

Antonios Gasteratos

List of Publications by Year in descending order

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169
papers

3,781
citations

172457

29
h-index

168389

53
g-index

177
all docs

177
docs citations

177
times ranked

2763
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of Stereo Vision Algorithms: From Software to Hardware. International Journal of Optomechatronics, 2008, 2, 435-462.	6.6	303
2	Semantic mapping for mobile robotics tasks: A survey. Robotics and Autonomous Systems, 2015, 66, 86-103.	5.1	270
3	Safety bounds in human robot interaction: A survey. Safety Science, 2020, 127, 104667.	4.9	153
4	Unsupervised Human Detection with an Embedded Vision System on a Fully Autonomous UAV for Search and Rescue Operations. Sensors, 2019, 19, 3542.	3.8	143
5	Fault diagnosis of photovoltaic modules through image processing and Canny edge detection on field thermographic measurements. International Journal of Sustainable Energy, 2015, 34, 351-372.	2.4	135
6	Recent trends in social aware robot navigation: A survey. Robotics and Autonomous Systems, 2017, 93, 85-104.	5.1	115
7	Evaluation of shape descriptors for shape-based image retrieval. IET Image Processing, 2011, 5, 493.	2.5	92
8	Image retrieval based on fuzzy color histogram processing. Optics Communications, 2005, 248, 375-386.	2.1	86
9	Image moment invariants as local features for content based image retrieval using the Bag-of-Visual-Words model. Pattern Recognition Letters, 2015, 55, 22-27.	4.2	74
10	Fast loop-closure detection using visual-word-vectors from image sequences. International Journal of Robotics Research, 2018, 37, 62-82.	8.5	69
11	Stereo vision for robotic applications in the presence of non-ideal lighting conditions. Image and Vision Computing, 2010, 28, 940-951.	4.5	65
12	Robot Guided Crowd Evacuation. IEEE Transactions on Automation Science and Engineering, 2015, 12, 739-751.	5.2	64
13	An Active Learning Paradigm for Online Audio-Visual Emotion Recognition. IEEE Transactions on Affective Computing, 2022, 13, 756-768.	8.3	62
14	Fast centre-surround contrast modification. IET Image Processing, 2008, 2, 19.	2.5	60
15	Learning spatially semantic representations for cognitive robot navigation. Robotics and Autonomous Systems, 2013, 61, 1460-1475.	5.1	57
16	Robot navigation via spatial and temporal coherent semantic maps. Engineering Applications of Artificial Intelligence, 2016, 48, 173-187.	8.1	54
17	Robot navigation in large-scale social maps: An action recognition approach. Expert Systems With Applications, 2016, 66, 261-273.	7.6	52
18	Assigning Visual Words to Places for Loop Closure Detection. , 2018, , .		52

#	ARTICLE	IF	CITATIONS
19	The Revisiting Problem in Simultaneous Localization and Mapping: A Survey on Visual Loop Closure Detection. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 19929-19953.	8.0	46
20	MARMA: A Mobile Augmented Reality Maintenance Assistant for Fast-Track Repair Procedures in the Context of Industry 4.0. Machines, 2020, 8, 88.	2.2	45
21	Probabilistic Appearance-Based Place Recognition Through Bag of Tracked Words. IEEE Robotics and Automation Letters, 2019, 4, 1737-1744.	5.1	43
22	Attention! A Lightweight 2D Hand Pose Estimation Approach. IEEE Sensors Journal, 2021, 21, 11488-11496.	4.7	43
23	Disparity Estimation on Log-Polar Images and Vergence Control. Computer Vision and Image Understanding, 2001, 83, 97-117.	4.7	42
24	Real-time disparity map computation module. Microprocessors and Microsystems, 2008, 32, 159-170.	2.8	42
25	Modest-vocabulary loop-closure detection with incremental bag of tracked words. Robotics and Autonomous Systems, 2021, 141, 103782.	5.1	42
26	Learning to track colored objects with log-polar vision. Mechatronics, 2004, 14, 989-1006.	3.3	38
27	Deep Feature Space: A Geometrical Perspective. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 6823-6838.	13.9	37
28	On-line deep learning method for action recognition. Pattern Analysis and Applications, 2016, 19, 337-354.	4.6	35
29	Biologically and psychophysically inspired adaptive support weights algorithm for stereo correspondence. Robotics and Autonomous Systems, 2010, 58, 457-464.	5.1	34
30	A biologically inspired scale-space for illumination invariant feature detection. Measurement Science and Technology, 2013, 24, 074024.	2.6	34
31	Human and Fire Detection from High Altitude UAV Images. , 2015, , .		34
32	Encoding the description of image sequences: A two-layered pipeline for loop closure detection. , 2016, , .		33
33	On the evaluation of illumination compensation algorithms. Multimedia Tools and Applications, 2018, 77, 9211-9231.	3.9	30
34	Non-probabilistic cellular automata-enhanced stereo vision simultaneous localization and mapping. Measurement Science and Technology, 2011, 22, 114027.	2.6	29
35	Safety certification requirements for domestic robots. Safety Science, 2012, 50, 1888-1897.	4.9	28
36	Color-Based Monocular Visuo-inertial 3-D Pose Estimation of a Volant Robot. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 2706-2715.	4.7	27

