Giulio Reina

List of Publications by Year
in descending order

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103	1,921	279487	315357
papers	citations	23 h-index	38 g-index

105	105	105	1387
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Model-based observers for vehicle dynamics and tyre force prediction. Vehicle System Dynamics, 2022, 60, 2845-2870.	2.2	5
2	Introducing POLYPUS: A novel adaptive vacuum gripper. Mechanism and Machine Theory, 2022, 167, 104483.	2.7	11
3	The SNAP: A Novel Four-Wheel Pedal-Assisted Electric Lightweight Vehicle. Mechanisms and Machine Science, 2022, , 110-117.	0.3	1
4	Mobile Robotics for Sustainable Development: Two Case Studies. Mechanisms and Machine Science, 2022, , 372-382.	0.3	5
5	Influence of the Dynamic Effects and Grasping Location on the Performance of an Adaptive Vacuum Gripper. Actuators, 2022, 11, 55.	1.2	6
6	A theoretical model for multi-layer jamming systems. Mechanism and Machine Theory, 2022, 172, 104788.	2.7	6
7	On the role of feature and signal selection for terrain learning in planetary exploration robots. Journal of Field Robotics, 2022, 39, 355-370.	3.2	11
8	Dual-Motor Planetary Transmission to Improve Efficiency in Electric Vehicles. Machines, 2021, 9, 58.	1.2	27
9	Comparison of 3D scan matching techniques for autonomous robot navigation in urban and agricultural environments. Journal of Applied Remote Sensing, 2021, 15, .	0.6	8
10	Design and Development of a Tracked Robot to Increase Bulk Density of Flax Fibers. Journal of Mechanisms and Robotics, 2021, 13, .	1.5	12
11	Learning and prediction of vehicle-terrain interaction from 3D vision. , 2021, , .		0
12	Dynamic Handling Characterization and Set-Up Optimization for a Formula SAE Race Car via Multi-Body Simulation. Machines, 2021, 9, 126.	1.2	8
13	Special Section: Mobile Robots and Unmanned Ground Vehicles. Journal of Mechanisms and Robotics, 2021, 13, .	1.5	1
14	A general framework for modeling and dynamic simulation of multibody systems using factor graphs. Nonlinear Dynamics, 2021, 105, 2031-2053.	2.7	5
15	Recurrent and convolutional neural networks for deep terrain classification by autonomous robots. Journal of Terramechanics, 2021, 96, 119-131.	1.4	20
16	A novel optimal path-planning and following algorithm for wheeled robots on deformable terrains. Journal of Terramechanics, 2021, 96, 147-157.	1.4	7
17	A Factor-Graph-Based Approach to Vehicle Sideslip Angle Estimation. Sensors, 2021, 21, 5409.	2.1	6
18	Performance Evaluation of a Compound Power-Split CVT for Hybrid Powertrains. Applied Sciences (Switzerland), 2021, 11, 8749.	1.3	5

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19	Rolling resistance and sinkage analysis by comparing FEM and experimental data for a grape transporting vehicle. Journal of Terramechanics, 2021, 97, 59-70.	1.4	8
20	A Path Tracking Algorithm for an Autonomous Wind-Driven Robot. Mechanisms and Machine Science, 2021, , 542-550.	0.3	0
21	Terrain Sensing for Planetary Rovers. Mechanisms and Machine Science, 2021, , 269-277.	0.3	0
22	Increasing autonomy in agricultural robots: unevenness estimation of the terrain ahead. , 2021, , .		1
23	On the frequency range of Timoshenko beam theory. Mechanics of Advanced Materials and Structures, 2020, 27, 1387-1399.	1.5	2
24	Mind the ground: A power spectral density-based estimator for all-terrain rovers. Measurement: Journal of the International Measurement Confederation, 2020, 151, 107136.	2.5	16
25	An improved active drag reduction system for formula race cars. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2020, 234, 1460-1471.	1.1	4
26	Terrain estimation via vehicle vibration measurement and cubature Kalman filtering. JVC/Journal of Vibration and Control, 2020, 26, 885-898.	1.5	15
27	Advances in Finger and Partial Hand Prosthetic Mechanisms. Robotics, 2020, 9, 80.	2.1	7
28	Terrain Estimation for Planetary Exploration Robots. Applied Sciences (Switzerland), 2020, 10, 6044.	1.3	9
29	Modelling and handling dynamics of a wind-driven vehicle. Vehicle System Dynamics, 2019, 57, 697-720.	2.2	8
30	Terrain Awareness Using a Tracked Skid-Steering Vehicle With Passive Independent Suspensions. Frontiers in Robotics and AI, 2019, 6, 46.	2.0	18
31	A Toolbox for the Analysis of the Grasp Stability of Underactuated Fingers. Robotics, 2019, 8, 26.	2.1	5
32	A Proposed Software Framework for Studying the Grasp Stability of Underactuated Fingers. Mechanisms and Machine Science, 2019, , 202-210.	0.3	0
33	A multi-sensor robotic platform for ground mapping and estimation beyond the visible spectrum. Precision Agriculture, 2019, 20, 423-444.	3.1	43
34	Vehicle dynamics estimation via augmented Extended Kalman Filtering. Measurement: Journal of the International Measurement Confederation, 2019, 133, 383-395.	2.5	80
35	In-field high throughput grapevine phenotyping with a consumer-grade depth camera. Computers and Electronics in Agriculture, 2019, 156, 293-306.	3.7	103
36	Sailmast Setup for a Wind Wheeled Robot. Mechanisms and Machine Science, 2019, , 83-90.	0.3	1

