

Raffaele Gravina

List of Publications by Year in descending order

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74
papers

3,575
citations

257450

24
h-index

254184

43
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87
all docs

87
docs citations

87
times ranked

3605
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-sensor fusion in body sensor networks: State-of-the-art and research challenges. Information Fusion, 2017, 35, 68-80.	19.1	695
2	Enabling Effective Programming and Flexible Management of Efficient Body Sensor Network Applications. IEEE Transactions on Human-Machine Systems, 2013, 43, 115-133.	3.5	377
3	A framework for collaborative computing and multi-sensor data fusion in body sensor networks. Information Fusion, 2015, 22, 50-70.	19.1	308
4	An Edge-Based Architecture to Support Efficient Applications for Healthcare Industry 4.0. IEEE Transactions on Industrial Informatics, 2019, 15, 481-489.	11.3	279
5	PEA: Parallel electrocardiogram-based authentication for smart healthcare systems. Journal of Network and Computer Applications, 2018, 117, 10-16.	9.1	140
6	From Modeling to Implementation of Virtual Sensors in Body Sensor Networks. IEEE Sensors Journal, 2012, 12, 583-593.	4.7	117
7	Cloud-based Activity-as-a-Service cyber-physical framework for human activity monitoring in mobility. Future Generation Computer Systems, 2017, 75, 158-171.	7.5	99
8	Multi-user activity recognition: Challenges and opportunities. Information Fusion, 2020, 63, 121-135.	19.1	86
9	Posture Detection Based on Smart Cushion for Wheelchair Users. Sensors, 2017, 17, 719.	3.8	85
10	A Java-Based Agent Platform for Programming Wireless Sensor Networks. Computer Journal, 2011, 54, 439-454.	2.4	84
11	SPINE: a domain-specific framework for rapid prototyping of WBSN applications. Software - Practice and Experience, 2011, 41, 237-265.	3.6	84
12	Kernel fusion based extreme learning machine for cross-location activity recognition. Information Fusion, 2017, 37, 1-9.	19.1	84
13	Gait-based identification for elderly users in wearable healthcare systems. Information Fusion, 2020, 53, 134-144.	19.1	75
14	Automatic Methods for the Detection of Accelerative Cardiac Defense Response. IEEE Transactions on Affective Computing, 2016, 7, 286-298.	8.3	73
15	DexterNet: An Open Platform for Heterogeneous Body Sensor Networks and its Applications. , 2009, , .		61
16	Adaptive sliding window based activity recognition for assisted livings. Information Fusion, 2020, 53, 55-65.	19.1	61
17	An agent-based signal processing in-node environment for real-time human activity monitoring based on wireless body sensor networks. Engineering Applications of Artificial Intelligence, 2011, 24, 1147-1161.	8.1	59
18	A Mobile Multi-Technology Gateway to Enable IoT Interoperability. , 2016, , .		56

#	ARTICLE	IF	CITATIONS
19	Emotion-relevant activity recognition based on smart cushion using multi-sensor fusion. Information Fusion, 2019, 48, 1-10.	19.1	45
20	SPINE-HRV: A BSN-Based Toolkit for Heart Rate Variability Analysis in the Time-Domain. Lecture Notes in Electrical Engineering, 2010, , 369-389.	0.4	44
21	Wearable Body Sensor Networks: State-of-the-Art and Research Directions. IEEE Sensors Journal, 2021, 21, 12511-12522.	4.7	38
22	Development of Body Sensor Network applications using SPINE. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	36
23	An Emerging Wearable World: New Gadgetry Produces a Rising Tide of Changes and Challenges. IEEE Systems, Man, and Cybernetics Magazine, 2018, 4, 6-14.	1.4	34
24	Activity Level Assessment Using a Smart Cushion for People with a Sedentary Lifestyle. Sensors, 2017, 17, 2269.	3.8	31
25	Simulation-Driven Platform for Edge-Based AAL Systems. IEEE Journal on Selected Areas in Communications, 2021, 39, 446-462.	14.0	30
26	A Framework for Creating Healthcare Monitoring Applications Using Wireless Body Sensor Networks. , 2008, , .		30
27	IoT-Based Smart Health System for Ambulatory Maternal and Fetal Monitoring. IEEE Internet of Things Journal, 2021, 8, 16814-16824.	8.7	26
28	Fall-MobileGuard: a Smart Real-Time Fall Detection System. , 2015, , .		25
29	Enabling Multiple BSN Applications Using the SPINE Framework. , 2010, , .		24
30	A Neuro-Fuzzy Fatigue-Tracking and Classification System for Wheelchair Users. IEEE Access, 2017, 5, 19420-19431.	4.2	22
31	Collaborative Body Sensor Networks. , 2011, , .		19
32	Novel method and real-time system for detecting the Cardiac Defense Response based on the ECG. , 2013, , .		19
33	Activity recognition and monitoring for smart wheelchair users. , 2016, , .		19
34	CMDP-based intelligent transmission for wireless body area network in remote health monitoring. Neural Computing and Applications, 2020, 32, 829-837.	5.6	19
35	Soft Wrist-Worn Multi-Functional Sensor Array for Real-Time Hand Gesture Recognition. IEEE Sensors Journal, 2022, 22, 17505-17514.	4.7	18
36	Engineering Large-Scale Body Area Networks Applications. , 2013, , .		17