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37	A Multi-Objective Exploration Strategy for Mobile Robots Under Operational Constraints. IEEE Access, 2013, 1, 691-702.	4.2	27
38	ROLFER: A fully autonomous aerial rescue support system. Microprocessors and Microsystems, 2018, 61, 32-42.	2.8	27
39	SPARTAN: Developing a Vision System for Future Autonomous Space Exploration Robots. Journal of Field Robotics, 2014, 31, 107-140.	6.0	26
40	Thorough robot navigation based on SVM local planning. Robotics and Autonomous Systems, 2015, 70, 166-180.	5.1	26
41	Semantic maps from multiple visual cues. Expert Systems With Applications, 2017, 68, 45-57.	7.6	26
42	Unsupervised semantic clustering and localization for mobile robotics tasks. Robotics and Autonomous Systems, 2020, 131, 103567.	5.1	26
43	Fast and incremental loop closure detection with deep features and proximity graphs. Journal of Field Robotics, 2022, 39, 473-493.	6.0	26
44	The Katwijk beach planetary rover dataset. International Journal of Robotics Research, 2018, 37, 3-12.	8.5	25
45	Continuous Emotion Recognition for Long-Term Behavior Modeling through Recurrent Neural Networks. Technologies, 2022, 10, 59.	5.1	24
46	Enhancing satellite semantic maps with ground-level imagery. Robotics and Autonomous Systems, 2021, 139, 103760.	5.1	23
47	Improving the robustness in feature detection by local contrast enhancement. , 2012, , .		22
48	Stereo-Based Visual Odometry for Autonomous Robot Navigation. International Journal of Advanced Robotic Systems, 2016, 13, 21.	2.1	21
49	Deep learning features exception for cross-season visual place recognition. Pattern Recognition Letters, 2017, 100, 124-130.	4.2	21
50	Trackingâ€œSeqSLAM: A dynamic sequenceâ€œbased visual place recognition paradigm. IET Computer Vision, 2021, 15, 258-273.	2.0	21
51	A stereo matching approach based on particle filters and scattered control landmarks. Image and Vision Computing, 2015, 38, 13-23.	4.5	20
52	Multi-layer map: Augmenting semantic visual memory. , 2020, , .		20
53	The Role of Machine Vision in Industry 4.0: an automotive manufacturing perspective. , 2021, , .		20
54	Towards orbital based global rover localization. , 2015, , .		18

#	ARTICLE	IF	CITATIONS
55	Appearance-Based Loop Closure Detection with Scale-Restrictive Visual Features. Lecture Notes in Computer Science, 2019, , 75-87.	1.3	18
56	Stereovision-Based Algorithm for Obstacle Avoidance. Lecture Notes in Computer Science, 2009, , 195-204.	1.3	17
57	Collision risk assessment for autonomous robots by offline traversability learning. Robotics and Autonomous Systems, 2012, 60, 1367-1376.	5.1	17
58	High order visual words for structure-aware and viewpoint-invariant loop closure detection. , 2017, , .		17
59	DOSeqSLAM: Dynamic On-line Sequence Based Loop Closure Detection Algorithm for SLAM. , 2018, , .		17
60	A Dense Stereo Correspondence Algorithm for Hardware Implementation with Enhanced Disparity Selection. Lecture Notes in Computer Science, 2008, , 365-370.	1.3	17
61	Methods and techniques for intelligent navigation and manipulation for bomb disposal and rescue operations. , 2007, , .		16
62	Guiding a robotic gripper by visual feedback for object manipulation tasks. , 2011, , .		16
63	On the optimization of Hierarchical Temporal Memory. Pattern Recognition Letters, 2012, 33, 670-676.	4.2	16
64	AVERT: An autonomous multi-robot system for vehicle extraction and transportation. , 2015, , .		16
65	Modeling Regions of Interest on Orbital and Rover Imagery for Planetary Exploration Missions. Cybernetics and Systems, 2016, 47, 180-205.	2.5	16
66	Robots in Crisis Management: A Survey. Lecture Notes in Business Information Processing, 2017, , 43-56.	1.0	16
67	A bio-inspired multi-camera system for dynamic crowd analysis. Pattern Recognition Letters, 2014, 44, 141-151.	4.2	15
68	Introducing a globally consistent orbitalâ€based localization system. Journal of Field Robotics, 2018, 35, 275-298.	6.0	15
69	ViPED: On-road vehicle passenger detection for autonomous vehicles. Robotics and Autonomous Systems, 2019, 112, 282-290.	5.1	15
70	Hot spot method for pedestrian detection using saliency maps, discrete Chebyshev moments and support vector machine. IET Image Processing, 2018, 12, 1284-1291.	2.5	15
71	Adaptive card-based production control policies. Computers and Industrial Engineering, 2017, 103, 131-144.	6.3	14
72	Revisiting the Bag-of-Visual-Words model: A hierarchical localization architecture for mobile systems. Robotics and Autonomous Systems, 2019, 113, 104-119.	5.1	14

