Ján Piteľ

List of Publications by Year in descending order

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		623734	610901
84	911	14	24
papers	citations	h-index	g-index
90	90	90	701
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Digital Twin of Experimental Smart Manufacturing Assembly System for Industry 4.0 Concept. Sustainability, 2020, 12, 3658.	3.2	95
2	Dynamic characterization and simulation of two-link soft robot arm with pneumatic muscles. Mechanism and Machine Theory, 2016, 103, 98-116.	4.5	52
3	An Automated Training of Deep Learning Networks by 3D Virtual Models for Object Recognition. Symmetry, 2019, 11, 496.	2.2	38
4	Model-Based Evolution of a Fast Hybrid Fuzzy Adaptive Controller for a Pneumatic Muscle Actuator. International Journal of Advanced Robotic Systems, 2012, 9, 40.	2.1	37
5	Estimation of the Reliability of Automatic Axial-balancing Devices for Multistage Centrifugal Pumps. Periodica Polytechnica, Mechanical Engineering, 2018, 63, 52-56.	1.4	31
6	Properties Evaluation of Thin Microhardened Surface Layer of Tool Steel after Wire EDM. Metals, 2016, 6, 95.	2.3	28
7	Tribological characterisation in dry sliding conditions of compocasted hybrid A356/SiCp/Grp composites with graphite macroparticles. International Journal of Advanced Manufacturing Technology, 2019, 100, 2135-2146.	3.0	26
8	Solving the Coupled Aerodynamic and Thermal Problem for Modeling the Air Distribution Devices with Perforated Plates. Energies, 2019, 12, 3488.	3.1	25
9	A Review of Research on Water Jet with Slurry Injection. Procedia Engineering, 2016, 149, 333-339.	1.2	23
10	Embedded vision equipment of industrial robot for inline detection of product errors by clustering–classification algorithms. International Journal of Advanced Robotic Systems, 2016, 13, 172988141666490.	2.1	23
11	Dynamic simulation model of PAM based antagonistic actuator. , 2011, , .		22
12	Operating Modes of Pneumatic Artificial Muscle Actuator. Applied Mechanics and Materials, 2013, 308, 39-44.	0.2	22
13	Statistical Approach to Optimize the Process Parameters of HAZ of Tool Steel EN X32CrMoV12-28 after Die-Sinking EDM with SF-Cu Electrode. Metals, 2017, 7, 35.	2.3	21
14	CNN Training Using 3D Virtual Models for Assisted Assembly with Mixed Reality and Collaborative Robots. Applied Sciences (Switzerland), 2021, 11, 4269.	2.5	20
15	Dynamic model of pneumatic actuator based on advanced geometric muscle model. , 2013, , .		19
16	Ensuring the Reliability of Pneumatic Classification Process for Granular Material in a Rhomb-Shaped Apparatus. Applied Sciences (Switzerland), 2019, 9, 1604.	2.5	17
17	Dynamic modeling of PAM based actuator using modified Hill's muscle model. , 2013, , .		16
18	Biomass Combustion Control and Stabilization Using Low-Cost Sensors. Advances in Mechanical Engineering, 2013, 5, 685157.	1.6	15

