JosÃ© Santos-Victor

List of Publications by Year
in descending order

179 papers	4,555 citations	218592 26 h-index	175177 52 g-index
184 all docs	184 docs citations	184 times ranked	3240 citing authors

#	Article	IF	Citations
1	Learning Deep Features for Robotic Inference From Physical Interactions. IEEE Transactions on Cognitive and Developmental Systems, 2023, 15, 985-999.	2.6	2
2	Contribution ofÂLow, Mid andÂHigh-Level Image Features ofÂIndoor Scenes inÂPredicting Human Similarity Judgements. Lecture Notes in Computer Science, 2022, , 505-514.	1.0	2
3	Comparing a New Non-Invasive Vineyard Yield Estimation Approach Based on Image Analysis with Manual Sample-Based Methods. Agronomy, 2022, 12, 1464.	1.3	4
4	Robot Learning Physical Object Properties from Human Visual Cues: A novel approach to infer the fullness level in containers. , 2022, , .		2
5	Design of a Robotic Coach for Motor, Social and Cognitive Skills Training Toward Applications With ASD Children. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1223-1232.	2.7	11
6	One-shot action recognition in challenging therapy scenarios. , 2021, , .		17
7	Action anticipation for collaborative environments: The impact of contextual information and uncertainty-based prediction. Neurocomputing, 2021, 444, 301-318.	3.5	5
8	Editorial: Robots that Learn and Reason: Towards Learning Logic Rules from Noisy Data. Frontiers in Robotics and AI, 2021, 8, 755933.	2.0	0
9	Learning Motor Resonance in Human-Human and Human-Robot Interaction with Coupled Dynamical Systems. , 2021, , .		1
10	Learning Conditional Postural Synergies for Dexterous Hands: A Generative Approach Based on Variational Auto-Encoders and Conditioned on Object Size and Category. , 2021, , .		4
11	SENSORIMOTOR GRAPH: Action-Conditioned Graph Neural Network for Learning Robotic Soft Hand Dynamics. , 2021, , .		2
12	Cleaning Tasks Knowledge Transfer Between Heterogeneous Robots: a Deep Learning Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 98, 191-205.	2.0	5
13	Action-conditioned Benchmarking of Robotic Video Prediction Models: a Comparative Study. , 2020, , .		4
14	Yield components detection and image-based indicators for non-invasive grapevine yield prediction at different phenological phases. Oeno One, 2020, 54, 833-848.	0.7	19
15	CopyRobot: Interactive Mirroring Robotics Game for ASD Children. IFMBE Proceedings, 2020, , 2014-2027.	0.2	2
16	Automatic Generation of Object Shapes With Desired Affordances Using Voxelgrid Representation. Frontiers in Neurorobotics, 2020, 14, 22.	1.6	7
17	From human action understanding to robot action execution: how the physical properties of handled objects modulate non-verbal cues. , 2020, , .		10
18	Control strategies for cleaning robots in domestic applications: A comprehensive review. International Journal of Advanced Robotic Systems, 2019, 16, 172988141985743.	1.3	36