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73	Sequence-based mapping for probabilistic visual loop-closure detection. , 2021, , .		14
74	PRONTO: a system for mobile robot navigation via CAD-model guidance. Microprocessors and Microsystems, 2002, 26, 17-26.	2.8	13
75	SPARTAN system: Towards a low-cost and high-performance vision architecture for space exploratory rovers. , 2011, , .		13
76	Optimum multi-camera arrangement using a bee colony algorithm. , 2012, , .		13
77	STEREOVISION-BASED FUZZY OBSTACLE AVOIDANCE METHOD. International Journal of Humanoid Robotics, 2011, 08, 169-183.	1.1	12
78	Safe UAV landing: A low-complexity pipeline for surface conditions recognition. , 2021, , .		12
79	Enhancement of Perceptually Salient Contours using a Parallel Artificial Cortical Network. Biological Cybernetics, 2006, 94, 192-214.	1.3	11
80	Object recognition using saliency maps and HTM learning. , 2012, , .		11
81	Visual Odometry for autonomous robot navigation through efficient outlier rejection. , 2013, , .		11
82	SeqSLAM with Bag of Visual Words for Appearance Based Loop Closure Detection. Mechanisms and Machine Science, 2019, , 580-587.	0.5	11
83	Learning the terrain and planning a collision-free trajectory for indoor post-disaster environments. , 2012, , .		10
84	Efficient representation and feature extraction for neural network-based 3D object pose estimation. Neurocomputing, 2013, 120, 90-100.	5.9	10
85	Real-time surveillance detection system for medium-altitude long-endurance unmanned aerial vehicles. Concurrency Computation Practice and Experience, 2018, 30, e4145.	2.2	10
86	Vision-Based Product Tracking Method for Cyber-Physical Production Systems in Industry 4.0. , 2018, , .		10
87	SPARTAN/SEXTANT/COMPASS: Advancing Space Rover Vision via Reconfigurable Platforms. Lecture Notes in Computer Science, 2015, , 475-486.	1.3	10
88	Autonomous Vehicle Navigation in Semi-structured Environments Based on Sparse Waypoints and LiDAR Road-tracking. , 2021, , .		10
89	Do Neural Network Weights Account for Classes Centers?. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 8815-8824.	11.3	10
90	Path Tracing on Polar Depth Maps for Robot Navigation. Lecture Notes in Computer Science, 2012, , 395-404.	1.3	9

