## Narendra Ahuja

List of Publications by Year in descending order

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98 papers 5,688 citations

172457 29 h-index 55 g-index

100 all docs

100 docs citations

100 times ranked 4076 citing authors

#	Article	IF	CITATIONS
1	Deep Laplacian Pyramid Networks for Fast and Accurate Super-Resolution., 2017,,.		1,643
2	Robust Visual Tracking via Structured Multi-Task Sparse Learning. International Journal of Computer Vision, 2013, 101, 367-383.	15.6	451
3	Robust Visual Tracking Via Consistent Low-Rank Sparse Learning. International Journal of Computer Vision, 2015, 111, 171-190.	15.6	274
4	Low-Rank Sparse Learning for Robust Visual Tracking. Lecture Notes in Computer Science, 2012, , 470-484.	1.3	151
5	Dot Pattern Processing Using Voronoi Neighborhoods. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1982, PAMI-4, 336-343.	13.9	149
6	A constant-space belief propagation algorithm for stereo matching. , 2010, , .		148
7	3-D Motion Estimation, Understanding, and Prediction from Noisy Image Sequences. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1987, PAMI-9, 370-389.	13.9	128
8	Structural Sparse Tracking. , 2015, , .		124
9	Deep Joint Image Filtering. Lecture Notes in Computer Science, 2016, , 154-169.	1.3	124
10	Automated Visual Inspection of Railroad Tracks. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 751-760.	8.0	115
11	Extraction of early perceptual structure in dot patterns: Integrating region, boundary, and component gestalt. Computer Vision, Graphics, and Image Processing, 1989, 48, 304-356.	1.0	111
12	Shadow Removal Using Bilateral Filtering. IEEE Transactions on Image Processing, 2012, 21, 4361-4368.	9.8	101
13	Low-Rank Sparse Coding for Image Classification. , 2013, , .		98
14	Real-Time Specular Highlight Removal Using Bilateral Filtering. Lecture Notes in Computer Science, 2010, , 87-100.	1.3	95
15	Automatic segmentation of granular objects in images: Combining local density clustering and gradient-barrier watershed. Pattern Recognition, 2014, 47, 2266-2279.	8.1	94
16	Joint Image Filtering with Deep Convolutional Networks. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 1909-1923.	13.9	91
17	Partial Occlusion Handling for Visual Tracking via Robust Part Matching. , 2014, , .		85
18	Split Aperture Imaging for High Dynamic Range. International Journal of Computer Vision, 2004, 58, 7-17.	15.6	83

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19	Out-of-core tensor approximation of multi-dimensional matrices of visual data. ACM Transactions on Graphics, 2005, 24, 527-535.	7.2	<b>7</b> 9
20	Unsupervised Category Modeling, Recognition, and Segmentation in Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 2158-2174.	13.9	79
21	Mosaic Models for Textures. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1981, PAMI-3, 1-11.	13.9	78
22	Random pattern generation processes. Computer Graphics and Image Processing, 1979, 10, 95-114.	0.8	69
23	Fusion of Median and Bilateral Filtering for Range Image Upsampling. IEEE Transactions on Image Processing, 2013, 22, 4841-4852.	9.8	68
24	Evaluation of Aggregate Size and Shape by Means of Segmentation Techniques and Aggregate Image Processing Algorithms. Transportation Research Record, 2013, 2335, 50-59.	1.9	64
25	A Tensor Approximation Approach toÂDimensionality Reduction. International Journal of Computer Vision, 2008, 76, 217-229.	15.6	59
26	Multiview panoramic cameras using mirror pyramids. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2004, 26, 941-946.	13.9	53
27	Robust Visual Tracking Using Oblique Random Forests. , 2017, , .		53
28	Region-Based Hierarchical Image Matching. International Journal of Computer Vision, 2008, 78, 47-66.	15.6	52
29	Constant Time Median and Bilateral Filtering. International Journal of Computer Vision, 2015, 112, 307-318.	15.6	52
30	A simplified linear optic flow-motion algorithm. Computer Vision, Graphics, and Image Processing, 1988, 42, 334-344.	1.0	50
31	Extraction and Analysis of Multiple Periodic Motions in Video Sequences. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1244-1261.	13.9	48
32	Robust Visual Tracking via Exclusive Context Modeling. IEEE Transactions on Cybernetics, 2016, 46, 51-63.	9.5	48
33	Octree representations of moving objects. Computer Vision, Graphics, and Image Processing, 1984, 26, 207-216.	1.0	45
34	Extracting Texels in 2.1D Natural Textures. , 2007, , .		42
35	Octrees of objects in arbitrary motion: Representation and efficiency. Computer Vision, Graphics, and Image Processing, 1987, 39, 167-185.	1.0	36
36	Range estimation from focus using a non-frontal imaging camera. International Journal of Computer Vision, 1996, 20, 169.	15.6	35

