Victor Petuya

List of Publications by Year
in descending order

68 papers	**525** citations	**13** h-index	**21** g-index
74 all docs	**74** docs citations	**74** times ranked	**313** citing authors

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#	Article	IF	Citations
1	Synthesis and Design of a Novel 3T1R Fully-Parallel Manipulator. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	2.9	58
2	Educational software tools for the kinematic analysis of mechanisms. Computer Applications in Engineering Education, 2014, 22, 72-86.	3.4	47
3	A symmetric parallel Schönflies-motion manipulator for pick-and-place operations. Robotica, 2011, 29, 853-862.	1.9	46
4	Point-based Jacobian formulation for computational kinematics of manipulators. Mechanism and Machine Theory, 2006, 41, 1407-1423.	4.5	40
5	Kinematic analysis of mechanisms via a velocity equation based in a geometric matrix. Mechanism and Machine Theory, 2003, 38, 1413-1429.	4.5	27
6	Defining Conditions for Nonsingular Transitions Between Assembly Modes. IEEE Transactions on Robotics, 2009, 25, 1438-1447.	10.3	21
7	Design of a solar tracking parallel mechanism with low energy consumption. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2015, 229, 566-579.	2.1	19
8	Position analysis of planar mechanisms with R-pairs using a geometrical–iterative method. Mechanism and Machine Theory, 2004, 39, 133-152.	4.5	16
9	A Comparison of Numerical Approaches for the Design of Mooring Systems for Wave Energy Converters. Journal of Marine Science and Engineering, 2020, 8, 523.	2.6	16
10	Synthesis of partially decoupled multi-level manipulators with lower mobility. Mechanism and Machine Theory, 2010, 45, 106-118.	4.5	15
11	Assembly Mode Changing in the Cuspidal Analytic 3-R $\underline{\hbox{P}}$R. IEEE Transactions on Robotics, 2012, 28, 506-513.	10.3	15
12	A biokinematic approach for the computational simulation of proteins molecular mechanism. Mechanism and Machine Theory, 2011, 46, 1854-1868.	4.5	13
13	Small scale experimental validation of a numerical model of the HarshLab2.0 floating platform coupled with a non-linear lumped mass catenary mooring system. Ocean Engineering, 2020, 200, 107036.	4.3	13
14	Designing parallel manipulators: from specifications to a real prototype. Industrial Robot, 2012, 39, 500-512.	2.1	12
15	Non-singular transitions based design methodology for parallel manipulators. Mechanism and Machine Theory, 2015, 91, 168-186.	4.5	12
16	Insights into mechanism kinematics for protein motion simulation. BMC Bioinformatics, 2014, 15, 184.	2.6	11
17	A numerical procedure to solve non-linear kinematic problems in spatial mechanisms. International Journal for Numerical Methods in Engineering, 2008, 73, 825-843.	2.8	9
18	Computational kinematics for robotic manipulators: Jacobian problems. Engineering Computations, 2008, 25, 4-27.	1.4	9

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19	Characterizing the configuration space of the 3-SPS-S spatial orientation parallel manipulator. Meccanica, 2014, 49, 1101-1114.	2.0	8
20	Frequency domain modelling of a coupled system of floating structure and mooring Lines: An application to a wave energy converter. Ocean Engineering, 2021, 220, 108498.	4.3	8
21	A New General-Purpose Method to Solve the Forward Position Problem in Parallel Manipulators. Advanced Robotics, 2008, 22, 395-409.	1.8	7
22	A methodology to achieve the set of operation modes of reconfigurable parallel manipulators. Meccanica, 2019, 54, 2507-2520.	2.0	7
23	Structural Synthesis of 3-DoF Spatial Fully Parallel Manipulators. International Journal of Advanced Robotic Systems, 2014, 11, 101.	2.1	6
24	Design and analysis of an active 2-DOF lockable joint. Mechanics Based Design of Structures and Machines, 2022, 50, 2736-2759.	4.7	6
25	Improving Skills in Mechanism and Machine Science Using GIM Software. Applied Sciences (Switzerland), 2021, 11, 7850.	2.5	6
26	Planning Nonsingular Transitions Between Solutions of the Direct Kinematic Problem From the Joint Space. Journal of Mechanisms and Robotics, 2012, 4, .	2.2	5
27	Researching into Non-Singular Transitions in the Joint Space. , 2010, , 45-52.		5
28	A method for the solution of the forward position problems of planar mechanisms with prismatic and revolute joints. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2001, 216, 395-407.	2.1	4
29	Computing the Configuration Space for Tracing Paths Between Assembly Modes. Journal of Mechanisms and Robotics, 2010, 2, .	2.2	4
30	Design procedure for cuspidal parallel manipulators. Mechanism and Machine Theory, 2011, 46, 97-111.	4.5	4
31	Requirements and Solutions for Motion Limb Assistance of COVID-19 Patients. Robotics, 2022, 11, 45.	3.5	4
32	Resolution of the Direct Position Problem of Parallel Kinematic Platforms Using the Geometrical-Iterative Method. , 0, , .		3
33	Path Analysis for Hybrid Rigid–Flexible Mechanisms. Mathematics, 2021, 9, 1869.	2.2	3
34	Parallel Manipulators: Practical Applications and Kinematic Design Criteria. Towards the Modular Reconfigurable Robots. Mechanisms and Machine Science, 2018, , 131-140.	0.5	3
35	A proposal for a formula of absolute pole velocities between relative poles. Mechanism and Machine Theory, 2017, 114, 74-84.	4.5	2
36	Multioperation capacity of parallel manipulators basing on generic kinematic chain approach. Mechanism and Machine Theory, 2017, 116, 234-247.	4.5	2

