Piotr Skrzypczynski

List of Publications by Year
in descending order

83	825	777949	685536
papers	citations	13 h-index	24 g-index

89	89	89	605
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Adopting the YOLOv4 Architecture for Low-Latency Multispectral Pedestrian Detection in Autonomous Driving. Sensors, 2022, 22, 1082.	2.1	29
2	LiDAR Localization and Mapping for Autonomous Vehicles: Recent Solutions and Trends. Advances in Intelligent Systems and Computing, 2021, , 251-261.	0.5	1
3	Large-Scale LiDAR SLAM with Factor Graph Optimization on High-Level Geometric Features. Sensors, 2021, 21, 3445.	2.1	15
4	Precise Docking at Charging Stations for Large-Capacity Vehicles: An Advanced Driver-Assistance System for Drivers of Electric Urban Buses. IEEE Vehicular Technology Magazine, 2021, 16, 57-65.	2.8	3
5	Learning from experience for rapid generation of local car maneuvers. Engineering Applications of Artificial Intelligence, 2021, 105, 104399.	4.3	7
6	Real-Time Detection of Non-Stationary Objects Using Intensity Data in Automotive LiDAR SLAM. Sensors, 2021, 21, 6781.	2.1	3
7	On the descriptive power of LiDAR intensity images for segment-based loop closing in 3-D SLAM. , 2021, , .		4
8	A fast and practical method of indoor localization for resource-constrained devices with limited sensing. , 2020, , .		1
9	Planar Features for Accurate Laser-Based 3-D SLAM in Urban Environments. Advances in Intelligent Systems and Computing, 2020, , 941-953.	0.5	2
10	Leveraging Visual Place Recognition to Improve Indoor Positioning with Limited Availability of WiFi Scans. Sensors, 2019, 19, 3657.	2.1	7
11	PlaneLoc: Probabilistic global localization in 3-D using local planar features. Robotics and Autonomous Systems, 2019, 113, 160-173.	3.0	9
12	A Multi-User Personal Indoor Localization System Employing Graph-Based Optimization. Sensors, 2019, 19, 157.	2.1	9
13	Employing Natural Terrain Semantics in Motion Planning for a Multi-Legged Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 93, 723-743.	2.0	31
14	Modeling spatial uncertainty of point features in feature-based RGB-D SLAM. Machine Vision and Applications, 2018, 29, 827-844.	1.7	12
15	An experimental study on feature-based SLAM for multi-legged robots with RGB-D sensors. Industrial Robot, 2017, 44, 428-441.	1.2	14
16	Toward evaluation of visual navigation algorithms on RGB-D data from the first- and second-generation Kinect. Machine Vision and Applications, 2017, 28, 61-74.	1.7	18
17	Real-Time Visual Place Recognition for Personal Localization on a Mobile Device. Wireless Personal Communications, 2017, 97, 213-244.	1.8	9
18	A probabilistic framework for global localization with segmented planes. , 2017, , .		3

