

Ivan Virgala

List of Publications by Year in descending order

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840119

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887659

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69
all docs

69
docs citations

69
times ranked

305
citing authors

#	ARTICLE	IF	CITATIONS
1	Friction Effect Analysis of a DC Motor. American Journal of Mechanical Engineering, 2013, 1, 1-5.	0.4	47
2	A Novel Approach for a Inverse Kinematics Solution of a Redundant Manipulator. Applied Sciences (Switzerland), 2018, 8, 2229.	1.3	41
3	An inspection of pipe by snake robot. International Journal of Advanced Robotic Systems, 2016, 13, 172988141666366.	1.3	27
4	Improved Pose Estimation of Aruco Tags Using a Novel 3D Placement Strategy. Sensors, 2020, 20, 4825.	2.1	25
5	Case study: Performance analysis and development of robotized screwing application with integrated vision sensing system for automotive industry. International Journal of Advanced Robotic Systems, 2020, 17, 172988142092399.	1.3	25
6	A snake robot for locomotion in a pipe using trapezium-like travelling wave. Mechanism and Machine Theory, 2021, 158, 104221.	2.7	25
7	Investigation of Snake Robot Locomotion Possibilities in a Pipe. Symmetry, 2020, 12, 939.	1.1	19
8	Modeling of Two-Wheeled Self-Balancing Robot Driven by DC Gearmotors. International Journal of Applied Mechanics and Engineering, 2017, 22, 739-747.	0.3	15
9	Snake Robot Movement in the Pipe Using Concertina Locomotion. Applied Mechanics and Materials, 0, 611, 121-129.	0.2	12
10	Analyzing, Modeling and Simulation of Humanoid Robot Hand Motion. Procedia Engineering, 2014, 96, 489-499.	1.2	12
11	A geometric approach to modeling of four- and five-link planar snake-like robot. International Journal of Advanced Robotic Systems, 2016, 13, 172988141666371.	1.3	12
12	Miniature Mobile Bristled In-Pipe Machine. International Journal of Advanced Robotic Systems, 2014, 11, 189.	1.3	11
13	Influence of pipe geometric deviation on bristled in-pipe mobile robot locomotion. International Journal of Advanced Robotic Systems, 2018, 15, 172988141877580.	1.3	9
14	Design of a Unique Device for Residual Stresses Quantification by the Drilling Method Combining the PhotoStress and Digital Image Correlation. Materials, 2021, 14, 314.	1.3	8
15	Rapid Control Prototyping of Embedded Systems Based on Microcontroller. Procedia Engineering, 2014, 96, 215-220.	1.2	7
16	Verification of the UR5 robot's properties after a crash caused by a fall of a transferred load from a crane. International Journal of Advanced Robotic Systems, 2020, 17, 172988142090420.	1.3	7
17	Chimney Sweeping Robot Based on a Pneumatic Actuator. Applied Sciences (Switzerland), 2021, 11, 4872.	1.3	7
18	Finding Optimal Manipulator Arm Shapes to Avoid Collisions in a Static Environment. Applied Sciences (Switzerland), 2021, 11, 64.	1.3	7

#	ARTICLE	IF	CITATIONS
19	Modeling of a snake-like robot rectilinear motion and requirements for its actuators. , 2011, , .		6
20	Simplified model of the snake rectilinear motion. , 2011, , .		6
21	New approach of fixation possibilities investigation for snake robot in the pipe. , 2015, , .		6
22	Specific Problems in Measurement of Coefficient of Friction Using Variable Incidence Tribometer. Symmetry, 2020, 12, 1235.	1.1	6
23	A Portable BVM-based Emergency Mechanical Ventilator. , 2021, , .		6
24	An Adaptive Neuro-Fuzzy Control of Pneumatic Mechanical Ventilator. Actuators, 2021, 10, 51.	1.2	6
25	Using Virtual Scanning to Find Optimal Configuration of a 3D Scanner Turntable for Scanning of Mechanical Parts. Sensors, 2021, 21, 5343.	2.1	6
26	Dynamic Analysis of the Two-Mass System to Imitate Rectilinear Motion of a Snake. Acta Mechanica Slovaca, 2010, 14, 74-81.	0.1	5
27	Design of Robot Vehicle Undercarriage with Ability to Operate in Broken Terrain. Procedia Engineering, 2012, 48, 650-655.	1.2	5
28	Manipulator End-Effector Position Control. Procedia Engineering, 2012, 48, 684-692.	1.2	5
29	Simulation Model of Manipulator for Model Based Design. Applied Mechanics and Materials, 2014, 611, 175-182.	0.2	5
30	Robotic snakes. Acta Mechanica Slovaca, 2018, 22, 38-43.	0.1	5
31	Chimney Cleaning and Inspection Robot. Acta Mechanica Slovaca, 2019, 23, 6-9.	0.1	5
32	Motion analysis of snake robot segment. , 2013, , .		4
33	Simulation Analysis of Pneumatic Rubber Bellows for Segment of Hyper-Redundant Robotic Mechanism. Applied Mechanics and Materials, 0, 611, 10-21.	0.2	4
34	Inverse Kinematic Model of Humanoid Robot Hand. Applied Mechanics and Materials, 2014, 611, 75-82.	0.2	4
35	Embedded Systems via Using Microcontroller. Applied Mechanics and Materials, 0, 816, 248-254.	0.2	4
36	Positioning of Pneumatic Actuator Using Open-Loop System. Applied Mechanics and Materials, 0, 816, 160-164.	0.2	4

