Francesco Fioranelli

List of Publications by Year
in descending order

133 papers	3,790 citations	186265 28 h-index	168389 53 g-index
137 all docs	137 docs citations	137 times ranked	2215 citing authors

#	Article	IF	Citations
1	Radar and RGB-Depth Sensors for Fall Detection: A Review. IEEE Sensors Journal, 2017, 17, 3585-3604.	4.7	157
2	Bi-LSTM Network for Multimodal Continuous Human Activity Recognition and Fall Detection. IEEE Sensors Journal, 2020, 20, 1191-1201.	4.7	149
3	Suppression of Mainbeam Deceptive Jammer With FDA-MIMO Radar. IEEE Transactions on Vehicular Technology, 2020, 69, 11584-11598.	6.3	149
4	Continuous Human Activity Classification From FMCW Radar With Bi-LSTM Networks. IEEE Sensors Journal, 2020, 20, 13607-13619.	4.7	129
5	Review of radar classification and RCS characterisation techniques for small UAVs or drones. IET Radar, Sonar and Navigation, 2018, 12, 911-919.	1.8	123
6	Classification of Unarmed/Armed Personnel Using the NetRAD Multistatic Radar for Micro-Doppler and Singular Value Decomposition Features. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1933-1937.	3.1	122
7	Personnel Recognition and Gait Classification Based on Multistatic Micro-Doppler Signatures Using Deep Convolutional Neural Networks. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 669-673.	3.1	119
8	Classification of loaded/unloaded micro‐drones using multistatic radar. Electronics Letters, 2015, 51, 1813-1815.	1.0	113
9	Radar Signal Processing for Sensing in Assisted Living: The Challenges Associated With Real-Time Implementation of Emerging Algorithms. IEEE Signal Processing Magazine, 2019, 36, 29-41.	5.6	111
10	Multistatic micro‐Doppler radar feature extraction for classification of unloaded/loaded micro‐drones. IET Radar, Sonar and Navigation, 2017, 11, 116-124.	1.8	110
11	Continuous Human Motion Recognition With a Dynamic Range-Doppler Trajectory Method Based on FMCW Radar. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 6821-6831.	6.3	110
12	RF Sensing Technologies for Assisted Daily Living in Healthcare: A Comprehensive Review. IEEE Aerospace and Electronic Systems Magazine, 2019, 34, 26-44.	1.3	108
13	Micro-Doppler based detection and tracking of UAVs with multistatic radar. , 2016, , .		102
14	Micro-drone RCS analysis. , 2015, , .		97
15	Practical classification of different moving targets using automotive radar and deep neural networks. IET Radar, Sonar and Navigation, 2018, 12, 1082-1089.	1.8	89
16	Radar for Indoor Monitoring. , 0, , .		83
17	Suppression Approach to Main-Beam Deceptive Jamming in FDA-MIMO Radar Using Nonhomogeneous Sample Detection. IEEE Access, 2018, 6, 34582-34597.	4.2	72
18	Feature Diversity for Optimized Human Micro-Doppler Classification Using Multistatic Radar. IEEE Transactions on Aerospace and Electronic Systems, 2017, 53, 640-654.	4.7	66

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19	Radar for Health Care: Recognizing Human Activities and Monitoring Vital Signs. IEEE Potentials, 2019, 38, 16-23.	0.3	66
20	Multistatic human micro-Doppler classification of armed/unarmed personnel. IET Radar, Sonar and Navigation, 2015, 9, 857-865.	1.8	60
21	Human Activity Classification With Radar: Optimization and Noise Robustness With Iterative Convolutional Neural Networks Followed With Random Forests. IEEE Sensors Journal, 2018, 18, 9669-9681.	4.7	59
22	Radar sensing for healthcare. Electronics Letters, 2019, 55, 1022-1024.	1.0	57
23	Monostatic and bistatic radar measurements of birds and micro-drone. , 2016, , .		55
24	Performance Analysis of Centroid and SVD Features for Personnel Recognition Using Multistatic Micro-Doppler. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 725-729.	3.1	52
25	Internet of Things and LoRaWAN-Enabled Future Smart Farming. IEEE Internet of Things Magazine, 2019, 2, 14-19.	2.6	52
26	Aspect angle dependence and multistatic data fusion for micro-Doppler classification of armed/unarmed personnel. IET Radar, Sonar and Navigation, 2015, 9, 1231-1239.	1.8	50
27	Multisensor data fusion for human activities classification and fall detection. , 2017, , .		49
28	A Multisensory Approach for Remote Health Monitoring of Older People. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2018, 2, 102-108.	3.4	49
29	Dynamic hand gesture classification based on radar micro-Doppler signatures. , 2016, , .		46
30	Sequential Human Gait Classification With Distributed Radar Sensor Fusion. IEEE Sensors Journal, 2021, 21, 7590-7603.	4.7	46
31	Through-The-Wall Detection With Gated FMCW Signals Using Optimized Patch-Like and Vivaldi Antennas. IEEE Transactions on Antennas and Propagation, 2015, 63, 1106-1117.	5.1	44
32	Centroid features for classification of armed/unarmed multiple personnel using multistatic human micro-Doppler. IET Radar, Sonar and Navigation, 2016, 10, 1702-1710.	1.8	39
33	Fusion of Wearable and Contactless Sensors for Intelligent Gesture Recognition. Advanced Intelligent Systems, 2019, 1, 1900088.	6.1	39
34	Human Activity Recognition : Preliminary Results for Dataset Portability using FMCW Radar. , 2019, , .		38
35	Magnetic and Radar Sensing for Multimodal Remote Health Monitoring. IEEE Sensors Journal, 2019, 19, 8979-8989.	4.7	32
36	Effect of sparsity-aware time-frequency analysis on dynamic hand gesture classification with radar micro-Doppler signatures. IET Radar, Sonar and Navigation, 2018, 12, 815-820.	1.8	29

