

# Ian D Reid

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

159  
papers

11,576  
citations

45  
h-index

106  
g-index

175  
ext. papers

15,561  
ext. citations

5.2  
avg, IF

6.84  
L-index

#	Paper	IF	Citations
159	MonoSLAM: real-time single camera SLAM. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2007</b> , 29, 1052-67	13.3	2013
158	. <i>IEEE Transactions on Robotics</i> , <b>2016</b> , 32, 1309-1332	6.5	1222
157	RefineNet: Multi-path Refinement Networks for High-Resolution Semantic Segmentation <b>2017</b> ,		959
156	Generalized Intersection Over Union: A Metric and a Loss for Bounding Box Regression <b>2019</b> ,		647
155	Learning Depth from Single Monocular Images Using Deep Convolutional Neural Fields. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2016</b> , 38, 2024-39	13.3	604
154	Single View Metrology. <i>International Journal of Computer Vision</i> , <b>2000</b> , 40, 123-148	10.6	357
153	Unsupervised CNN for Single View Depth Estimation: Geometry to the Rescue. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 740-756	0.9	335
152	Stable multi-target tracking in real-time surveillance video <b>2011</b> ,		302
151	Articulated Body Motion Capture by Stochastic Search. <i>International Journal of Computer Vision</i> , <b>2005</b> , 61, 185-205	10.6	274
150	A comparison of loop closing techniques in monocular SLAM. <i>Robotics and Autonomous Systems</i> , <b>2009</b> , 57, 1188-1197	3.5	165
149	Drones count wildlife more accurately and precisely than humans. <i>Methods in Ecology and Evolution</i> , <b>2018</b> , 9, 1160-1167	7.7	156
148	Deep learning features at scale for visual place recognition <b>2017</b> ,		136
147	Global stereo reconstruction under second-order smoothness priors. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2009</b> , 31, 2115-28	13.3	134
146	From Motion Blur to Motion Flow: A Deep Learning Solution for Removing Heterogeneous Motion Blur <b>2017</b> ,		129
145	Joint Probabilistic Data Association Revisited <b>2015</b> ,		126
144	A plane measuring device. <i>Image and Vision Computing</i> , <b>1999</b> , 17, 625-634	3.7	122
143	RSLAM: A System for Large-Scale Mapping in Constant-Time Using Stereo. <i>International Journal of Computer Vision</i> , <b>2011</b> , 94, 198-214	10.6	121

142	Vast-scale Outdoor Navigation Using Adaptive Relative Bundle Adjustment. <i>International Journal of Robotics Research</i> , <b>2010</b> , 29, 958-980	5.7	115
141	PWP3D: Real-Time Segmentation and Tracking of 3D Objects. <i>International Journal of Computer Vision</i> , <b>2012</b> , 98, 335-354	10.6	114
140	Structured learning of human interactions in TV shows. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2012</b> , 34, 2441-53	13.3	112
139	Real-Time SLAM Relocalisation <b>2007</b> ,		112
138	A general method for human activity recognition in video. <i>Computer Vision and Image Understanding</i> , <b>2006</b> , 104, 232-248	4.3	105
137	Smart Mining for Deep Metric Learning <b>2017</b> ,		102
136	Deep Regression Tracking with Shrinkage Loss. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 369-386	0.9	102
135	Joint tracking and segmentation of multiple targets <b>2015</b> ,		101
134	Self-Calibration of Rotating and Zooming Cameras. <i>International Journal of Computer Vision</i> , <b>2001</b> , 45, 107-127	10.6	98
133	Navigating, Recognizing and Describing Urban Spaces With Vision and Lasers. <i>International Journal of Robotics Research</i> , <b>2009</b> , 28, 1406-1433	5.7	88
132	Multi-modal Cycle-Consistent Generalized Zero-Shot Learning. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 21-37	0.9	84
131	Meaningful maps with object-oriented semantic mapping <b>2017</b> ,		79
130	Dense Reconstruction Using 3D Object Shape Priors <b>2013</b> ,		75
129	Modelling pedestrian trajectory patterns with Gaussian processes <b>2009</b> ,		74
128	Manhattan scene understanding using monocular, stereo, and 3D features <b>2011</b> ,		73
127	Robust Real-Time Visual Tracking Using Pixel-Wise Posteriors. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 831-844	0.9	65
126	Automatic Relocalization and Loop Closing for Real-Time Monocular SLAM. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2011</b> , 33, 1699-712	13.3	63
125	<b>2017</b> ,		60

