Gözde Ünal

List of Publications by Year
in descending order

122 papers	5,925 citations	331670 21 h-index	149698 56 g-index
125 all docs	125 docs citations	125 times ranked	6060 citing authors

#	Article	IF	Citations
1	The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS). IEEE Transactions on Medical Imaging, 2015, 34, 1993-2024.	8.9	3,589
2	CHAOS Challenge - combined (CT-MR) healthy abdominal organ segmentation. Medical Image Analysis, 2021, 69, 101950.	11.6	309
3	Tumor-Cut: Segmentation of Brain Tumors on Contrast Enhanced MR Images for Radiosurgery Applications. IEEE Transactions on Medical Imaging, 2012, 31, 790-804.	8.9	216
4	Standardized evaluation framework for evaluating coronary artery stenosis detection, stenosis quantification and lumen segmentation algorithms in computed tomography angiography. Medical Image Analysis, 2013, 17, 859-876.	11.6	163
5	Shape-Driven Segmentation of the Arterial Wall in Intravascular Ultrasound Images. IEEE Transactions on Information Technology in Biomedicine, 2008, 12, 335-347.	3.2	115
6	Standardized evaluation methodology and reference database for evaluating IVUS image segmentation. Computerized Medical Imaging and Graphics, 2014, 38, 70-90.	5.8	105
7	Graph cuts segmentation using an elliptical shape prior. , 2005, , .		81
8	Plant Image Retrieval Using Color, Shape and Texture Features. Computer Journal, 2011, 54, 1475-1490.	2.4	70
9	Semi-automated detection of anterior cruciate ligament injury from MRI. Computer Methods and Programs in Biomedicine, 2017, 140, 151-164.	4.7	64
10	A Higher-Order Tensor Vessel Tractography for Segmentation of Vascular Structures. IEEE Transactions on Medical Imaging, 2015, 34, 2172-2185.	8.9	62
11	Vessel Tractography Using an Intensity Based Tensor Model With Branch Detection. IEEE Transactions on Medical Imaging, 2013, 32, 348-363.	8.9	60
12	Rethinking CNN-Based Pansharpening: Guided Colorization of Panchromatic Images via GANs. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 3486-3501.	6.3	58
13	Information-Theoretic Active Polygons for Unsupervised Texture Segmentation. International Journal of Computer Vision, 2005, 62, 199-220.	15.6	57
14	A RNN based time series approach for forecasting turkish electricity load. , 2018, , .		53
15	Comparison of semi-automatic and deep learning-based automatic methods for liver segmentation in living liver transplant donors. Diagnostic and Interventional Radiology, 2020, 26, 11-21.	1.5	51
16	Semantic Segmentation with Extended DeepLabv3 Architecture. , 2019, , .		47
17	Unifying probabilistic and variational estimation. IEEE Signal Processing Magazine, 2002, 19, 37-47.	5.6	42
18	A Variational Approach to Problems in Calibration of Multiple Cameras. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1322-1338.	13.9	41

