Rui Fan

List of Publications by Year
in descending order

64 papers	1,371 citations	566801 15 h-index	642321 23 g-index
86 all docs	86 docs citations	86 times ranked	623 citing authors

#	Article	IF	Citations
1	Loop-Box: Multiagent Direct SLAM Triggered by Single Loop Closure for Large-Scale Mapping. IEEE Transactions on Cybernetics, 2022, 52, 5088-5097.	6.2	9
2	Dynamic Fusion Module Evolves Drivable Area and Road Anomaly Detection: A Benchmark and Algorithms. IEEE Transactions on Cybernetics, 2022, 52, 10750-10760.	6.2	53
3	Rethinking Road Surface 3-D Reconstruction and Pothole Detection: From Perspective Transformation to Disparity Map Segmentation. IEEE Transactions on Cybernetics, 2022, 52, 5799-5808.	6.2	30
4	Learning Collision-Free Space Detection From Stereo Images: Homography Matrix Brings Better Data Augmentation. IEEE/ASME Transactions on Mechatronics, 2022, 27, 225-233.	3.7	31
5	Simultaneous Hand–Eye/Robot–World/Camera–IMU Calibration. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2278-2289.	3.7	9
6	Deep Learning Image Analysis of Optical Coherence Tomography Angiography Measured Vessel Density Improves Classification of Healthy and Glaucoma Eyes. American Journal of Ophthalmology, 2022, 236, 298-308.	1.7	24
7	Detecting Glaucoma in the Ocular Hypertension Study Using Deep Learning. JAMA Ophthalmology, 2022, 140, 383.	1.4	15
8	Accurate and Robust Visual Localization System in Large-Scale Appearance-Changing Environments. IEEE/ASME Transactions on Mechatronics, 2022, 27, 5222-5232.	3.7	5
9	UnDAF: A General Unsupervised Domain Adaptation Framework for Disparity or Optical Flow Estimation. , 2022, , .		5
10	Graph Attention Layer Evolves Semantic Segmentation for Road Pothole Detection: A Benchmark and Algorithms. IEEE Transactions on Image Processing, 2021, 30, 8144-8154.	6.0	34
11	Three-Filters-to-Normal: An Accurate and Ultrafast Surface Normal Estimator. IEEE Robotics and Automation Letters, 2021, 6, 5405-5412.	3.3	21
12	Agile reactive navigation for a non–holonomic mobile robot using a pixel processor array. IET Image Processing, 2021, 15, 1883-1892.	1.4	7
13	End-to-End Interactive Prediction and Planning with Optical Flow Distillation for Autonomous Driving. , 2021, , .		9
14	PVStereo: Pyramid Voting Module for End-to-End Self-Supervised Stereo Matching. IEEE Robotics and Automation Letters, 2021, 6, 4353-4360.	3.3	51
15	SCV-Stereo: Learning Stereo Matching From a Sparse Cost Volume. , 2021, , .		4
16	Co-Teaching: an Ark to Unsupervised Stereo Matching. , 2021, , .		6
17	Conditional Link Prediction of Category-Implicit Keypoint Detection. , 2021, , .		0
18	S2P2: Self-Supervised Goal-Directed Path Planning Using RGB-D Data for Robotic Wheelchairs. , 2021, , .		1

#	Article	IF	Citations
19	Multi-Scale Feature Fusion: Learning Better Semantic Segmentation For Road Pothole Detection. , 2021, , .		20
20	Autonomous Vehicle Vision 2021: ICCV Workshop Summary. , 2021, , .		0
21	Scale-Adaptive Pothole Detection and Tracking from 3-D Road Point Clouds. , 2021, , .		4
22	Long-Awaited Next-Generation Road Damage Detection and Localization System is Finally Here. , 2021, , .		6
23	Property Similarity Line Segment Detector. , 2021, , .		1
24	Deep Convolutional Neural Networks for Road Crack Detection: Qualitative and Quantitative Comparisons. , 2021, , .		8
25	Bone Marrow Cell Recognition: Training Deep Object Detection with A New Loss Function. , 2021, , .		8
26	SNE-RoadSeg+: Rethinking Depth-Normal Translation and Deep Supervision for Freespace Detection. , 2021, , .		28
27	Robust Edge-Direct Visual Odometry based on CNN edge detection and Shi-Tomasi corner optimization. , 2021, , .		2
28	Pothole Detection Based on Disparity Transformation and Road Surface Modeling. IEEE Transactions on Image Processing, 2020, 29, 897-908.	6.0	114
29	Road Damage Detection Based on Unsupervised Disparity Map Segmentation. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 4906-4911.	4.7	51
30	Implementation of Stereo Rig Roll Angle Estimation on a TMS320C6678 DSP. , 2020, , .		2
31	MFuseNet: Robust Depth Estimation With Learned Multiscopic Fusion. IEEE Robotics and Automation Letters, 2020, 5, 3113-3120.	3.3	6
32	Corrections to â€œPothole Detection Based on Disparity Transformation and Road Surface Modelingâ€• [Aug 19 897-908]. IEEE Transactions on Image Processing, 2020, 29, 3091-3091.	6.0	0
33	SNE-RoadSeg: Incorporating Surface Normal Information into Semantic Segmentation for Accurate Freespace Detection. Lecture Notes in Computer Science, 2020, , 340-356.	1.0	81
34	We Learn Better Road Pothole Detection: From Attention Aggregation to Adversarial Domain Adaptation. Lecture Notes in Computer Science, 2020, , 285-300.	1.0	24
35	ATG-PVD: Ticketing Parking Violations on a Drone. Lecture Notes in Computer Science, 2020, , 541-557.	1.0	5
36	Applying Surface Normal Information in Drivable Area and Road Anomaly Detection for Ground Mobile Robots. , 2020, , .		40

