problems with full stiffness matrices, European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000; Barcelona; Spain; 11 September 2000 through 14 September 2000; Code 102094, SCOPUS.
- 9) AFC Hučko, B: Strain locking, 5th International Conference on Computational Plasticity (COMPLAS V), MAR 17-20, 1997, BARCELONA, SPAIN, pp. 431-433, WOS
- 10) ACA01 JANČO, Roland - HUČKO, Branislav. Introduction to mechanics of materials: Part 1[elektronický zdroj]. 1. vyd. b.m. : bookboon.com, 2013. online, 160 p. Dostupné na internete: <<http://bookboon.com/en/textbooks/mechanics/introduction-to-mechanics-of-materials-part-i>>. ISBN 978-87-403-0364-3.

- 11) ACA02 JANČO, Roland - HUČKO, Branislav. Introduction to Mechanics of Materials: Part II [elektronický zdroj]. 1st. ed. [b.m.] : bookboon.com, 2013. online, 234 p. Dostupné na internete: <<http://bookboon.com/en/textbooks/mechanics/introduction-to-mechanics-of-materials-part-ii>>. ISBN 978-87-403-0366-7.
- 12) ADE01 ČEKAN, Michal - HORVÁT, František - ŠOLTÉS, Lukáš - HUČKO, Branislav - MUSIL, Miloš - LAJCHA, Peter. Low cost device for ground reaction force measurements in biomechanics. In Acta Technica Corviniensis - Bulletin of Engineering [elektronický zdroj]. Tome 8, fasc. 3 (2015), s. 69-72, online. ISSN 2067-3809.
- 13) ADE02 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - CHLEBO, Ondrej - BACHRATÝ, Michal - ČAMBAL, Marek. Measurement of abdominal retractor loading and its effects on the surgeons arm. In Interdisciplinary Journal of Engineering Sciences. Vol. 6, no. 1 (2018), s. 60-63. ISSN 2300-5874.
- 14) ADE03 RYBÁŘ, Jan - SEDLAČKO PETER - ĎURIŠ, Stanislav - PAVLÁSEK, Peter - GROSINGER, Patrik - DUNAJ, Štefan - CHYTIL, Miroslav - HUČKO, Branislav - PLUHÁČEK, František. Modelové oko pro účely kalibrace bezkontaktních očních tonometrů. In *Jemná mechanika a optika*. Roč. 64, č. 6 (2019), s. 164-168. ISSN 0447-6441.
- 15) ADM01 HORVÁT, František - ČEKAN, Michal - ŠOLTÉS, Lukáš - BIATH, Peter - HUČKO, Branislav - JEDINÁK, Igor. Current ways to harvest energy using a computer mouse. In Acta Polytechnica. Vol. 54, No. 1 (2014), s. 19-21. ISSN 1210-2709. V databáze: SCOPUS, WOS.
- 16) ADM 02 Ondrej Chlebo, Stanislav Žiaran, Branislav Hučko, Michal Čekan: REDUCTION OF TONAL NOISE IN RESIDENTIAL BUILDINGS, Akustika Vol. 31, 2019
- 17) AFC03 ČEKAN, Michal - HORVÁT, František - ŠOLTÉS, Lukáš - HUČKO, Branislav - MUSIL, Miloš - LAJCHA, Peter. Low cost device for ground reaction force measurements in biomechanics. In ERIN 2014 [elektronický zdroj] : proceedings of abstracts with full papers on CD. 8th international conference for young researchers and Ph.D. students. Blansko-Českovice, Czech Republic, 23th-25th April 2014. Brno : University of Technology, 2014, CD-ROM, [7] p. ISBN 978-80-214-4931-2.
- 18) AFC05 HUČKO, Branislav - SEDLÁKOVÁ, Mária - ČEKAN, Michal. Force analyses in hip joint using simulation and measuring. In 11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010. b.m. : ABCM, 2010, s.[[6]. ISBN 978-85-85205-97-3.
- 19) AFC06 HUČKO, Branislav - KOSTELNÁ, Jana - BELÁČEK, Jozef - BELÁČEK, Jozef. Numerical analysis of blood vessel containing vascular stent. In Proceedings of ICCB '2007. III International Congress on Computational Bioengineering : Caracas, Venezuela, September 17-19, 2007. Karakas : INABIO, 2007, s.41-44. ISBN 978-980-6939-10-3.
- 20) AFC07 HUČKO, Branislav. Experimental measurement of arterial mechanical properties. In 11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010. b.m. : ABCM, 2010, s.[5]. ISBN 978-85-85205-97-3.
- 21) AFC08 HUČKO, Branislav - ČEKAN, Michal - ŠOLTÉS, Lukáš. Gait analysis using IMU sensors. In VII Congreso Bolivariano de Ingenieria Mecanica [elektronický zdroj] : Cusco, October 23-25, 2012. Lima : Universidad Católica del Perú, 2012, s.CD ROM, [7].