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37	Multistatic radar: System requirements and experimental validation. , 2014, , .		27
38	Feature diversity for fall detection and human indoor activities classification using radar systems. , 2017, , .		27
39	Dopâ€Net: a microâ€Doppler radar data challenge. Electronics Letters, 2020, 56, 568-570.	1.0	25
40	Animal Lameness Detection With Radar Sensing. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1189-1193.	3.1	24
41	Dynamic Hand Gesture Classification Based on Multistatic Radar Micro-Doppler Signatures Using Convolutional Neural Network. , 2019, , .		24
42	Semisupervised Human Activity Recognition With Radar Micro-Doppler Signatures. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	24
43	Spatial images from temporal data. Optica, 2020, 7, 900.	9.3	23
44	Frequency-Modulated Interrupted Continuous Wave as Wall Removal Technique in Through-the-Wall Imaging. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6272-6283.	6.3	22
45	Human Motion Recognition With Limited Radar Micro-Doppler Signatures. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 6586-6599.	6.3	22
46	Human activity classification with radar signal processing and machine learning. , 2020, , .		20
47	Continuous human activity recognition for arbitrary directions with distributed radars. , 2021, , .		20
48	Continuous Human Activity Recognition With Distributed Radar Sensor Networks and CNNâ€"RNN Architectures. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	6.3	20
49	Bistatic human micro-Doppler signatures for classification of indoor activities. , 2017, , .		19
50	A Secure Occupational Therapy Framework for Monitoring Cancer Patientsâ€™ Quality of Life. Sensors, 2019, 19, 5258.	3.8	19
51	Hierarchical Radar Data Analysis for Activity and Personnel Recognition. Remote Sensing, 2020, 12, 2237.	4.0	19
52	Radar-PointGNN: Graph Based Object Recognition for Unstructured Radar Point-cloud Data. , 2021, , .		19
53	Multiâ€time frequency analysis and classification of a microâ€drone carrying payloads using multistatic radar. Journal of Engineering, 2019, 2019, 7047-7051.	1.1	18
54	Cross-frequency training with adversarial learning for radar micro-Doppler signature classification (Rising Researcher). , 2020, , .		18