124	Active tracking of foveated feature clusters using affine structure. <i>International Journal of Computer Vision</i> , <b>1996</b> , 18, 41-60	10.6	60
123	Driving saccade to pursuit using image motion. <i>International Journal of Computer Vision</i> , <b>1995</b> , 16, 205-228.	8.6	57
122	A Constant-Time Efficient Stereo SLAM System <b>2009</b> ,		55
121	The active recovery of 3D motion trajectories and their use in prediction. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>1997</b> , 19, 219-234	13.3	54
120	A modular head/eye platform for real-time reactive vision. <i>Mechatronics</i> , <b>1993</b> , 3, 517-535	3	54
119	Guiding Visual Surveillance by Tracking Human Attention <b>2009</b> ,		54
118	On the comparison of uncertainty criteria for active SLAM <b>2012</b> ,		50
117	Projective calibration of a laser-stripe range finder. <i>Image and Vision Computing</i> , <b>1996</b> , 14, 659-666	3.7	47
116	Exploring Context with Deep Structured Models for Semantic Segmentation. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2018</b> , 40, 1352-1366	13.3	45
115	Nonlinear shape manifolds as shape priors in level set segmentation and tracking <b>2011</b> ,		45
114	Real-time tracking of multiple occluding objects using level sets <b>2010</b> ,		43
113	Dense 3D Face Correspondence. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2018</b> , 40, 1584-1598	13.3	38
112	High Five: Recognising human interactions in TV shows <b>2010</b> ,		38
111	GMS: Grid-Based Motion Statistics for Fast, Ultra-robust Feature Correspondence. <i>International Journal of Computer Vision</i> , <b>2020</b> , 128, 1580-1593	10.6	38
110	Deep Reinforcement Learning for Active Breast Lesion Detection from DCE-MRI. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 665-673	0.9	37
109	<b>2010</b> ,		36
108	Unsupervised learning of a scene-specific coarse gaze estimator <b>2011</b> ,		36
107	Attend in Groups: A Weakly-Supervised Deep Learning Framework for Learning from Web Data <b>2017</b> ,		35

106	Growing semantically meaningful models for visual SLAM <b>2010</b> ,		34
105	Multi-modal Auto-Encoders as Joint Estimators for Robotics Scene Understanding		34
104	3D hand tracking for human computer interaction. <i>Image and Vision Computing</i> , <b>2012</b> , 30, 236-250	3.7	33
103	Bootstrapping the Performance of Weakly Supervised Semantic Segmentation <b>2018</b> ,		32
102	<b>2008</b> ,		30
101	Integrating Object Detection with 3D Tracking Towards a Better Driver Assistance System <b>2010</b> ,		29
100	Saccade and pursuit on an active head/eye platform. <i>Image and Vision Computing</i> , <b>1994</b> , 12, 155-163	3.7	29
99	MOTChallenge: A Benchmark for Single-Camera Multiple Target Tracking. <i>International Journal of Computer Vision</i> , <b>2021</b> , 129, 845-881	10.6	29
98	<b>2015</b> ,		27
97	Real-Time Joint Semantic Segmentation and Depth Estimation Using Asymmetric Annotations <b>2019</b> ,		26
96	Latent Data Association: Bayesian Model Selection for Multi-target Tracking <b>2013</b> ,		25
95	An image-to-map loop closing method for monocular SLAM <b>2008</b> ,		25
94	STAR3D: Simultaneous Tracking and Reconstruction of 3D Objects Using RGB-D Data <b>2013</b> ,		24
93	. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , <b>2007</b> ,		24
92	Estimating Gaze Direction from Low-Resolution Faces in Video. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 402-415	0.9	24
91	<b>2010</b> ,		23
90	Geometrically consistent plane extraction for dense indoor 3D maps segmentation <b>2016</b> ,		23
89	Goal-directed video metrology. <i>Lecture Notes in Computer Science</i> , <b>1996</b> , 647-658	0.9	23

88	Real-Time 3D Tracking and Reconstruction on Mobile Phones. <i>IEEE Transactions on Visualization and Computer Graphics</i> , <b>2015</b> , 21, 557-70	4	22
87	Deep learning for 2D scan matching and loop closure <b>2017</b> ,		21
86	Probabilistic surveillance with multiple active cameras <b>2010</b> ,		21
85	Direct semi-dense SLAM for rolling shutter cameras <b>2016</b> ,		21
84	A distributed camera system for multi-resolution surveillance <b>2009</b> ,		20
83	Simultaneous Monocular 2D Segmentation, 3D Pose Recovery and 3D Reconstruction. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 593-606	0.9	20
82	Efficient Point Process Inference for Large-Scale Object Detection <b>2016</b> ,		20
81	Cognitive visual tracking and camera control. <i>Computer Vision and Image Understanding</i> , <b>2012</b> , 116, 457-473		19
80	Modeling and generating complex motion blur for real-time tracking <b>2008</b> ,		19
79	Real-Time Monocular Object-Model Aware Sparse SLAM <b>2019</b> ,		18
78	Simultaneous 3D tracking and reconstruction on a mobile phone <b>2013</b> ,		18
77	Efficient 3D Scene Labeling Using Fields of Trees <b>2013</b> ,		18
76	Video synchronization from human motion using rank constraints. <i>Computer Vision and Image Understanding</i> , <b>2009</b> , 113, 891-906	4.3	18
75	Scaling CNNs for High Resolution Volumetric Reconstruction from a Single Image <b>2017</b> ,		17
74	A Dynamic Programming Approach to Reconstructing Building Interiors. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 394-407	0.9	17
73	Training Medical Image Analysis Systems like Radiologists. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 546-554		17
72	Shared shape spaces <b>2011</b> ,		16
71	SceneCut: Joint Geometric and Object Segmentation for Indoor Scenes <b>2018</b> ,		16