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37	Uncovering Interactions and Interactors: Joint Estimation of Head, Body Orientation and F-Formations from Surveillance Videos. , $2015$ , , .		35
38	Octree generation from object silhouettes in perspective views. Computer Vision, Graphics, and Image Processing, 1990, 49, 68-84.	1.0	34
39	On approaches to polygonal decomposition for hierarchical image representation. Computer Vision, Graphics, and Image Processing, 1983, 24, 200-214.	1.0	32
40	Neighbor gray levels as features in pixel classification. Pattern Recognition, 1980, 12, 251-260.	8.1	31
41	Robust multi-object tracking via cross-domain contextual information for sports video analysis. , 2012, , .		31
42	Phase Based Modelling of Dynamic Textures. , 2007, , .		30
43	Image Models. ACM Computing Surveys, 1981, 13, 373-397.	23.0	27
44	Exploiting nonlocal spatiotemporal structure for video segmentation. , 2012, , .		24
45	Joint Estimation of Human Pose and Conversational Groups from Social Scenes. International Journal of Computer Vision, 2018, 126, 410-429.	15.6	22
46	Object Tracking by Occlusion Detection via Structured Sparse Learning. , 2013, , .		21
47	SVM for edge-preserving filtering. , 2010, , .		20
48	A Pupil-Centric Model of Image Formation. International Journal of Computer Vision, 2002, 48, 195-214.	15.6	19
49	Motion and structure factorization and segmentation of long multiple motion image sequences. Lecture Notes in Computer Science, 1992, , 217-221.	1.3	17
50	Motion and structure estimation using long sequence motion models. Image and Vision Computing, 1993, 11, 549-569.	4.5	16
51	Design Analysis of a High-Resolution Panoramic Camera Using Conventional Imagers and a Mirror Pyramid. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 356-361.	13.9	16
52	Sparse Coding of Linear Dynamical Systems with an Application to Dynamic Texture Recognition. , 2010,		15
53	Tracking Persons-of-Interest via Unsupervised Representation Adaptation. International Journal of Computer Vision, 2020, 128, 96-120.	15.6	15
54	Dinkelbach NCUT: An Efficient Framework for Solving Normalized Cuts Problems with Priors and Convex Constraints. International Journal of Computer Vision, 2010, 89, 40-55.	15.6	14

