JosÃ© E Guivant

List of Publications by Year
in descending order

41 papers	1,814 citations	777949 13 h-index	620720 26 g-index
42 all docs	42 docs citations	42 times ranked	1369 citing authors

#	Article	IF	Citations
1	Design and experimental validation of a robust model predictive control for the optimal trajectory tracking of a small-scale autonomous bulldozer. Robotics and Autonomous Systems, 2022, 147, 103903.	3.0	14
2	Fast nonlinear model predictive planner and control for an unmanned ground vehicle in the presence of disturbances and dynamic obstacles. Scientific Reports, 2022, 12, .	1.6	5
3	Evaluating the Limits of a LiDAR for an Autonomous Driving Localization. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 1449-1458.	4.7	8
4	Nonlinear Model Predictive Path-Following Controller for a Small-Scale Autonomous Bulldozer for Accurate Placement of Materials and Debris of Masonry in Construction Contexts. IEEE Access, 2021, 9, 102069-102080.	2.6	8
5	Compressed pseudo-SLAM: pseudorange-integrated compressed simultaneous localisation and mapping for unmanned aerial vehicle navigation. Journal of Navigation, 2021, 74, 1091-1103.	1.0	6
6	Path planning for autonomous bulldozers. Mechatronics, 2019, 58, 20-38.	2.0	35
7	A single sensor system for mapping in GNSS-denied environments. Cognitive Systems Research, 2019, 56, 246-261.	1.9	10
8	Switching and information exchange in compressed estimation of coupled high dimensional processes. Automatica, 2019, 99, 149-156.	3.0	2
9	Detection of Imaged Objects with Estimated Scales. , 2019, , .		1
10	An optimized approach for automatic material distribution operations of bulldozers. International Journal of Advanced Robotic Systems, 2018, 15, 172988141876471.	1.3	5
11	Non-linear Estimation with Generalised Compressed Kalman Filter. , 2018, , .		1
12	Compressed fusion of GNSS and inertial navigation with simultaneous localization and mapping. IEEE Aerospace and Electronic Systems Magazine, 2017, 32, 22-36.	2.3	11
13	The Generalized Compressed Kalman Filter. Robotica, 2017, 35, 1639-1669.	1.3	7
14	A light-weight yet accurate localization system for autonomous cars in large-scale and complex environments. , 2016, , .		19
15	Algebraic path tracking to aid the manual harvesting of olives using an automated service unit. Biosystems Engineering, 2016, 142, 117-132.	1.9	14
16	Re-emission and satellite aerial maps applied to vehicle localization on urban environments. , 2015, , .		17
17	Real-time approaches for characterization of fully and partially scanned canopies in groves. Computers and Electronics in Agriculture, 2015, 118, 361-371.	3.7	39
18	SLAM-based incremental convex hull processing approach for treetop volume estimation. Computers and Electronics in Agriculture, 2014, 102, 19-30.	3.7	33

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19	Concurrent dynamic programming for grid-based problems and its application for real-time path planning. Robotics and Autonomous Systems, 2014, 62, 737-751.	3.0	10
20	Hybrid Dijkstra-PSO algorithm for motion planning of non-holonomic multiple-trailer platforms in dense contexts. , 2013, , .		4
21	Internetâ€based operation of autonomous robots: The role of data replication, compression, bandwidth allocation and visualization. Journal of Field Robotics, 2012, 29, 793-818.	3.2	12
22	Distributed multi sensor data fusion for autonomous 3D mapping. , 2012, , .		2
23	Efficient global path planning during dense map deformation. , 2011, , .		5
24	Novel robotic 3D surface mapping using range and vision fusion. , 2010, , .		2
25	Efficient path planning in deformable maps. , 2009, , .		3
26	Evaluating the Performance of Kalman-Filter-Based EEG Source Localization. IEEE Transactions on Biomedical Engineering, 2009, 56, 122-136.	2.5	41
27	Global urban localization based on road maps. , 2007, , .		12
28	Consistency of the EKF-SLAM Algorithm. , 2006, , .		354
29	DenseSLAM: Simultaneous Localization and Dense Mapping. International Journal of Robotics Research, 2006, 25, 711-744.	5.8	46
30	Range Based Localisation Using RF and the Application to Mining Safety. , 2006, , .		7
31	Haul truck alignment monitoring and operator warning system. Journal of Field Robotics, 2006, 23, 141-161.	3.2	13
32	Robust Navigation and Mapping Architecture for Large Environments. Journal of Field Robotics, 2003, 20, 621-634.	0.7	4
33	Solving computational and memory requirements of feature-based simultaneous localization and mapping algorithms. IEEE Transactions on Automation Science and Engineering, 2003, 19, 749-755.	2.4	61
34	Robust Simultaneous Localization and Mapping for Very Large Outdoor Environments. , 2003, , 200-209.		7
35	Simultaneous localization and map building using natural features and absolute information. Robotics and Autonomous Systems, 2002, 40, 79-90.	3.0	105
36	Optimization of the simultaneous localization and map-building algorithm for real-time implementation. IEEE Transactions on Automation Science and Engineering, 2001, 17, 242-257.	2.4	604

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37	Localization and map building using laser range sensors in outdoor applications. Journal of Field Robotics, 2000, 17, 565-583.	0.7	178
38	A parametrization of piecewise linear Lyapunov functions via linear programming. International Journal of Control, 1999, 72, 702-715.	1.2	43
39	Robust Autonomous Navigation and World Representation in Outdoor Environments. , 0, , .		2
40	Robust Global Urban Localization Based on Road Maps. , 0, , .		1
41	Implementation of Simultaneous Navigation and Mapping in Large Outdoor Environments. , 0, , 37-48.		6