- 22) AFC09 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - CHLEBO, Ondrej - BACHRATÝ, Michal - ČAMBAL, Marek. Measurement of abdominal retractor loading and its effects on the surgeons arm. In Współczesne trendy w teorii maszyn i układów mechatronicznych = Modern trends in theory of machines and mechatronic systems. 1. vyd. Wrocław : Oficyna Wydawnicza Politechniki Wrocławskiej, 2018, S. 61-62. ISBN 978-83-7493-024-6.
- 23) AFC11 ŠOLTÉS, Lukáš - ČEKAN, Michal - HUČKO, Branislav - PLUTOVÁ, Zuzana. Obtaining kinematic gait parameters from IMU sensors. In TEAM 2012 : Proceedings of 4th International Scientific and Expert Conference of the International TEAM Society (Technique, Education, Agriculture & Management). Slavonski Brod, 17th -19th October 2012, Croatia. Vol. 4, No. 1 (2012), s.51-53. ISSN 1847-9065.
- 24) AEC01 ÉCSI, Ladislav - ÉLESZTÖS, Pavel - JERÁBEK, Róbert - JANČO, Roland - HUČKO, Branislav. An alternative framework for developing material models for finite-strain elastoplasticity. In *Advances in composite materials development*. 1. vyd : IntechOpen, 2019, S. 1-21. ISBN 978-1-78984-130-5.
- 25) AFC06 HUČKO, Branislav - CHMELKO, Vladimír. Foamed thin-walled members - fatigue analysis. In Euromech colloquium 459: Mechanical behaviour of cellular solids : Nancy/France/, June 7-10, 2004. Nancy : Euromech, 2004, s.CD ROM.
- 26) AFC07 HUČKO, Branislav - CHMELKO, Vladimír. Fatigue life of thin-walled members filled by foam. In 7th Conference on Dynamical Systems Theory and Applications : Proceedings. Vol. 2. Łódź : Department of Automatics and Biomechanics, 2003, s.787-790. ISBN 83-911746-5-4.
- 27) AFC08 HUČKO, Branislav - VANĚK, Oldřich - REMIŠ, Andrej. Classical Mechanics in Design of Nano-Structures. In 47. Internationales Wissenschaftliches Kolloquium : Ilmenau, Germany. 23.- 26. Sept. 2002. Ilmenau : Technische Universität Ilmenau, 2002, s.213-214.
- 28) AFC14 MURÍN, Justín - KUTIŠ, Vladimír - VESELOVSKÝ, Ján - HUČKO, Branislav. Thermokinetic Analysis of Luminaire Model. In Světlo 2004 = Light 2004 : Sborník přednášek 6. mezinárodní konference. Brno, Česká republika 22.- 24. June 2004. Brno : Česká společnost pro osvětlování, 2004, s.284-289. ISBN 80-238-8928-1.

II. OHLASY NA VEDECKO VÝSKUMNÚ ČINNOSŤ

Citácie spolu	Požadované: 30	Skutočnosť: 42
Aspoň 30% v zahraničí	Požadované: 9	Skutočnosť: 30
Citácie registrované vo WOS a SCOPUS	Požadované: 5	Skutočnosť: 36

Citácie

ADC HUČKO, Branislav - MURÍN, Justín. Incremental Equations for the Large Displacements Analysis in the Finite Element Method. In *Computers and Structures*. Vol. 29 (1988), s.155-159. ISSN 0045-7949 (1988). **Registrované v: WOS**

Ohlasy:

1. [1] BOUBOULAS, Athanasios - ANIFANTIS, Nikolaos. Three-dimensional finite element modeling for post-buckling analysis of cracked columns. In *INTERNATIONAL JOURNAL OF STRUCTURAL INTEGRITY*, 2016, vol. 7, no. 3, pp. 397-411. ISSN 1757-9864., **Registrované v: WOS**

ADC HUČKO, Branislav - FARIA, L. Material model of metallic cellular solids. In *Computers and Structures*. Vol. 62, No. 6 (1997), s.1049-1057. ISSN 0045-7949 (1997). **V databáze: WOS.**

Ohlasy:

1. [1] TUNVIR, K. - KIM, Daeil - CHEON, S.S. Analytical solution for crushing behavior of closed cell Al-alloy foam. In *Mechanics of Advanced Materials and Structures*, 2007, vol. 14, no. 5, s.321-327. **Registrované v: WOS**