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37	Mooring System Design Approach: A Case Study for MARMOK-A Floating OWC Wave Energy Converter. , 2018, , .		2
38	A robot for non-destructive testing weld inspection of offshore mooring chains. International Journal of Advanced Robotic Systems, 2018, 15, 172988141877053.	2.1	2
39	Educational and Research Kinematic Capabilities of GIM Software. Mechanisms and Machine Science, 2015, , 11-19.	0.5	2
40	Protein Kinematic Motion Simulation Including Potential Energy Feedback. , 2010, , 83-90.		2
41	Pa<sup>2</sup> kinematic bond in translational parallel manipulators. Mechanical Sciences, 2018, 9, 25-39.	1.0	2
42	Computing the Configuration Space for Motion Planning between Assembly Modes. , 2009, , 35-42.		2
43	Design of an active reconfigurable 2R joint. Mechanisms and Machine Science, 2019, , 1423-1429.	0.5	2
44	Biokinematic protein simulation by an adaptive dihedral angle approach. Mechanism and Machine Theory, 2013, 69, 105-114.	4.5	1
45	Control distribution of partially decoupled multi-level manipulators with five DOFs. Robotica, 2017, 35, 337-353.	1.9	1
46	Analysis of the Direct Kinematic Problem in 3-DOF Parallel Manipulators. , 2010, , 445-456.		1
47	Structural Dynamic Analysis of Low-Mobility Parallel Manipulators. , 2010, , 387-394.		1
48	ESTADO DE LA TÉCNICA DE LOS MANIPULADORES PARALELOS. APLICACIONES PRÁCTICAS Y CRITERIOS CINEMÁTICOS DE DISEÑO. Dyna (Spain), 2015, 90, 144-152.	0.2	1
49	A Kinematic Approach to Calculate Protein Motion Paths. , 2009, , 69-76.		1
50	Design and Testing of Two Haptic Devices Based on Reconfigurable 2R Joints. Applied Sciences (Switzerland), 2022, 12, 339.	2.5	1
51	Motion pattern singularity in lower mobility parallel manipulators. , 2006, , 489-496.		1
52	Three Error Estimators for Non-Linear Structural Problems. , 0, , .		1
53	Computation of the protein molecular mechanism using adaptive dihedral angle increments. Frontiers of Mechanical Engineering, 2013, 8, 104-108.	4.3	0
54	Computation of the Protein Molecular Mechanism Using Adaptive Dihedral Angle Increments. Mechanisms and Machine Science, 2013, , 105-112.	0.5	0

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55	Protein Motion Simulation Algorithm for Dihedral Angle Rotation Implementing Variable Speed. Mechanics Based Design of Structures and Machines, 2014, 42, 268-277.	4.7	0
56	Designing a Translational Parallel Manipulator Based on the 3SS Kinematic Joint. Journal of Mechanisms and Robotics, 2019, 11, .	2.2	0
57	A Robot for Welding Inspection in Offshore Mooring Chains. Mechanisms and Machine Science, 2019, , 406-412.	0.5	0
58	Numerical Approaches for Loads and Motions Assessment of Floating WECs Moored by Means of Catenary Mooring Systems. Mechanisms and Machine Science, 2022, , 59-69.	0.5	0
59	Considering the Ability for Nonsingular Transitions of Assembly Mode for Dimensional Synthesis. , 2009, , .		0
60	Kinematics Study of Protein Chains and Protein Motion Simulation. Mechanisms and Machine Science, 2012, , 85-99.	0.5	0
61	Protein Folding Pathways Implementing Dihedral Angle Variable Speed. , 2012, , 277-284.		0
62	Restoration and Digital Display of Max Kohl Mechanisms in the Engineering School of USAL. Mechanisms and Machine Science, 2013, , 731-740.	0.5	0
63	Dimensional Synthesis of a Spatial Orientation 3-DoF Parallel Manipulator by Characterizing the Configuration Space. Mechanisms and Machine Science, 2014, , 85-92.	0.5	0
64	Using the ThinkMOTION Project Resources for the Teaching of Mechanism and Machine Theory. Mechanisms and Machine Science, 2014, , 229-237.	0.5	0
65	Side Chain Kinematics Simulation on Protein Conformational Changes. Mechanisms and Machine Science, 2015, , 121-132.	0.5	0
66	General Purpose Software to Solve the Inverse Dynamics and Compute the Internal Efforts of Non-redundant Planar Mechanisms. Mechanisms and Machine Science, 2015, , 365-375.	0.5	0
67	Axis Cross-Coupling Reduction on a High Bandwidth XY Flexure Stage. Mechanisms and Machine Science, 2015, , 61-71.	0.5	0
68	Quasi-Static Analysis of a Tapered Extendable Arm Inspired by an Origami with Modified Folding Diagram. Mechanisms and Machine Science, 2021, , 652-658.	0.5	0