70	3D Tracking of Multiple Objects with Identical Appearance Using RGB-D Input <b>2014</b> ,		15
69	Automatic Reasoning about Causal Events in Surveillance Video. <i>Eurasip Journal on Image and Video Processing</i> , <b>2011</b> , 2011, 1-19	2.5	15
68	Scalable Place Recognition Under Appearance Change for Autonomous Driving <b>2019</b> ,		15
67	Real-Time Tracking of Single and Multiple Objects from Depth-Colour Imagery Using 3D Signed Distance Functions. <i>International Journal of Computer Vision</i> , <b>2017</b> , 124, 80-95	10.6	14
66	Addressing Challenging Place Recognition Tasks Using Generative Adversarial Networks <b>2018</b> ,		14
65	Unconstrained Multiple-People Tracking. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 505-514	0.9	14
64	Planes, trains and automobiles & autonomy for the modern robot <b>2010</b> ,		13
63	Unsupervised Scale-Consistent Depth Learning from Video. <i>International Journal of Computer Vision</i> , <b>2021</b> , 129, 2548-2564	10.6	13
62	A fast, modular scene understanding system using context-aware object detection <b>2015</b> ,		12
61	Dense monocular reconstruction using surface normals <b>2017</b> ,		12
60	PWP3D: Real-time segmentation and tracking of 3D objects <b>2009</b> ,		12
59	Efficient Dense Point Cloud Object Reconstruction Using Deformation Vector Fields. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 508-524	0.9	12
58	Pre and post-hoc diagnosis and interpretation of malignancy from breast DCE-MRI. <i>Medical Image Analysis</i> , <b>2019</b> , 58, 101562	15.4	11
57	Online unsupervised feature learning for visual tracking. <i>Image and Vision Computing</i> , <b>2016</b> , 51, 84-94	3.7	11
56	DeepSetNet: Predicting Sets with Deep Neural Networks <b>2017</b> ,		11
55	Hierarchical Higher-Order Regression Forest Fields: An Application to 3D Indoor Scene Labelling <b>2015</b> ,		11
54	COMBINING TRAFFIC SIGN DETECTION WITH 3D TRACKING TOWARDS BETTER DRIVER ASSISTANCE. <i>Series in Computer Vision</i> , <b>2011</b> , 425-446		11
53	Socially and Contextually Aware Human Motion and Pose Forecasting. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 6033-6040	4.2	11

52	FroDO: From Detections to 3D Objects <b>2020</b> ,			11
51	Learning Local Image Descriptors with Deep Siamese and Triplet Convolutional Networks by Minimizing Global Loss Functions <b>2016</b> ,			11
50	Self-supervised Learning for Single View Depth and Surface Normal Estimation <b>2019</b> ,			10
49	Real-time Image Smoothing via Iterative Least Squares. <i>ACM Transactions on Graphics</i> , <b>2020</b> , 39, 1-24	7.6		10
48	Visual SLAM: Why Bundle Adjust? <b>2019</b> ,			9
47	Maximizing Rigidity[Revisited: A Convex Programming Approach for Generic 3D Shape Reconstruction from Multiple Perspective Views <b>2017</b> ,			9
46	Joint Learning of Social Groups, Individuals Action and Sub-group Activities in Videos. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 177-195	0.9		9
45	Depth Based Semantic Scene Completion With Position Importance Aware Loss. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 219-226	4.2		9
44	Joint Probabilistic Matching Using m-Best Solutions <b>2016</b> ,			9
43	Multi-Task Structure-Aware Context Modeling for Robust Keypoint-Based Object Tracking. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2019</b> , 41, 915-927	13.3		9
42	Steering without representation with the use of active fixation. <i>Perception</i> , <b>1997</b> , 26, 1519-28	1.2		8
41	Automated Alignment of Robotic Pan-Tilt Camera Units Using Vision. <i>International Journal of Computer Vision</i> , <b>2006</b> , 68, 219-237	10.6		8
40	Structure Aware SLAM Using Quadrics and Planes. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 410-426	0.9		8
39	NeuRoRA: Neural Robust Rotation Averaging. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 137-154	0.9		8
38	<b>2017</b> ,			7
37	Camera calibration from human motion. <i>Image and Vision Computing</i> , <b>2008</b> , 26, 851-862	3.7		7
36	Self-alignment of a binocular robot. <i>Image and Vision Computing</i> , <b>1996</b> , 14, 635-640	3.7		7
35	Model-based recognition and range imaging for a guided vehicle. <i>Image and Vision Computing</i> , <b>1992</b> , 10, 197-207	3.7		7



