Miguel Ãngel DÃ-az-RodrÃ-guez

List of Publications by Year
in descending order

39 papers	473 citations	759233 12 h-index	713466 21 g-index
41 all docs	41 docs citations	41 times ranked	341 citing authors

#	Article	IF	Citations
1	Automatic selection of the Groebner Basisâ€™ monomial order employed for the synthesis of the inverse kinematic model of non-redundant open-chain robotic systems. Mechanics Based Design of Structures and Machines, 2023, 51, 2458-2480.	4.7	0
2	Performance Index for Dimensional Synthesis of Robots for Specific Tasks. Robotics, 2022, 11, 51.	3.5	1
3	Mathematical Modeling of Physical Capital Diffusion Using a Spatial Solow Model: Application to Smuggling in Venezuela. Economies, 2022, 10, 164.	2.5	2
4	Experimental analysis of Type II singularities and assembly change points in a 3UPS+RPU parallel robot. Mechanism and Machine Theory, 2021, 158, 104242.	4.5	16
5	Reconfiguration of a parallel kinematic manipulator with 2T2R motions for avoiding singularities through minimizing actuator forces. Mechatronics, 2020, 69, 102382.	3.3	6
6	Optimization of the Controls against the Spread of Zika Virus in Populations. Computation, 2020, 8, 76.	2.0	7
7	Mathematical modeling to design public health policies for Chikungunya epidemic using optimal control. Optimal Control Applications and Methods, 2020, 41, 1584-1603.	2.1	12
8	Synthesis of the Inverse Kinematic Model of Non-Redundant Open-Chain Robotic Systems Using Groebner Basis Theory. Applied Sciences (Switzerland), 2020, 10, 2781.	2.5	8
9	End-effector positioning due to joint clearances: A comparison among three planar 2-DOF parallel manipulators. Journal of Mechanical Science and Technology, 2019, 33, 3497-3507.	1.5	4
10	Kinematic analysis and dimensional optimization of a 2R2T parallel manipulator. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	1.6	14
11	Synthesis of planar parallel manipulators including dexterity, force transmission and stiffness index. Mechanics Based Design of Structures and Machines, 2019, 47, 680-702.	4.7	13
12	Development of a virtual learning environment for the subject numerical methods under Moodle. Journal of Physics: Conference Series, 2019, 1161, 012010.	0.4	1
13	Mathematical Modeling and Characterization of the Spread of Chikungunya in Colombia. Mathematical and Computational Applications, 2019, 24, 6.	1.3	9
14	Pedagogical strategies for enhancing machine design teaching in a mechanical technology programme. Revista UIS IngenierÃas, 2019, 18, 15-25.	0.2	2
15	Mechatronic design, experimental setup, and control architecture design of a novel 4 DoF parallel manipulator. Mechanics Based Design of Structures and Machines, 2018, 46, 425-439.	4.7	21
16	Experimental Setup of a Novel 4 DoF Parallel Manipulator. Mechanisms and Machine Science, 2018, , 389-400.	0.5	1
17	Technological development of a low-cost wrist rehabilitation robot: Kinematic and static performance analysis. Journal of Physics: Conference Series, 2018, 1126, 012069.	0.4	2
18	A 3-PRS parallel manipulator for ankle rehabilitation: towards a low-cost robotic rehabilitation. Robotica, 2017, 35, 1939-1957.	1.9	35

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19	Design and Kinematic Analysis of a Novel 3UPS/RPU Parallel Kinematic Mechanism With 2T2R Motion for Knee Diagnosis and Rehabilitation Tasks. Journal of Mechanisms and Robotics, 2017, 9, .	2.2	24
20	Controllerâ€“observer design and dynamic parameter identification for model-based control of an electromechanical lower-limb rehabilitation system. International Journal of Control, 2017, 90, 702-714.	1.9	11
21	Comparison of trajectory parametrization methods with statistical analysis for dynamic parameter identification of serial robot. , 2017, , .		1
22	Estrategia de optimizaciÃ³n para la sÃntesis dimensional de un robot paralelo5R para una aplicaciÃ³n de mesa de corte. Revista UIS IngenierÃas, 2017, 16, 197-206.	0.2	9
23	Design of a 3-UPS-RPU Parallel Robot for Knee Diagnosis and Rehabilitation. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2016, , 303-310.	0.6	8
24	Dynamic Parameter Identification of Subject-Specific Body Segment Parameters Using Robotics Formalism: Case Study Head Complex. Journal of Biomechanical Engineering, 2016, 138, 051009.	1.3	7
25	Hybrid force/position control for a 3-DOF 1T2R parallel robot: Implementation, simulations and experiments. Mechanics Based Design of Structures and Machines, 2016, 44, 16-31.	4.7	18
26	Solving the dynamic equations of a 3-PRS Parallel Manipulator for efficient model-based designs. Mechanical Sciences, 2016, 7, 9-17.	1.0	6
27	Implementation of dynamic controllers using real-time middleware for a low-cost parallel robot. , 2014, , .		3
28	Adaptive control of a 3-DOF parallel manipulator considering payload handling and relevant parameter models. Robotics and Computer-Integrated Manufacturing, 2014, 30, 468-477.	9.9	45
29	Model-Based Control of a 3-DOF Parallel Robot Based on Identified Relevant Parameters. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1737-1744.	5.8	54
30	On the Conditioning of the Observation Matrix for Dynamic Parameters Identification of Parallel Robots. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2013, , 101-108.	0.6	2
31	Mechatronic Development and Dynamic Control of a 3-DOF Parallel Manipulator. Mechanics Based Design of Structures and Machines, 2012, 40, 434-452.	4.7	21
32	Nonstandard numerical schemes for modeling a 2-DOF serial robot with rotational spring-damper-actuators. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1211-1224.	2.1	5
33	A methodology for dynamic parameters identification of 3-DOF parallel robots in terms of relevant parameters. Mechanism and Machine Theory, 2010, 45, 1337-1356.	4.5	52
34	Dynamic simulation of a parallel robot: Coulomb friction and stickâ€“slip in robot joints. Robotica, 2010, 28, 35-45.	1.9	19
35	Forward Dynamics of 3-DOF Parallel Robots: a Comparison Among Different Models. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2010, , 283-290.	0.6	0
36	On the Experiment Design for Direct Dynamic Parameter Identification of Parallel Robots. Advanced Robotics, 2009, 23, 329-348.	1.8	16

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37	A Multicriteria Approach for Optimal Trajectories in Dynamic Parameter Identification of Parallel Robots. , 2009, , 279-285.		0
38	Identifiability of the Dynamic Parameters of a Class of Parallel Robots in the Presence of Measurement Noise and Modeling Discrepancy#. Mechanics Based Design of Structures and Machines, 2008, 36, 478-498.	4.7	12
39	Dynamic Parameter Identification for Parallel Manipulators. , 2008, , .		6