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55	Open Radar Initiative: Large Scale Dataset for Benchmarking of micro-Doppler Recognition Algorithms. , 2021, , .		17
56	Hierarchical Sensor Fusion for Micro-Gesture Recognition With Pressure Sensor Array and Radar. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2020, 4, 225-232.	3.4	16
57	Angle-Insensitive Human Motion and Posture Recognition Based on 4D Imaging Radar and Deep Learning Classifiers. IEEE Sensors Journal, 2022, 22, 12173-12182.	4.7	16
58	Personnel recognition based on multistatic microâ€Doppler and singular value decomposition features. Electronics Letters, 2015, 51, 2143-2145.	1.0	15
59	Analysis of polarimetric bistatic sea clutter using the NetRAD radar system. IET Radar, Sonar and Navigation, 2016, 10, 1356-1366.	1.8	15
60	Activities Recognition and Fall Detection in Continuous Data Streams Using Radar Sensor. , 2019, , .		15
61	Phase-Based Classification for Arm Gesture and Gross-Motor Activities Using Histogram of Oriented Gradients. IEEE Sensors Journal, 2021, 21, 7918-7927.	4.7	15
62	Measurements and discrimination of drones and birds with a multiâ€frequency multistatic radar system. IET Radar, Sonar and Navigation, 2021, 15, 841-852.	1.8	15
63	Micro UAV Crime Prevention: Can We Help Princess Leia?. , 2017, , 359-376.		15
64	Analysis of polarimetric multistatic human micro-Doppler classification of armed/unarmed personnel. , 2015, , .		13
65	Multistatic radar classification of armed vs unarmed personnel using neural networks. Evolving Systems, 2018, 9, 135-144.	3.9	13
66	DopNet: A Deep Convolutional Neural Network to Recognize Armed and Unarmed Human Targets. IEEE Sensors Journal, 2019, 19, 4160-4172.	4.7	13
67	Effective Ground-Truthing of Supervised Machine Learning for Drone Classification. , 2019, , .		13
68	Practical investigation of multiband monoâ€•and bistatic radar signatures of wind turbines. IET Radar, Sonar and Navigation, 2017, 11, 909-921.	1.8	12
69	Activity Classification Using Raw Range and I & Q Radar Data with Long Short Term Memory Layers. , 2018, , .		12
70	Roadmap on signal processing for next generation measurement systems. Measurement Science and Technology, 2022, 33, 012002.	2.6	12
71	Data portability for activities of daily living and fall detection in different environments using radar micro-doppler. Neural Computing and Applications, 2022, 34, 7933-7953.	5.6	12
72	Cross-Frequency Classification of Indoor Activities with DNN Transfer Learning. , 2019, , .		11

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73	Can Radar Remote Life Sensing Technology Help Combat COVID-19?. Frontiers in Communications and Networks, 2021, 2, .	3.0	11
74	Radar for assisted living in the context of Internet of Things for Health and beyond. , 2018, , .		10
75	Simulation framework for activity recognition and benchmarking in different radar geometries. IET Radar, Sonar and Navigation, 2021, 15, 390-401.	1.8	10
76	Distributed Radar-based Human Activity Recognition using Vision Transformer and CNNs. , 2022, , .		10
77	From Kinect skeleton data to hand gesture recognition with radar. Journal of Engineering, 2019, 2019, 6914-6919.	1.1	9
78	Use of Symmetrical Peak Extraction in Drone Micro-Doppler Classification for Staring Radar. , 2020, , .		9
79	Evaluation of lameness detection using radar sensing in ruminants. Veterinary Record, 2019, 185, 572-572.	0.3	9
80	Radar sensing for human healthcare: challenges and results. , 2021, , .		9
81	Gait classification based on micro-Doppler features. , 2016, , .		8
82	Fusion of Deep Representations in Multistatic Radar Networks to Counteract the Presence of Synthetic Jamming. IEEE Sensors Journal, 2019, 19, 6362-6370.	4.7	8
83	Eliminate Aspect Angle Variations for Human Activity Recognition using Unsupervised Deep Adaptation Network. , 2019, , .		8
84	Distributed Radar Information Fusion for Gait Recognition and Fall Detection. , 2020, , .		8
85	Practical Investigation of a MIMO radar system capabilities forÂsmall drones detection. IET Radar, Sonar and Navigation, 2021, 15, 760-774.	1.8	8
86	Measurement and analysis of multiband bistatic and monostatic radar signatures of wind turbines. Electronics Letters, 2015, 51, 1112-1113.	1.0	7
87	Correlation analysis of simultaneously collected bistatic and monostatic sea clutter. , 2017, , .		7
88	Gait analysis of horses for lameness detection with radar sensors. , 2017, , .		7
89	Human Activities Classification in a Complex Space Using Raw Radar Data. , 2019, , .		7
90	Classification of micro-Doppler radar hand-gesture signatures by means of Chebyshev moments. , 2021, , .		7

