

Ilian A Boney

List of Publications by Year in descending order

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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	Simultaneous task placement and sequence optimization in an inspection robotic cell. Robotica, 2021, 39, 2110-2130.	1.9	1
2	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
3	Real-time Motion Planning for Robotic Teleoperation Using Dynamic-goal Deep Reinforcement Learning. , 2020, , .		18
4	New Method and Portable Measurement Device for the Calibration of Industrial Robots. Sensors, 2020, 20, 5919.	3.8	20
5	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
6	Optimal Experiment Design for Elasto-Geometrical Calibration of Industrial Robots. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2733-2744.	5.8	31
7	Impedance Control Self-Calibration of a Collaborative Robot Using Kinematic Coupling. Robotics, 2019, 8, 33.	3.5	9
8	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
9	Novel 4-DOF SCARA Parallel Robot With Cylindrical Workspace. , 2018, , .		0
10	Self-Calibration of an Industrial Robot Using a Novel Affordable 3D Measuring Device. Sensors, 2018, 18, 3380.	3.8	37
11	Simultaneous path placement and trajectory planning optimization for a redundant coordinated robotic workcell. Mechanism and Machine Theory, 2018, 130, 346-362.	4.5	21
12	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
13	Dynamic Path Tracking of Industrial Robots With High Accuracy Using Photogrammetry Sensor. IEEE/ASME Transactions on Mechatronics, 2018, 23, 1159-1170.	5.8	57
14	Robot calibration using a portable photogrammetry system. Robotics and Computer-Integrated Manufacturing, 2018, 49, 77-87.	9.9	86
15	Accuracy enhancement of industrial robots by on-line pose correction. , 2017, , .		11
16	Dynamic path tracking of industrial robots with high accuracy by visual servoing. , 2017, , .		3
17	Use of a Force-Torque Sensor for Self-Calibration of a 6-DOF Medical Robot. Sensors, 2016, 16, 798.	3.8	17
18	Elasto-geometrical calibration of an industrial robot under multidirectional external loads using a laser tracker. , 2016, , .		34

#	ARTICLE	IF	CITATIONS
19	Local and closed-loop calibration of an industrial serial robot using a new low-cost 3D measuring device. , 2016, , .		21
20	Metrological Evaluation of a Novel Medical Robot and Its Kinematic Calibration. International Journal of Advanced Robotic Systems, 2015, 12, 126.	2.1	11
21	Absolute accuracy analysis and improvement of a hybrid 6-DOF medical robot. Industrial Robot, 2015, 42, 44-53.	2.1	43
22	A comparative evaluation of three industrial robots using three reference measuring techniques. Industrial Robot, 2015, 42, 572-585.	2.1	37
23	Non-kinematic calibration of a six-axis serial robot using planar constraints. Precision Engineering, 2015, 40, 325-333.	3.4	72
24	Kinematic calibration of a six-axis serial robot using distance and sphere constraints. International Journal of Advanced Manufacturing Technology, 2015, 77, 515-523.	3.0	96
25	Minimum-Time Trajectory Planning and Control of a Pick-and-Place Five-Bar Parallel Robot. IEEE/ASME Transactions on Mechatronics, 2015, 20, 740-749.	5.8	105
26	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
27	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
28	Comparison of two calibration methods for a small industrial robot based on an optical CMM and a laser tracker. Robotica, 2014, 32, 447-466.	1.9	104
29	Absolute robot calibration with a single telescoping ballbar. Precision Engineering, 2014, 38, 472-480.	3.4	125
30	Kinematic calibration of a five-bar planar parallel robot using all working modes. Robotics and Computer-Integrated Manufacturing, 2013, 29, 15-25.	9.9	73
31	Comparison of the efficiency of five observability indices for robot calibration. Mechanism and Machine Theory, 2013, 70, 254-265.	4.5	51
32	Absolute calibration of an ABB IRB 1600 robot using a laser tracker. Robotics and Computer-Integrated Manufacturing, 2013, 29, 236-245.	9.9	438
33	A new method for measuring a large set of poses with a single telescoping ballbar. Precision Engineering, 2013, 37, 451-460.	3.4	46
34	Characterization and experimental evaluation of gear transmission errors in an industrial robot. Industrial Robot, 2013, 40, 441-449.	2.1	40
35	Kinematic calibration of a 3-DOF planar parallel robot. Industrial Robot, 2012, 39, 392-400.	2.1	40
36	Modeling and assessment of the backlash error of an industrial robot. Robotica, 2012, 30, 1167-1175.	1.9	37