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37	On the vibration analysis of off-road vehicles: Influence of terrain deformation and irregularity. JVC/Journal of Vibration and Control, 2018, 24, 5418-5436.	1.5	15
38	Learning Traversability From Point Clouds in Challenging Scenarios. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 296-305.	4.7	27
39	All-terrain estimation for mobile robots in precision agriculture. , 2018, , .		2
40	Terrain assessment for precision agriculture using vehicle dynamic modelling. Biosystems Engineering, 2017, 162, 124-139.	1.9	51
41	Survey and navigation in agricultural environments using robotic technologies. , 2017, , .		5
42	A Survey of Ranging and Imaging Techniques for Precision Agriculture Phenotyping. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2428-2439.	3.7	92
43	Vehicle parameter estimation using a model-based estimator. Mechanical Systems and Signal Processing, 2017, 87, 227-241.	4.4	64
44	A multisensor platform for comprehensive detection of crop status: Results from two case studies. , 2017, , .		3
45	Guest Editorial Focused Section on Mechatronics Applications in Agriculture. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2397-2400.	3.7	0
46	Wind Propulsion for Robot Surface Mobility. Mechanisms and Machine Science, 2017, , 363-370.	0.3	1
47	An Airborne Camera Simulator for Aerial Mapping Applications. , 2016, , .		0
48	Slip-based terrain estimation with a skid-steer vehicle. Vehicle System Dynamics, 2016, 54, 1384-1404.	2.2	27
49	LIDAR and stereo combination for traversability assessment of off-road robotic vehicles. Robotica, 2016, 34, 2823-2841.	1.3	17
50	Pavement distress detection and avoidance for intelligent vehicles. International Journal of Vehicle Autonomous Systems, 2016, 13, 152.	0.2	6
51	Active vibration absorber for automotive suspensions: a theoretical study. International Journal of Heavy Vehicle Systems, 2016, 23, 21.	0.1	12
52	Ambient awareness for agricultural robotic vehicles. Biosystems Engineering, 2016, 146, 114-132.	1.9	78
53	Radar Sensing for Intelligent Vehicles in Urban Environments. Sensors, 2015, 15, 14661-14678.	2.1	61
54	Laser based driving assistance for smart robotic wheelchairs. , 2015, , .		3

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55	Tyre pressure monitoring using a dynamical model-based estimator. Vehicle System Dynamics, 2015, 53, 568-586.	2.2	32
56	Performance of Greekâ€“Roman Artillery. Arms and Armour, 2015, 12, 67-89.	0.3	5
57	Traversability analysis for off-road vehicles using stereo and radar data. , 2015, , .		9
58	A Selfâ€learning Framework for Statistical Ground Classification using Radar and Monocular Vision. Journal of Field Robotics, 2015, 32, 20-41.	3.2	41
59	3D traversability awareness for rough terrain mobile robots. Sensor Review, 2014, 34, 220-232.	1.0	32
60	Visual ground segmentation by radar supervision. Robotics and Autonomous Systems, 2014, 62, 696-706.	3.0	19
61	3D reconstruction and classification of natural environments by an autonomous vehicle using multi-baseline stereo. Intelligent Service Robotics, 2014, 7, 79-92.	1.6	24
62	Adaptive Multi-Sensor Perception for Driving Automation in Outdoor Contexts. International Journal of Advanced Robotic Systems, 2014, 11, 135.	1.3	3
63	A Self-Learning Ground Classifier Using Radar Features. Springer Tracts in Advanced Robotics, 2014, , 629-642.	0.3	0
64	A Proposed Software Framework Aimed at Energy-Efficient Autonomous Driving of Electric Vehicles. Lecture Notes in Computer Science, 2014, , 219-230.	1.0	2
65	LIDAR and stereo imagery integration for safe navigation in outdoor settings. , 2013, , .		7
66	A new approach for terrain analysis in mobile robot applications. , 2013, , .		15
67	A multi-baseline stereo system for scene segmentation in natural environments. , 2013, , .		11
68	Cross-Coupled Control for All-Terrain Rovers. Sensors, 2013, 13, 785-800.	2.1	13
69	On the mobility of allâ€terrain rovers. Industrial Robot, 2013, 40, 121-131.	1.2	27
70	Three Different Approaches for Localization in a Corridor Environment by Means of an Ultrasonic Wide Beam. International Journal of Advanced Robotic Systems, 2013, 10, 163.	1.3	4
71	Unevenness Point Descriptor for Terrain Analysis in Mobile Robot Applications. International Journal of Advanced Robotic Systems, 2013, 10, 284.	1.3	17
72	Clustering and PCA for Reconstructing Two Perpendicular Planes Using Ultrasonic Sensors. International Journal of Advanced Robotic Systems, 2013, 10, 210.	1.3	7