2. [1] KIM, Daeil - TUNVIR, K. - JEONG, G.D. - CHEON, S.S. A multi-cell FE-model for compressive behaviour analysis of heterogeneous Al-alloy foam. In *Modelling and Simulation in Materials Science and Engineering*, 2006, vol. 14, no. 6, s.933-945. **Registrované v: WOS**

3. [1] KIM, Daeil - TUNVIR, K. Study of Al-alloy foam compressive behavior based on instrumented sharp indentation. In *Journal of Mechanical Science and Technology*, 2006, vol. 20, no. 6, s.819-827. **Registrované v: WOS**

4. [1] ROMERO, P.A. - ZHENG, S.F. - CUITINO, A.M. Modeling the dynamic response of visco-elastic open-cell foams. In *JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS*, 2008, vol. 56, no. 5, s.1916-1943. **Registrované v: WOS**

5. [1] STYLES, M. - COMPSTON, P. - KALYANASUNDARAM, S. Finite element modelling of core thickness effects in aluminium foam/composite sandwich structures under flexural loading. In *Composite Structures*, 2008, vol. 86, no. 1-3, s.227-232. **Registrované v: WOS**

6. [1] MEGUID, SA - CHEON, SS - EL-ABBASI, N. FE modelling of deformation localization in metallic foams. In *FINITE ELEMENTS IN ANALYSIS AND DESIGN*, 2002, vol. 38, no. 7, pp. 631-643. ISSN 0168-874X., **Registrované v: WOS**

7. [1] LIU, Z - SCANLON, MG. Predicting mechanical properties of bread crumb. In *FOOD AND BIOPRODUCTS PROCESSING*, 2003, vol. 81, no. C3, pp. 224-238. ISSN 0960-3085., **Registrované v: WOS**

8. [2] JAROSI, M. Computation of cross-sectional properties of cellular materials. In *KOVOVE MATERIALLY-METALLIC MATERIALS*, 2004, vol.

- 42, no. 6, pp. 423-434. ISSN 0023-432X., **Registrované v: WOS**
9. [1] CHEON, SS - MEGUID, SA. Crush behavior of metallic foams for passenger car design. In INTERNATIONAL JOURNAL OF AUTOMOTIVE TECHNOLOGY, 2004, vol. 5, no. 1, pp. 47-53. ISSN 1229-9138., **Registrované v: WOS**
10. [1] GUESSASMA, Sofiane - NOURI, Hedi. Comprehensive study of biopolymer foam compression up to densification using X-ray micro-tomography and finite element computation. In EUROPEAN POLYMER JOURNAL, 2016, vol. 84, no., pp. 715-733. ISSN 0014-3057., **Registrované v: WOS**
11. [1] SALMI, Ari - SALMINEN, Lauri I. - ENGBERG, Birgitta A. - BJORKQVIST, Tomas - HAEGGSTROM, Edward. Repetitive impact loading causes local plastic deformation in wood. In JOURNAL OF APPLIED PHYSICS, 2012, vol. 111, no. 2, pp. ISSN 0021-8979., **Registrované v: WOS**
12. [1] GAGLIARDI, F. - FILICE, L. - UMBRELLO, D. - SHIVPURI, R. Forging of metallic foams to reproduce biomechanical components. In Materials Science and Engineering A, 2008-05-15, 480, 1-2, pp. 510-516. ISSN 09215093., **Registrované v: SCOPUS**
13. [1] LU, Zixing - GUO, Yu. Brief review of studies on the mechanical behavior of metallic foams. In Beijing Hangkong Hangtian Daxue Xuebao/Journal of Beijing University of Aeronautics and Astronautics, 2003-11-01, 29, 11, pp. 978-983. ISSN 10015965., **Registrované v: SCOPUS**
14. [1] MACKERLE, Jaroslav. Finite element analyses of sandwich structures: A bibliography (1980-2001). In Engineering Computations (Swansea, Wales), 2002-06-05, 19, 1-2, pp. 206-245. ISSN 02644401., **Registrované v: SCOPUS**
15. [1] PIEKLO, Jaroslaw - MALYSZA, Marcin - DANKO, Rafal. Modelling of the material destruction of vertically arranged honeycomb cellular structure. In ARCHIVES OF CIVIL AND MECHANICAL ENGINEERING, 2018, vol. 18, no. 4, pp. 1300-1308. ISSN 1644-9665., **Registrované v: WOS**
16. [3] LIPKA, Andreas. Verbesserter Materialeinsatz innovativer Werkstoffe durch die Topologieoptimierung. Stuttgart Universität Stuttgart 2007. 170 s. ISBN 978-3-00-020978.
17. [1] KIM, A - HASAN, MA - CHOEN, SS - LEE, HJ. The constitutive behavior of metallic foams using nanoindentation technique and FE modeling. In ADVANCES IN FRACTURE AND STRENGTH, PTS 1- 4, 2005, vol. 297-300, no., pp. 1050-1055. ISSN 1013-9826., **Registrované v: WOS**

ADF GOGA, Vladimír - HUČKO, Branislav. Phenomenological material model of foam solids. In Journal of Mechanical engineering = Strojnícky časopis. Vol. 65, No. 1 (2015), s. 5-20. ISSN 0039-2472 (2015).