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91	Radar-based Human Activities Classification with Complex-valued Neural Networks. , 2022, , .		7
92	Experimental analysis of multistatic multiband radar signatures of wind turbines. IET Radar, Sonar and Navigation, 2016, 10, 1400-1410.	1.8	6
93	First measurements with NeXtRAD, a polarimetric X/L Band radar network. , 2017, , .		6
94	Hierarchical Classification on Multimodal Sensing for Human Activity Recognition and Fall Detection. , 2018, , .		6
95	A One-Class Classification Method for Human Gait Authentication Using Micro-Doppler Signatures. IEEE Signal Processing Letters, 2021, 28, 2182-2186.	3.6	6
96	Experimental analysis of multistatic wind turbine radar clutter statistics. Electronics Letters, 2016, 52, 226-228.	1.0	5
97	Elderly care: activities of daily living classification with an S band radar. Journal of Engineering, 2019, 2019, 7601-7606.	1.1	5
98	Fusion of Wearable and Contactless Sensors for Intelligent Gesture Recognition. Advanced Intelligent Systems, 2019, 1, 1970072.	6.1	5
99	FMCW radar and inertial sensing synergy for assisted living. Journal of Engineering, 2019, 2019, 6784-6789.	1.1	5
100	Activity recognition with cooperative radar systems at C and K band. Journal of Engineering, 2019, 2019, 7100-7104.	1.1	5
101	Distributed radar fusion and recurrent networks for classification of continuous human activities. IET Radar, Sonar and Navigation, 2022, 16, 1144-1161.	1.8	5
102	Analysis of multiband monostatic and bistatic radar signatures of wind turbines. , 2015, , .		4
103	Copolar calibration of multistatic radar in the presence of multipath. , 2016, , .		4
104	Measurements of Multistatic X&L Band Radar Signatures of UAVS. , 2019, , .		4
105	Initial results of Radar-based classification of commercial drone carrying small payloads. , 2019, , .		4
106	Elderly Care: Using Deep Learning for Multi-Domain Activity Classification. , 2020, , .		4
107	Optmized patch-like antennas for through the wall radar imaging and preliminary results with frequency modulated interrupted continuous wave. , 2012, , .		3
108	Simultaneous data collection of small maritime targets using multistatic and forward scatter radar. , 2015, , .		3

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109	Mobile Internet Activity Estimation and Analysis at High Granularity: SVR Model Approach. , 2018, , .		3
110	Radar-based evaluation of lameness detection in ruminants: preliminary results. , 2019, , .		3
111	Radar Sensing in Assisted Living: an Overview. , 2019, , .		3
112	Derivative Target Line (DTL) for Continuous Human Activity Detection and Recognition. , 2020, , .		3
113	Frequency modulated interrupted continuous wave signals in different radar imaging applications. , 2014, , .		2
114	Measurements and modelling of radar signatures of large wind turbine using multiple sensors. , 2018, , .		2
115	Multistatic human micro-Doppler classification with degraded/jammed radar data. , 2019, , .		2
116	An LSTM Approach to Short-range personnel recognition using Radar Signals. , 2021, , .		2
117	Chebychev moments based Drone Classification, Recognition and Fingerprinting. , 2021, , .		2
118	Experimental measurements of radar signatures of large wind turbine. Journal of Engineering, 2019, 2019, 7165-7169.	1.1	2
119	Elderly Care - Human Activity Recognition Using Radar with an Open Dataset and Hybrid Maps. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2022, , 39-51.	0.3	2
120	Simultaneous data collection of small maritime targets using multistatic radar and forward scatter radar. IET Radar, Sonar and Navigation, 2017, 11, 937-945.	1.8	1
121	The use of multiple-choice questions in 3rd-year electronic engineering assessment: A case study. , 2018, , .		1
122	Micro Doppler Radar and Depth Sensor Fusion for Human Activity Monitoring in AAL. Lecture Notes in Electrical Engineering, 2019, , 519-528.	0.4	1
123	Bistatic Radar Configuration for Human Body and Limb Motion Detection and Classification. , 2017, , 179-198.		1
124	Parametric Investigation on Simulated Staring FMCW Radar for Anti-Drone Swarms. , 2020, , .		1
125	Evaluation Metrics for Continuous Human Activity Classification Using Distributed Radar Networks. , 2022, , .		1
126	Radar Perception for Autonomous Unmanned Aerial Vehicles: a Survey. , 2022, , .		1

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127	Database design for an experimental, dual band, polarimetric radar. , 2015, , .		0
128	Accuracy Evaluation on the Respiration Rate Estimation using Off-the-shelf Pulse-Doppler Radar. , 2019, , .		0
129	Guest Editorial: Innovative Radar Detection, Tracking and Classification for Small UAVs as an Emerging Class of Targets. IET Radar, Sonar and Navigation, 2020, 14, 503-504.	1.8	0
130	Multimodal sensing for assisted living using radar. , 2020, , 181-215.		0
131	Obtaining Images by Measuring Time. Optics and Photonics News, 2020, 31, 50.	0.5	0
132	Domain adaptation for target classification using micro-Doppler spectra in radar networks. , 2021, , .		0
133	Calibration of Cognitive Classification Systems for Radar Networks for Increased Reliability. , 2022, , .		0