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55	Line drawings of octree-represented objects. ACM Transactions on Graphics, 1988, 7, 61-75.	7.2	13
56	Some Experiments with Mosaic Models for Images. IEEE Transactions on Systems, Man, and Cybernetics, 1980, 10, 744-749.	0.9	12
57	Extracting a fluid dynamic texture and the background from video. , 2008, , .		11
58	A generative focus measure with application to omnifocus imaging. , 2013, , .		10
59	Segmentation of periodically moving objects. , 2008, , .		9
60	Phase PCA for Dynamic Texture Video Compression. , 2007, , .		8
61	Efficient planar embedding of trees for VLSI layouts. Computer Vision, Graphics, and Image Processing, 1986, 34, 189-203.	1.0	7
62	Segmentation-based Perceptual Image Quality Assessment (SPIQA)., 2008,,.		7
63	Single image super-resolution using adaptive domain transformation. , 2013, , .		7
64	Generalized Pupil-centric Imaging and Analytical Calibration for a Non-frontal Camera. , 2014, , .		7
65	On the Equivalence of Moving Entrance Pupil and Radial Distortion for Camera Calibration. , 2015, , .		7
66	Active Aperture Control and Sensor Modulation for Flexible Imaging. , 2007, , .		6
67	From Region Based Image Representation to Object Discovery and Recognition. Lecture Notes in Computer Science, 2010, , 1-19.	1.3	6
68	Low-Level Hierarchical Multiscale Segmentation Statistics of Natural Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1900-1906.	13.9	6
69	A Novel Omnidirectional Stereo Vision System with a Single Camera. Lecture Notes in Computer Science, 2006, , 146-156.	1.3	6
70	Mosaic models for images—l. Geometric properties of components in cell-structure mosaics. Information Sciences, 1981, 23, 69-104.	6.9	5
71	Mosaic models for images—II. Geometric properties of components in coverage mosaics. Information Sciences, 1981, 23, 159-200.	6.9	5
72	Mosaic models for images—III. Spatial correlation in mosaics. Information Sciences, 1981, 24, 43-69.	6.9	5

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73	A Vision System for Monitoring Intermodal Freight Trains. Proceedings IEEE Workshop on Applications of Computer Vision, 2007, , .	0.0	5
74	Search strategies for shape regularized active contour. Computer Vision and Image Understanding, 2009, 113, 1053-1063.	4.7	5
75	A hemispherical imaging camera. Computer Vision and Image Understanding, 2010, 114, 168-178.	4.7	5
76	Automated image registration by maximization of a region similarity metric. International Journal of Imaging Systems and Technology, 1997, 8, 513-518.	4.1	4
77	Shape regularized active contour based on dynamic programming for anatomical structure segmentation., 2005,,.		4
78	A unified model for activity recognition from video sequences. , 2008, , .		4
79	Low-level multiscale image segmentation and a benchmark for its evaluation. Computer Vision and Image Understanding, 2020, 199, 103026.	4.7	4
80	Mosaic Models for Textures. , 1981, , 1-8.		4
81	Generalized Radial Alignment Constraint for Camera Calibration. , 2014, , .		3
82	Improving head and body pose estimation through semi-supervised manifold alignment. , 2014, , .		3
83	Learning ramp transformation for single image super-resolution. Computer Vision and Image Understanding, 2015, 135, 109-125.	4.7	3
84	Mirror uncertainty and uniqueness conditions for determining shape and motion from orthographic projection. International Journal of Computer Vision, 1994, 13, 295-309.	15.6	2
85	Robust segmentation of freight containers in train monitoring videos. , 2009, , .		2
86	Modeling dynamic swarms. Computer Vision and Image Understanding, 2013, 117, 1-11.	4.7	2
87	Scale-invariant region-based hierarchical imagematching. , 2008, , .		1
88	Aperture access and manipulation for computational imaging. Computer Vision and Image Understanding, 2012, 116, 222-237.	4.7	1
89	On stochastic gradient descent and quadratic mutual information for image registration. , 2013, , .		1
90	Clustering as physically inspired energy minimization. Pattern Recognition, 2019, 86, 265-280.	8.1	1

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91	Edge Measures Using Similarity Regions. , 2001, , 241-288.		1
92	Deriving object octree from images. Lecture Notes in Computer Science, 1985, , 196-211.	1.3	1
93	17 Image models. Handbook of Statistics, 1982, , 383-397.	0.6	O
94	A syntax for image understanding. , 2009, , .		0
95	Non-frontal Camera Calibration Using Focal Stack Imagery. , 2014, , .		0
96	Occlusion Detection via Structured Sparse Learning for Robust Object Tracking. Advances in Computer Vision and Pattern Recognition, 2014, , 93-112.	1.3	0
97	Two-View Analysis. Springer Series in Information Sciences, 1993, , 65-126.	1.3	0
98	A syntax for image understanding. , 2009, , .		0