#	Article	IF	CITATIONS
19	Pneumatic Artificial Muscle as Actuator in Mechatronic System. Applied Mechanics and Materials, 0, 460, 81-90.	0.2	14
20	Prediction of the Geometrical Accuracy of the Machined Surface of the Tool Steel EN X30WCrV9-3 after Electrical Discharge Machining with CuZn37 Wire Electrode. Metals, 2017, 7, 462.	2.3	14
21	Electro-Pneumatic Robot Actuator with Artificial Muscles and State Feedback. Applied Mechanics and Materials, 0, 460, 23-31.	0.2	13
22	Effect of Superimposed Vibrations on Droplet Oscillation Modes in Prilling Process. Processes, 2020, 8, 566.	2.8	13
23	Using Regression Analysis for Automated Material Selection in Smart Manufacturing. Mathematics, 2022, 10, 1888.	2.2	13
24	Experimental Study and Modeling of the Zinc Coating Thickness. Advanced Materials Research, 2013, 712-715, 382-386.	0.3	11
25	Recognition of Assembly Parts by Convolutional Neural Networks. Lecture Notes in Mechanical Engineering, 2019, , 281-289.	0.4	11
26	Computational intelligence and low cost sensors in biomass combustion process. , 2013, , .		10
27	Machine learning algorithms implementation into embedded systems with web application user interface. , $2017, , .$		10
28	Comparative study of week-ahead forecasting of daily gas consumption in buildings using regression ARMA/SARMA and genetic-algorithm-optimized regression wavelet neural network models. Journal of Building Engineering, 2021, 34, 101955.	3.4	10
29	Influence of the main technological parameters and material properties of the workpiece on the geometrical accuracy of the machined surface at wedm. International Journal of Advanced Manufacturing Technology, 2021, 115, 3065-3087.	3.0	10
30	Operating Characteristics of Antagonistic Actuator with Pneumatic Artificial Muscles. Applied Mechanics and Materials, 2014, 616, 101-109.	0.2	9
31	Rehabilitation Device Construction based on Artificial Muscle Actuators. , 2012, , .		9
32	Monitoring of Operating Conditions of Biomass Combustion Process. Applied Mechanics and Materials, 0, 308, 153-158.	0.2	8
33	Using Special Filter with Membership Function in Biomass Combustion Process Control. Applied Sciences (Switzerland), 2018, 8, 1279.	2.5	8
34	Arm Position Simulation of Pam Based Actuator. Annals of DAAAM & Proceedings, 2011, , 0145-0146.	0.1	8
35	Drying Biomass with a High Water Contentâ€"The Influence of the Final Degree of Drying on the Sizing of Indirect Dryers. Processes, 2022, 10, 739.	2.8	8
36	Online Monitoring of Surface Quality for Diagnostic Features in 3D Printing. Machines, 2022, 10, 541.	2.2	8

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37	Reference model for hybrid adaptive control of pneumatic muscle actuator., 2014,,.		7
38	Smart 3D pointing device based on MEMS sensor and bluetooth low energy. , 2013, , .		6
39	Modelling of pneumatic muscle actuator using Hill's model with different approximations of static characteristics of artificial muscle. MATEC Web of Conferences, 2016, 76, 02015.	0.2	6
40	Analysis of the Pulsating Water Jet Maximum Erosive Effect on Stainless Steel. Lecture Notes in Mechanical Engineering, 2019, , 233-241.	0.4	6
41	The Digitization of Quality Control Operations with Cloud Platform Computing Technologies. , 2020, , 305-334.		6
42	Data optimization for communication between wireless IoT devices and Cloud platforms in production process. , $2018, \ldots$		6
43	Diagnostics of Aluminum Alloys Melting Temperature in High Pressure Casting. Key Engineering Materials, 0, 669, 110-117.	0.4	5
44	Effect of the Electrolyte Temperature and the Current Density on a Layer Microhardness Generated by the Anodic Aluminium Oxidation. Advances in Materials Science and Engineering, 2015, 2015, 1-9.	1.8	5
45	Automated Training of Convolutional Networks by Virtual 3D Models for Parts Recognition in Assembly Process. Lecture Notes in Mechanical Engineering, 2019, , 287-297.	0.4	5
46	IoT System with Switchable GSM, LoRaWAN, and Sigfox Communication Technology for Reliable Data Collection to Open-Source or Industrial Cloud Platforms. EAI/Springer Innovations in Communication and Computing, 2020, , 311-333.	1.1	5
47	The Experimental SMART Manufacturing System in SmartTechLab. Lecture Notes in Mechanical Engineering, 2022, , 228-238.	0.4	5
48	Dynamic simulation of pneumatic muscle actuator in Matlab/Simulink environment., 2014,,.		4
49	Improved modeling of pneumatic muscle actuator using recurrent neural network. , 2014, , .		4
50	Dynamics of pneumatic muscle actuator: Measurement and modeling. , 2014, , .		4
51	Computational Intelligence in the Context of Industry 4.0. , 2021, , 27-94.		4
52	Digital Twin of Experimental Workplace for Quality Control with Cloud Platform Support. EAI/Springer Innovations in Communication and Computing, 2020, , 135-145.	1.1	4
53	Parameter identification of the Basset force acting on particles in fluid flow induced by the oscillating wall. Journal of Applied Mathematics and Computational Mechanics, 2019, 18, 53-63.	0.7	4
54	ANALYSIS OF HYSTERETIC BEHAVIOR OF TWO-DOF SOFT ROBOTIC ARM. MM Science Journal, 2016, 2016, 935-941.	0.4	4

