

Ali Cafer Gurbuz

List of Publications by Year in descending order

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107
papers

1,855
citations

430874

18
h-index

330143

37
g-index

109
all docs

109
docs citations

109
times ranked

1442
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-Frequency RF Sensor Fusion for Word-Level Fluent ASL Recognition. IEEE Sensors Journal, 2022, 22, 11373-11381.	4.7	9
2	ASL Trigger Recognition in Mixed Activity/Signing Sequences for RF Sensor-Based User Interfaces. IEEE Transactions on Human-Machine Systems, 2022, 52, 699-712.	3.5	13
3	Quasi-global machine learning-based soil moisture estimates at high spatio-temporal scales using CYGNSS and SMAP observations. Remote Sensing of Environment, 2022, 276, 113041.	11.0	28
4	Integration of Smartphones Into Small Unmanned Aircraft Systems to Sense Water in Soil by Using Reflected GPS Signals. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 1048-1059.	4.9	9
5	Assessment of Interpolation Errors of CYGNSS Soil Moisture Estimations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, , 1-1.	4.9	2
6	Compressed Classification from Learned Measurements. , 2021, , .		3
7	Data Driven Learning of Constrained Measurement Matrices for Signal Reconstruction. , 2021, , .		1
8	CRLB based mode selection and enhanced DOA estimation for multifunctional reconfigurable arrays. Physical Communication, 2020, 38, 100894.	2.1	1
9	Cramerâ€“Rao Lower Bound for SoOp-R-Based Root-Zone Soil Moisture Remote Sensing. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 6101-6114.	4.9	8
10	Attention-Based Domain Adaptation Using Residual Network for Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 6424-6433.	4.9	8
11	SCoBi Multilayer: A Signals of Opportunity Reflectometry Model for Multilayer Dielectric Reflections. Remote Sensing, 2020, 12, 3480.	4.0	3
12	Evaluations of Machine Learning-Based CYGNSS Soil Moisture Estimates against SMAP Observations. Remote Sensing, 2020, 12, 3503.	4.0	41
13	Cognitive Radar Target Detection and Tracking With Multifunctional Reconfigurable Antennas. IEEE Aerospace and Electronic Systems Magazine, 2020, 35, 64-76.	1.3	6
14	Off-Grid Aware Channel and Covariance Estimation in mmWave Networks. IEEE Transactions on Communications, 2020, 68, 3908-3921.	7.8	17
15	Joint Learning of Measurement Matrix and Signal Reconstruction via Deep Learning. IEEE Transactions on Computational Imaging, 2020, 6, 818-829.	4.4	14
16	Machine Learning-Based CYGNSS Soil Moisture Estimates over ISMN sites in CONUS. Remote Sensing, 2020, 12, 1168.	4.0	82
17	American Sign Language Recognition Using RF Sensing. IEEE Sensors Journal, 2020, , 1-1.	4.7	37
18	High Spatio-Temporal Resolution CYGNSS Soil Moisture Estimates Using Artificial Neural Networks. Remote Sensing, 2019, 11, 2272.	4.0	113

