Mehdi Tale-Masouleh

List of Publications by Citations

78 papers	733 citations	18 h-index	22 g-index
95 ext. papers	954 ext. citations	3 avg, IF	4.72 L-index

#	Paper	IF	Citations
78	Optimization of Stirling engine design parameters using neural networks. *Renewable Energy*, **2015**, 74, 855-866	8.1	37
77	Parallel Mechanisms of the Multipteron Family: Kinematic Architectures and Benchmarking. *Proceedings - IEEE International Conference on Robotics and Automation*, **2007**,		35
76	Singularity analysis of 3T2R parallel mechanisms using Grassmann□Cayley algebra and Grassmann geometry. *Mechanism and Machine Theory*, **2012**, 52, 326-340	4	33
75	An experimental study on the vision-based control and identification of planar cable-driven parallel robots. *Robotics and Autonomous Systems*, **2016**, 75, 187-202	3.5	31
74	Forward kinematic problem of 5-RPUR parallel mechanisms (3T2R) with identical limb structures. *Mechanism and Machine Theory*, **2011**, 46, 945-959	4	31
73	Trajectory tracking control of a pneumatically actuated 6-DOF Gough□Stewart parallel robot using Backstepping-Sliding Mode controller and geometry-based quasi forward kinematic method. *Robotics and Computer-Integrated Manufacturing*, **2018**, 54, 96-114	9.2	29
72	Dynamic analysis of Hexarot: axis-symmetric parallel manipulator. *Robotica*, **2018**, 36, 225-240	2.1	28
71	Determination of the maximal singularity-free workspace of 3-DOF parallel mechanisms with a constructive geometric approach. *Mechanism and Machine Theory*, **2015**, 84, 25-36	4	25
70	Kinematic analysis of 5-RPUR (3T2R) parallel mechanisms. *Meccanica*, **2011**, 46, 131-146	2.1	25
69	Experimental study on the kinematic control of a cable suspended parallel robot for object tracking purpose. *Mechatronics*, **2018**, 50, 160-176	3	24
68	Collision-free workspace and kinetostatic performances of a 4-DOF delta parallel robot. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, **2019**, 41, 1	2	23
67	Dynamic modeling and base inertial parameters determination of a 2-DOF spherical parallel mechanism. *Multibody System Dynamics*, **2017**, 41, 367-390	2.8	22
66	Oscillation damping of nonlinear control systems based on the phase trajectory length concept: An experimental case study on a cable-driven parallel robot. *Mechanism and Machine Theory*, **2018**, 126, 377-396	4	19
65	Avoiding the singularities of 3-RPR parallel mechanisms via dimensional synthesis and self-reconfigurability. *Mechanism and Machine Theory*, **2016**, 99, 189-206	4	19
64	On the maximal singularity-free ellipse of planar 3-RPR parallel mechanisms via convex optimization. *Robotics and Computer-Integrated Manufacturing*, **2014**, 30, 218-227	9.2	19
63	Experimental dynamic identification and model feed-forward control of Novint Falcon haptic device. *Mechatronics*, **2018**, 51, 19-30	3	18
62	Singularity-free workspace analysis of general 6-UPS parallel mechanisms via convex optimization. *Mechanism and Machine Theory*, **2014**, 80, 17-34	4	18

