

Ilian A Boney

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7019445/publications.pdf>

Version: 2024-02-01

72
papers

3,598
citations

136950

32
h-index

182427

51
g-index

72
all docs

72
docs citations

72
times ranked

1498
citing authors

#	ARTICLE	IF	CITATIONS
1	Absolute calibration of an ABB IRB 1600 robot using a laser tracker. <i>Robotics and Computer-Integrated Manufacturing</i> , 2013, 29, 236-245.	9.9	438
2	Singularity Analysis of 3-DOF Planar Parallel Mechanisms via Screw Theory. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2003, 125, 573-581.	2.9	263
3	A new approach to orientation workspace analysis of 6-DOF parallel manipulators. <i>Mechanism and Machine Theory</i> , 2001, 36, 15-28.	4.5	191
4	Absolute robot calibration with a single telescoping ballbar. <i>Precision Engineering</i> , 2014, 38, 472-480.	3.4	125
5	Accuracy analysis of 3-DOF planar parallel robots. <i>Mechanism and Machine Theory</i> , 2008, 43, 445-458.	4.5	109
6	Minimum-Time Trajectory Planning and Control of a Pick-and-Place Five-Bar Parallel Robot. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015, 20, 740-749.	5.8	105
7	Comparison of two calibration methods for a small industrial robot based on an optical CMM and a laser tracker. <i>Robotica</i> , 2014, 32, 447-466.	1.9	104
8	A geometrical method for computing the constant-orientation workspace of 6-PRRS parallel manipulators. <i>Mechanism and Machine Theory</i> , 2001, 36, 1-13.	4.5	99
9	Analytical determination of the workspace of symmetrical spherical parallel mechanisms. , 2006, 22, 1011-1017.		98
10	Kinematic calibration of a six-axis serial robot using distance and sphere constraints. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 77, 515-523.	3.0	96
11	Assessment of the positioning performance of an industrial robot. <i>Industrial Robot</i> , 2012, 39, 57-68.	2.1	89
12	Constraint Singularities as C-Space Singularities. , 2002, , 183-192.		87
13	Geometric approach to the accuracy analysis of a class of 3-DOF planar parallel robots. <i>Mechanism and Machine Theory</i> , 2008, 43, 364-375.	4.5	87
14	Robot calibration using a portable photogrammetry system. <i>Robotics and Computer-Integrated Manufacturing</i> , 2018, 49, 77-87.	9.9	86
15	ARE PARALLEL ROBOTS MORE ACCURATE THAN SERIAL ROBOTS?. <i>Transactions of the Canadian Society for Mechanical Engineering</i> , 2007, 31, 445-455.	0.8	80
16	Orientation Capability, Error Analysis, and Dimensional Optimization of Two Articulated Tool Heads With Parallel Kinematics. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2008, 130, .	2.2	73
17	Kinematic calibration of a five-bar planar parallel robot using all working modes. <i>Robotics and Computer-Integrated Manufacturing</i> , 2013, 29, 15-25.	9.9	73
18	Non-kinematic calibration of a six-axis serial robot using planar constraints. <i>Precision Engineering</i> , 2015, 40, 325-333.	3.4	72

#	ARTICLE	IF	CITATIONS
19	Dynamic Path Tracking of Industrial Robots With High Accuracy Using Photogrammetry Sensor. IEEE/ASME Transactions on Mechatronics, 2018, 23, 1159-1170.	5.8	57
20	A novel XY-Theta precision table and a geometric procedure for its kinematic calibration. Robotics and Computer-Integrated Manufacturing, 2012, 28, 57-65.	9.9	56
21	A new method for solving the direct kinematics of general 6-6 Stewart Platforms using three linear extra sensors. Mechanism and Machine Theory, 2000, 35, 423-436.	4.5	53
22	Comparison of the efficiency of five observability indices for robot calibration. Mechanism and Machine Theory, 2013, 70, 254-265.	4.5	51
23	Pantopteron-4: A new 3T1R decoupled parallel manipulator for pick-and-place applications. Mechanism and Machine Theory, 2010, 45, 707-721.	4.5	50
24	A New Medical Parallel Robot and Its Static Balancing Optimization. Journal of Medical Devices, Transactions of the ASME, 2007, 1, 272-278.	0.7	48
25	A new method for measuring a large set of poses with a single telescoping ballbar. Precision Engineering, 2013, 37, 451-460.	3.4	46
26	Pantopteron: A New Fully Decoupled 3DOF Translational Parallel Robot for Pick-and-Place Applications. Journal of Mechanisms and Robotics, 2009, 1, .	2.2	45
27	Development of a Five-Bar Parallel Robot With Large Workspace. , 2010, , .		43
28	Absolute accuracy analysis and improvement of a hybrid 6-DOF medical robot. Industrial Robot, 2015, 42, 44-53.	2.1	43
29	Direct kinematics of zero-torsion parallel mechanisms. , 2008, , .		40
30	Kinematic calibration of a 3-DOF planar parallel robot. Industrial Robot, 2012, 39, 392-400.	2.1	40
31	Characterization and experimental evaluation of gear transmission errors in an industrial robot. Industrial Robot, 2013, 40, 441-449.	2.1	40
32	Accuracy analysis of 3T1R fully-parallel robots. Mechanism and Machine Theory, 2010, 45, 695-706.	4.5	38
33	Online pose correction of an industrial robot using an optical coordinate measure machine system. International Journal of Advanced Robotic Systems, 2018, 15, 172988141878791.	2.1	38
34	Modeling and assessment of the backlash error of an industrial robot. Robotica, 2012, 30, 1167-1175.	1.9	37
35	A comparative evaluation of three industrial robots using three reference measuring techniques. Industrial Robot, 2015, 42, 572-585.	2.1	37
36	Self-Calibration of an Industrial Robot Using a Novel Affordable 3D Measuring Device. Sensors, 2018, 18, 3380.	3.8	37