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73	Towards Autonomous Agriculture: Automatic Ground Detection Using Trinocular Stereovision. Sensors, 2012, 12, 12405-12423.	2.1	56
74	Self-learning classification of radar features for scene understanding. Robotics and Autonomous Systems, 2012, 60, 1377-1388.	3.0	34
75	Radarâ€based perception for autonomous outdoor vehicles. Journal of Field Robotics, 2011, 28, 894-913.	3.2	48
76	FLane: An Adaptive Fuzzy Logic Lane Tracking System for Driver Assistance. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2011, 133, .	0.9	2
77	Short-Range Radar Perception in Outdoor Environments. Lecture Notes in Computer Science, 2011, , 265-276.	1.0	4
78	Combining radar and vision for self-supervised ground segmentation in outdoor environments. , 2011, , .		5
79	Mobile robot perception using an inexpensive 3-D laser rangefinder. , 2010, , .		2
80	Odometry Correction Using Visual Slip Angle Estimation for Planetary Exploration Rovers. Advanced Robotics, 2010, 24, 359-385.	1.1	40
81	Dynamic Simulation-Based Action Planner for a Reconfigurable Hybrid Legâ€“Wheel Planetary Exploration Rover. Advanced Robotics, 2010, 24, 1219-1238.	1.1	35
82	A Novel Teleoperated Hybrid Wheel-Limb Hexapod for Lunar Craters' Exploration. Transactions of the Japan Society for Aeronautical and Space Sciences Space Technology Japan, 2009, 7, Tk_71-Tk_76.	0.2	0
83	An application of mobile robotics for olfactory monitoring of hazardous industrial sites. Industrial Robot, 2009, 36, 51-59.	1.2	20
84	Experimental Assessment of Fatigue Reliability for High-Pressure Plunger Pumps. , 2009, , .		0
85	Robotics for Agricultural Systems. , 2008, , 313-332.		3
86	Vision-based estimation of slip angle for mobile robots and planetary rovers. , 2008, , .		27
87	Action planner of hybrid leg-wheel robots for lunar and planetary exploration. , 2008, , .		12
88	Vision-based Wheel Sinkage Estimation for Rough-Terrain Mobile Robots. , 2008, , .		7
89	Vision-Based Methods for Mobile Robot Localization and Wheel Sinkage Estimation. , 2008, , .		0
90	Adaptive Kalman Filtering for GPS-based Mobile Robot Localization. , 2007, , .		48

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91	Rough Terrain Mobile Robot Localization Using Stereovision. , 2007, , .		0
92	Current-Based Slippage Detection and Odometry Correction for Mobile Robots and Planetary Rovers. , 2006, 22, 366-378.		113
93	Wheel slippage and sinkage detection for planetary rovers. IEEE/ASME Transactions on Mechatronics, 2006, 11, 185-195.	3.7	107
94	The FLEXnav precision dead-reckoning system. International Journal of Vehicle Autonomous Systems, 2006, 4, 173.	0.2	23
95	Agricultural robot for radicchio harvesting. Journal of Field Robotics, 2006, 23, 363-377.	3.2	76
96	Visual and Tactile-Based Terrain Analysis Using a Cylindrical Mobile Robot. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 165-170.	0.9	5
97	Computer vision technology for agricultural robotics. Sensor Review, 2006, 26, 290-300.	1.0	6
98	Computer Vision Methods for Improved Mobile Robot State Estimation in Challenging Terrains. Journal of Multimedia, 2006, 1, .	0.3	25
99	A Fuzzy Lane Tracking System for Driver Assistance. , 2006, , .		1
100	Measures for Wheel Slippage and Sinkage Detection in Rough-Terrain Mobile Robots. , 2005, , 1379.		3
101	Dynamic Modeling for a Cylindrical Mobile Robot on Rough-Terrain. , 2004, , 1147.		1
102	Experimental results from FLEXnav: an expert rule-based dead-reckoning system for mars rovers. , 0, , .		20
103	Semi - Autonomous Olfactive Environment Inspection by a Mobile Robot. , 0, , .		0