#	ARTICLE	IF	CITATIONS
19	Learning to Sense and Reconstruct A Class of Signals. , 2019, , .		0
20	Data Driven Measurement Matrix Learning for Sparse Reconstruction. , 2019, , .		3
21	An Internet-Inspired Proportional Fair EV Charging Control Method. IEEE Systems Journal, 2019, 13, 4292-4302.	4.6	19
22	Off-Grid Aware Spatial Covariance Estimation in mmWave Communications. , 2019, , .		1
23	A CubeSat Train for Radar Sounding and Imaging of Antarctic Ice Sheet. , 2018, , .		14
24	Learning EV Integration Impact on a Low Voltage Distribution Grid. , 2018, , .		12
25	Multifunctional reconfigurable antennas for cognitive radars. , 2018, , .		6
26	Sparse Channel Estimation in Millimeter-Wave Communications via Parameter Perturbed OMP. , 2018, , .		9
27	Cognitive radar utilizing multifunctional reconfigurable antennas. , 2018, , .		2
28	Adaptive measurement design for direction of arrival estimation and target tracking. , 2018, , .		0
29	Perturbation based sparse subspace clustering. , 2018, , .		0
30	Autofocused Spotlight SAR Image Reconstruction of Off-Grid Sparse Scenes. IEEE Transactions on Aerospace and Electronic Systems, 2017, 53, 1880-1892.	4.7	22
31	Compressive sensingâ€based robust offâ€theâ€grid stretch processing. IET Radar, Sonar and Navigation, 2017, 11, 1730-1735.	1.8	1
32	Real-time multiple velocity false target generation in digital radio frequency memory. , 2016, , .		1
33	Online calibration of Modulated Wideband Converter. , 2016, , .		6
34	Real-time frequency parameter extraction for electronic support systems. , 2016, , .		3
35	Analysis of sparsity based joint SAR image reconstruction and autofocus techniques. , 2015, , .		1
36	3D imaging for ground-penetrating radars via dictionarydimension reduction. Turkish Journal of Electrical Engineering and Computer Sciences, 2015, 23, 1242-1256.	1.4	2

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37	Finding sparse parametric shapes from low number of imase measurements. , 2015, , .		0
38	SAR image reconstruction with joint off-grid target and phase error corrections. , 2015, , .		1
39	Non-Linear junction detectors: Experimental performance analysis. , 2015, , .		0
40	SAR image reconstruction by expectation maximization based matching pursuit. , 2015, 37, 75-84.		17
41	Hyperspectral target detection - An experimental study. , 2015, , .		0
42	Hybrid phase amplitude direction finding method. , 2015, , .		6
43	Real-time pulse compression radar waveform generation and digital matched filtering. , 2015, , .		2
44	Knowledge Exploitation for Human Micro-Doppler Classification. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 2125-2129.	3.1	66
45	Sparsity based robust Stretch Processing. , 2015, , .		1
46	Compressed sensing based hyperspectral unmixing. , 2014, , .		4
47	A recursive way for sparse reconstruction of parametric spaces. , 2014, , .		0
48	Sparse delay-Doppler image reconstruction under off-grid problem. , 2014, , .		5
49	Automatic human activity classification using radar. , 2014, , .		2
50	A recursive approach to reconstruction of sparse signals. , 2014, , .		0
51	Radar simulation of different human activities via Kinect. , 2014, , .		1
52	A robust compressive sensing based technique for reconstruction of sparse radar scenes. , 2014, 27, 23-32.		51
53	Passive direction finding using amplitude and phase comparison techniques. , 2014, , .		10
54	Simulation of human micro-Doppler signatures with Kinect sensor. , 2014, , .		14

#	ARTICLE	IF	CITATIONS
55	Analysis of frequency modulated continuous wave signals using time-frequency domain shape features. , 2014, , .		1
56	Compressive sensing based target detection in delay-Doppler radars. , 2013, , .		0
57	Development of a stepped frequency GPR prototype. , 2013, , .		2
58	Off-grid sparse SAR image reconstruction by EMMP algorithm. , 2013, , .		9
59	Perturbed Orthogonal Matching Pursuit. IEEE Transactions on Signal Processing, 2013, 61, 6220-6231.	5.3	48
60	Analysis of Energy Efficiency of Compressive Sensing in Wireless Sensor Networks. IEEE Sensors Journal, 2013, 13, 1999-2008.	4.7	139
61	Multi-aspect angle classification of human radar signatures. Proceedings of SPIE, 2013, , .	0.8	9
62	Energy and lifetime analysis of compressed Wireless Sensor Network communication. , 2013, , .		0
63	Sparse ground-penetrating radar imaging method for off-the-grid target problem. Journal of Electronic Imaging, 2013, 22, 021007.	0.9	12
64	Classification of human micro-Doppler in a radar network. , 2013, , .		15
65	Radar simulation of human micro-Doppler signature from video motion capture data. , 2013, , .		9
66	Determination of Background Distribution for Ground-Penetrating Radar Data. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 544-548.	3.1	16
67	Demosaicking with compressive sensing. , 2012, , .		0
68	Through the wall imaging with Compressive Sensing and effects of unknown parameters to the performance. , 2012, , .		1
69	A new OMP technique for sparse recovery. , 2012, , .		4
70	Efficiency of Compressive Sensing on the lifetime of Wireless Sensor Networks. , 2012, , .		0
71	Recognition of stagger pulse repetition interval for electronic support systems. , 2012, , .		0
72	Analysis of compressive sensing based through the wall imaging. , 2012, , .		5

