Rustam Stolkin

List of Publications by Year
in descending order

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101 papers	3,961 citations	201674 27 h-index	133252 59 g-index
102 all docs	102 docs citations	102 times ranked	4002 citing authors

#	Article	IF	Citations
1	Local Community Detection Algorithm Based on Alternating Strategy of Strong Fusion and Weak Fusion. IEEE Transactions on Cybernetics, 2023, 53, 818-831.	9.5	6
2	Dynamic Immunization Node Model for Complex Networks Based on Community Structure and Threshold. IEEE Transactions on Cybernetics, 2022, 52, 1539-1552.	9.5	11
3	Gamma-Induced Image Degradation Analysis of Robot Vision Sensor for Autonomous Inspection of Nuclear Sites. IEEE Sensors Journal, 2022, 22, 17378-17390.	4.7	8
4	SAR Image Segmentation Based on Constrained Smoothing and Hierarchical Label Correction. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.3	7
5	Tracking linear deformable objects using slicing method. Robotica, 2022, 40, 1188-1206.	1.9	2
6	Grasp Transfer for Deformable Objects by Functional Map Correspondence. , 2022, , .		0
7	Motion Planning and Control of an Omnidirectional Mobile Robot in Dynamic Environments. Robotics, 2021, 10, 48.	3.5	25
8	Towards robotizing the processes of testing lithium-ion batteries. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2021, 235, 1309-1325.	1.0	7
9	A training free technique for 3D object recognition using the concept of vibration, energy and frequency. Computers and Graphics, 2021, 95, 92-105.	2.5	3
10	Simultaneous Tactile Exploration and Grasp Refinement for Unknown Objects. IEEE Robotics and Automation Letters, 2021, 6, 3349-3356.	5.1	19
11	Rapid Model-Free State of Health Estimation for End-Of-First-Life Electric Vehicle Batteries Using Impedance Spectroscopy. Energies, 2021, 14, 2597.	3.1	16
12	Semi-Autonomous Behaviour Tree-Based Framework for Sorting Electric Vehicle Batteries Components. Robotics, 2021, 10, 82.	3.5	16
13	Vision-Guided MPC for Robotic Path Following Using Learned Memory-Augmented Model. Frontiers in Robotics and AI, 2021, 8, 688275.	3.2	5
14	Trust, Shared Understanding and Locus of Control in Mixed-Initiative Robotic Systems. , 2021, , .		7
15	Nut Unfastening by Robotic Surface Exploration. Robotics, 2021, 10, 107.	3.5	8
16	Mixed-initiative Variable Autonomy for Remotely Operated Mobile Robots. ACM Transactions on Human-Robot Interaction, 2021, 10, 1-34.	4.1	23
17	An Automatic and Optimal MPA Design Method. IEEE Transactions on Image Processing, 2021, 30, 8046-8058.	9.8	4
18	Adaptive Closed-Loop Identification and Tracking Control of an Aerial Vehicle with Unknown Inertia Parameters. IFAC-PapersOnLine, 2021, 54, 785-790.	0.9	5

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19	Coverage Path Planning Techniques for Inspection of Disjoint Regions With Precedence Provision. IEEE Access, 2021, 9, 5412-5427.	4.2	6
20	Dynamics-Based Modified Fast Simultaneous Localization and Mapping for Unmanned Aerial Vehicles With Joint Inertial Sensor Bias and Drift Estimation. IEEE Access, 2021, 9, 120247-120260.	4.2	13
21	Optimal grasp selection, and control for stabilising a grasped object, with respect to slippage and external forces. , 2021, , .		0
22	Dual Quaternion-Based Visual Servoing for Grasping Moving Objects. , 2021, , .		7
23	SpectGRASP: Robotic Grasping by Spectral Correlation. , 2021, , .		3
24	Improving the Manipulability of a Redundant Arm Using Decoupled Hybrid Visual Servoing. Applied Sciences (Switzerland), 2021, 11, 11566.	2.5	3
25	Semi-Supervised Graph Regularized Deep NMF With Bi-Orthogonal Constraints for Data Representation. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 3245-3258.	11.3	43
26	Estimation and exploitation of objects â€™ inertial parameters in robotic grasping and manipulation: A survey. Robotics and Autonomous Systems, 2020, 124, 103374.	5.1	29
27	Benchmarking Protocol for Grasp Planning Algorithms. IEEE Robotics and Automation Letters, 2020, 5, 315-322.	5.1	22
28	Semantic Segmentation for SAR Image Based on Texture Complexity Analysis and Key Superpixels. Remote Sensing, 2020, 12, 2141.	4.0	9
29	Human operator cognitive availability aware Mixed-Initiative control. , 2020, , .		5
30	The Grasp Strategy of a Robot Passer Influences Performance and Quality of the Robot-Human Object Handover. Frontiers in Robotics and AI, 2020, 7, 542406.	3.2	7
31	Multi-scale Adaptive Feature Fusion Network for Semantic Segmentation in Remote Sensing Images. Remote Sensing, 2020, 12, 872.	4.0	63
32	Let's Push Things Forward: A Survey on Robot Pushing. Frontiers in Robotics and AI, 2020, 7, 8.	3.2	50
33	Simultaneous Material Segmentation and 3D Reconstruction in Industrial Scenarios. Frontiers in Robotics and AI, 2020, 7, 52.	3.2	1
34	Planning Maximum-Manipulability Cutting Paths. IEEE Robotics and Automation Letters, 2020, 5, 1999-2006.	5.1	19
35	A thumbnail-based hierarchical fuzzy clustering algorithm for SAR image segmentation. Signal Processing, 2020, 171, 107518.	3.7	20
36	Object shape estimation and modeling, based on sparse Gaussian process implicit surfaces, combining visual data and tactile exploration. Robotics and Autonomous Systems, 2020, 126, 103433.	5.1	20