#	Article	IF	Citations
19	Design and validation of two embodied mirroring setups for interactive games with autistic children using the NAO humanoid robot. , 2019, 2019, 1641-1644.		9
20	Online Recognition-by- Tracking with Deep Appearance and Facial Features in a Robotic Environment. , 2019, , .		0
21	Human-Inspired Online Path Planning and Biped Walking Realization in Unknown Environment. Frontiers in Neurorobotics, 2019, 13, 36.	1.6	10
22	Action Alignment from Gaze Cues in Human-Human and Human-Robot Interaction. Lecture Notes in Computer Science, 2019, , 197-212.	1.0	5
23	A robust and efficient framework for fast cylinder detection. Robotics and Autonomous Systems, 2019, 117, 17-28.	3.0	15
24	GPS emulation via visual-inertial odometry for inspection drones. , 2019, , .		1
25	Robotic Interactive Physics Parameters Estimator (RIPPE). , 2019, , .		1
26	Coupling of Arm Movements during Human-Robot Interaction: the handover case. , 2019, , .		0
27	Biologically Inspired Controller of Human Action Behaviour for a Humanoid Robot in a Dyadic Scenario. , 2019, , .		0
28	Semantic and geometric reasoning for robotic grasping: a probabilistic logic approach. Autonomous Robots, 2019, 43, 1393-1418.	3.2	20
29	Guest Editorial Special Issue on Affordances. IEEE Transactions on Cognitive and Developmental Systems, 2018, 10, 1-3.	2.6	0
30	Affordances in Psychology, Neuroscience, and Robotics: A Survey. IEEE Transactions on Cognitive and Developmental Systems, 2018, 10, 4-25.	2.6	108
31	Relational affordances for multiple-object manipulation. Autonomous Robots, 2018, 42, 19-44.	3.2	14
32	On the advantages of foveal mechanisms for active stereo systems in visual search tasks. Autonomous Robots, 2018, 42, 459-476.	3.2	7
33	A dataset of head and eye gaze during dyadic interaction task for modeling robot gaze behavior. MATEC Web of Conferences, 2018, 161, 03002.	0.1	3
34	Autonomous table-cleaning from kinesthetic demonstrations using Deep Learning. , 2018, , .		6
35	Object detection and localization with Artificial Foveal Visual Attention. , 2018, , .		4
36	Anticipation in Human-Robot Cooperation: A Recurrent Neural Network Approach for Multiple Action Sequences Prediction. , 2018, , .		40

#	Article	IF	Citations
37	Action Anticipation: Reading the Intentions of Humans and Robots. IEEE Robotics and Automation Letters, 2018, 3, 4132-4139.	3.3	44
38	A generic visual perception domain randomisation framework for Gazebo. , 2018, , .		13
39	â€œiCub, clean the table!â€•A robot learning from demonstration approach using deep neural networks. , 2018, , .		20
40	Bioinspired Ciliary Force Sensor for Robotic Platforms. IEEE Robotics and Automation Letters, 2017, 2, 971-976.	3.3	37
41	A Miniaturized Force Sensor Based on Hair-Like Flexible Magnetized Cylinders Deposited Over a Giant Magnetoresistive Sensor. IEEE Transactions on Magnetics, 2017, 53, 1-5.	1.2	11
42	Low-cost 3-axis soft tactile sensors for the human-friendly robot Vizzy. , 2017, , .		53
43	A miniaturized force sensor based on hair-like flexible magnetized cylinders deposited over a giant magnetoresistive sensor. , 2017, , .		1
44	Learning at the ends: From hand to tool affordances in humanoid robots. , 2017, , .		8
45	Shape-based attention for identification and localization of cylindrical objects. , 2017, , .		3
46	Learn, plan, remember: A developmental robot architecture for task solving. , 2017, , .		2
47	Generalization of task model using compliant movement primitives in a bimanual setting. , 2017, , .		1
48	A deep probabilistic framework for heterogeneous self-supervised learning of affordances. , 2017, , .		9
49	Quantitative Assessment of the Arm/Hand Movements in Parkinsonâ€™s Disease Using a Wireless Armband Device. Frontiers in Neurology, 2017, 8, 388.	1.1	19
50	Combined Vision and Wearable Sensors-based System for Movement Analysis in Rehabilitation. Methods of Information in Medicine, 2017, 56, 95-111.	0.7	15
51	Denoising auto-encoders for learning of objects and tools affordances in continuous space. , 2016, , .		24
52	Biped walking and stairs climbing using reconfigurable adaptive motion primitives. , 2016, , .		5
53	Footstep Planning for Slippery and Slanted Terrain Using Human-Inspired Models. IEEE Transactions on Robotics, 2016, 32, 868-879.	7.3	33
54	Vizzy: A Humanoid on Wheels for Assistive Robotics. Advances in Intelligent Systems and Computing, 2016, , 17-28.	0.5	15

