Narendra Ahuja

List of Publications by Year
in descending order

98 papers	5,688 citations
172457 29 h-index	155660 55 g-index
100 all docs	100 docs citations
100 times ranked	4076 citing authors

#	ARTICLE	IF	CITATIONS
1	Tracking Persons-of-Interest via Unsupervised Representation Adaptation. International Journal of Computer Vision, 2020, 128, 96-120.	15.6	15
2	Low-level multiscale image segmentation and a benchmark for its evaluation. Computer Vision and Image Understanding, 2020, 199, 103026.	4.7	4
3	Joint Image Filtering with Deep Convolutional Networks. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 1909-1923.	13.9	91
4	Clustering as physically inspired energy minimization. Pattern Recognition, 2019, 86, 265-280.	8.1	1
5	Joint Estimation of Human Pose and Conversational Groups from Social Scenes. International Journal of Computer Vision, 2018, 126, 410-429.	15.6	22
6	Deep Laplacian Pyramid Networks for Fast and Accurate Super-Resolution. , 2017, , .		1,643
7	Robust Visual Tracking Using Oblique Random Forests. , 2017, , .		53
8	Deep Joint Image Filtering. Lecture Notes in Computer Science, 2016, , 154-169.	1.3	124
9	Robust Visual Tracking via Exclusive Context Modeling. IEEE Transactions on Cybernetics, 2016, 46, 51-63.	9.5	48
10	Uncovering Interactions and Interactors: Joint Estimation of Head, Body Orientation and F-Formations from Surveillance Videos. , 2015, , .		35
11	On the Equivalence of Moving Entrance Pupil and Radial Distortion for Camera Calibration. , 2015, , .		7
12	Structural Sparse Tracking. , 2015, , .		124
13	Learning ramp transformation for single image super-resolution. Computer Vision and Image Understanding, 2015, 135, 109-125.	4.7	3
14	Constant Time Median and Bilateral Filtering. International Journal of Computer Vision, 2015, 112, 307-318.	15.6	52
15	Robust Visual Tracking Via Consistent Low-Rank Sparse Learning. International Journal of Computer Vision, 2015, 111, 171-190.	15.6	274
16	Generalized Radial Alignment Constraint for Camera Calibration. , 2014, , .		3
17	Generalized Pupil-centric Imaging and Analytical Calibration for a Non-frontal Camera. , 2014, , .		7
18	Improving head and body pose estimation through semi-supervised manifold alignment. , 2014, , .		3

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19	Automatic segmentation of granular objects in images: Combining local density clustering and gradient-barrier watershed. Pattern Recognition, 2014, 47, 2266-2279.	8.1	94
20	Low-Level Hierarchical Multiscale Segmentation Statistics of Natural Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1900-1906.	13.9	6
21	Partial Occlusion Handling for Visual Tracking via Robust Part Matching. , 2014, , .		85
22	Non-frontal Camera Calibration Using Focal Stack Imagery. , 2014, , .		0
23	Occlusion Detection via Structured Sparse Learning for Robust Object Tracking. Advances in Computer Vision and Pattern Recognition, 2014, , 93-112.	1.3	0
24	Automated Visual Inspection of Railroad Tracks. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 751-760.	8.0	115
25	Modeling dynamic swarms. Computer Vision and Image Understanding, 2013, 117, 1-11.	4.7	2
26	Object Tracking by Occlusion Detection via Structured Sparse Learning. , 2013, , .		21
27	Single image super-resolution using adaptive domain transformation. , 2013, , .		7
28	On stochastic gradient descent and quadratic mutual information for image registration. , 2013, , .		1
29	A generative focus measure with application to omnifocus imaging. , 2013, , .		10
30	Low-Rank Sparse Coding for Image Classification. , 2013, , .		98
31	Robust Visual Tracking via Structured Multi-Task Sparse Learning. International Journal of Computer Vision, 2013, 101, 367-383.	15.6	451
32	Fusion of Median and Bilateral Filtering for Range Image Upsampling. IEEE Transactions on Image Processing, 2013, 22, 4841-4852.	9.8	68
33	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
34	Robust multi-object tracking via cross-domain contextual information for sports video analysis. , 2012, , .		31
35	Shadow Removal Using Bilateral Filtering. IEEE Transactions on Image Processing, 2012, 21, 4361-4368.	9.8	101
36	Exploiting nonlocal spatiotemporal structure for video segmentation. , 2012, , .		24

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37	Aperture access and manipulation for computational imaging. Computer Vision and Image Understanding, 2012, 116, 222-237.	4.7	1
38	Low-Rank Sparse Learning for Robust Visual Tracking. Lecture Notes in Computer Science, 2012, , 470-484.	1.3	151
39	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
40	A hemispherical imaging camera. Computer Vision and Image Understanding, 2010, 114, 168-178.	4.7	5
41	From Region Based Image Representation to Object Discovery and Recognition. Lecture Notes in Computer Science, 2010, , 1-19.	1.3	6
42	Sparse Coding of Linear Dynamical Systems with an Application to Dynamic Texture Recognition. , 2010, , .		15
43	SVM for edge-preserving filtering. , 2010, , .		20
44	A constant-space belief propagation algorithm for stereo matching. , 2010, , .		148
45	Real-Time Specular Highlight Removal Using Bilateral Filtering. Lecture Notes in Computer Science, 2010, , 87-100.	1.3	95
46	Search strategies for shape regularized active contour. Computer Vision and Image Understanding, 2009, 113, 1053-1063.	4.7	5
47	A syntax for image understanding. , 2009, , .		0
48	Robust segmentation of freight containers in train monitoring videos. , 2009, , .		2
49	A syntax for image understanding. , 2009, , .		0
50	A Tensor Approximation Approach toÂDimensionality Reduction. International Journal of Computer Vision, 2008, 76, 217-229.	15.6	59
51	Region-Based Hierarchical Image Matching. International Journal of Computer Vision, 2008, 78, 47-66.	15.6	52
52	Unsupervised Category Modeling, Recognition, and Segmentation in Images. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 2158-2174.	13.9	79
53	Segmentation of periodically moving objects. , 2008, , .		9
54	A unified model for activity recognition from video sequences. , 2008, , .		4