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37	Assessment of the positioning performance of an industrial robot. <i>Industrial Robot</i> , 2012, 39, 57-68.	2.1	89
38	EFFECT OF SERVO SYSTEMS ON THE CONTOURING ERRORS IN INDUSTRIAL ROBOTS. <i>Transactions of the Canadian Society for Mechanical Engineering</i> , 2012, 36, 83-96.	0.8	14
39	A novel XY-Theta precision table and a geometric procedure for its kinematic calibration. <i>Robotics and Computer-Integrated Manufacturing</i> , 2012, 28, 57-65.	9.9	56
40	LAGRANGIAN DYNAMICS OF CABLE-DRIVEN PARALLEL MANIPULATORS: A VARIABLE MASS FORMULATION. <i>Transactions of the Canadian Society for Mechanical Engineering</i> , 2011, 35, 529-542.	0.8	10
41	Accuracy analysis of 3T1R fully-parallel robots. <i>Mechanism and Machine Theory</i> , 2010, 45, 695-706.	4.5	38
42	Pantopteron-4: A new 3T1R decoupled parallel manipulator for pick-and-place applications. <i>Mechanism and Machine Theory</i> , 2010, 45, 707-721.	4.5	50
43	A 3-R1±PR Parallel Mechanism With Singularities That are Self-Motions. <i>Journal of Mechanisms and Robotics</i> , 2010, 2, .	2.2	5
44	Design of a Three-Axis Articulated Tool Head With Parallel Kinematics Achieving Desired Motion/Force Transmission Characteristics. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2010, 132, .	2.2	34
45	Development of a Five-Bar Parallel Robot With Large Workspace. , 2010, , .		43
46	Kinematic characterisation of hexapods for industry. <i>Industrial Robot</i> , 2010, 37, 79-88.	2.1	14
47	Pantopteron: A New Fully Decoupled 3DOF Translational Parallel Robot for Pick-and-Place Applications. <i>Journal of Mechanisms and Robotics</i> , 2009, 1, .	2.2	45
48	Self Motions of the Pantopteron. , 2009, , .		0
49	Complete shaking force and shaking moment balancing of planar parallel manipulators with prismatic pairs. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2009, 223, 43-52.	0.8	6
50	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
51	Accuracy analysis of 3-DOF planar parallel robots. <i>Mechanism and Machine Theory</i> , 2008, 43, 445-458.	4.5	109
52	Direct kinematics of zero-torsion parallel mechanisms. , 2008, , .		40
53	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
54	Self-Motions of General 3- <i>u>R</u>PR</i> Planar Parallel Robots. <i>International Journal of Robotics Research</i>, 2008, 27, 855-866.</i>	8.5	33

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55	Singularity analysis of zero-torsion parallel mechanisms. , 2008, , .		17
56	A Pair of Measures of Rotational Error for Axisymmetric Robot End-Effectors. , 2008, , 345-352.		3
57	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
58	Towards development of a 2-DOF planar oparallel robot with optimal workspace use. , 2007, , .		14
59	ARE PARALLEL ROBOTS MORE ACCURATE THAN SERIAL ROBOTS?. Transactions of the Canadian Society for Mechanical Engineering, 2007, 31, 445-455.	0.8	80
60	XY-Theta Positioning Table with Parallel Kinematics and Unlimited Theta Rotation. , 2006, , .		11
61	New XY-Theta Positioning Table with Partially Decoupled Parallel Kinematics. , 2006, , .		15
62	Self motions of special 3-RPR planar parallel robot. , 2006, , 221-228.		14
63	Analytical determination of the workspace of symmetrical spherical parallel mechanisms. , 2006, 22, 1011-1017.		98
64	Parallel Robot for Medical 3D-Ultrasound Imaging. , 2006, , .		10
65	Singularity Analysis of 3-DOF Planar Parallel Mechanisms via Screw Theory. Journal of Mechanical Design, Transactions of the ASME, 2003, 125, 573-581.	2.9	263
66	Geometric Algorithms for the Computation of the Constant-Orientation Workspace and Singularity Surfaces of a Special 6-RUS Parallel Manipulator. , 2002, , 505.		20
67	Constraint Singularities as C-Space Singularities. , 2002, , 183-192.		87
68	A geometrical method for computing the constant-orientation workspace of 6-PRRS parallel manipulators. Mechanism and Machine Theory, 2001, 36, 1-13.	4.5	99
69	A new approach to orientation workspace analysis of 6-DOF parallel manipulators. Mechanism and Machine Theory, 2001, 36, 15-28.	4.5	191
70	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
71	Orientation Workspace Analysis of 6-DOF Parallel Manipulators. , 1999, , .		26
72	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