#	Article	IF	Citations
55	Benchmarking the Grasping Capabilities of the iCub Hand With the YCB Object and Model Set. IEEE Robotics and Automation Letters, 2016, 1, 288-294.	3.3	11
56	Correcting for changes: expected perception-based control for reaching a moving target. IEEE Robotics and Automation Magazine, 2016, 23, 63-70.	2.2	3
57	On Stereo Confidence Measures for Global Methods: Evaluation, New Model and Integration into Occupancy Grids. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 116-128.	9.7	8
58	Person Re-identification in Frontal Gait Sequences via Histogram of Optic Flow Energy Image. Lecture Notes in Computer Science, 2016, , 250-262.	1.0	6
59	Optimizing energy consumption and preventing slips at the footstep planning level. , 2015, , .		7
60	Motor-Primed Visual Attention for Humanoid Robots. IEEE Transactions on Autonomous Mental Development, 2015, 7, 76-91.	2.3	4
61	A Vision-Based System for Movement Analysis in Medical Applications: The Example of Parkinson Disease. Lecture Notes in Computer Science, 2015, , 424-434.	1.0	11
62	People and Mobile Robot Classification Through Spatio-Temporal Analysis of Optical Flow. International Journal of Pattern Recognition and Artificial Intelligence, 2015, 29, 1550021.	0.7	2
63	Recognizing the grasp intention from human demonstration. Robotics and Autonomous Systems, 2015, 74, 108-121.	3.0	25
64	Gait planning for biped locomotion on slippery terrain. , 2014, , .		8
65	Incremental learning of context-dependent dynamic internal models for robot control. , 2014, , .		20
66	Learning robotic eye–arm–hand coordination from human demonstration: a coupled dynamical systems approach. Biological Cybernetics, 2014, 108, 223-248.	0.6	15
67	Efficient greedy estimation of mixture models through a binary tree search. Robotics and Autonomous Systems, 2014, 62, 1440-1452.	3.0	8
68	3D to 2D bijection for spherical objects under equidistant fisheye projection. Computer Vision and Image Understanding, 2014, 125, 172-183.	3.0	13
69	Markerless online stereo calibration for a humanoid robot. , 2014, , .		3
70	Statistical Relational Learning of Object Affordances for Robotic Manipulation. , 2014, , 95-103.		1
71	On the formulation, performance and design choices of Cost-Curve Occupancy Grids for stereo-vision based 3D reconstruction. , 2014, , .		1
72	Multimodal Interface Towards Smartphones: The Use of Pico Projector, Passive RGB Imaging and Active Infrared Imaging. Lecture Notes in Computer Science, 2014, , 41-50.	1.0	1

#	Article	IF	Citations
73	Learning robot gait stability using neural networks as sensory feedback function for Central Pattern Generators. , 2013, , .		45
74	Open and closed-loop task space trajectory control of redundant robots using learned models. , 2013, , .		4
75	Modulating vision with motor plans: A biologically-inspired efficient allocation of visual resources. , 2013, , .		2
76	Online Learning of Single- and Multivalued Functions with an Infinite Mixture of Linear Experts. Neural Computation, 2013, 25, 3044-3091.	1.3	8
77	Integrating the whole cost-curve of stereo into occupancy grids. , 2013, , .		2
78	Online learning of humanoid robot kinematics under switching tools contexts. , 2013, , .		6
79	Multi-object detection and pose estimation in 3D point clouds: A fast grid-based Bayesian Filter. , 2013, , .		6
80	Model-based and model-free approaches for postural control of a compliant humanoid robot using optical flow. , 2013, , .		2
81	Waving Detection Using the FuzzyBoost Algorithm and Flow-Based Features. Lecture Notes in Computer Science, 2013, , 19-26.	1.0	0
82	Online calibration of a humanoid robot head from relative encoders, IMU readings and visual data. , 2012, , .		7
83	THE DESIGN OF THE iCub HUMANOID ROBOT. International Journal of Humanoid Robotics, 2012, 09, 1250027.	0.6	81
84	Reaching and grasping kitchenware objects. , 2012, , .		4
85	Learning relational affordance models for robots in multi-object manipulation tasks. , 2012, , .		66
86	Language Bootstrapping: Learning Word Meanings From Perceptionâ€"Action Association. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 660-671.	5.5	26
87	Introducing fuzzy decision stumps in boosting through the notion of neighbourhood. IET Computer Vision, 2012, 6, 214.	1.3	4
88	Learning Coupled Dynamical Systems from human demonstration for robotic eye-arm-hand coordination. , 2012, , .		3
89	Predictive gaze stabilization during periodic locomotion based on Adaptive Frequency Oscillators. , 2012, , .		8
90	An online algorithm for simultaneously learning forward and inverse kinematics. , 2012, , .		20