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19	Mobile Robot Localization: Where We Are and What Are the Challenges?. Advances in Intelligent Systems and Computing, 2017, , 249-267.	0.5	7
20	Adopting the FAB-MAP Algorithm for Indoor Localization with WiFi Fingerprints. Advances in Intelligent Systems and Computing, 2017, , 585-594.	0.5	6
21	TERRAIN CLASSIFICATION FOR AUTONOMOUS NAVIGATION IN PUBLIC URBAN AREAS. , 2017, , .		2
22	Path Planning for an Unmanned Ground Vehicle Traversing Rough Terrain with Unknown Areas. Advances in Intelligent Systems and Computing, 2017, , 319-329.	0.5	0
23	A PRACTICAL APPLICATION OF QR-CODES FOR MOBILE ROBOT LOCALIZATION IN HOME ENVIRONMENT. , 2017, , .		1
24	Preface to the Special Issue on Recent Progress in 3-D Visual Perception of Robots. Foundations of Computing and Decision Sciences, 2017, 42, 179-182.	0.5	1
25	Adaptive Motion Planning for Autonomous Rough Terrain Traversal with a Walking Robot. Journal of Field Robotics, 2016, 33, 337-370.	3.2	55
26	Depth data fusion for simultaneous localization and mapping â€" RGB-DD SLAM. , 2016, , .		5
27	Experimental evaluation of visual place recognition algorithms for personal indoor localization. , 2016, , .		4
28	Indoor navigation using QR codes and WiFi signals with an implementation on mobile platform. , 2016, , .		4
29	Efficient RGBâ€"D data processing for featureâ€"based selfâ€"localization of mobile robots. International Journal of Applied Mathematics and Computer Science, 2016, 26, 63-79.	1.5	8
30	Hybrid field of view vision: From biological inspirations to integrated sensor design. , 2016, , .		4
31	Improving accuracy of feature-based RGB-D SLAM by modeling spatial uncertainty of point features. , 2016, , .		20
32	Accurate Map-Based RGB-D SLAM for Mobile Robots. Advances in Intelligent Systems and Computing, 2016, , 533-545.	0.5	8
33	Evaluating Map-Based RGB-D SLAM on an Autonomous Walking Robot. Advances in Intelligent Systems and Computing, 2016, , 469-481.	0.5	2
34	REAL-TIME SLAM FROM RGB-D DATA ON A LEGGED ROBOT: AN EXPERIMENTAL STUDY. , 2016, , 320-328.		2
35	View Synthesis with Kinect-Based Tracking for Motion Parallax Depth Cue on a 2D Display. Advances in Intelligent Systems and Computing, 2016, , 841-851.	0.5	0
36	EMBEDDED, GPU-BASED OMNIDIRECTIONAL VISION FOR A WALKING ROBOT. , 2016, , 339-347.		2

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37	On the Performance of Pose-Based RGB-D Visual Navigation Systems. Lecture Notes in Computer Science, 2015, , 407-423.	1.0	13
38	The importance of measurement uncertainty modelling in the feature-based RGB-D SLAM. , 2015, , .		5
39	Simplicity or flexibility? Complementary Filter vs. EKF for orientation estimation on mobile devices. , 2015, , .		14
40	Indoor Navigation with a Smartphone Fusing Inertial and WiFi Data via Factor Graph Optimization. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 280-298.	0.2	15
41	Performance Comparison of EKF-Based Algorithms for Orientation Estimation on Android Platform. IEEE Sensors Journal, 2015, 15, 3781-3792.	2.4	41
42	Lightweight RGB-D SLAM System for Search and Rescue Robots. Advances in Intelligent Systems and Computing, 2015, , 11-21.	0.5	13
43	Affordable Multi-legged Robots for Research and STEM Education: A Case Study of Design and Technological Aspects. Advances in Intelligent Systems and Computing, 2015, , 23-34.	0.5	5
44	Performance comparison of point feature detectors and descriptors for visual navigation on Android platform. , 2014, , .		6
45	Spatial Uncertainty Assessment in Visual Terrain Perception for a Mobile Robot. Advances in Intelligent Systems and Computing, 2014, , 357-368.	0.5	2
46	EFFICIENT DISCONTINUITY FILLING IN TERRAIN MAPS FOR WALKING ROBOT MOTION PLANNING. , 2014, , .		1
47	Precise selfâ€localization of a walking robot on rough terrain using parallel tracking and mapping. Industrial Robot, 2013, 40, 229-237.	1.2	30
48	An exploration-based approach to terrain traversability assessment for a walking robot. , 2013, , .		10
49	Interactive programming of a mechatronic system: A small humanoid robot example. , 2013, , .		8
50	UNCONVENTIONAL FIVE-LEGGED ROBOT FOR AGILE LOCOMOTION. , 2013, , .		0
51	EFFICIENTLY USING RGB-D DATA TO SELF-LOCALIZE A SMALL WALKING ROBOT IN MAN-MADE ENVIRONMENTS. , 2013, , .		0
52	Laser scan matching for selfâ€localization of a walking robot in manâ€made environments. Industrial Robot, 2012, 39, 242-250.	1.2	12
53	Posture optimization strategy for a statically stable robot traversing rough terrain. , 2012, , .		15
54	Estimating terrain elevation maps from sparse and uncertain multi-sensor data. , 2012, , .		24