Ohlasy:

1. [2] CSUKA, Zoltán - OLŠIAK, Róbert - FUSZKO, Zoltán. Research of cavitation at high shear stress. In Strojnícky časopis = Journal of Mechanical engineering. Vol. 66, no. 1 (2016), s. 7-16. ISSN 0039-2472. **Registrované v: SCOPUS**
2. [2] PECIAR, Peter - ECKERT, Maroš - FEKETE, Roman - HRNČIAR, Viliam. Analysis of pharmaceutical excipient MCC Avicel PH102 using compaction equations. In Strojnícky časopis = Journal of Mechanical engineering. Vol. 66, no. 1 (2016), s. 65-82. ISSN 0039-2472. **Registrované v: SCOPUS**
3. [2] MLKVIK, Marek - OLŠIAK, Róbert - SMOLÁR, Marek. Comparison of the viscous liquids spraying by the OIG and the oil configurations of an effervescent

atomizer at low inlet pressures. In *Strojnícky časopis = Journal of Mechanical engineering*. Vol. 66, no. 1 (2016), s. 53-64. ISSN 0039-2472. **Registrované v: SCOPUS**

4. [1] JABLONSKÁ, Jana - KOZUBKOVÁ, Milada - ZAVADILOVÁ, Barbora - ZAVADIL, Lukáš - FIALOVÁ, Simona. The investigation of the cavitation phenomenon in the laval nozzle with full and partial surface wetting. In *Strojnícky Casopis*, 2017-04-01, 67, 1, pp. 55-67. ISSN 00392472., **Registrované v: SCOPUS**

5. [1] AVALLE, Massimiliano - BELINGARDI, Giovanni. A Mechanical Model of Cellular Solids for Energy Absorption. In *Advanced Engineering Materials*, 2018-01-01, pp. ISSN 14381656., **Registrované v: SCOPUS**

6. [1] JOHNSON, G. R. - HOLMQUIST, T. J. - CHOCRON, S. - SCOTT, N. L. Response of a polystyrene foam subjected to large strains and high pressures. In *European Physical Journal: Special Topics*, 2018-09-01, 227, 1-2, pp. 61-71. ISSN 19516355., **Registrované v: SCOPUS**

7. [1] LIU, Zhengchun - SAMUEL, Robello - GONZALES, Adolfo - KANG, Yongfeng. Modeling and simulation of annular pressure buildup APB management using syntactic foam in HP/HT deepwater wells. In *Society of Petroleum Engineers SPE Deepwater Drilling and Completions Conference*, 2016-01-01, pp., **Registrované v: SCOPUS**

ADF MURÍN, Justín - HUČKO, Branislav. Correction stiffness matrix for 2-node beam element with geometrical nonlinearities. In *Strojnícky časopis = Journal of Mechanical engineering*. Roč. 43 (1992), s.89-107. ISSN 0039-2472 (1992).

Ohlasy:

1. [1] MACKERLE, Julius. Finite element linear and nonlinear, static and dynamic analysis of structural elements: a bibliography (1992-1995). In *Engineering Computations*, 1997, vol. 14, iss. 4, s.347-+. V databáze: WOS., **Registrované v: WOS**

ADN HLAVATÝ, Michal - STAREK, Ladislav - MUSIL, Miloš - HUČKO, Branislav. Ultrasonic defect detection of structural plates using quasi-Rayleigh waves. In *Strojnícky časopis = Journal of Mechanical engineering*. Vol. 67, no. 2 (2017), s. 37-50. ISSN 0039-2472 (2017). **Registrované v: SCOPUS**

Ohlasy:

1. [1] HAKODA, Christopher - LISSENDEN, Cliff J. Comparison of quasi-Rayleigh waves and Rayleigh waves, and clarifying the cut-off frequency of quasi-Rayleigh waves. In *ULTRASONICS*, 2019, vol. 92, no., pp. 50-56. ISSN 0041-624X., **Registrované v: WOS**

