

Majid Sarrafzadeh

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

118
papers

2,525
citations

25
h-index

47
g-index

141
ext. papers

3,177
ext. citations

3.6
avg, IF

5
L-index

#	Paper	IF	Citations
118	Effectiveness of Remote Patient Monitoring After Discharge of Hospitalized Patients With Heart Failure: The Better Effectiveness After Transition -- Heart Failure (BEAT-HF) Randomized Clinical Trial. <i>JAMA Internal Medicine</i> , 2016 , 176, 310-8	11.5	321
117	Optimal Energy Aware Clustering in Sensor Networks. <i>Sensors</i> , 2002 , 2, 258-269	3.8	193
116	The advanced health and disaster aid network: a light-weight wireless medical system for triage. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2007 , 1, 203-16	5.1	180
115	eCushion: A Textile Pressure Sensor Array Design and Calibration for Sitting Posture Analysis. <i>IEEE Sensors Journal</i> , 2013 , 13, 3926-3934	4	107
114	A remote patient monitoring system for congestive heart failure. <i>Journal of Medical Systems</i> , 2011 , 35, 1165-79	5.1	94
113	Monitoring eating habits using a piezoelectric sensor-based necklace. <i>Computers in Biology and Medicine</i> , 2015 , 58, 46-55	7	91
112	Engaging Cervical Spinal Cord Networks to Reenable Volitional Control of Hand Function in Tetraplegic Patients. <i>Neurorehabilitation and Neural Repair</i> , 2016 , 30, 951-962	4.7	73
111	Cluster Size Optimization in Sensor Networks with Decentralized Cluster-Based Protocols. <i>Computer Communications</i> , 2012 , 35, 207-220	5.1	64
110	Power-Aware Computing in Wearable Sensor Networks: An Optimal Feature Selection. <i>IEEE Transactions on Mobile Computing</i> , 2015 , 14, 800-812	4.6	63
109	Recognition of Nutrition Intake Using Time-Frequency Decomposition in a Wearable Necklace Using a Piezoelectric Sensor. <i>IEEE Sensors Journal</i> , 2015 , 15, 3909-3916	4	57
108	Floor-Planning by Graph Dualization: 2-Concave Rectilinear Modules. <i>SIAM Journal on Computing</i> , 1993 , 22, 500-526	1.1	52
107	A dense pressure sensitive bedsheet design for unobtrusive sleep posture monitoring 2013 ,		51
106	Audio-based detection and evaluation of eating behavior using the smartwatch platform. <i>Computers in Biology and Medicine</i> , 2015 , 65, 1-9	7	49
105	Can smartwatches replace smartphones for posture tracking?. <i>Sensors</i> , 2015 , 15, 26783-800	3.8	47
104	Development of a fully implantable wireless pressure monitoring system. <i>Biomedical Microdevices</i> , 2009 , 11, 259-64	3.7	43
103	Sleep posture analysis using a dense pressure sensitive bedsheet. <i>Pervasive and Mobile Computing</i> , 2014 , 10, 34-50	3.5	38
102	A wearable sensor system for medication adherence prediction. <i>Artificial Intelligence in Medicine</i> , 2016 , 69, 43-52	7.4	38