#	ARTICLE	IF	CITATIONS
37	Calibration Efficiency Analysis Based on Five Observability Indices and Two Calibration Models for a Six-Axis Industrial Robot. SAE International Journal of Aerospace, 0, 6, 161-168.	4.0	35
38	Design of a Three-Axis Articulated Tool Head With Parallel Kinematics Achieving Desired Motion/Force Transmission Characteristics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	2.2	34
39	Elasto-geometrical calibration of an industrial robot under multidirectional external loads using a laser tracker. , 2016, , .		34
40	Self-Motions of General 3-RPR Planar Parallel Robots. International Journal of Robotics Research, 2008, 27, 855-866.	8.5	33
41	Optimal Experiment Design for Elasto-Geometrical Calibration of Industrial Robots. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2733-2744.	5.8	31
42	Orientation Workspace Analysis of 6-DOF Parallel Manipulators. , 1999, , .		26
43	Dynamic Path Correction of an Industrial Robot Using a Distance Sensor and an ADRC Controller. IEEE/ASME Transactions on Mechatronics, 2021, 26, 1646-1656.	5.8	22
44	Local and closed-loop calibration of an industrial serial robot using a new low-cost 3D measuring device. , 2016, , .		21
45	Simultaneous path placement and trajectory planning optimization for a redundant coordinated robotic workcell. Mechanism and Machine Theory, 2018, 130, 346-362.	4.5	21
46	Geometric Algorithms for the Computation of the Constant-Orientation Workspace and Singularity Surfaces of a Special 6-RUS Parallel Manipulator. , 2002, , 505.		20
47	New Method and Portable Measurement Device for the Calibration of Industrial Robots. Sensors, 2020, 20, 5919.	3.8	20
48	Real-time Motion Planning for Robotic Teleoperation Using Dynamic-goal Deep Reinforcement Learning. , 2020, , .		18
49	Singularity analysis of zero-torsion parallel mechanisms. , 2008, , .		17
50	Use of a Force-Torque Sensor for Self-Calibration of a 6-DOF Medical Robot. Sensors, 2016, 16, 798.	3.8	17
51	New XY-Theta Positioning Table with Partially Decoupled Parallel Kinematics. , 2006, , .		15
52	Self motions of special 3-RPR planar parallel robot. , 2006, , 221-228.		14
53	Towards development of a 2-DOF planar oparallel robot with optimal workspace use. , 2007, , .		14
54	Kinematic characterisation of hexapods for industry. Industrial Robot, 2010, 37, 79-88.	2.1	14

#	ARTICLE	IF	CITATIONS
55	EFFECT OF SERVO SYSTEMS ON THE CONTOURING ERRORS IN INDUSTRIAL ROBOTS. Transactions of the Canadian Society for Mechanical Engineering, 2012, 36, 83-96.	0.8	14
56	XY-Theta Positioning Table with Parallel Kinematics and Unlimited Theta Rotation. , 2006, , .		11
57	Metrological Evaluation of a Novel Medical Robot and Its Kinematic Calibration. International Journal of Advanced Robotic Systems, 2015, 12, 126.	2.1	11
58	Accuracy enhancement of industrial robots by on-line pose correction. , 2017, , .		11
59	Parallel Robot for Medical 3D-Ultrasound Imaging. , 2006, , .		10
60	LAGRANGIAN DYNAMICS OF CABLE-DRIVEN PARALLEL MANIPULATORS: A VARIABLE MASS FORMULATION. Transactions of the Canadian Society for Mechanical Engineering, 2011, 35, 529-542.	0.8	10
61	Impedance Control Self-Calibration of a Collaborative Robot Using Kinematic Coupling. Robotics, 2019, 8, 33.	3.5	9
62	A New 4-DOF Fully Parallel Robot With Decoupled Rotation for Five-Axis Micromachining Applications. Journal of Mechanisms and Robotics, 2019, 11, .	2.2	9
63	Complete shaking force and shaking moment balancing of planar parallel manipulators with prismatic pairs. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2009, 223, 43-52.	0.8	6
64	A novel three-legged 6-DOF parallel robot with simple kinematics. Transactions of the Canadian Society for Mechanical Engineering, 2020, 44, 558-565.	0.8	6
65	A 3-R \pm PR Parallel Mechanism With Singularities That are Self-Motions. Journal of Mechanisms and Robotics, 2010, 2, .	2.2	5
66	KINEMATIC ANALYSES OF A NEW MEDICAL ROBOT FOR 3D VASCULAR ULTRASOUND EXAMINATION. Transactions of the Canadian Society for Mechanical Engineering, 2014, 38, 227-239.	0.8	5
67	GEOMETRIC APPROACH TO SOLVING THE INVERSE DISPLACEMENT PROBLEM OF CALIBRATED DECOUPLED 6R SERIAL ROBOTS. Transactions of the Canadian Society for Mechanical Engineering, 2014, 38, 31-44.	0.8	4
68	Dynamic path tracking of industrial robots with high accuracy by visual servoing. , 2017, , .		3
69	A Pair of Measures of Rotational Error for Axisymmetric Robot End-Effectors. , 2008, , 345-352.		3
70	Simultaneous task placement and sequence optimization in an inspection robotic cell. Robotica, 2021, 39, 2110-2130.	1.9	1
71	Self Motions of the Pantopteron. , 2009, , .		0
72	Novel 4-DOF SCARA Parallel Robot With Cylindrical Workspace. , 2018, , .		0