2. [1] YATSUK, V. - MYKYJCHUK, Mykola - BUBELA, Tetyana. Ensuring the Measurement Efficiency in Dispersed Measuring Systems for Energy Objects. In *Sustainable Production: Novel Trends in Energy, Environment and Material Systems*. Cham : Springer International Publishing, 2020, S. 131-149. ISBN 978-3-030-11274-5. **Registrované v: SCOPUS**

3. [2] PLEBAN, Dariusz - MIKULSKI, Witold. Methods of testing of sound insulation properties of barriers intended for high frequency noise and ultrasonic

noise protection. In *Strojnický Casopis*, 2018-12-01, 68, 4, pp. 55-64. ISSN 00392472., **Registrované v: SCOPUS**

- ADN04 KOVÁČ, Tomáš - HORVÁT, František - HUČKO, Branislav - JANČO, Roland - MUSIL, Miloš. The effects of piezoelectricity matrix constants on the charge of a thin membrane. In *Strojnický časopis = Journal of Mechanical engineering*. Vol. 67, no. 2 (2017), s. 61-68. ISSN 0039-2472 (2017). **Registrované v: SCOPUS**

Ohlasy:

1. [2] NOVÁK, Pavol - BISHAY, Peter - ŽMINDÁK, Milan. Computational homogenization of cement-based porous piezoelectric composites with random structure. In *Strojnický časopis = Journal of Mechanical engineering*. Vol. 69, no. 2 (2019), s. 77-88. ISSN 0039-2472 (2017) **Registrované v: SCOPUS**

- AED02 HORVÁT, František - HUČKO, Branislav - ČEKAN, Michal - ŠOLTÉS, Lukáš. Experimental device for determining deviations in the thoracolumbar part of the human back. In *Scientific Proceedings Faculty of Mechanical Engineering STU Bratislava*. (2012), s.85-91. ISSN 1338-1954.

Ohlasy:

1. [1] DANKO, J. - MAGDOLEN, L. - MASARYK, M. - MADARAS, J. - BUGAR, M. Energy Management System Algorithms for the Electric Vehicle Applications. In *MECHATRONICS 2013: RECENT TECHNOLOGICAL AND SCIENTIFIC ADVANCES*, 2014, vol., no., pp. 25-32., **Registrované v: WOS**

- AFC10 HUČKO, Branislav. Experimental measurement of arterial mechanical properties. In *11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010*. b.m. : ABCM, 2010, s.[5]. ISBN 978-85-85205-97-3.

Ohlasy:

1. [1] MILOSEVIC, Maja - MIJAILOVIC, Nikola - NIKOLIC, Dalibor - FILIPOVIC, Nenad - PEULIC, Aleksandar - ROSIC, Mirko - PANTOVIC, Suzana. Manufacturing of Biodegradable Scaffolds to Engineer Artificial Blood Vessel. In *Serbian Journal of Experimental and Clinical Research*, 2017-08-05, pp. ISSN 18208665., **Registrované v: SCOPUS**
2. [3] BOJKO, A.V. O modelirovanii ustojčivosti tečenij židkosti v podatlivych trubach primenitel'no k zadačam gemodinamiki. In *ВЕСТНИК НОВОСИБИРСКОГО ГОСУДАРСТВЕННОГО УНИВЕРСИТЕТА*. Tom 10, no. 4 (2015), s. 29-42. ISSN 1818-7994.
3. [1] NITTA, Isami - TSUKIYAMA, Yosuke - NOMURA, Satoshi - TAKATSU, Noboru. Frictional characteristics of clamp surfaces of aneurysm clips finished by laser processing. In *JOURNAL OF ADVANCED MECHANICAL DESIGN SYSTEMS AND MANUFACTURING*, 2016, vol. 10, no. 2, pp. ISSN 1881-3054., **Registrované v: WOS**

- AFC15 MURÍN, Justín - HUČKO, Branislav. Linearization of nonlinear incremental equations in the FEM. In *3rd International Conference on Computational Plasticity, Fundamentals and Applications : Barcelona, Spain, 6.-10.4.1992*. Barcelona : CIMNE, 1992, s.2083-2089.