101	Examining the effects of remote monitoring systems on activation, self-care, and quality of life in older patients with chronic heart failure. <i>Journal of Cardiovascular Nursing</i> , 2015 , 30, 51-7	2.1	35
100	On-body device localization for health and medical monitoring applications 2011 ,		34
99	Robust human activity and sensor location corecognition via sparse signal representation. <i>IEEE Transactions on Biomedical Engineering</i> , 2012 , 59, 3169-76	5	32
98	Detection of Gestures Associated With Medication Adherence Using Smartwatch-Based Inertial Sensors. <i>IEEE Sensors Journal</i> , 2016 , 16, 1054-1061	4	31
97	eCushion: An eTextile Device for Sitting Posture Monitoring 2011 ,		31
96	A SURVEY OF SMARTWATCHES IN REMOTE HEALTH MONITORING. <i>Journal of Healthcare Informatics Research</i> , 2018 , 2, 1-24	4	30
95	A Survey of Diet Monitoring Technology. <i>IEEE Pervasive Computing</i> , 2017 , 16, 57-65	1.3	28
94	Temperature and Humidity Calibration of a Low-Cost Wireless Dust Sensor for Real-Time Monitoring 2017 , 2017,		25
93	Sliceable Floorplanning by Graph Dualization. <i>SIAM Journal on Discrete Mathematics</i> , 1995 , 8, 258-280	0.7	25
92	A smartwatch-based medication adherence system 2015 ,		24
91	Smartwatch Based Activity Recognition Using Active Learning 2017 ,		24
90	Use of multivariate linear regression and support vector regression to predict functional outcome after surgery for cervical spondylotic myelopathy. <i>Journal of Clinical Neuroscience</i> , 2015 , 22, 1444-9	2.2	21
89	Objectively quantifying walking ability in degenerative spinal disorder patients using sensor equipped smart shoes. <i>Medical Engineering and Physics</i> , 2016 , 38, 442-9	2.4	20
88	Providing a cushion for wireless healthcare application development. <i>IEEE Potentials</i> , 2010 , 29, 19-23	1	20
87	. <i>IEEE Internet of Things Journal</i> , 2021 , 8, 12826-12846	10.7	20
86	Applying Multivariate Segmentation Methods to Human Activity Recognition From Wearable SensorsSData. <i>JMIR MHealth and UHealth</i> , 2019 , 7, e11201	5.5	18
85	SmartLDWS: A robust and scalable lane departure warning system for the smartphones 2009 ,		17
84	A telehealth architecture for networked embedded systems: a case study in in vivo health monitoring. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2009 , 13, 351-9		16

83	Floorplanning by graph dualization: L-shaped modules. <i>Algorithmica</i> , 1993 , 10, 429-456	0.9	16
82	HIPAA Compliant Wireless Sensing Smartwatch Application for the Self-Management of Pediatric Asthma 2016 , 2016, 49-54		15
81	Feasibility of a Secure Wireless Sensing Smartwatch Application for the Self-Management of Pediatric Asthma. <i>Sensors</i> , 2017 , 17,	3.8	15
80	A memory optimization technique for software-managed scratchpad memory in GPUs 2009 ,		15
79	A flexible data-driven comorbidity feature extraction framework. <i>Computers in Biology and Medicine</i> , 2016 , 73, 165-72	7	15
78	TAPER: Time-Aware Patient EHR Representation. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020 , 24, 3268-3275	7.2	14
77	Unobtrusive and Continuous Monitoring of Alcohol-impaired Gait Using Smart Shoes. <i>Methods of Information in Medicine</i> , 2017 , 56, 74-82	1.5	14
76	Using pressure map sequences for recognition of on bed rehabilitation exercises. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2014 , 18, 411-8	7.2	14
75	A pilot study using global positioning systems (GPS) devices and surveys to ascertain older adultsS travel patterns. <i>Journal of Applied Gerontology</i> , 2015 , 34, NP190-201	3.3	14
74	Remote Medical Monitoring Through Vehicular Ad Hoc Network 2008 ,		14
73	General Methodology for Soft-Error-Aware Power Optimization Using Gate Sizing. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2008 , 27, 1788-1797	2.5	13
72	Robust human intensity-varying activity recognition using Stochastic Approximation in wearable sensors 2013 ,		12
71	Non-invasive monitoring of eating behavior using spectrogram analysis in a wearable necklace 2014 ,		12
70	Low-cost indoor health monitoring system 2016 ,		12
69	Feasibility study of an EHR-integrated mobile shared decision making application. <i>International Journal of Medical Informatics</i> , 2019 , 124, 24-30	5.3	12
68	A comparison of piezoelectric-based inertial sensing and audio-based detection of swallows. <i>Obesity Medicine</i> , 2016 , 1, 6-14	2.6	11
67	MET calculations from on-body accelerometers for exergaming movements 2013 ,		11
66	A Combination of Indoor Localization and Wearable Sensor-Based Physical Activity Recognition to Assess Older Patients Undergoing Subacute Rehabilitation: Baseline Study Results. <i>JMIR MHealth and UHealth</i> , 2019 , 7, e14090	5.5	11