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91	A tensor-based deep learning framework. Image and Vision Computing, 2014, 32, 916-929.	4.5	9
92	Visual Loop-Closure Detection via Prominent Feature Tracking. Journal of Intelligent and Robotic Systems: Theory and Applications, 2022, 104, 1.	3.4	9
93	Self-localization based on terrestrial and satellite semantics. Engineering Applications of Artificial Intelligence, 2022, 111, 104824.	8.1	9
94	Image Stabilization in Active Robot Vision. , 0, , .		8
95	A Hybrid Static/Active Video Surveillance System. International Journal of Optomechatronics, 2011, 5, 80-95.	6.6	8
96	6DoF object pose measurement by a monocular manifold-based pattern recognition technique. Measurement Science and Technology, 2012, 23, 114005.	2.6	8
97	Accelerating image super-resolution regression by a hybrid implementation in mobile devices. , 2014, , .		8
98	Graph-Based Semantic Segmentation. Mechanisms and Machine Science, 2019, , 572-579.	0.5	8
99	A Recursive Fuzzy System for Efficient Digital Image Stabilization. Advances in Fuzzy Systems, 2008, 2008, 1-8.	0.9	7
100	Efficient Robot Path Planning in the Presence of Dynamically Expanding Obstacles. Lecture Notes in Computer Science, 2012, , 330-339.	1.3	7
101	Digital elevation model fusion using spectral methods. , 2014, , .		7
102	A LoCATEâ€¢based visual place recognition system for mobile robotics and GPGPUs. Concurrency Computation Practice and Experience, 2018, 30, e4146.	2.2	7
103	Tele-Autonomous Active Stereo-Vision Head. International Journal of Optomechatronics, 2008, 2, 144-161.	6.6	6
104	Fuzzy vergence control for an active binocular vision system. , 2008, , .		6
105	Sparse pose manifolds. Autonomous Robots, 2014, 37, 191-207.	4.8	6
106	Accelerating single-image super-resolution polynomial regression in mobile devices. IEEE Transactions on Consumer Electronics, 2015, 61, 63-71.	3.6	6
107	HASeparator: Hyperplane-Assisted Softmax. , 2020, , .		6
108	The role of machine vision in industry 4.0: A textile manufacturing perspective. , 2021, , .		6

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109	Generating Graph-Inspired Descriptors by Merging Ground-Level and Satellite Data for Robot Localization. <i>Cybernetics and Systems</i> , 2023, 54, 697-715.	2.5	6
110	A system to navigate a robot into a ship structure. <i>Machine Vision and Applications</i> , 2003, 14, 15-25.	2.7	5
111	An Intelligent System for Aerial Image Retrieval and Classification. <i>Lecture Notes in Computer Science</i> , 2004, , 63-71.	1.3	5
112	Fast Image Retrieval Based on Attributes of the Human Visual System. , 2006, , .		5
113	An adaptive fuzzy system for the control of the vergence angle on a robotic head. <i>Journal of Intelligent and Fuzzy Systems</i> , 2010, 21, 385-394.	1.4	5
114	The AVERT project: Autonomous Vehicle Emergency Recovery Tool. , 2013, , .		5
115	Autonomous Vehicle Emergency Recovery Tool: A Cooperative Robotic System for Car Extraction. <i>Journal of Field Robotics</i> , 2016, 33, 1058-1086.	6.0	5
116	CNN-based novelty detection for terrestrial and extra-terrestrial autonomous exploration. <i>IET Cyber-Systems and Robotics</i> , 2021, 3, 116-127.	1.8	5
117	An Intelligent Tool for the Automated Evaluation of Pedestrian Simulation. <i>Lecture Notes in Computer Science</i> , 2014, , 136-149.	1.3	5
118	Simultaneous Visual Object Recognition and Position Estimation Using SIFT. <i>Lecture Notes in Computer Science</i> , 2009, , 866-875.	1.3	5
119	Stereo Vision Depth Estimation Methods for Robotic Applications. , 0, , 397-417.		5
120	Pose estimation of a volant platform with a monocular visuo-inertial system. , 2009, , .		4
121	Multi-camera 3D scene reconstruction from vanishing points. , 2010, , .		4
122	Computationally effective stereovision SLAM. , 2010, , .		4
123	On Visuo-Inertial Fusion for Robot Pose Estimation Using Hierarchical Fuzzy Systems. <i>International Journal of Optomechatronics</i> , 2012, 6, 17-36.	6.6	4
124	Multi-view 3D scene reconstruction using ant colony optimization techniques. <i>Measurement Science and Technology</i> , 2012, 23, 114002.	2.6	4
125	A comparison framework for the evaluation of illumination compensation algorithms. , 2013, , .		4
126	The HCUAV project: Electronics and software development for medium altitude remote sensing. , 2014, , .		4