#	Article	IF	Citations
91	On the representation of anthropomorphic robot hands: Shape versus function. , 2012, , .		2
92	Fast estimation of Gaussian mixture models for image segmentation. Machine Vision and Applications, 2012, 23, 773-789.	1.7	29
93	Real-Time 3D Stereo Tracking and Localizing of Spherical Objects with the iCub Robotic Platform. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 63, 417-446.	2.0	8
94	Feature Selection for Tracker-Less Human Activity Recognition. Lecture Notes in Computer Science, 2011, , 152-160.	1.0	0
95	Feature Set Search Space for FuzzyBoost Learning. Lecture Notes in Computer Science, 2011, , 248-255.	1.0	1
96	Unsupervised Learning of Finite Gaussian Mixture Models (GMMs): A Greedy Approach. Lecture Notes in Electrical Engineering, 2011, , 105-120.	0.3	1
97	An expected perception architecture using visual 3D reconstruction for a humanoid robot. , 2011, , .		0
98	The iCubÂhumanoid robot: An open-systems platform for research in cognitive development. Neural Networks, 2010, 23, 1125-1134.	3.3	460
99	Gaussian mixture models for affordance learning using Bayesian Networks. , 2010, , .		8
100	Integration of vision and central pattern generator based locomotion for path planning of a non-holonomic crawling humanoid robot. , 2010, , .		5
101	Sensor-based self-calibration of the iCub's head. , 2010, , .		3
102	Self-adaptive Gaussian mixture models for real-time video segmentation and background subtraction. , 2010, , .		16
103	Unsupervised Greedy Learning of Finite Mixture Models. , 2010, , .		2
104	An Algorithm for the Least Square-Fitting of Ellipses. , 2010, , .		6
105	Unsupervised and Online Update of Boosted Temporal Models: The UAL2Boost. , 2010, , .		1
106	Abstraction Levels for Robotic Imitation: Overview and Computational Approaches. Studies in Computational Intelligence, 2010, , 313-355.	0.7	34
107	Multimodal Language Acquisition Based on Motor Learning and Interaction. Studies in Computational Intelligence, 2010, , 467-489.	0.7	6
108	Image Segmentation for Robots: Fast Self-adapting Gaussian Mixture Model. Lecture Notes in Computer Science, 2010, , 105-116.	1.0	3