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37	ANFIS fusion algorithm for eye movement recognition via soft multi-functional electronic skin. <i>Information Fusion</i> , 2021, 71, 99-108.	19.1	17
38	People-Centric Service for mHealth of Wheelchair Users in Smart Cities. <i>Internet of Things</i> , 2014, , 163-179.	1.7	17
39	EMG-based Abnormal Gait Detection and Recognition. , 2020, , .		14
40	Using Cloud-assisted Body Area Networks to Track People Physical Activity in Mobility. , 2015, , .		14
41	Opportunistic strategies for lightweight signal processing for body sensor networks. , 2010, , .		12
42	Recognition of human fall events based on single tri-axial gyroscope. , 2018, , .		11
43	A convolution neural network approach for fall detection based on adaptive channel selection of UWB radar signals. <i>Neural Computing and Applications</i> , 2023, 35, 15967-15980.	5.6	10
44	Situation-Aware Sensor-Based Wearable Computing Systems: A Reference Architecture-Driven Review. <i>IEEE Sensors Journal</i> , 2022, 22, 13853-13863.	4.7	10
45	A Cloud-Assisted Wearable System for Physical Rehabilitation. <i>Communications in Computer and Information Science</i> , 2015, , 168-182.	0.5	8
46	Activity recognition of wheelchair users based on sequence feature in time-series. , 2017, , .		8
47	Cloud-Based Wheelchair Assist System for Mobility Impaired Individuals. <i>Lecture Notes in Computer Science</i> , 2016, , 107-118.	1.3	8
48	Continuous, real-time monitoring of assisted livings through wireless body sensor networks. , 2011, , .		7
49	Activity-aaS: Cloud-assisted, BSN-based system for physical activity monitoring. , 2015, , .		7
50	An analysis of java-based mobile agent platforms for wireless sensor networks. <i>Multiagent and Grid Systems</i> , 2011, 7, 243-267.	0.9	6
51	A survey of open body sensor networks: Applications and challenges. , 2017, , .		6
52	Edge Computing-Enabled Body Area Networks. , 2018, , .		6
53	Rehab-aaS: A Cloud-based Motor Rehabilitation Digital Assistant. , 2014, , .		6
54	Implementation of virtual sensors in body sensor networks with the SPINE framework. , 2009, , .		5

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55	Posture and Gesture Analysis Supporting Emotional Activity Recognition. , 2018, , .		5
56	Smart Cushion-Based Activity Recognition: Prompting Users to Maintain a Healthy Seated Posture. IEEE Systems, Man, and Cybernetics Magazine, 2020, 6, 6-14.	1.4	5
57	Prediction of Personal Cardiovascular Risk using Machine Learning for Smartphone Applications. , 2020, , .		4
58	A UWB Radar-based Approach of Detecting Vital Signals. , 2021, , .		4
59	Work Engagement Recognition in Smart Office. Procedia Computer Science, 2022, 200, 451-460.	2.0	4
60	Time-domain heart rate variability analysis with the SPINE-HRV toolkit. , 2010, , .		3
61	A Multi-sensor based Method for Self-isolated Patient Monitoring. , 2021, , .		3
62	Performance analysis of an activity monitoring system using the SPINE framework. , 2009, , .		3
63	Group Walking Recognition Based on Smartphone Sensors. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 91-102.	0.3	2
64	Real-time automatic detection of accelerative cardiac defense response. , 2014, , .		2
65	Enhancing Internet and Distributed Computing Systems with Wireless Sensor Networks. International Journal of Distributed Sensor Networks, 2015, 11, 564695.	2.2	2
66	A Multisensory Platform for Maximizing Collective Intelligence in the Operating Room. , 2021, , .		2
67	Programming signal processing applications on heterogeneous wireless sensor platforms. , 2009, , .		1
68	A Neuro-Fuzzy System for Classifying Fatigue Degree of Wheelchair User. Lecture Notes in Computer Science, 2016, , 22-33.	1.3	1
69	A Collaborative BSN-Enabled Architecture for Multi-user Activity Recognition. Internet of Things, 2021, , 103-119.	1.7	1
70	Towards Body Sensor Network Based Gait Abnormality Evaluation for Stroke Survivors. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 103-113.	0.3	1
71	E-ALPHA: Edge-based Assisted Living Platform for Home cAre. , 2020, , .		0
72	Opportunistic IoT Service to Support Safety Driving from Heterogeneous Data Sources. EAI/Springer Innovations in Communication and Computing, 2020, , 131-143.	1.1	0

#	ARTICLE	IF	CITATIONS
73	Driving Operation Recognition Using Smart Cushion Based on Deep Neural Network. EAI/Springer Innovations in Communication and Computing, 2020, , 325-338.	1.1	0
74	Computational Aspects in BSN-Based Wearable Computing Systems: From Raw-Data Collection to High-Level Data Analysis. , 2022, , .		0