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37	Dense connection and depthwise separable convolution based CNN for polarimetric SAR image classification. Knowledge-Based Systems, 2020, 194, 105542.	7.1	77
38	Estimating An Objectâ€™s Inertial Parameters By Robotic Pushing: A Data-Driven Approach. , 2020, , .		8
39	Path planning for mobile manipulator robots under non-holonomic and task constraints. , 2020, , .		6
40	VFH+ based shared control for remotely operated mobile robots. , 2020, , .		11
41	Learning Kalman Network: A deep monocular visual odometry for on-road driving. Robotics and Autonomous Systems, 2019, 121, 103234.	5.1	20
42	Stacked auto-encoder for classification of polarimetric SAR images based on scattering energy. International Journal of Remote Sensing, 2019, 40, 5094-5120.	2.9	4
43	An assisted telemanipulation approach: combining autonomous grasp planning with haptic cues. , 2019, , .		14
44	Gamma-induced Degradation Analysis of Commercial off-the-shelf Camera Sensors. , 2019, , .		3
45	Recycling lithium-ion batteries from electric vehicles. Nature, 2019, 575, 75-86.	27.8	1,699
46	Singularity-Robust Inverse Kinematics Solver for Tele-manipulation. , 2019, , .		4
47	Degradation Measurement of Kinect Sensor Under Fast Neutron Beamline. , 2019, , .		4
48	A Novel Weakly-Supervised Approach for RGB-D-Based Nuclear Waste Object Detection. IEEE Sensors Journal, 2019, 19, 3487-3500.	4.7	91
49	Multi-objective artificial immune algorithm for fuzzy clustering based on multiple kernels. Swarm and Evolutionary Computation, 2019, 50, 100485.	8.1	29
50	Unsupervised feature selection based on kernel fisher discriminant analysis and regression learning. Machine Learning, 2019, 108, 659-686.	5.4	16
51	A dynamic local cluster ratio-based band selection algorithm for hyperspectral images. Soft Computing, 2019, 23, 8281-8289.	3.6	5
52	Dynamic grasp and trajectory planning for moving objects. Autonomous Robots, 2019, 43, 1241-1256.	4.8	50
53	Quantum-Inspired Immune Clonal Algorithm for solving large-scale capacitated arc routing problems. Memetic Computing, 2018, 10, 81-102.	4.0	10
54	Non-Negative Spectral Learning and Sparse Regression-Based Dual-Graph Regularized Feature Selection. IEEE Transactions on Cybernetics, 2018, 48, 793-806.	9.5	103

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55	Region-sequence based six-stream CNN features for general and fine-grained human action recognition in videos. Pattern Recognition, 2018, 76, 506-521.	8.1	69
56	Model-free and learning-free grasping by Local Contact Moment matching. , 2018, , .		27
57	Selective Ensemble Learning based Human Action Recognition Using Fusing Visual Features. , 2018, , .		0
58	Learning Monocular Visual Odometry with Dense 3D Mapping from Dense 3D Flow. , 2018, , .		28
59	Vision-Based Framework to Estimate Robot Configuration and Kinematic Constraints. IEEE/ASME Transactions on Mechatronics, 2018, 23, 2402-2412.	5.8	11
60	Dense RGB-D Semantic Mapping with Pixel-Voxel Neural Network. Sensors, 2018, 18, 3099.	3.8	18
61	Weather Classification: A new multi-class dataset, data augmentation approach and comprehensive evaluations of Convolutional Neural Networks. , 2018, , .		18
62	Real-Time Application Processing for FPGA-Based Resilient Embedded Systems in Harsh Environments. , 2018, , .		4
63	Deformable Dictionary Learning for SAR Image Change Detection. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4605-4617.	6.3	17
64	SAR Targets Classification Based on Deep Memory Convolution Neural Networks and Transfer Parameters. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 2834-2846.	4.9	89
65	A community integration strategy based on an improved modularity density increment for large-scale networks. Physica A: Statistical Mechanics and Its Applications, 2017, 469, 471-485.	2.6	37
66	Guiding Trajectory Optimization by Demonstrated Distributions. IEEE Robotics and Automation Letters, 2017, 2, 819-826.	5.1	34
67	Dynamic multi-level appearance models and adaptive clustered decision trees for single target tracking. Pattern Recognition, 2017, 69, 169-183.	8.1	8
68	Learning modular and transferable forward models of the motions of push manipulated objects. Autonomous Robots, 2017, 41, 1061-1082.	4.8	26
69	Mixed second order partial derivatives decomposition method for large scale optimization. Applied Soft Computing Journal, 2017, 61, 1013-1021.	7.2	11
70	A Fast Algorithm for SAR Image Segmentation Based on Key Pixels. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 5657-5673.	4.9	25
71	Nonnegative Matrix Factorization with Rank Regularization and Hard Constraint. Neural Computation, 2017, 29, 2553-2579.	2.2	8
72	Multi-objective artificial immune algorithm for fuzzy clustering based on multiple kernels. , 2017, , .		4