Ohlasy:

- [1] MACKERLE, Julius. Finite element linear and nonlinear, static and dynamic analysis of structural elements: a bibliography (1992-1995). In *Engineering Computations*, 1997, vol. 14, iss. 4, s.347-+. V databáze: WOS., **Registrované v: WOS**

- AFD08 DZUBA, Jaroslav - VANKO, Gabriel - BABCHENKO, Oleg - LALINSKÝ, Tibor - HORVÁT, František - SZARVAS, Martin - KOVÁČ, Tomáš - HUČKO, Branislav. Strain induced response of AlGaIn/GaN high electron mobility transistor located on cantilever and membrane. In *ASDAM 2016 : 11th International conference on advanced semiconductor devices and microsystems. Smolenice, Slovakia. November 13-16, 2016*. Danvers : IEEE, 2016, S. 227-230. ISBN 978-1-5090-3081-1. **V databáze: IEEE ; SCOPUS ; WOS.**

Ohlasy:

- [1] QIU, Wei - MA, Lu Lu - WANG, Hong Tao - LIANG, Ren Rong - ZHAO, Yu Cheng - ZHOU, Yun Shen. Experimental analyses on multiscale structural and mechanical properties of ϵ -Si/GeSi/C-Si materials. In *Applied Sciences (Switzerland)*, 2018-11-22, 8, 12, pp., **Registrované v: SCOPUS**

- AFG05 ŠOLTÉS, Lukáš - ČEKAN, Michal - HUČKO, Branislav. Biomechanical model for seat comfort in automobiles. In *Biomechanics 2012. Book of abstracts : International conference of the Polish Society of Biomechanics. Bialystok, Poland, 16-19 September 2012*. Bialystok : Oficyna Wydawnicza Politechniki Białostockiej, 2012, s.265-266. ISBN 978-83-62582-26-6.

Ohlasy:

- [1] ZIARAN, Stanislav. The assessment and evaluation of low-frequency noise near the region of infrasound. In *NOISE & HEALTH*, 2014, vol. 16, no. 68, pp. 10-17. ISSN 1463-1741., **Registrované v: WOS**

- BCI01 DARULA, Ivan - HUČKO, Branislav. *Elektrárne 1*. Bratislava : STU v Bratislave FEI, 2005. 94 s. ISBN 80-227-2361-4.

Ohlasy:

- [4] PAULECH, Juraj - BELÁŇ, Anton. Vplyv prostredia na meranie elektrického poľa kapacitnou sondou. Bratislava : STU v Bratislave, 2009In *Energetika - ekológia - ekonomika : 8. celoštátna konferencia s medzinárodnou účasťou*. Vysoké Tatry - Nový Smokovec, 27.-29.5.2009, s.CD-Rom. ISBN 978-80-89402-08-3.
- [4] PUŠKEL, Peter - ELESCHOVÁ, Žaneta. Simulovanie dovolenej hranice elektrického poľa pre zamestnancov. Bratislava : STU v Bratislave, 2009In *Energetika - ekológia - ekonomika : 8. celoštátna konferencia s medzinárodnou účasťou*. Vysoké Tatry - Nový Smokovec, 27.-29.5.2009, s.CD-Rom. ISBN 978-80-89402-08-3.

- BCI04 KALOUSEK, Milan - HUČKO, Branislav. *Prenos tepla*. Bratislava : STU v Bratislave, 1996. 186 s., príl. ISBN 80-227-0881-X.

Ohlasy:

- [4] OSUSKÝ, Filip - ČERBA, Štefan - LÜLEY, Jakub - VRBAN, Branislav - FARKAS, Gabriel - SLUGEN, Vladimír. Multi-group transient numerical analysis of slab nuclear reactor. In *APCOM 2016 : Proceedings of 22nd international conference on applied physics of condensed matter*. Štrbské

Pleso, Slovak Republic, June 22-24, 2016. 1. vyd. Bratislava : Slovenská technická univerzita v Bratislave, 2016, S. 84-88. ISBN 978-80-227-4572-7.

2. [3] OSUSKÝ, Filip - VRBAN, Branislav - BALLO, Peter - ČERBA, Štefan - LÜLEY, Jakub - FARKAS, Gabriel. Numerical multigroup transient analysis of slab nuclear reactor with thermal feedback. In Acta Polytechnica CTU Proceedings. Vol. 4 ŠIMÁNĚ 2016 : Czecho-Slovak student conference on nuclear engineering. Prague, Czech Republic. May 12-13, 2016, (2016), online, S. 62-67. ISSN 2336-5382.

3. [2] HRABOVSKÝ, Juraj - PAULECH, Juraj - MURÍN, Justín - KUTIŠ, Vladimír - JANÍČEK, František. New thermal link finite element for FGM conductors. In Journal of Electrical Engineering, 2012-12-01, 63, 7 SUPPL, pp. 160-163. ISSN 13353632., **Registrované v: SCOPUS**

Kategórie ohlasov:

- [1] Citácie v zahraničných publikáciách, registrované v citačných indexoch Web of Science a databáze SCOPUS
- [2] Citácie v domácich publikáciách, registrované v citačných indexoch Web of Science a databáze SCOPUS
- [3] Citácie v zahraničných publikáciách neregistrované v citačných indexoch
- [4] Citácie v domácich publikáciách neregistrované v citačných indexoch