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55	AUXILIARY DEVICE FOR ACCURATE MEASUREMENT BY THE SMART VISION SYSTEM. MM Science Journal, 2018, 2018, 2136-2139.	0.4	4
56	Application of neural networks to evaluate experimental data of galvanic zincing., 2014,,.		3
57	Enhanced Dynamic Model of Pneumatic Muscle Actuator with Elman Neural Network. Abstract and Applied Analysis, 2015, 2015, 1-16.	0.7	3
58	COMPARATIVE SURVEY OF VARIOUS STATIC AND DYNAMIC MODELS OF PNEUMATIC ARTIFICIAL MUSCLES. Transactions of the Canadian Society for Mechanical Engineering, 2017, 41, 825-844.	0.8	3
59	An analytical dynamic model of heat transfer from the heating body to the heated room. MATEC Web of Conferences, 2017, 125, 02047.	0.2	3
60	Identification of the Interfacial Surface in Separation of Two-Phase Multicomponent Systems. Processes, 2020, 8, 306.	2.8	3
61	Modeling of Technological Processes for a Rectification Plant in Second-Generation Bioethanol Production. Processes, 2021, 9, 944.	2.8	3
62	INTRODUCTORY ANALYSIS OF GAS CONSUMPTION TIME SERIES IN NON-RESIDENTIAL BUILDINGS FOR PREDICTION PURPOSES USING WAVELET DECOMPOSITION. MM Science Journal, 2018, 12, 2648-2655.	0.4	3
63	Biomass Combustion Control in Small and Medium-Scale Boilers Based on Low Cost Sensing the Trend of Carbon Monoxide Emissions. Processes, 2021, 9, 2030.	2.8	3
64	Friction Properties of the Heat-Treated Electroless Ni Coatings Embedded with c-BN Nanoparticles. Coatings, 2022, 12, 1008.	2.6	3
65	Simulation of fuzzy adaptive position controllers for pneumatic muscle actuator., 2015,,.		2
66	Static Force Model-Based Stiffness Model for Pneumatic Muscle Actuators. International Journal of Engineering Research in Africa, 2015, 18, 207-214.	0.7	2
67	Methods and Algorithms for Calculating Nonlinear Oscillations of Rotor Systems. Lecture Notes in Mechanical Engineering, 2021, , 63-74.	0.4	2
68	SMART Production System with Full Digitalization for Assembly and Inspection in Concept of Industry 4.0. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 181-192.	0.3	2
69	DESIGN OF ADJUSTABLE SMART VISION SYSTEM BASEDON ARTIFICIAL MUSCLE ACTUATORS. MM Science Journal, 2016, 2016, 947-951.	0.4	2
70	Diagnostics of the Rotor-Stator Contact by Spectral Analysis of the Vibration State for Rotor Machines. Lecture Notes in Mechanical Engineering, 2022, , 521-534.	0.4	2
71	Numerical Simulation of Gas Flow Passing through Slots of Various Shapes in Labyrinth Seals. Energies, 2022, 15, 2971.	3.1	2
72	Feature selection via competitive levy flights. , 2016, , .		1

#	Article	IF	CITATIONS
73	Modeling of the ecological separation process of printed circuit boards. MATEC Web of Conferences, 2018, 210, 01004.	0.2	1
74	Identification of DMSP-5 Fluidic Muscle Dynamics Using Hammerstein Model., 2018,,.		1
75	Simulation of printed circuit boards recycling process. MATEC Web of Conferences, 2019, 292, 01040.	0.2	1
76	Small Parts Recognition by Convolutional Neural Networks with Implementation to Virtual Reality Devices for Assisted Assembly Tasks. EAI/Springer Innovations in Communication and Computing, 2022, , 185-196.	1.1	1
77	Hydrodynamics of Two-Phase Upflow in a Pneumatic Classifier with the Variable Cross-Section. Lecture Notes in Mechanical Engineering, 2020, , 216-227.	0.4	1
78	Maximizing the Productivity of a Gas Melting Furnace with Regard to the Ecological Efficiency of its Operation. Management Systems in Production Engineering, 2020, 28, 292-297.	1.1	1
79	Model reference multiple-degree-of-freedom adaptive control with HONUs. , 2016, , .		O
80	Testing of two types of membership functions in fuzzy adaptive controller of pneumatic muscle actuator. , 2016 , , .		0
81	Solution of the repetitive control circuit using W-transform. , 2017, , .		O
82	Research of Geometric Accuracy of Circular Holes Machined by Wire EDM Technology. Tehnicki Vjesnik, 2021, 28, .	0.2	0
83	Parameter Identification of the Heat Supply System in a Coach. Lecture Notes in Mechanical Engineering, 2021, , 643-653.	0.4	0
84	AN AUTOMATIC ERROR SURFACE DIAGNOSTICS DURING TURNING MACHINING OPERATION USING LASER SENSOR. MM Science Journal, 2020, 2020, 3995-3999.	0.4	0