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37	Semantic Segmentation of Retinal Vessels Using SegNet. , 2020, , .		2
38	A Novel Dual-Lidar Calibration Algorithm Using Planar Surfaces. , 2019, , .		42
39	Using DP Towards A Shortest Path Problem-Related Application. , 2019, , .		6
40	Road Crack Detection Using Deep Convolutional Neural Network and Adaptive Thresholding. , 2019, , .		99
41	Road Curb Detection Using A Novel Tensor Voting Algorithm. , 2019, , .		2
42	Robust Lane Marking Detection Algorithm Using Drivable Area Segmentation and Extended SLT. , 2019, , .		1
43	Real-Time, Environmentally-Robust 3D LiDAR Localization. , 2019, , .		7
44	Automatic Calibration of Multiple 3D LiDARs in Urban Environments. , 2019, , .		34
45	A Robust Roll Angle Estimation Algorithm Based on Gradient Descent. , 2019, , .		2
46	Autonomous UAV Landing System Based on Visual Navigation. , 2019, , .		7
47	Low-Cost GPS-Aided LiDAR State Estimation and Map Building. , 2019, , .		9
48	Automatic Calibration of Dual-LiDARs Using Two Poles Stickered with Retro-Reflective Tape. , 2019, , .		17
49	A Robust Pavement Mapping System Based on Normal-Constrained Stereo Visual Odometry. , 2019, , .		3
50	PT-ResNet: Perspective Transformation-Based Residual Network for Semantic Road Image Segmentation. , 2019, , .		3
51	Real-Time Dense Stereo Embedded in a UAV for Road Inspection. , 2019, , .		48
52	Real-Time Binocular Vision Implementation on an SoC TMS320C6678 DSP. Lecture Notes in Computer Science, 2019, , 13-23.	1.0	1
53	Road Surface 3D Reconstruction Based on Dense Subpixel Disparity Map Estimation. IEEE Transactions on Image Processing, 2018, 27, 3025-3035.	6.0	92
54	Mobile Robot Localisation and Navigation Using LEGO NXT and Ultrasonic Sensor. , 2018, , .		12

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55	Real-Time Subpixel Fast Bilateral Stereo. , 2018, , .		7
56	Real-Time Stereo Vision for Road Surface 3-D Reconstruction. , 2018, , .		24
57	Multiple Lane Detection Algorithm Based on Optimised Dense Disparity Map Estimation. , 2018, , .		8
58	Real-time stereo vision-based lane detection system. Measurement Science and Technology, 2018, 29, 074005.	1.4	33
59	Iterative roll angle estimation from dense disparity map. , 2018, , .		5
60	A novel disparity transformation algorithm for road segmentation. Information Processing Letters, 2018, 140, 18-24.	0.4	22
61	Multiple Lane Detection Algorithm Based on Novel Dense Vanishing Point Estimation. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 621-632.	4.7	115
62	Real-time implementation of stereo vision based on optimised normalised cross-correlation and propagated search range on a GPU. , 2017, , .		13
63	Faster-than-real-time linear lane detection implementation using SoC DSP TMS320C6678. , 2016, , .		25
64	Adaptive PID control of robotic manipulators without equality/inequality constraints on control gains. International Journal of Robust and Nonlinear Control, 0, , .	2.1	4