III. VEDECKÁ ŠKOLA

Výchova doktorandov (skončený/po dizertačnej skúške)	Požadované: 1/1	Skutočnosť: 10/0
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Skončení doktorandi:

1. Martin Abou Nassif: Biomechanical measurement in vivo for arthroplasty, SjF STU Bratislava 2012
2. Michal Čekan: An Alternative Approach for Gait Analysis Using Inertial Measuring Units, SjF STU Bratislava 2012
3. Vladimír Goga: Modelovanie mechanických vlastností penových materiálov, SjF STU Bratislava 2009
4. František Horvát: Predikcia a indikácia rizikových stavov v technologických procesoch, SjF STU Bratislava 2017
5. Tomáš Kováč: Biomechanické merania komfortu, SjF STU Bratislava 2019
6. Mário Lacinák: Neinvazívne určovanie tlakového profilu krvi vo veľkých cievach, SjF STU Bratislava 2013
7. Zuzana Plutová: Biomechanické merania pre klinickú prax, SjF STU Bratislava 2015
8. Mária Sedláková: Meranie a simulácia zaťaženia v bedrovom kĺbe, SjF STU Bratislava 2009
9. Lukáš Šoltés: Biomechanické modelovanie pohodlia v aute, SjF STU Bratislava 2015
10. Filip Uherčík: Skúmanie pohybových závislostí končatín so zreteľom na ich využitie pre nové protézy, SjF STU Bratislava 2013

Riešiteľ/ z toho vedúci výskumného projektu (z toho aspoň jeden zahraničný)	Požadované: 8/3	Skutočnosť: 17/5
	Zahraničný 1	3

VEGA:

- 1) Numerické riešenie nelineárnych pevnostných a tuhostných problémov, ŠPZV - III-4-5/05-8, 1990 - **riešiteľ**
- 2) Otvorený programový systém pre riešenie nelineárnych úloh. Grant MŠ SR č. 333/A (1990-1995).- **riešiteľ**
- 3) Riešenie nelineárnych a viazaných úloh mechaniky kontinua metódou konečných prvkov, Grant MŠ SR, VEGA 1/1732/94 (1994-1996),- **riešiteľ**
- 4) Racionalizácia výroby a spotreby elektrickej energie, Grant MŠ SR , VEGA 1/4293/97 (1997-1999), Vedúci riešiteľ: Prof. Fecko, Š., FEI STU Bratislava - **riešiteľ**
- 5) Grant MŠ SR, VEGA 1/5095/98 (1998-2000), Riešenie nelineárnych úloh s úplnou nelineárnou maticou tuhosti, viazaná termomechanická úloha, - **riešiteľ**
- 6) Grant MŠ SR, VEGA 1/5095/01(2001-2004), Vedúci riešiteľ: Prof. Murín, J., Kmech FEI STU - **riešiteľ**

- 7) 1/7618/20 (2000-2002) Stanovenie mechanických napätí v tenkých viacvrstvových systémoch na báze Si pre využitie mikrosenzoroch a mikrosystémoch – **vedúci riešiteľ**
- 8) 1/0149/03 (2003-2005) Analýza napätí a deformácií v tenkých viacvrstvových mikro- a nano- systémoch a zariadeniach obsahujúcich piezoelektrické prvky, inverzný piezoelektrický problém – **vedúci riešiteľ**
- 9) 1/3213/06 (2006-2008) Mechanické vlastnosti penových kompozitných materiálov. – **vedúci riešiteľ**
- 10) 1/0712/14 (2014-2016) Mikro-elektromechanický systém (MEMS) akumulácie energie pre využitie v medicíne – **vedúci riešiteľ**
- 11) 1/0742/15 (2015-2018) Analýza seizmickej odolnosti nádrží na kvapalinu s nelineárnymi a časovo závislými parametrami - **riešiteľ**

APVV:

- 12) APVV-15-0757 (2016-2019), Vývoj retraktora pre operácie v dutine brušnej – **vedúci riešiteľ**
- 13) APVV-16-0233 (2017-2019), Návrh a implementácia metodiky pre rehabilitáciu pacientov s bolesťami chrbta s využitím zrkovného feedbacku - **riešiteľ**

OP VaV:

- 14) OPVaV-2013/2.2/09-RO „Prenos poznatkov a technológií získaných výskumom a vývojom do praxe“, ITMS: 26220220198, Výskumné centrum Allegro, **riešiteľ**