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127	What, Where and How? Introducing pose manifolds for industrial object manipulation. Expert Systems With Applications, 2015, 42, 8123-8133.	7.6	4
128	The Impact of Low-Level Features in Semantic-Based Image. , 0, , 23-45.		4
129	An Algorithm for Adaptive Mean Filtering and Its Hardware Implementation. Journal of Signal Processing Systems, 2006, 44, 63-78.	1.0	3
130	Theta-Disparity: An Efficient Representation of the 3D Scene Structure. Advances in Intelligent Systems and Computing, 2016, , 795-806.	0.6	3
131	A new method to combine detection and tracking algorithms for fast and accurate human localization in UAV-based SAR operations. , 2020, , .		3
132	A Sociotechnical Approach to UAV Safety for Search and Rescue Missions. , 2020, , .		3
133	Light-invariant 3D object's pose estimation using color distance transform. , 2010, , .		2
134	Robust 3D vision for robots using dynamic programming. , 2011, , .		2
135	Bio-inspired deep learning model for object recognition. , 2013, , .		2
136	Morphological edge detector implemented in Quantum Cellular Automata. , 2013, , .		2
137	Social mapping on RGB-D scenes. , 2014, , .		2
138	Can Speedup Assist Accuracy? An On-Board GPU-Accelerated Image Georeference Method for UAVs. Lecture Notes in Computer Science, 2015, , 104-114.	1.3	2
139	Autonomous Robot Path Planning Techniques Using Cellular Automata. Emergence, Complexity and Computation, 2015, , 175-196.	0.3	2
140	Context-dependent social mapping. , 2016, , .		2
141	Identifying Hazardous Emerging Behaviors in Search and Rescue Missions with Drones: A Proposed Methodology. Lecture Notes in Business Information Processing, 2017, , 70-76.	1.0	2
142	A novel moving-base RTK-GPS-Based wearable apparatus for precise localization of humans in peril. Microprocessors and Microsystems, 2021, 82, 103833.	2.8	2
143	A Product Pose Tracking Paradigm Based on Deep Points Detection. Machines, 2021, 9, 112.	2.2	2
144	Learning Long-Term Behavior through Continuous Emotion Estimation. , 2021, , .		2

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145	A System to Navigate a Robot into a Ship Structure. Lecture Notes in Computer Science, 2001, , 268-283.	1.3	2
146	Real-time video surveillance by a hybrid static/active camera mechatronic system. , 2010, , .		1
147	An efficient method to reconstruct prismatic rigid objects by multiple camera arrangements. Measurement Science and Technology, 2012, 23, 114006.	2.6	1
148	Establishing low dimensional manifolds for 3D object pose estimation. , 2012, , .		1
149	Ontology-based 3D pose estimation for autonomous object manipulation. , 2012, , .		1
150	Place categorization through object classification. , 2014, , .		1
151	Sequence-based visual place recognition: a scale-space approach for boundary detection. Autonomous Robots, 2021, 45, 505.	4.8	1
152	The Vision System of the ACROBOTER Project. Lecture Notes in Computer Science, 2009, , 957-966.	1.3	1
153	How Do You Help a Robot to Find a Place? A Supervised Learning Paradigm to Semantically Infer about Places. Lecture Notes in Computer Science, 2013, , 324-333.	1.3	1
154	ROLFER: An Innovative Proactive Platform to Reserve Swimmerâ€™s Safety. Lecture Notes in Business Information Processing, 2017, , 57-69.	1.0	1
155	Web acquired image datasets need curation: an exemplar pipeline evaluated on Greek food images. , 2021, , .		1
156	Extension and very large scale integration implementation of the majority-gate algorithm for gray-scale morphological operations. Optical Engineering, 1997, 36, 857.	1.0	0
157	Recognition of 2-d shapes inspired by the human visual system. Journal of Computational Methods in Sciences and Engineering, 2010, 10, 23-35.	0.2	0
158	Lighting compensating multiview stereo. , 2011, , .		0
159	Imaging Systems and Techniques 2011. Measurement Science and Technology, 2012, 23, 110101.	2.6	0
160	Pose manifolds for efficient visual servoing. , 2012, , .		0
161	Visual Assistance to an Advanced Mechatronic Platform for Pick and Place Tasks. Lecture Notes in Computer Science, 2010, , 705-716.	1.3	0
162	From Object Recognition to Object Localization. Advances in Computational Intelligence and Robotics Book Series, 2012, , 1-17.	0.4	0

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163	Intelligent Stereo Vision in Autonomous Robot Traversability Estimation. , 2013, , 192-209.		0
164	A Full-Scale Hardware Solution for Crowd Evacuation via Multiple Cameras. , 2014, , 127-154.		0
165	A New Approach to Machine Contour Perception. , 2019, , 566-568.		0
166	From Object Recognition to Object Localization. , 0, , 53-68.		0
167	Intelligent Stereo Vision in Autonomous Robot Traversability Estimation. , 0, , 350-365.		0
168	Stereo Vision Depth Estimation Methods for Robotic Applications. , 0, , 1461-1481.		0
169	Three-Dimensional Scene Reconstruction. , 0, , 142-162.		0