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73	Joint sparse learning for classification ensemble. , 2017, , .		0
74	A fully end-to-end deep learning approach for real-time simultaneous 3D reconstruction and material recognition. , 2017, , .		21
75	Single-shot clothing category recognition in free-configurations with application to autonomous clothes sorting. , 2017, , .		18
76	Grasp that optimises objectives along post-grasp trajectories. , 2017, , .		2
77	Synthetic aperture radar image change detection based on improved bilateral filtering and fuzzy C mean. Journal of Applied Remote Sensing, 2016, 10, 046017.	1.3	5
78	Application of a parallel robot in lower limb rehabilitation: A brief capability study. , 2016, , .		8
79	Immune clonal algorithm based on directed evolution for multi-objective capacitated arc routing problem. Applied Soft Computing Journal, 2016, 49, 748-758.	7.2	22
80	Subspace learning-based graph regularized feature selection. Knowledge-Based Systems, 2016, 112, 152-165.	7.1	74
81	A local-global coupled-layer puppet model for robust online human pose tracking. Computer Vision and Image Understanding, 2016, 153, 163-178.	4.7	7
82	A multiobjective evolutionary algorithm to find community structures based on affinity propagation. Physica A: Statistical Mechanics and Its Applications, 2016, 453, 203-227.	2.6	54
83	One-shot learning and generation of dexterous grasps for novel objects. International Journal of Robotics Research, 2016, 35, 959-976.	8.5	86
84	A Spatial Fuzzy Clustering Algorithm With Kernel Metric Based on Immune Clone for SAR Image Segmentation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 1640-1652.	4.9	62
85	Continuously Adaptive Data Fusion and Model Relearning for Particle Filter Tracking With Multiple Features. IEEE Sensors Journal, 2016, 16, 2639-2649.	4.7	30
86	Immune clonal selection algorithm for capacitated arc routing problem. Soft Computing, 2016, 20, 2177-2204.	3.6	9
87	Sensing the Environment: Student-Created Water Quality Sensors. Marine Technology Society Journal, 2015, 49, 140-148.	0.4	7
88	Towards the Principled Study of Variable Autonomy in Mobile Robots. , 2015, , .		13
89	A Three-Component Fisher-Based Feature Weighting Method for Supervised PolSAR Image Classification. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 731-735.	3.1	30
90	Large-scale community detection based on node membership grade and sub-communities integration. Physica A: Statistical Mechanics and Its Applications, 2015, 428, 279-294.	2.6	35

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91	Change-Detection Map Learning Using Matching Pursuit. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4712-4723.	6.3	27
92	An Evolutionary Multiobjective Approach to Sparse Reconstruction. IEEE Transactions on Evolutionary Computation, 2014, 18, 827-845.	10.0	110
93	Particle Filter Tracking of Camouflaged Targets by Adaptive Fusion of Thermal and Visible Spectra Camera Data. IEEE Sensors Journal, 2014, 14, 159-166.	4.7	48
94	Change detection in SAR images by artificial immune multi-objective clustering. Engineering Applications of Artificial Intelligence, 2014, 31, 53-67.	8.1	44
95	A compressed sensing approach for efficient ensemble learning. Pattern Recognition, 2014, 47, 3451-3465.	8.1	9
96	An Enhanced Adaptive Coupled-Layer LGTracker++. , 2013, , .		18
97	A novel selection evolutionary strategy for constrained optimization. Information Sciences, 2013, 239, 122-141.	6.9	58
98	Bayesian fusion of thermal and visible spectra camera data for mean shift tracking with rapid background adaptation. , 2012, , .		12
99	Adaptive fusion of infra-red and visible spectra camera data for particle filter tracking of moving targets. , 2012, , .		6
100	An EM/E-MRF algorithm for adaptive model based tracking in extremely poor visibility. Image and Vision Computing, 2008, 26, 480-495.	4.5	33
101	Using Environmental Models to Optimize Sensor Placement. IEEE Sensors Journal, 2007, 7, 319-320.	4.7	16