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19	Single-frame super resolution of remote-sensing images by convolutional neural networks. International Journal of Remote Sensing, 2018, 39, 2463-2479.	2.9	41
20	Statistical Region-Based Segmentation of Ultrasound Images. Ultrasound in Medicine and Biology, 2009, 35, 781-795.	1.5	39
21	Coupled PDEs for Non-Rigid Registration and Segmentation. , 0, , .		37
22	Stent implant follow-up in intravascular optical coherence tomography images. International Journal of Cardiovascular Imaging, 2010, 26, 809-816.	1.5	31
23	A New Approach for Improving Coronary Plaque Component Analysis Based on Intravascular Ultrasound Images. Ultrasound in Medicine and Biology, 2010, 36, 1245-1258.	1.5	31
24	Anncolvar: Approximation of Complex Collective Variables by Artificial Neural Networks for Analysis and Biasing of Molecular Simulations. Frontiers in Molecular Biosciences, 2019, 6, 25.	3.5	24
25	A New 3-D Automated Computational Method to Evaluate In-Stent Neointimal Hyperplasia in In-Vivo Intravascular Optical Coherence Tomography Pullbacks. Lecture Notes in Computer Science, 2009, 12, 776-785.	1.3	24
26	Ultrasound-Specific Segmentation via Decorrelation and Statistical Region-Based Active Contours. , 0, , .		23
27	Stochastic differential equations and geometric flows. IEEE Transactions on Image Processing, 2002, 11, 1405-1416.	9.8	21
28	Efficient segmentation based on Eikonal and diffusion equations. International Journal of Computer Mathematics, 2007, 84, 1309-1324.	1.8	21
29	An IVUS image-based approach for improvement of coronary plaque characterization. Computers in Biology and Medicine, 2013, 43, 268-280.	7.0	20
30	Restoration of error-diffused images using projection onto convex sets. IEEE Transactions on Image Processing, 2001, 10, 1836-1841.	9.8	19
31	Fast incorporation of optical flow into active polygons. IEEE Transactions on Image Processing, 2005, 14, 745-759.	9.8	18
32	Tetralogy of Fallot Surgical Repair: Shunt Configurations, Ductus Arteriosus and the Circle of Willis. Cardiovascular Engineering and Technology, 2017, 8, 107-119.	1.6	18
33	Cellular Automata Segmentation of Brain Tumors on Post Contrast MR Images. Lecture Notes in Computer Science, 2010, 13, 137-146.	1.3	17
34	Coupled Nonparametric Shape and Moment-Based Intershape Pose Priors for Multiple Basal Ganglia Structure Segmentation. IEEE Transactions on Medical Imaging, 2010, 29, 1959-1978.	8.9	16
35	Variational Guidewire Tracking Using Phase Congruency. , 2007, 10, 612-619.		15
36	Active Polyhedron: Surface Evolution Theory Applied to Deformable Meshes. , 0, , .		14

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37	Landmarks inside the shape: Shape matching using image descriptors. Pattern Recognition, 2016, 49, 79-88.	8.1	14
38	3D ball skinning using PDEs for generation of smooth tubular surfaces. CAD Computer Aided Design, 2010, 42, 18-26.	2.7	13
39	Semi-Automatic Lymph Node Segmentation in LN-MRI. , 2006, , .		12
40	REGISTRATION OF ULTRASOUND IMAGES USING AN INFORMATION-THEORETIC FEATURE DETECTOR. , 2007, , .		12
41	3-D shape modeling for hearing aid design [Applications Corner]. IEEE Signal Processing Magazine, 2008, 25, 98-102.	5.6	12
42	Template‐based CTA to x‐ray angio rigid registration of coronary arteries in frequency domain with automatic x‐ray segmentation. Medical Physics, 2013, 40, 101903.	3.0	12
43	Targeted vessel reconstruction in non‐contrast‐enhanced steady‐state free precession angiography. NMR in Biomedicine, 2016, 29, 532-544.	2.8	11
44	Approximate First Integrals of a Galaxy Model. Nonlinear Dynamics, 2002, 28, 195-211.	5.2	10
45	Pearling: Stroke segmentation with crusted pearl strings. Pattern Recognition and Image Analysis, 2009, 19, 277-283.	1.0	10
46	A vertex-based representation of objects in an image. , 0, , .		9
47	Information-Theoretic Feature Detection in Ultrasound Images. , 2006, 2006, 2638-42.		9
48	A new method for characterization of coronary plaque composition via IVUS images. , 2009, , .		9
49	Plant image retrieval using color and texture features. , 2009, , .		9
50	Asymmetric Orientation Distribution Functions (AODFs) revealing intravoxel geometry in diffusion MRI. Magnetic Resonance Imaging, 2018, 49, 145-158.	1.8	9
51	Bandlets on Oriented Graphs: Application to Medical Image Enhancement. IEEE Access, 2019, 7, 32589-32601.	4.2	9
52	A Variational Approach to the Evolution of Radial Basis Functions for Image Segmentation. , 2007, , .		8
53	Screened Poisson Hyperfields for Shape Coding. SIAM Journal on Imaging Sciences, 2014, 7, 2558-2590.	2.2	8
54	Manifold Learning for Image-Based Gating of Intravascular Ultrasound(IVUS) Pullback Sequences. Lecture Notes in Computer Science, 2010, , 139-148.	1.3	7

