

Jozef Bocko

List of Publications by Year in descending order

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66
papers

428
citations

759233

12
h-index

839539

18
g-index

68
all docs

68
docs citations

68
times ranked

378
citing authors

#	ARTICLE	IF	CITATIONS
1	Failure analysis of storage tank. <i>Engineering Failure Analysis</i> , 2009, 16, 26-38.	4.0	32
2	On hybrid stress, hybrid strain and enhanced strain finite element formulations for a geometrically exact shell theory with drilling degrees of freedom. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 43, 175-192.	2.8	28
3	Frequency Analysis of Acoustic Signal using the Fast Fourier Transformation in MATLAB. <i>Procedia Engineering</i> , 2012, 48, 199-204.	1.2	25
4	Static and dynamic analyses of aluminum foam geometric models using the homogenization procedure and the FEA. <i>Composites Part B: Engineering</i> , 2019, 171, 361-374.	12.0	25
5	Failure analysis of mechanical elements in steelworks equipment by methods of experimental mechanics. <i>Engineering Failure Analysis</i> , 2010, 17, 787-801.	4.0	24
6	On the numerical implications of multiplicative inelasticity with an anisotropic elastic constitutive law. <i>International Journal for Numerical Methods in Engineering</i> , 2003, 58, 2131-2160.	2.8	21
7	Vibration of Single-Walled Carbon Nanotubes by Using Nonlocal Theory. <i>American Journal of Mechanical Engineering</i> , 2014, 2, 195-198.	0.4	17
8	Ensuring the Reliability of Pneumatic Classification Process for Granular Material in a Rhomb-Shaped Apparatus. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1604.	2.5	17
9	Analysis of causes of casting pedestal failures and the measures for increasing its residual lifetime. <i>Engineering Failure Analysis</i> , 2013, 29, 27-37.	4.0	15
10	Analysis of crack initiation in the press frame and innovation of the frame to ensure its further operation. <i>Engineering Failure Analysis</i> , 2011, 18, 244-255.	4.0	14
11	Buckling of single-walled carbon nanotubes with and without defects. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 1825-1833.	1.5	14
12	Sizing and Topology Optimization of Trusses Using Genetic Algorithm. <i>Materials</i> , 2021, 14, 715.	2.9	13
13	Identification of causes of radial fan failure. <i>Engineering Failure Analysis</i> , 2009, 16, 2054-2065.	4.0	12
14	Usage of Finite Element Method for Motion and Thermal Analysis of a Specific Object in SolidWorks Environment. <i>Procedia Engineering</i> , 2014, 96, 131-135.	1.2	12
15	Complex approach to the vibrodiagnostic analysis of excessive vibration of the exhaust fan. <i>Engineering Failure Analysis</i> , 2014, 37, 86-95.	4.0	12
16	Decreasing of vibration amplitudes of the converter pedestal by design changes and changes in prestress of the bolted joints. <i>Engineering Failure Analysis</i> , 2009, 16, 262-272.	4.0	10
17	Application of holographic interferometry in the analysis of stress states in a crack root area. <i>Applied Optics</i> , 2020, 59, D170.	1.8	10
18	Experimental and Numerical Analysis of 60-Year-Old Sluice Gate Affected by Long-Term Operation. <i>Materials</i> , 2020, 13, 5201.	2.9	9

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19	New Possibilities of using PhotoStress® Method. Acta Mechanica Slovaca, 2011, 15, 44-50.	0.1	8
20	Bending Vibrations of Carbon Nanotubes by Using Nonlocal Theory. Procedia Engineering, 2014, 96, 21-27.	1.2	7
21	Estimation of gas flow dustiness in the main pipelines of booster compressor stations. IOP Conference Series: Materials Science and Engineering, 2017, 233, 012026.	0.6	7
22	Symmetries of Differential Equations Describing Beams and Plates on Elastic Foundations. Procedia Engineering, 2012, 48, 40-45.	1.2	6
23	Lifetime Assessment of the Technological Equipment for a Robotic Workplace. International Journal of Applied Mechanics, 2020, 12, 2050097.	2.2	6
24	The Finite Element Analysis of High Precision Positioning System. Strojnický Casopis, 2018, 68, 41-48.	0.9	6
25	Numerical Verification of a Full-field Deformation Analysis of a Specimen Loaded by Combined Loading. American Journal of Mechanical Engineering, 2014, 2, 307-311.	0.4	5
26	A comparison of experimental compressive axial loading testing with a numerical simulation of topologically optimized cervical implants made by selective laser melting. Journal of Biotechnology, 2020, 322, 33-42.	3.8	4
27	Multistage Shelf Devices with Fluidized Bed for Heat-Mass Transfer Processes: Experimental Studies and Practical Implementation. Applied Sciences (Switzerland), 2021, 11, 1159.	2.5	4
28	Effect of Temperature on Formation of Nanoporous Structure of Granule Shell in Technology of Obtaining Organo-mineral Fertilizers. Springer Proceedings in Physics, 2020, , 159-169.	0.2	4
29	The computation of bending eigenfrequencies of single-walled carbon nanotubes based on the nonlocal theory. Mechanical Sciences, 2018, 9, 349-358.	1.0	4
30	Buckling Analysis of Hetero-Junction Carbon Nanotubes. Strojnický Casopis, 2018, 68, 9-16.	0.9	4
31	Estimation of Material Properties of Carbon Nanotubes Using Finite Element Method. Strojnický Casopis, 2019, 69, 7-14.	0.9	4
32	Deterministic Chaos. Procedia Engineering, 2014, 96, 458-466.	1.2	3
33	Influence of Different Strain Hardening Models on the Behavior of Materials in the Elastic-Plastic Regime under Cyclic Loading. Materials, 2020, 13, 5323.	2.9	3
34	Methods for Verification of Safety of the Sluice Gates in Water Power Plants. Acta Mechanica Slovaca, 2009, 13, 14-21.	0.1	3
35	THE ASPECTS OF STRESS ANALYSIS PERFORMED BY DIGITAL IMAGE CORRELATION METHOD RELATED WITH SMOOTHING AND ITS INFLUENCE ON THE RESULTS. Acta Mechatronica, 2018, 3, 15-21.	0.1	3
36	Algorithm for determining static characteristic on electromagnetic actuator for rectilinear locomotion structure of a snake-like robot. , 2012, , .		2