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55	Segmentation-based Perceptual Image Quality Assessment (SPIQA). , 2008, , .		7
56	Extracting a fluid dynamic texture and the background from video. , 2008, , .		11
57	Scale-invariant region-based hierarchical imagematching. , 2008, , .		1
58	A Vision System for Monitoring Intermodal Freight Trains. Proceedings IEEE Workshop on Applications of Computer Vision, 2007, , .	0.0	5
59	Phase Based Modelling of Dynamic Textures. , 2007, , .		30
60	Active Aperture Control and Sensor Modulation for Flexible Imaging. , 2007, , .		6
61	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
62	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
63	Phase PCA for Dynamic Texture Video Compression. , 2007, , .		8
64	Extracting Texels in 2.1D Natural Textures. , 2007, , .		42
65	A Novel Omnidirectional Stereo Vision System with a Single Camera. Lecture Notes in Computer Science, 2006, , 146-156.	1.3	6
66	Shape regularized active contour based on dynamic programming for anatomical structure segmentation. , 2005, , .		4
67	Out-of-core tensor approximation of multi-dimensional matrices of visual data. ACM Transactions on Graphics, 2005, 24, 527-535.	7.2	79
68	Split Aperture Imaging for High Dynamic Range. International Journal of Computer Vision, 2004, 58, 7-17.	15.6	83
69	Multiview panoramic cameras using mirror pyramids. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2004, 26, 941-946.	13.9	53
70	A Pupil-Centric Model of Image Formation. International Journal of Computer Vision, 2002, 48, 195-214.	15.6	19
71	Edge Measures Using Similarity Regions. , 2001, , 241-288.		1
72	Automated image registration by maximization of a region similarity metric. International Journal of Imaging Systems and Technology, 1997, 8, 513-518.	4.1	4

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73	Range estimation from focus using a non-frontal imaging camera. International Journal of Computer Vision, 1996, 20, 169.	15.6	35
74	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
75	Motion and structure estimation using long sequence motion models. Image and Vision Computing, 1993, 11, 549-569.	4.5	16
76	Two-View Analysis. Springer Series in Information Sciences, 1993, , 65-126.	1.3	0
77	Motion and structure factorization and segmentation of long multiple motion image sequences. Lecture Notes in Computer Science, 1992, , 217-221.	1.3	17
78	Octree generation from object silhouettes in perspective views. Computer Vision, Graphics, and Image Processing, 1990, 49, 68-84.	1.0	34
79	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
80	A simplified linear optic flow-motion algorithm. Computer Vision, Graphics, and Image Processing, 1988, 42, 334-344.	1.0	50
81	Line drawings of octree-represented objects. ACM Transactions on Graphics, 1988, 7, 61-75.	7.2	13
82	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
83	Octrees of objects in arbitrary motion: Representation and efficiency. Computer Vision, Graphics, and Image Processing, 1987, 39, 167-185.	1.0	36
84	Efficient planar embedding of trees for VLSI layouts. Computer Vision, Graphics, and Image Processing, 1986, 34, 189-203.	1.0	7
85	Deriving object octree from images. Lecture Notes in Computer Science, 1985, , 196-211.	1.3	1
86	Octree representations of moving objects. Computer Vision, Graphics, and Image Processing, 1984, 26, 207-216.	1.0	45
87	On approaches to polygonal decomposition for hierarchical image representation. Computer Vision, Graphics, and Image Processing, 1983, 24, 200-214.	1.0	32
88	17 Image models. Handbook of Statistics, 1982, , 383-397.	0.6	0
89	Dot Pattern Processing Using Voronoi Neighborhoods. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1982, PAMI-4, 336-343.	13.9	149
90	Mosaic Models for Textures. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1981, PAMI-3, 1-11.	13.9	78

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91	Mosaic models for imagesâ€"I. Geometric properties of components in cell-structure mosaics. Information Sciences, 1981, 23, 69-104.	6.9	5
92	Mosaic models for imagesâ€"II. Geometric properties of components in coverage mosaics. Information Sciences, 1981, 23, 159-200.	6.9	5
93	Mosaic models for imagesâ€"III. Spatial correlation in mosaics. Information Sciences, 1981, 24, 43-69.	6.9	5
94	Image Models. ACM Computing Surveys, 1981, 13, 373-397.	23.0	27
95	Mosaic Models for Textures. , 1981, , 1-8.		4
96	Neighbor gray levels as features in pixel classification. Pattern Recognition, 1980, 12, 251-260.	8.1	31
97	Some Experiments with Mosaic Models for Images. IEEE Transactions on Systems, Man, and Cybernetics, 1980, 10, 744-749.	0.9	12
98	Random pattern generation processes. Computer Graphics and Image Processing, 1979, 10, 95-114.	0.8	69