61	Collision-free workspace of parallel mechanisms based on an interval analysis approach. *Robotica*, **2017**, 35, 1747-1760	2.1	18
60	Singularity analysis of 5-RPUR parallel mechanisms (3T2R). *International Journal of Advanced Manufacturing Technology*, **2011**, 57, 1107-1121	3.2	16
59	An experimental study on the direct & indirect dynamic identification of an over-constrained 3-DOF decoupled parallel mechanism. *Mechanism and Machine Theory*, **2017**, 116, 178-202	4	15
58	Workspace analysis of 5-PRUR parallel mechanisms (3T2R). *Robotics and Computer-Integrated Manufacturing*, **2012**, 28, 437-448	9.2	14
57	A general approach on collision-free workspace determination via triangle-to-triangle intersection test. *Robotics and Computer-Integrated Manufacturing*, **2017**, 44, 230-241	9.2	14
56	GEOMETRIC ANALYSIS OF THE KINEMATIC SENSITIVITY OF PLANAR PARALLEL MECHANISMS. *Transactions of the Canadian Society for Mechanical Engineering*, **2011**, 35, 477-490	1.1	13
55	Determining the maximal singularity-free circle or sphere of parallel mechanisms using interval analysis. *Robotica*, **2016**, 34, 135-149	2.1	11
54	A complete analytical solution for the dimensional synthesis of 3-DOF delta parallel robot for a prescribed workspace. *Mechanism and Machine Theory*, **2020**, 153, 103991	4	11
53	An experimental dynamic identification & control of an overconstrained 3-DOF parallel mechanism in presence of variable friction and feedback delay. *Robotics and Autonomous Systems*, **2018**, 102, 27-43	3.5	10
52	Controller tuning based on optimization algorithms of a novel spherical rolling robot. *Journal of Mechanical Science and Technology*, **2016**, 30, 5207-5216	1.6	10
51	A simple and fast geometric kinematic solution for imitation of human arms by a NAO humanoid robot **2016**,		9
50	Dynamic identification of the Novint Falcon Haptic device **2016**,		9
49	Optimal design of a spherical parallel manipulator based on kinetostatic performance using evolutionary techniques. *Journal of Mechanical Science and Technology*, **2016**, 30, 1323-1331	1.6	9
48	Generating Synthetic Medical Images by Using GAN to Improve CNN Performance in Skin Cancer Classification **2019**,		9
47	The Collision-Free Workspace of the Tripteron Parallel Robot Based on a Geometrical Approach. *Mechanisms and Machine Science*, **2018**, 357-364	0.3	7
46	Modeling, identification and minimum length integral sliding mode control of a 3-DOF cartesian parallel robot by considering virtual flexible links. *Mechanism and Machine Theory*, **2021**, 157, 104183	4	7
45	On human□obot interaction of a 3-DOF decoupled parallel mechanism based on the design and construction of a novel and low-cost 3-DOF force sensor. *Meccanica*, **2017**, 52, 2471-2489	2.1	6
44	Experimental kinematic identification and position control of a 3-DOF decoupled parallel robot. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2019**, 233, 1841-1855	1.3	6

43	Design & characterization of a bio-inspired 3-DOF Tactile/Force sensor and implementation on a 3-DOF decoupled parallel mechanism for human-robot interaction purposes. *Mechatronics*, **2020**, 66, 102325	3	6
42	Experimental study on the model-based control of a 2-degree-of-freedom spherical parallel robot camera stabilizer based on multi-thread programming concept. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2018**, 232, 1882-1897	1.3	5
41	An experimental study on friction identification of a pneumatic actuator and dynamic modeling of a proportional valve **2016**,		5
40	Experimental Study on Shared-Control of a Mobile Robot via a Haptic Device with an Optimal Velocity Obstacle Based Receding Horizon Control Approach. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2020**, 97, 357-372	2.9	5
39	An optimal motion planning and obstacle avoidance algorithm based on the finite time velocity obstacle approach **2017**,		4
38	A new neural gas network approach for obtaining the singularity-free workspace of 3-DOF planar parallel manipulators. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2018**, 232, 174-189	1.3	4
37	On the determination of the maximal inscribed ellipsoid in the Wrench-Feasible Workspace of the cable-driven parallel robots **2014**,		4
36	Experimental study on optimal motion planning of wheeled mobile robot using convex optimization and receding horizon concept **2016**,		4
35	An experimental oscillation damping impedance control for the Novint Falcon haptic device based on the phase trajectory length function concept. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2019**, 233, 2663-2672	1.3	4
34	Kinematic and Dynamic Analysis of 3-DOF Delta Parallel Robot Based on the Screw Theory and Principle of Virtual Work **2019**,		3
33	An Experimental Study on Control of a Pneumatic 6-DoF Gough-Stewart Robot Using Backstepping-Sliding Mode and Geometry-Based Quasi-Forward Kinematic Method **2017**,		3
32	Optimal motion planning of redundant planar serial robots using a synergy-based approach of convex optimization, disjunctive programming and receding horizon. *Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering*, **2016**, 230, 211-221	1	3
31	Experimental study on the visual servoing of a 4-DOF parallel robot for pick-and-place purpose **2018**,		3
30	Collision-Free Workspace of 3-RPR Planar Parallel Mechanism via Interval Analysis **2014**, 327-334		3
29	SINGULARITY ANALYSIS OF THE 4 RUU PARALLEL MANIPULATOR USING GRASSMANN-CAYLEY ALGEBRA. *Transactions of the Canadian Society for Mechanical Engineering*, **2011**, 35, 515-528	1.1	3
28	Experimental study on robust adaptive control with insufficient excitation of a 3-DOF spherical parallel robot for stabilization purposes. *Mechanism and Machine Theory*, **2020**, 153, 104026	4	3
27	Design and Control of a Suspended Cable-Driven Parallel Robot with Four Cables **2018**,		3
26	Stabilization of a Two-DOF Spherical Parallel Robot via a Novel Adaptive Approach **2018**,		3