#	Article	IF	Citations
109	Avoiding moving obstacles: the forbidden velocity map. , 2009, , .		32
110	ISROBOTNET: A testbed for sensor and robot network systems. , 2009, , .		20
111	Multimodal word learning from Infant Directed Speech. , 2009, , .		2
112	A Computational Model of Social-Learning Mechanisms. Adaptive Behavior, 2009, 17, 467-483.	1.1	16
113	Improving the SIFT descriptor with smooth derivative filters. Pattern Recognition Letters, 2009, 30, 18-26.	2.6	56
114	Affordance based word-to-meaning association. , 2009, , .		19
115	Biomimetic Eye-Neck Coordination. , 2009, , .		10
116	Predictive tracking across occlusions in the iCub robot. , 2009, , .		10
117	Optical Flow Based Detection in Mixed Human Robot Environments. Lecture Notes in Computer Science, 2009, , 223-232.	1.0	3
118	Waving Detection Using the Local Temporal Consistency of Flow-Based Features for Real-Time Applications. Lecture Notes in Computer Science, 2009, , 886-895.	1.0	2
119	Learning Object Affordances: From Sensory--Motor Coordination to Imitation. , 2008, 24, 15-26.		277
120	Multimodal saliency-based bottom-up attention a framework for the humanoid robot iCub. , 2008, , .		90
121	iCub: the design and realization of an open humanoid platform for cognitive and neuroscience research. Advanced Robotics, 2007, 21, 1151-1175.	1.1	234
122	Modeling affordances using Bayesian networks. , 2007, , .		29
123	A unified approach to speech production and recognition based on articulatory motor representations. , 2007, , .		5
124	Affordances, development and imitation. , 2007, , .		13
125	A Developmental Roadmap for Learning by Imitation in Robots. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 308-321.	5.5	43
126	Stereoscopic Image Visualization for Telerobotics. Experiments with Active Binocular Cameras. , 2007, , 77-90.		4

#	Article	IF	Citations
127	Toward Robot Perception through Omnidirectional Vision. Studies in Computational Intelligence, 2007, , 223-270.	0.7	2
128	A Comparative Study of Local Descriptors for Object Category Recognition: SIFT vs HMAX. Lecture Notes in Computer Science, 2007, , 515-522.	1.0	19
129	Mosaicking Cluttered Ground Planes Based on Stereo Vision. Lecture Notes in Computer Science, 2007, , 17-24.	1.0	0
130	A Strategy for Building Topological Maps through Scene Observation. , 2007, , 109-115.		0
131	Boosting with Temporal Consistent Learners: An Application to Human Activity Recognition. , 2007, , 464-475.		6
132	Detection and Classification of Highway Lanes Using Vehicle Motion Trajectories. IEEE Transactions on Intelligent Transportation Systems, 2006, 7, 188-200.	4.7	110
133	Sound Localization for Humanoid Robots - Building Audio-Motor Maps based on the HRTF. , 2006, , .		75
134	Fast IIR Isotropic 2-D Complex Gabor Filters With Boundary Initialization. IEEE Transactions on Image Processing, 2006, 15, 3338-3348.	6.0	17
135	Direct visual tracking control of remote cellular robots. Robotics and Autonomous Systems, 2006, 54, 805-814.	3.0	31
136	Abstracting Vehicle Shape and Kinematic Constraints from Obstacle Avoidance Methods. Autonomous Robots, 2006, 20, 43-59.	3.2	32
137	Jacobian Learning Methods for Tasks Sequencing in Visual Servoing. , 2006, , .		23
138	Learning Sensory-Motor Maps for Redundant Robots. , 2006, , .		8
139	Model Based Selection and Classification of Local Features for Recognition Using Gabor Filters. Lecture Notes in Computer Science, 2006, , 181-192.	1.0	4
140	Least-squares 3D reconstruction from one or more views and geometric clues. Computer Vision and Image Understanding, 2005, 99, 151-174.	3.0	17
141	A Real-Time Gabor Primal Sketch for Visual Attention. Lecture Notes in Computer Science, 2005, , 335-342.	1.0	18
142	Gabor Parameter Selection for Local Feature Detection. Lecture Notes in Computer Science, 2005, , 11-19.	1.0	39
143	Visual Learning by Imitation With Motor Representations. IEEE Transactions on Systems, Man, and Cybernetics, 2005, 35, 438-449.	5.5	80
144	Cooperative localization by fusing vision-based bearing measurements and motion. , 2005, , .		31

