Sen Wang

List of Publications by Year
in descending order

62 papers	2,840 citations	516215 16 h-index	525886 27 g-index
63 all docs	63 docs citations	63 times ranked	2262 citing authors

#	Article	IF	Citations
1	Guest Editorial Introduction to the Focused Section on Adaptive Learning and Control for Advanced Mechatronics Systems. IEEE/ASME Transactions on Mechatronics, 2022, 27, 607-610.	3.7	2
2	RadarSLAM: A robust simultaneous localization and mapping system for all weather conditions. International Journal of Robotics Research, 2022, 41, 519-542.	5.8	12
3	Hybrid sparse monocular visual odometry with online photometric calibration. International Journal of Robotics Research, 2022, 41, 993-1021.	5.8	5
4	Learning With Stochastic Guidance for Robot Navigation. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 166-176.	7.2	23
5	DeepSLAM: A Robust Monocular SLAM System With Unsupervised Deep Learning. IEEE Transactions on Industrial Electronics, 2021, 68, 3577-3587.	5.2	44
6	Season-Invariant and Viewpoint-Tolerant LiDAR Place Recognition in GPS-Denied Environments. IEEE Transactions on Industrial Electronics, 2021, 68, 563-574.	5.2	15
7	Deep Sensor Fusion Between 2D Laser Scanner and IMU for Mobile Robot Localization. IEEE Sensors Journal, 2021, 21, 8501-8509.	2.4	39
8	DeepBEV: A Conditional Adversarial Network for Bird's Eye View Generation. , 2021, , .		0
9	Predicting Vehicle Behavior Using Automotive Radar and Recurrent Neural Networks. IEEE Open Journal of Intelligent Transportation Systems, 2021, 2, 254-268.	2.6	7
10	RADIATE: A Radar Dataset for Automotive Perception in Bad Weather. , 2021, , .		70
11	Robust Underwater Visual SLAM Fusing Acoustic Sensing. , 2021, , .		20
12	Underwater Visual Acoustic SLAM with Extrinsic Calibration. , 2021, , .		11
13	Learning-Based Underwater Autonomous Grasping via 3D Point Cloud. , 2021, , .		0
14	Robust Attentional Aggregation of Deep Feature Sets for Multi-view 3D Reconstruction. International Journal of Computer Vision, 2020, 128, 53-73.	10.9	68
15	300ÂGHz radar object recognition based on deep neural networks and transfer learning. IET Radar, Sonar and Navigation, 2020, 14, 1483-1493.	0.9	19
16	A Semi-Heuristic Approach for Tracking Buried Subsea Pipelines using Fluxgate Magnetometers. , 2020, , .		5
17	Artificial Intelligence Enabled Wireless Networking for 5G and Beyond: Recent Advances and Future Challenges. IEEE Wireless Communications, 2020, 27, 16-23.	6.6	143
18	Learning Mobile Manipulation through Deep Reinforcement Learning. Sensors, 2020, 20, 939.	2.1	49

#	Article	IF	Citations
19	RadarSLAM: Radar based Large-Scale SLAM in All Weathers. , 2020, , .		56
20	Learning to Detect Subsea Pipelines with Deep Segmentation Network and Self-Supervision. , 2020, , .		2
21	Efficient Indoor Positioning with Visual Experiences via Lifelong Learning. IEEE Transactions on Mobile Computing, 2019, 18, 814-829.	3.9	6
22	Guided Stochastic Optimization for Motion Planning. Frontiers in Robotics and AI, 2019, 6, 105.	2.0	7
23	Learning Monocular Visual Odometry through Geometry-Aware Curriculum Learning. , 2019, , .		31
24	Global Localization with Object-Level Semantics and Topology. , 2019, , .		34
25	TextPlace: Visual Place Recognition and Topological Localization Through Reading Scene Texts. , 2019, , .		29
26	End-to-end, sequence-to-sequence probabilistic visual odometry through deep neural networks. International Journal of Robotics Research, 2018, 37, 513-542.	5.8	139
27	AUV Position Tracking Control Using End-to-End Deep Reinforcement Learning. , 2018, , .		24
28	POL-LWIR Vehicle Detection: Convolutional Neural Networks Meet Polarised Infrared Sensors. , 2018, , .		10
29	Geomagnetic Field based Human Search and Following for Autonomous Robots. , 2018, , .		1
30	Robust Subsea Pipeline Tracking with Noisy Multibeam Echosounder. , 2018, , .		6
31	DEFO-NET: Learning Body Deformation Using Generative Adversarial Networks. , 2018, , .		5
32	Learning with Training Wheels: Speeding up Training with a Simple Controller for Deep Reinforcement Learning. , 2018, , .		47
33	UnDeepVO: Monocular Visual Odometry Through Unsupervised Deep Learning. , 2018, , .		289
34	Ongoing Evolution of Visual SLAM from Geometry to Deep Learning: Challenges and Opportunities. Cognitive Computation, 2018, 10, 875-889.	3.6	46
35	Adaptive low-level control of autonomous underwater vehicles using deep reinforcement learning. Robotics and Autonomous Systems, 2018, 107, 71-86.	3.0	116
36	3D-PhysNet: Learning the Intuitive Physics of Non-Rigid Object Deformations. , 2018, , .		8