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55	REAL-TIME VISUAL PERCEPTION FOR TERRAIN MAPPING IN A WALKING ROBOT. , 2012, , 754-761.		0
56	Integrated Motion Planning for a Hexapod Robot Walking on Rough Terrain. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6918-6923.	0.4	32
57	A SOFTWARE ARCHITECTURE FOR EFFICIENT TELEOPERATION OF A SEMI-AUTONOMOUS WALKING ROBOT. , 2011, , .		0
58	Rough terrain mapping and classification for foothold selection in a walking robot. Journal of Field Robotics, 2011, 28, 497-528.	3.2	78
59	LASER SCAN MATCHING FOR SELF-LOCALIZATION OF A WALKING ROBOT IN MAN-MADE ENVIRONMENTS. , 2011, , .		1
60	Rough terrain mapping and classification for foothold selection in a walking robot. , 2010, , .		7
61	A biologically inspired approach to feasible gait learning for a hexapod robot. International Journal of Applied Mathematics and Computer Science, 2010, 20, 69-84.	1.5	31
62	Map-based adaptive foothold planning for unstructured terrain walking. , 2010, , .		21
63	TERRAIN PERCEPTION AND MAPPING IN A WALKING ROBOT WITH A COMPACT 2D LASER SCANNER. , 2010, , .		2
64	REAL-TIME MULTI-SENSORY DATA PROCESSING FOR PERCEPTUALLY RICH ENVIRONMENT DESCRIPTION. , 2010, , .		0
65	EFFICIENT GAIT LEARNING IN SIMULATION: CROSSING THE REALITY GAP BY EVOLUTIONARY MODEL IDENTIFICATION. , 2009, , .		1
66	Simultaneous localization and mapping: A feature-based probabilistic approach. International Journal of Applied Mathematics and Computer Science, 2009, 19, 575-588.	1.5	44
67	Population-based Methods for Identification and Optimization of a Walking Robot Model. Lecture Notes in Control and Information Sciences, 2009, , 185-195.	0.6	5
68	Augmenting Mobile Robot Geometric Map with Photometric Information. Advances in Intelligent and Soft Computing, 2009, , 3-10.	0.2	0
69	How to Recognize and Remove Qualitative Errors in Time-of-Flight Laser Range Measurements. , 2008, , .		5
70	Evolving Feasible Gaits for a Hexapod Robot by Reducing the Space of Possible Solutions. , 2008, , .		6
71	Spatial Uncertainty Management for Simultaneous Localization and Mapping. , 2007, , .		12
72	Planning Positioning Actions of a Mobile Robot Cooperating with Distributed Sensors. Advances in Soft Computing, 2005, , 427-434.	0.4	1

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73	Merging Probabilistic and Fuzzy Frameworks for Uncertain Spatial Knowledge Modelling. Advances in Soft Computing, 2005, , 435-442.	0.4	3
74	A team of mobile robots and monitoring sensorsâ€"from concept to experiment. Advanced Robotics, 2004, 18, 583-610.	1.1	2
75	Managing the Communication in a Complex System of Robots and Sensors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 41-46.	0.4	1
76	Genetic algorithm based learning in a fuzzy logic mobile robot controller. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 503-508.	0.4	2
77	Vision-Based Mobile Robot Localization with Simple Artificial Landmarks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 201-206.	0.4	4
78	Communication Mechanism in a Distributed System of Mobile Robots. , 2002, , 51-60.		2
79	Perception network for the team of indoor mobile robots: concept, architecture, implementation. Engineering Applications of Artificial Intelligence, 2001, 14, 125-137.	4.3	13
80	Experiments and Results in Multi-modal, Distributed, Robotic Perception. , 2000, , 283-292.		2
81	Localisation of a Mobile Robot Based on Natural Landmarks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 171-176.	0.4	0
82	<title>Optical scanner for mobile robots</title>. , 1997, 3054, 40.		4
83	Environment Modelling Using Optical Scanner Data. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 181-186.	0.4	4