#	Article	IF	Citations
145	Appearance-Based Object Detection in Space-Variant Images: A Multi-model Approach. Lecture Notes in Computer Science, 2004, , 538-546.	1.0	8
146	Linear global mosaics for underwater surveying. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 78-83.	0.4	18
147	Learning navigation maps by looking at people. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 490-495.	0.4	1
148	Viewpoint Independent Detection of Vehicle Trajectories and Lane Geometry from Uncalibrated Traffic Surveillance Cameras. Lecture Notes in Computer Science, 2004, , 454-462.	1.0	18
149	Mosaic-based navigation for autonomous underwater vehicles. IEEE Journal of Oceanic Engineering, 2003, 28, 609-624.	2.1	117
150	Visual station keeping for floating robots in unstructured environments. Robotics and Autonomous Systems, 2002, 39, 145-155.	3.0	60
151	Foveated active tracking with redundant 2D motion parameters. Robotics and Autonomous Systems, 2002, 39, 205-221.	3.0	23
152	Information Sampling for vision-based robot navigation. Robotics and Autonomous Systems, 2002, 41, 145-159.	3.0	11
153	A Binocular Stereo Algorithm for Log-Polar Foveated Systems. Lecture Notes in Computer Science, 2002, , 127-136.	1.0	25
154	Model-Based Attention Fixation using Log-Polar Images. , 2002, , 79-91.		3
155	Trajectory reconstruction with uncertainty estimation using mosaic registration. Robotics and Autonomous Systems, 2001, 35, 163-177.	3.0	17
156	Motion from occlusions. Robotics and Autonomous Systems, 2001, 35, 153-162.	3.0	6
157	Underwater Video Mosaics as Visual Navigation Maps. Computer Vision and Image Understanding, 2000, 79, 66-91.	3.0	142
158	Visual servoing and appearance for navigation. Robotics and Autonomous Systems, 2000, 31, 87-97.	3.0	35
159	Vision-based navigation and environmental representations with an omnidirectional camera. IEEE Transactions on Automation Science and Engineering, 2000, 16, 890-898.	2.4	226
160	Intrinsic Images for Dense Stereo Matching with Occlusions. Lecture Notes in Computer Science, 2000, , 100-114.	1.0	9
161	Binocular tracking: integrating perception and control. IEEE Transactions on Automation Science and Engineering, 1999, 15, 1080-1094.	2.4	58
162	Topological Maps for Visual Navigation. Lecture Notes in Computer Science, 1999, , 21-36.	1.0	16

#	Article	IF	Citations
163	Visual behaviours for binocular tracking. Robotics and Autonomous Systems, 1998, 25, 137-146.	3.0	25
164	Vision-based remote control of cellular robots. Robotics and Autonomous Systems, 1998, 23, 221-234.	3.0	10
165	Visual Behaviors for Docking. Computer Vision and Image Understanding, 1997, 67, 223-238.	3.0	55
166	Embedded visual behaviors for navigation. Robotics and Autonomous Systems, 1997, 19, 299-313.	3.0	21
167	Uncalibrated obstacle detection using normal flow. Machine Vision and Applications, 1996, 9, 130-137.	1.7	44
168	Uncalibrated obstacle detection using normal flow. Machine Vision and Applications, 1996, 9, 130-137.	1.7	25
169	Divergent stereo in autonomous navigation: From bees to robots. International Journal of Computer Vision, 1995, 14, 159-177.	10.9	133
170	Visual attention-based robot navigation using information sampling. , 0, , .		6
171	A purposive strategy for visual-based navigation of a mobile robot. , 0, , .		4
172	Omni-directional vision for robot navigation. , 0, , .		118
173	Reactive navigation for non-holonomic robots using the ego-kinematic space. , 0, , .		16
174	Results on underwater mosaic-based navigation. , 0, , .		8
175	A general approach for egomotion estimation with omnidirectional images. , 0, , .		30
176	Constant resolution omnidirectional cameras. , 0, , .		35
177	Design of the robot-cub (iCub) head. , 0, , .		116
178	Learning words and speech units through natural interactions. , 0, , .		0
179	Vision-based Navigation, Environmental Representations and Imaging Geometries. , 0, , 347-360.		3