65	Pedometers Without Batteries: An Energy Harvesting Shoe. <i>IEEE Sensors Journal</i> , 2016 , 1-1	4	10
64	Spectrogram-based audio classification of nutrition intake 2014 ,		10
63	Collaborative and Reconfigurable Object Tracking. <i>Journal of Supercomputing</i> , 2004 , 30, 213-238	2.5	10
62	On problem transformability in VLSI. <i>Algorithmica</i> , 1987 , 2, 97-111	0.9	10
61	Identifying predictors for postoperative clinical outcome in lumbar spinal stenosis patients using smart-shoe technology. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2017 , 14, 77	5.3	9
60	Near-Realistic Motion Video Games with Enforced Activity 2012 ,		9
59	Joint consideration of energy-efficiency and coverage-preservation in microsensor networks. <i>Wireless Communications and Mobile Computing</i> , 2011 , 11, 707-722	1.9	9
58	An application of dynamic programming to crew balancing at Burlington Northern Santa Fe Railway. <i>International Journal of Services, Technology and Management</i> , 2000 , 1, 174	0.2	9
57	3-D Floorplanning: Simulated Annealing and Greedy Placement Methods for Reconfigurable Computing Systems. <i>Design Automation for Embedded Systems</i> , 2000 , 5, 329-338	0.6	9
56	Biomedical REAL-Time Health Evaluation (BREATHE): toward an mHealth informatics platform. <i>JAMIA Open</i> , 2020 , 3, 190-200	2.9	9
55	Gait velocity estimation for a smartwatch platform using Kalman filter peak recovery 2016 ,		8
54	A pervasive assessment of motor function: a lightweight grip strength tracking system. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2013 , 17, 1023-30	7.2	8
53	Fourier Series Approximation for Max Operation in Non-Gaussian and Quadratic Statistical Static Timing Analysis. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2012 , 20, 1383-1391	2.6	8
52	In-Place FPGA Retiming for Mitigation of Variational Single-Event Transient Faults. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2011 , 58, 1372-1381	3.9	8
51	Exploiting Sleep Mode for Memory Partitioning and Other Applications. <i>VLSI Design</i> , 1998 , 7, 271-287		8
50	User-optimized activity recognition for exergaming. <i>Pervasive and Mobile Computing</i> , 2016 , 26, 3-16	3.5	7
49	An Optimal Algorithm for the Maximum Three-Chain Problem. <i>SIAM Journal on Computing</i> , 1993 , 22, 976-993	1.1	7
48	Kalman-Filter-Based Walking Distance Estimation for a Smart-Watch 2016 ,		6

47	Multimodal energy expenditure calculation for pervasive health: A data fusion model using wearable sensors 2013 ,		6
46	On-bed monitoring for range of motion exercises with a pressure sensitive bedsheet 2013 ,		6
45	HIP: Health integration platform 2010 ,		6
44	An optimal algorithm for rectilinear steiner trees for channels with obstacles. <i>International Journal of Circuit Theory and Applications</i> , 1991 , 19, 551-563	2	6
43	Probabilistic segmentation of time-series audio signals using Support Vector Machines. <i>Microprocessors and Microsystems</i> , 2016 , 46, 96-104	2.4	6
42	Children Activity Recognition: Challenges and Strategies. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2018 , 2018, 4331-4334	0.9	6
41	Examining Older Adults' Perceptions of Usability and Acceptability of Remote Monitoring Systems to Manage Chronic Heart Failure. <i>Gerontology and Geriatric Medicine</i> , 2015 , 1, 2333721415618050	2.3	5
40	A Framework for Predicting Adherence in Remote Health Monitoring Systems 2014 ,		5
39	Lock-free Hash Table on Graphics Processors 2012 ,		5
38	Improving Biomedical Signal Search Results in Big Data Case-Based Reasoning Environments. <i>Pervasive and Mobile Computing</i> , 2016 , 28, 69-80	3.5	4
37	Machine Learning-Based Adaptive Wireless Interval Training Guidance System. <i>Mobile Networks and Applications</i> , 2012 , 17, 163-177	2.9	4
36	Salient Segmentation of Medical Time Series Signals 2011 , 2011, 1-8		4
35	Leveraging Social Media Activity and Machine Learning for HIV and Substance Abuse Risk Assessment: Development and Validation Study. <i>Journal of Medical Internet Research</i> , 2021 , 23, e22042	7.6	4
34	Probabilistic time-series segmentation. <i>Pervasive and Mobile Computing</i> , 2017 , 41, 397-412	3.5	3
33	Energy Efficient Collaborative Sensing-Based Design: Soft Keyboard Case Study. <i>IEEE Transactions on Human-Machine Systems</i> , 2014 , 44, 115-124	4.1	3
32	Automated Wolf Motor Function Test (WMFT) for Upper Extremities Rehabilitation 2012 ,		3
31	Dynamic Task Optimization in Remote Diabetes Monitoring Systems 2012 , 2012, 3-11		3
30	Energy efficient E-Textile based portable keyboard 2011 ,		3

