Krzysztof TchoÅ„

List of Publications by Year
in descending order

44 papers	465 citations	759233 12 h-index	752698 20 g-index
45 all docs	45 docs citations	45 times ranked	181 citing authors

#	Article	IF	Citations
1	Coordinate-Free Jacobian Motion Planning: A 3-D Space Robot. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 5354-5361.	9.3	2
2	Normal form approach in the motion planning of space robots: a case study. Nonlinear Dynamics, 2021, 105, 2229-2245.	5.2	1
3	Singularities of holonomic and non-holonomic robotic systems: A normal form approach. Journal of the Franklin Institute, 2021, 358, 7698-7713.	3.4	1
4	Endogenous Configuration Space Approach in Robotics Research. Studies in Systems, Decision and Control, 2021, , 425-454.	1.0	1
5	Normal forms and singularities of non-holonomic robotic systems: A study of free-floating space robots. Systems and Control Letters, 2020, 138, 104661.	2.3	13
6	Normal Forms of a Free-Floating Space Robot. Advances in Intelligent Systems and Computing, 2020, , 601-610.	0.6	1
7	Lagrangian Jacobian motion planning with application to a free-floating space manipulator. , 2019, , .		0
8	Feedback equivalence and motion planning of a space manipulator. Mechanisms and Machine Science, 2019, , 1691-1700.	0.5	1
9	Normal Forms and Configuration Singularities of a Space Manipulator. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 93, 621-634.	3.4	11
10	General Lagrange-Type Jacobian Inverse for Nonholonomic Robotic Systems. IEEE Transactions on Robotics, 2018, 34, 256-263.	10.3	11
11	Lagrangian Jacobian Motion Planning: A Parametric Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 511-522.	3.4	3
12	General Lagrangian Jacobian motion planning algorithm for affine robotic systems with application to a space manipulator. , 2017, , .		2
13	Endogenous Configuration Space Approach: An Intersection of Robotics and Control Theory. Lecture Notes in Control and Information Sciences, 2017, , 209-234.	1.0	7
14	Kinematic and dynamic singularities of non-holonomic robotic systems. , 2017, , .		1
15	Optimal motion planning for non-holonomic robotic systems * *This research was supported by the Wroclaw University of Science and Technology under a statutory project.. IFAC-PapersOnLine, 2017, 50, 1910-1915.	0.9	1
16	Dynamic non-holonomic motion planning by means of dynamically consistent Jacobian inverse. IMA Journal of Mathematical Control and Information, 2016, , dnw058.	1.7	0
17	Dynamically consistent Jacobian inverse for non-holonomic robotic systems. Nonlinear Dynamics, 2016, 85, 107-122.	5.2	13
18	Dynamically consistent Jacobian inverse for mobile manipulators. International Journal of Control, 2016, 89, 1159-1168.	1.9	6

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19	Motion planning through waypoints for a skid-steering mobile platform. , 2015, , .		4
20	Modeling and motion planning of wheeled mobile robots subject to slipping. , 2015, , .		1
21	Jacobian motion planning of nonholonomic robots: The Lagrangian Jacobian algorithm. , 2015, , .		2
22	Lagrangian Jacobian inverse for nonholonomic robotic systems. Nonlinear Dynamics, 2015, 82, 1923-1932.	5.2	12
23	Parametric and Non-parametric Jacobian Motion Planning for Non-holonomic Robotic Systems. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 77, 445-456.	3.4	10
24	Dynamics and Motion Planning of Trident Snake Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 75, 17-28.	3.4	8
25	Approximation of Jacobian Inverse Kinematics Algorithms: Differential Geometric vs. Variational Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 2012, 68, 211-224.	3.4	14
26	Constrained motion planning of nonholonomic systems. Systems and Control Letters, 2011, 60, 625-631.	2.3	31
27	Motion planning of a balancing robot with threefold sub-tasks: An endogenous configuration space approach. , 2011, , .		2
28	Task-priority motion planning of underactuated systems: an endogenous configuration space approach â€“ ERRATUM. Robotica, 2010, 28, 943-943.	1.9	1
29	Task-priority motion planning of underactuated systems: an endogenous configuration space approach. Robotica, 2010, 28, 885-892.	1.9	11
30	Motion planning in velocity affine mechanical systems. International Journal of Control, 2010, 83, 1965-1974.	1.9	11
31	Towards constrained motion planning of mobile manipulators. , 2010, , .		8
32	Iterative learning control and the singularity robust Jacobian inverse for mobile manipulators. International Journal of Control, 2010, 83, 2253-2260.	1.9	7
33	On Dynamic Properties of Singularity Robust Jacobian Inverse Kinematics. IEEE Transactions on Automatic Control, 2009, 54, 1402-1406.	5.7	9
34	A control theory framework for performance evaluation of mobile manipulators. Robotica, 2007, 25, 703-715.	1.9	22
35	A definition of the extended Jacobian inverse kinematics algorithm for mobile robots. , 2007, , .		1
36	Extended Jacobian inverse kinematics algorithm for nonholonomic mobile robots. International Journal of Control, 2006, 79, 895-909.	1.9	15

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37	A Repeatable Inverse Kinematics Algorithm With Linear Invariant Subspaces for Mobile Manipulators. IEEE Transactions on Systems, Man, and Cybernetics, 2005, 35, 1051-1057.	5.0	35
38	Endogenous configuration space approach to mobile manipulators: A derivation and performance assessment of Jacobian inverse kinematics algorithms. International Journal of Control, 2003, 76, 1387-1419.	1.9	95
39	Kinematic dexterity of mobile manipulators: an endogenous configuration space approach. Robotica, 2003, 21, 521-530.	1.9	22
40	Extended Jacobian inverse kinematics algorithms for mobile manipulators. Journal of Field Robotics, 2002, 19, 443-454.	0.7	11
41	Singularities and Mobility of Nonholonomic Systems: The Ball Rolling on a Plane. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 593-598.	0.4	2
42	Singularities of the Euler wrist. Mechanism and Machine Theory, 2000, 35, 505-515.	4.5	12
43	Singularities of Nonredundant Robot Kinematics. International Journal of Robotics Research, 1997, 16, 60-76.	8.5	26
44	Classification of kinematic singularities in planar robot manipulators. Systems and Control Letters, 1992, 19, 293-302.	2.3	13