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37	SCAN. , 2017, , .		13
38	Safety Verification of Deep Neural Networks. Lecture Notes in Computer Science, 2017, , 3-29.	1.0	390
39	Mechanism of situation element acquisition based on deep auto-encoder network in wireless sensor networks. International Journal of Distributed Sensor Networks, 2017, 13, 155014771769962.	1.3	3
40	3D Object Reconstruction from a Single Depth View with Adversarial Learning. , 2017, , .		122
41	GraphTinker: Outlier rejection and inlier injection for pose graph SLAM. , 2017, , .		8
42	VidLoc: A Deep Spatio-Temporal Model for 6-DoF Video-Clip Relocalization. , 2017, , .		145
43	DeepVO: Towards end-to-end visual odometry with deep Recurrent Convolutional Neural Networks. , 2017, , .		482
44	Increasing the efficiency of 6-DoF visual localization using multi-modal sensory data. , 2016, , .		7
45	Keyframe based large-scale indoor localisation using geomagnetic field and motion pattern. , 2016, , .		38
46	Poster Abstract: Efficient Visual Positioning with Adaptive Parameter Learning. , 2016, , .		0
47	Improving Localization Accuracy for an Underwater Robot With a Slow-Sampling Sonar Through Graph Optimization. IEEE Sensors Journal, 2015, 15, 5024-5035.	2.4	17
48	A review of visual inertial odometry from filtering and optimisation perspectives. Advanced Robotics, 2015, 29, 1289-1301.	1.1	61
49	Single Beacon based Localization with Constraints and Unknown Initial Poses. IEEE Transactions on Industrial Electronics, 2015, , 1-1.	5.2	10
50	Cooperative localization of AUVs using moving horizon estimation. IEEE/CAA Journal of Automatica Sinica, 2014, 1, 68-76.	8.5	17
51	Vision-aided inertial navigation using three-view geometry. , 2014, , .		2
52	Single beacon based multi-robot cooperative localization using Moving Horizon Estimation. , 2014, , .		1
53	An optimization based Moving Horizon Estimation with application to localization of Autonomous Underwater Vehicles. Robotics and Autonomous Systems, 2014, 62, 1581-1596.	3.0	43
54	Sensor-based dynamic trajectory planning for smooth door passing of intelligent wheelchairs. , 2013, , .		1

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55	Pose-based GraphSLAM algorithm for robotic fish with a mechanical scanning sonar. , 2013, , .		2
56	Single beacon based localization of AUVs using moving Horizon estimation. , 2013, , .		9
57	Underwater Localization and Environment Mapping Using Wireless Robots. Wireless Personal Communications, 2013, 70, 1147-1170.	1.8	18
58	Towards autonomous localization and mapping of AUVs: a survey. International Journal of Intelligent Unmanned Systems, 2013, 1, 97-120.	0.6	35
59	Optimization and Sequence Search Based Localization in Wireless Sensor Networks. , 2012, , .		1
60	Doorway passing of an intelligent wheelchair by dynamically generating Bézier curve trajectory. , 2012, , .		12
61	B&#x00E9;zier curve based trajectory planning for an intelligent wheelchair to pass a doorway. , 2012, , .		12
62	Voice-directed autonomous navigation of a smart-wheelchair. , 2008, , 405-424.		2