Zahraničné projekty

- 15) EU/US ATLANTIS No 2008 - 1767 / 001 - 001 CPT USMOBI, Advanced International Studies in Mechanics of Micro & Nanosystems, (2008-2012) – **riešiteľ**
- 16) Research and development of new impact energy absorbing composite material for vehicle and other applications using hollow metallic spheres, PSA France - University of Toulouse - IST Lisabon (1992-1994) – **riešiteľ**
- 17) H2020: EMPIR 16RPT03 Developing research capabilities for traceable intraocular pressure measurements' (inTENSE), (01.07.2017-30.06.2020) - **riešiteľ**

IV. OSTATNÉ AKTIVITY

Členstvo v medzinárodných profesijných organizáciach:

European Society of Biomechanics - ESB

International Federation for the Promotion of Mechanism and Machine Science

Členstvo v redakčných radách vedeckých časopisov

Strojnícky časopis – Journal of Mechanical Engineering – šéfredaktor

Akupunktúra a naturálna medicína – člen redakčnej rady

Najvýznamnejšie vedecké prednášky:

- 1 HUČKO, Branislav. Experimental measurement of arterial mechanical properties. In *11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010.* b.m. : ABCM, 2010, s.[5]. ISBN 978-85-85205-97-3.
- 2 HUČKO, Branislav - SEDLÁKOVÁ, Mária - ČEKAN, Michal. Force analyses in hip joint using simulation and measuring. In *11th Pan-American Congress of Applied Mechanics : Proceedings. Foz do Iguacu /Brazil/, 4.-8. 1. 2010.* b.m. : ABCM, 2010, s.[[6]. ISBN 978-85-85205-97-3.
- 3 HUČKO, Branislav - CHMELKO, Vladimír. Fatigue life of thin-walled members filled by foam. In *7th Conference on Dynamical Systems Theory and Applications : Proceedings. Vol. 2. Łódź : Department of Automatics and Biomechanics, 2003,* s.787-790. ISBN 83-911746-5-4.
- 4 ABOU NASSIF, Martin - HUČKO, Branislav - MAGDOLEN, Ľuboš. Biomechanical Monitoring in Hip Joint Prosthesis. In *Mechatronics : Recent Technological and Scientific Advances.* Berlin : Springer Verlag, 2011, s.591-598. ISBN 978-3-642-23243-5.
- 5 ČEKAN, Michal - ŠOLTÉS, Lukáš - HORVÁT, František - HUČKO, Branislav - MELEG, Tatjana - ZEMKOVÁ, Erika. Kinematic analysis of a swimmers center of mass when swimming. In *Od výskumu k praxi [elektronický zdroj] : 17. ročník medzinárodnej vedeckej konferencie.* Bratislava, 29.-30.11. 2012. Bratislava : Nakladateľstvo STU, 2012, s.CD-ROM, s. 280-284. ISBN 978-80-227-3828-6.
- 6 HUČKO, Branislav - ČEKAN, Michal - HORVÁT, František - CHLEBO, Ondrej - BACHRATÝ, Michal - ČAMBAL, Marek. Measurement of abdominal retractor loading and its effects on the surgeons arm. In *Współczesne trendy w teorii maszyn i układów mechatronicznych = Modern trends in theory of machines and mechatronic systems.* 1. vyd. Wrocław : Oficyna Wydawnicza Politechniki Wrocławskiej, 2018, S. 61-62. ISBN 978-83-7493-024-6.

- 7 HUČKO, Branislav - HORVÁT, František - KOVÁČ, Tomáš - ŠOLTÉS, Lukáš - ČEKAN, Michal. Thermal effects in electro acupuncture. XIX. lekársky kongres naturálnej medicíny, Nitra, 2015
- 8 HUČKO, Branislav - BEREZŇÁK, Juraj - JANČO, Roland - MUSIL, Miloš. Application of magnetic field in regeneration of knee cartilage. XXI. lekársky kongres naturálnej medicíny, Šamorín, 2017
- 9 HUČKO, Branislav - FERKOVÁ, Sylvia Lea - ĎURIŠ, Stanislav - RYBÁŘ, Jan - PAVLÁSEK, Peter. Spoľahlivosť merania vnútroočného tlaku Goldmannovou metódou. In 6. kongres Slovenskej glaukómovej spoločnosti : kniha abstraktov. Bratislava : Slovenská glaukómová spoločnosť, 2019, S. 24-25. ISBN 978-80-972633-7-9.
- 10 HUČKO, Branislav - UHERČÍK, Filip - HORVÁT, František. Improved kinematics for upper limbs prostheses. In Procedia Engineering [elektronický zdroj] : The 6th International Conference on Modelling of Mechanical and Mechatronic Systems MMaMS 2014, 25-27 November 2014, Vysoké Tatry, Slovakia. Vol. 96, (2014), s. 164-171. ISSN 1877-7058.