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55	Customized Design of Hearing Aids Using Statistical Shape Learning. Lecture Notes in Computer Science, 2008, 11, 518-526.	1.3	7
56	Semi-automatic matching of OCT and IVUS images for image fusion. Proceedings of SPIE, 2008, , .	0.8	6
57	Vessel Orientation Constrained Quantitative Susceptibility Mapping (QSM) Reconstruction. Lecture Notes in Computer Science, 2016, , 467-474.	1.3	6
58	Active polygon for object tracking. , 0, , .		4
59	Anatomically-Aware, Automatic, and Fast Registration of 3D Ear Impression Models. , 2006, , .		4
60	Interacting Active Rectangles for Estimation of Intervertebral Disk Orientation. , 2006, , .		4
61	Estimation of Vector Fields in Unconstrained and Inequality Constrained Variational Problems for Segmentation andÂRegistration. Journal of Mathematical Imaging and Vision, 2008, 31, 57-72.	1.3	4
62	Coupled nonparametric shape priors for segmentation of multiple basal ganglia structures. , 2008, , .		4
63	A Sobolev-type metric for polar active contours. , 2011, , .		4
64	Inpainting by deep autoencoders using an advisor network. , 2017, , .		4
65	Neighborhood resolved fiber orientation distributions (NRFOD) in automatic labeling of white matter fiber pathways. Medical Image Analysis, 2018, 46, 130-145.	11.6	4
66	Variational Skinning of an Ordered Set of Discrete 2D Balls. , 2008, , 450-461.		4
67	<title>Segmentation and target recognition in SAR imagery using a level-sets-multiscale-filtering technique</title>. , 2001, , .		3
68	A variational approach to problems in calibration of multiple cameras. , 0, , .		3
69	Generating shapes by analogies: An application to hearing aid design. CAD Computer Aided Design, 2011, 43, 47-56.	2.7	3
70	Inter-hemispheric atrophy better correlates with expert ratings than hemispheric cortical atrophy. , 2012, , .		3
71	Turkish lira banknotes classification using deep convolutional neural networks. , 2018, , .		3
72	Supervised Classification of White Matter Fibers Based on Neighborhood Fiber Orientation Distributions Using an Ensemble of Neural Networks. Mathematics and Visualization, 2019, , 143-154.	0.6	3

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73	Deshufflegan: A Self-Supervised Gan to Improve Structure Learning. , 2020, , .		3
74	ODFNet: Using orientation distribution functions to characterize 3D point clouds. Computers and Graphics, 2022, 102, 610-618.	2.5	3
75	Elucidating Intravoxel Geometry in Diffusion-MRI: Asymmetric Orientation Distribution Functions (AODFs) Revealed by a Cone Model. Lecture Notes in Computer Science, 2015, , 231-238.	1.3	3
76	Algorithms for stochastic approximations of curvature flows. , 0, , .		2
77	Efficient classification of scanned media using spatial statistics. , 0, , .		2
78	A Contour-Based Approach to 3D Text Labeling on Triangulated Surfaces. , 0, , .		2
79	An information-theoretic detector based scheme for registration of speckled medical images. , 2007, , .		2
80	segmentation of multiple brain structures using coupled nonparametric shape priors. , 2008, , .		2
81	Freeform shape clustering for customized design automation. , 2009, , .		2
82	Automatic registration of follow-up brain MRI scans. , 2009, , .		2
83	Nonparametric joint shape learning for customized shape modeling. Computerized Medical Imaging and Graphics, 2010, 34, 298-307.	5.8	2
84	Concordance between computer-based neuroimaging findings and expert assessments in dementia grading. , 2013, , .		2
85	Cerebral vessel classification with convolutional neural networks. , 2017, , .		2
86	The 19th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2016). Medical Image Analysis, 2017, 41, 1.	11.6	2
87	Anatomical Landmark Based Registration of Contrast Enhanced T1-Weighted MR Images. Lecture Notes in Computer Science, 2010, , 91-103.	1.3	2
88	Semi-Automatic 3-D Segmentation of Anatomical Structures of Brain MRI Volumes using Graph Cuts. , 2006, , .		1
89	Volumetric segmentation of multiple basal ganglia structures using nonparametric coupled shape and inter-shape pose priors. , 2009, , .		1
90	EFFICIENT CLASSIFICATION OF SCANNED MEDIA USING SPATIAL STATISTICS. International Journal of Pattern Recognition and Artificial Intelligence, 2010, 24, 917-946.	1.2	1