34	Bayesian Semantic Instance Segmentation in Open Set World. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 3-18	0.9	7
33	A Unified Energy Minimization Framework for Model Fitting in Depth. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 72-82	0.9	7
32	RGBD Based Dimensional Decomposition Residual Network for 3D Semantic Scene Completion <b>2019</b> ,		7
31	The k-support norm and convex envelopes of cardinality and rank <b>2015</b> ,		6
30	Measuring the performance of single image depth estimation methods <b>2016</b> ,		6
29	Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2020</b> , 42, 15-26	13.3	6
28	Hybrid Inference Optimization for robust pose graph estimation <b>2014</b> ,		5
27	Robust 3D hand tracking for human computer interaction <b>2011</b> ,		5
26	Multiview segmentation and tracking of dynamic occluding layers. <i>Image and Vision Computing</i> , <b>2010</b> , 28, 1022-1030	3.7	5
25	Recognition of parameterized objects from 3D data: a parallel implementation. <i>Image and Vision Computing</i> , <b>1994</b> , 12, 573-582	3.7	5
24	Regressing Local to Global Shape Properties for Online Segmentation and Tracking. <i>International Journal of Computer Vision</i> , <b>2014</b> , 106, 269-281	10.6	4
23	Transfer of Fixation Using Affine Structure: Extending the Analysis to Stereo. <i>International Journal of Computer Vision</i> , <b>1998</b> , 29, 47-58	10.6	4
22	Automatic Human Behaviour Recognition and Explanation for CCTV Video Surveillance. <i>Security Journal</i> , <b>2008</b> , 21, 173-188	1	4
21	RRD-SLAM: Radial-distorted rolling-shutter direct SLAM <b>2017</b> ,		3
20	A branch-and-bound algorithm for checkerboard extraction in camera-laser calibration <b>2017</b> ,		3
19	Improving Global Multi-target Tracking with Local Updates. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 174-190	0.9	3
18	Understanding Interactions and Guiding Visual Surveillance by Tracking Attention. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 380-389	0.9	3
17	Learning Multi-level Region Consistency with Dense Multi-label Networks for Semantic Segmentation <b>2017</b> ,		3

16	Learning Deeply Supervised Good Features to Match for Dense Monocular Reconstruction. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 609-624	0.9	2
15	Multi-Object Model-Free Tracking with Joint Appearance and Motion Inference <b>2017</b> ,		2
14	Gaze directed camera control for face image acquisition <b>2011</b> ,		2
13	Image interpolation for virtual sports scenarios. <i>Machine Vision and Applications</i> , <b>2005</b> , 16, 236-245	2.8	2
12	MOLTR: Multiple Object Localization, Tracking and Reconstruction From Monocular RGB Videos. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 3341-3348	4.2	2
11	Cognitive active vision for human identification <b>2012</b> ,		1
10	Learning texton models for real-time scene context		1
9	Meta Learning with Differentiable Closed-form Solver for Fast Video Object Segmentation <b>2020</b> ,		1
8	Dual-Attention-Guided Network for Ghost-Free High Dynamic Range Imaging. <i>International Journal of Computer Vision</i> , 1	10.6	1
7	SPRINT: Subgraph Place Recognition for INtelligent Transportation <b>2020</b> ,		1
6	HM <sup>4</sup> : Hidden Markov Model With Memory Management for Visual Place Recognition. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 167-174	4.2	1
5	SG-VAE: Scene Grammar Variational Autoencoder to Generate New Indoor Scenes. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 155-171	0.9	0
4	Visual localization under appearance change: filtering approaches. <i>Neural Computing and Applications</i> , <b>2021</b> , 33, 7325-7338	4.8	0
3	Temporally-coherent Novel Video Synthesis Using Texture-based Priors. <i>IPSJ Transactions on Computer Vision and Applications</i> , <b>2009</b> , 1, 72-81	3.3	
2	The Pipe-group Architecture for Real-Time Active Vision. <i>Real Time Imaging</i> , <b>1997</b> , 3, 319-330		
1	Augmentation Network for Generalised Zero-Shot Learning. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 442-458	0.9	