25	Control of a two-DOF parallel robot with unknown parameters using a novel robust adaptive approach. *ISA Transactions*, **2021**, 117, 70-84	5.5	3
24	Kinematic Sensitivity Evaluation of Revolute and Prismatic 3-DOF Delta Robots **2017**,		2
23	Gröbner basis and resultant method for the forward displacement of 3-DoF planar parallel manipulators in seven-dimensional kinematic space. *Robotica*, **2016**, 34, 2610-2628	2.1	2
22	Vision based control and simulation of a spherical rolling robot based on ROS and Gazebo **2017**,		2
21	Dynamics analysis, offline–online tuning and identification of base inertia parameters for the 3-DOF Delta parallel robot under insufficient excitations. *Meccanica*, **2022**, 57, 473-506	2.1	2
20	Optimal motion planning for parallel robots via convex optimization and receding horizon. *Advanced Robotics*, **2016**, 30, 1145-1163	1.7	2
19	Localization of an indoor mobile robot using decentralized data fusion **2019**,		2
18	Dynamic model estimating and designing controller for the 2-DoF planar robot in interaction with cable-driven robot based on adaptive neural network. *Journal of Intelligent and Fuzzy Systems*, **2021** , 41, 1261-1280	1.6	2
17	Kinetostatic Performance and Collision-free Workspace Analysis of a 3-DOF Delta Parallel Robot **2017**,		1
16	Dynamic Modeling and Base Inertial Parameters Determination of 3- DoF Planar Parallel Manipulator **2017**,		1
15	Kinematic Analysis of an Under-constrained Cable-driven Robot Using Neural Networks **2020**,		1
14	Design and Evaluation of Adaptive and Sliding Mode Control for a 3-DOF Delta Parallel Robot **2020**,		1
13	Reconstructing 3-D Graphical Model Using an Under-Constrained Cable-Driven Parallel Robot **2020**,		1
12	Optimal wrench-closure configuration of spatial reconfigurable cable-driven parallel robots. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2020**, 095440622097616	1.3	1
11	Forward Kinematic Analysis of Parallel Mechanisms in Seven-Dimensional Kinematic Space by Considering Limitation of Passive Joints motion. *Iranian Journal of Science and Technology - Transactions of Mechanical Engineering*, **2019**, 43, 315-329	1.2	1
10	Dynamic and static object detection and tracking in an autonomous surface vehicle. *Ships and Offshore Structures*, **2020**, 15, 711-721	1.4	1
9	Dynamic modeling, identification, and a comparative experimental study on position control of a pneumatic actuator based on Soft Switching and Backstepping–Sliding Mode controllers **2021**, 261-289		1
8	Kinematics and Control of a 4-DOF Delta Parallel Manipulator **2018**,		1

7	Design, Development and Control of a Three Flexible-Fingers Gripper Based On Hand Gesture **2018** ,		1
6	Dynamic modeling and design of controller for the 2-DoF serial chain actuated by a cable-driven robot based on feedback linearization. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*,095440622110279	1.3	1
5	A statistical weighted method for kinematic sensitivity analysis of parallel robots. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, **2018**, 40, 1	2	0
4	Design and practical implementation of a Neural Network self-tuned Inverse Dynamic Controller for a 3-DoF Delta parallel robot based on Arc Length Function for smooth trajectory tracking. *Mechatronics*, **2022**, 84, 102772	3	0
3	Experimental study on the control of a suspended cable-driven parallel robot for object tracking purpose. *Robotica*,1-15	2.1	0
2	Design and development of a multi-axis force sensor based on the hall effect with decouple structure. *Mechatronics*, **2022**, 84, 102766	3	
1	The synergy of the multi-modal MPC and Q-learning approach for the navigation of a three-wheeled omnidirectional robot based on the dynamic model with obstacle collision avoidance purposes. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*,095440622210954	1.3	