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37	Modeling and control of two-link snake. International Journal of Advanced Robotic Systems, 2018, 15, 172988141876063.	1.3	4
38	Substantiation of Parameters of Friction Elements of Bernoulli Grippers With a Cylindrical Nozzle. International Journal of Manufacturing, Materials, and Mechanical Engineering, 2021, 11, 17-39.	0.3	4
39	Snake Robot Locomotion Patterns for Straight and Curved Pipe. Strojnický Casopis, 2018, 68, 91-104.	0.3	4
40	Experimental Identification of Linear Actuator Properties. Acta Mechanica Slovaca, 2015, 19, 42-47.	0.1	4
41	A Non-Anthropomorphic Bipedal Walking Robot with a Vertically Stabilized Base. Applied Sciences (Switzerland), 2022, 12, 4108.	1.3	4
42	Intelligent in-pipe machine adjustable to inner pipe diameter. , 2012, , .		3
43	Kinematic analysis of snake-like robot using obstacle aided locomotion. , 2012, , .		3
44	The Use of Geometric Mechanics Concept at Kinematic Modeling in Mobile Robotics. Procedia Engineering, 2014, 96, 273-280.	1.2	3
45	Influence of biofuels on production of gaseous emission from diesel engine with regard to air quality. Air Quality, Atmosphere and Health, 2020, 13, 763-772.	1.5	3
46	Algorithm for determining static characteristic on electromagnetic actuator for rectilinear locomotion structure of a snake-like robot. , 2012, , .		2
47	POWER AND FORCE LIMITING TECHNIQUE AT COLLABORATIVE WORKPLACE. MM Science Journal, 2021, 2021, 4424-4427.	0.2	2
48	Using of bond graph for mechatronics systems. , 2011, , .		1
49	Stepper Motor Control by ATMEL AVR Microcontroller. Applied Mechanics and Materials, 0, 816, 321-326.	0.2	1
50	The Process of Gait Generation for Snake-Like Robot with Nonholonomic Constraints. Applied Mechanics and Materials, 0, 816, 240-247.	0.2	1
51	Modeling and Simulation of Vertical Position Stability of Quadcopter. Applied Mechanics and Materials, 2015, 816, 43-48.	0.2	1
52	Friction Force Identification for Machine Locomotion. Applied Mechanics and Materials, 2015, 816, 276-281.	0.2	1
53	Speed Control of a DC Motor Using PD and PWM Controllers. Solid State Phenomena, 2015, 220-221, 244-250.	0.3	1
54	Educational Model of Line Follower Robot LINA 2010. Solid State Phenomena, 0, 220-221, 989-994.	0.3	1

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55	Kinematics of Serial Manipulators. , 0, , .		1
56	Theoretical Basics of Geometric Mechanics and Differential Geometry. American Journal of Mechanical Engineering, 2014, 2, 178-183.	0.4	1
57	Didactic Tools for Education of Embedded Systems. American Journal of Mechanical Engineering, 2014, 2, 204-208.	0.4	1
58	Locomotive, principally kinematic system of snakelike robot mathematical model with variable segment length. , 2020, , .		1
59	Finding the Optimal Pose of 2D LLT Sensors to Improve Object Pose Estimation. Sensors, 2022, 22, 1536.	2.1	1
60	Investigation of the Magnetic Field Influence of Permanent Adjustable Magnets Matrix on the Whole Positioning Mechanism and Levitating Diamagnetic object. Procedia Engineering, 2012, 48, 583-591.	1.2	0
61	Puck Collecting Robot. Applied Mechanics and Materials, 2014, 611, 256-264.	0.2	0
62	Uncertainty of Dust Mass Concentration Measurement. Applied Mechanics and Materials, 2014, 611, 511-518.	0.2	0
63	Anisotropic Friction Difference Principle of In-Pipe Machine. Applied Mechanics and Materials, 2015, 816, 306-312.	0.2	0
64	Design of reconfigurable robot. , 2018, , .		0
65	Motion control of nonholonomic robots at low speed. International Journal of Advanced Robotic Systems, 2020, 17, 172988142090255.	1.3	0
66	Design of Mobile Inspection Robot. American Journal of Mechanical Engineering, 2014, 2, 219-225.	0.4	0
67	EXPERIMENTAL VERIFICATION OF OBJECT LEVITATION BY OPTICAL SENSOR. Acta Mechatronica, 2019, 4, 5-10.	0.1	0
68	RECONFIGURABLE WHEEL-LEGGED ROBOT. MM Science Journal, 2020, 2020, 3960-3965.	0.2	0