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91	In-vivo Optical Coherence Tomography image analysis. , 2010, , .		1
92	Translation, Scale, and Deformation Weighted Polar Active Contours. Journal of Mathematical Imaging and Vision, 2012, 44, 354-365.	1.3	1
93	Registration of Brain Tumor Images Using Hyper-Elastic Regularization. , 2013, , 101-114.		1
94	Monoplane 3D–2D registration of cerebral angiograms based on multi-objective stratified optimization. Physics in Medicine and Biology, 2017, 62, 9377-9394.	3.0	1
95	A convolutional neural networks oriented approach for voxel-based 3D object classification. , 2018, , .		1
96	Uncertainty-Based Dynamic Graph Neighborhoods for Medical Segmentation. Lecture Notes in Computer Science, 2021, , 255-265.	1.3	1
97	Synthesizing Point Cloud Data Set for Historical Dome Systems. Communications in Computer and Information Science, 2022, , 538-554.	0.5	1
98	QR-RLS algorithm for error diffusion of color images. Optical Engineering, 2000, 39, 2860.	1.0	0
99	<title>Object tracking in IR image sequences</title>. , 2003, , .		0
100	What color is it?. , 2005, 5667, 186.		0
101	Guest Editorial Introduction to the Special Section on Computer Vision for Intravascular and Intracardiac Imaging. IEEE Transactions on Information Technology in Biomedicine, 2008, 12, 273-276.	3.2	0
102	Guidewire tracking in x-ray videos of endovascular interventions. , 2008, , .		0
103	3-D statistical shape modeling and application to prototyping of hearing aids. , 2009, , .		0
104	Multi-object segmentation using coupled nonparametric shape and relative pose priors. , 2009, , .		0
105	IVUS-based histology of atherosclerotic plaques: improving longitudinal resolution. , 2010, , .		0
106	Image retrieval for identifying house plants. Proceedings of SPIE, 2010, , .	0.8	0
107	An automatic branch and stenoses detection in computed tomography angiography. , 2012, , .		0
108	Elliptic fourier features of brain white matter pathways. , 2012, , .		0

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109	Template-based CTA X-ray angio rigid registration of coronary arteries in frequency domain. Proceedings of SPIE, 2013, , .	0.8	0
110	Functionally weighted track density imaging. , 2013, , .		0
111	A cerebral blood vessels segmentation method using a flux based second order tensor model. , 2014, , .		0
112	Editorial note. Computerized Medical Imaging and Graphics, 2014, 38, 69.	5.8	0
113	Vessel tractography for magnetic particle imaging angiography. , 2015, , .		0
114	Shape deformation measures for white matter fibers. , 2016, , .		0
115	Adaptive reconstruction for vessel preservation in unenhanced MR angiography. , 2016, , .		0
116	Resolution enhancement of tri-stereo remote sensing images by super resolution methods. , 2016, , .		0
117	Guest editorial of the IJCARS MICCAI 2016 special issue. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1243-1244.	2.8	0
118	Classification of brain tissues as lesion or healthy by 3D convolutional neural networks. , 2017, , .		0
119	Efficient and Robust Segmentations Based on Eikonal and Diffusion PDEs. Lecture Notes in Computer Science, 2006, , 339-348.	1.3	0
120	Tuning Accuracy-Diversity Trade-off in Neural Network Ensemble via Novel Entropy Loss Function. , 2021, , .		0
121	On a Stochastic Model of Geometric Snakes. , 2006, , 161-174.		0
122	UGQE: Uncertainty Guided Query Expansion. Lecture Notes in Computer Science, 2022, , 109-120.	1.3	0