29	Energy minimization for real-time systems with non-convex and discrete operation modes 2009 ,		3
28	Localization Using Low-Resolution Optical Sensors 2007 ,		3
27	System Level Estimation of Interconnect Length in the Presence of IP Blocks 2007 ,		3
26	Predicting adherence to use of remote health monitoring systems in a cohort of patients with chronic heart failure. <i>Technology and Health Care</i> , 2017 , 25, 425-433	1.1	2
25	Multi-dimensional signal search with applications in remote medical monitoring 2013 ,		2
24	Objective assessment of overexcited hand movements using a lightweight sensory device 2013 ,		2
23	Hierarchical Concurrent Congestion and Wirelength Estimation in the Presence of IP Blocks 2007 ,		2
22	CMAS: Clinical movement assessment system for neuromotor disorders 2006 ,		2
21	PREDICTABILITY IN RT-LEVEL DESIGNS. <i>Journal of Circuits, Systems and Computers</i> , 2002 , 11, 323-332	0.9	2
20	Adequacy of Existing Surveillance Systems to Monitor Racism, Social Stigma and COVID Inequities: A Detailed Assessment and Recommendations.. <i>International Journal of Environmental Research and Public Health</i> , 2021 , 18,	4.6	2
19	EXTRA: Exercise Tracking and Analysis Platform for Remote-monitoring of Knee Rehabilitation 2019 ,		1
18	Investigation of gait characteristics in glaucoma patients with a shoe-integrated sensing system 2015 ,		1
17	Multiple model recognition for near-realistic exergaming 2015 ,		1
16	Adrasteia: A Smartphone App for Securing Legacy Mobile Medical Devices 2014 ,		1
15	Aggregated Indexing of Biomedical Time Series Data 2012 , 2012, 23-30		1
14	Press the Cancel Button! A Performance Evaluation of Scalable In-Network Data Aggregation 2009 ,		1
13	Opportunistic medical monitoring using bluetooth P2P networks 2008 ,		1
12	Adaptive medical feature extraction for resource constrained distributed embedded systems		1

- 11 Minimal handgrip force is needed for transcutaneous electrical stimulation to improve hand functions of patients with severe spinal cord injury.. *Scientific Reports*, **2022**, 12, 7733 4.9 1
- 10 Semi-Automatic Control Unit Generation for Complex VLSI Designs. *IPSJ Transactions on System LSI Design Methodology*, **2010**, 3, 234-243 0.2
- 9 What is wireless health?. *ACM SIGDA Newsletter*, **2008**, 38, 1-1
- 8 What is Wireless Health?. *ACM SIGDA Newsletter*, **2008**, 38, 1-1
- 7 What is Wireless Health?. *ACM SIGDA Newsletter*, **2008**, 38, 1-1
- 6 General Delay Budgeting on Directed Acyclic Graphs with Applications in CAD. *Electronic Notes in Discrete Mathematics*, **2006**, 27, 95-96 0.3
- 5 Efficient Timing Budget Management for Accuracy Improvement in a Collaborative Object Tracking System. *Journal of Signal Processing Systems*, **2006**, 42, 43-55
- 4 Power Optimization of Delay Constrained Circuits. *VLSI Design*, **2001**, 12, 125-138
- 3 On Rectilinear Distance-Preserving Trees. *VLSI Design*, **1998**, 7, 15-30
- 2 Placement with Incomplete Data. *VLSI Design*, **1999**, 10, 57-70
- 1 New Methodologies for Congestion Estimation and Reduction. *Statistical Science and Interdisciplinary Research*, **2008**, 139-160