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73	Expectation maximization based matching pursuit. , 2012, , .		7
74	Performance Analysis of Compressive-Sensing-Based Through-the-Wall Imaging with Effect of Unknown Parameters. International Journal of Antennas and Propagation, 2012, 2012, 1-11.	1.2	8
75	Compressive sensing of underground structures using GPR. , 2012, 22, 66-73.		15
76	Ground Reflection Removal in Compressive Sensing Ground Penetrating Radars. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 23-27.	3.1	34
77	Bearing Estimation via Spatial Sparsity using Compressive Sensing. IEEE Transactions on Aerospace and Electronic Systems, 2012, 48, 1358-1369.	4.7	65
78	Surface reflection removal in compressed sensing GPR and sparse subsurface imaging. , 2011, , .		0
79	Analysis of unknown velocity and target off the grid problems in compressive sensing based subsurface imaging. , 2011, , .		7
80	Detection of linear and planar structures in 3D subsurface images by iterative dimension reduction. , 2010, 20, 391-400.		1
81	Sparsity enhanced fast subsurface imaging for stepped frequency GPRs. , 2010, , .		0
82	Sparsity enhanced fast subsurface imaging with GPR. , 2010, , .		1
83	Analysis of required measurement number in compressive sensing. , 2010, , .		0
84	Compressive sensing for subsurface imaging using ground penetrating radar. Signal Processing, 2009, 89, 1959-1972.	3.7	122
85	Shape detection in images exploiting sparsity. , 2009, , .		2
86	A Compressive Sensing Data Acquisition and Imaging Method for Stepped Frequency GPRs. IEEE Transactions on Signal Processing, 2009, 57, 2640-2650.	5.3	269
87	A compressive beamforming method. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	98
88	Compressive sensing of parameterized shapes in images. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	12
89	Compressive wireless arrays for bearing estimation. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	46
90	GPR Imaging Using Compressed Measurements. , 2008, , .		4

#	ARTICLE	IF	CITATIONS
91	Detecting Features using Random Sample Theory. , 2007, , .		0
92	Detecting Curved Underground Tunnels using Partial Radon Transforms. , 2007, , .		3
93	Feature Detection in Images by Adaptive Random Sampling. , 2007, , .		0
94	Investigation of the detection of shallow tunnels using electromagnetic and seismic waves. , 2007, , .		13
95	Feature Detection in Highly Noisy Images using Random Sample Theory. , 2007, , .		2
96	Compressive Sensing for GPR Imaging. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	41
97	Multistatic Ground-Penetrating Radar Experiments. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 2544-2553.	6.3	103
98	Seismic Tunnel Imaging and Detection. , 2006, , .		17
99	Combined Ground Penetrating Radar and Seismic System for Detecting Tunnels. , 2006, , .		8
100	Predicting GPR target locations using time delay differences. , 2006, , .		1
101	Application of multistatic inversion algorithms to landmine detection. , 2006, , .		4
102	Subsurface target imaging using a multi-resolution 3D quadtree algorithm. , 2005, 5794, 1172.		4
103	A multi-static ground-penetrating radar with an array of resistively loaded vee dipole antennas for landmine detection. , 2005, , .		10
104	Imaging of Subsurface Targets Using a 3D Quadtree Algorithm. , 0, , .		2
105	Locating Subsurface Targets Using Minimal GPR Measurements. , 0, , .		0
106	Seismic Imaging and Detection of Underground Tunnels. , 0, , .		1
107	On the Feasibility of Smartphone-based Interferometric GNSS Reflectometry. , 0, , .		5