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37	The Use of Nonlocal Theory for Bending Vibrations of Single-Walled Carbon Nanotubes. Applied Mechanics and Materials, 2014, 611, 332-336.	0.2	2
38	Stability Loss Analysis for Thin-Walled Shells with Elliptical Cross-Sectional Area. Materials, 2021, 14, 5636.	2.9	2
39	Cooling Process Intensification for Granular Mineral Fertilizers in a Multistage Fluidized Bed Device. Lecture Notes in Mechanical Engineering, 2020, , 249-257.	0.4	2
40	Application of Finite Element Method for Analysis of Nanostructures. Acta Mechanica Et Automatica, 2017, 11, 116-120.	0.6	2
41	Application of Computational Methods and Methods of Experimental Stress Analysis for Determination of Lifespan of Pipe Yards. Acta Mechanica Slovaca, 2011, 15, 52-57.	0.1	2
42	Using Experimental Methods of Mechanics for Failure Prediction of Casting Pedestal. Acta Mechanica Slovaca, 2015, 19, 42-50.	0.1	2
43	Hyperplastic Material Models and their Applications in Engineering. Applied Mechanics and Materials, 0, 611, 216-220.	0.2	1
44	Determination of the Possible Causes of Cracks in Pins of Quick Operating Valves in Hydroelectric Power Plant. Advanced Materials Research, 0, 996, 827-832.	0.3	1
45	Some Differential Equations of Elasticity and their Lie Point Symmetry Generators. Acta Mechanica Et Automatica, 2014, 8, 99-102.	0.6	1
46	Possible Causes of Initiation of Plastic Deformation in the Containers Used in Food Industry. Applied Mechanics and Materials, 2015, 816, 195-203.	0.2	1
47	Determining the main regularities in the process of mineral fertilizer granule encapsulation in the fluidized bed apparatus. Eastern-European Journal of Enterprise Technologies, 2021, 4, 23-32.	0.5	1
48	A Model of Finite Strain Viscoplasticity with an Anisotropic Elastic Constitutive Law. Lecture Notes in Applied and Computational Mechanics, 2003, , 107-135.	2.2	1
49	Modal Analysis of Axially Symmetric Structure. American Journal of Mechanical Engineering, 2014, 2, 265-269.	0.4	1
50	Verification of Safety of Containers for Spent Nuclear Fuel by Thermal and Pressure Tests. Acta Mechanica Slovaca, 2014, 18, 36-43.	0.1	1
51	Lateral Rotor Vibration Analysis Model. American Journal of Mechanical Engineering, 2014, 2, 282-285.	0.4	1
52	Some Methods of Analysis of Chaos in Mechanical Systems. American Journal of Mechanical Engineering, 2014, 2, 199-203.	0.4	1
53	EQSHELL – a REDUCE-based program for generation of equations of equilibrium for shells. Computer Physics Communications, 1992, 69, 215-222.	7.5	0
54	Modal Analysis of Circular Plates. Applied Mechanics and Materials, 0, 611, 245-251.	0.2	0

#	ARTICLE	IF	CITATIONS
55	Evaluating the precision of contactless measurement using computer tomography. , 2014, , .		0
56	Using of Air Natural Convection for Cooling of Casks with Spent Nuclear Fuel in Dry Storage System. Applied Mechanics and Materials, 2015, 816, 103-107.	0.2	0
57	Application of Evolutionary Algorithm in Elasticity. Applied Mechanics and Materials, 2015, 816, 363-368.	0.2	0
58	Appropriate Setting of Genetic Algorithm for Parameter Identification of Bodner-Partom Material Model. Applied Mechanics and Materials, 2015, 816, 383-388.	0.2	0
59	Applications of Applied Mechanics to the Solution of Problems Connected with Transportation and Storage of Spent Nuclear Fuel. Procedia Engineering, 2016, 136, 38-44.	1.2	0
60	Buckling analysis of graphene nanosheets by the finite element method. MATEC Web of Conferences, 2018, 157, 06002.	0.2	0
61	State assessment of stop gates of hydroelectric power plants. , 2019, , .		0
62	Convective Drying in the Multistage Shelf Dryers: Theoretical Bases and Practical Implementation. , 2020, , .		0
63	Possibilities of modelling the bolts in program ANSYS. IOP Conference Series: Materials Science and Engineering, 2020, 776, 012021.	0.6	0
64	Analysis of Failures of Fixed Plate on Closing Mechanism of High Pressure Press. Acta Mechanica Slovaca, 2016, 20, 6-11.	0.1	0
65	Mechanical Properties and Eigenfrequencies of Graphene Sheets. Acta Mechanica Slovaca, 2017, 21, 26-32.	0.1	0
66	Dedicated to Dr. H. C. Mult. Prof. Ing. František Trebuřa, CSC. on the Occasion of his 70 th Birthday. Strojnický Casopis, 2018, 68, 5-8.	0.9	0