Majid Sarrafzadeh

List of Publications by Year in Descending Order

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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	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
117	Leveraging Social Media Activity and Machine Learning for HIV and Substance Abuse Risk Assessment: Development and Validation Study. *Journal of Medical Internet Research*, **2021**, 23, e22042	7.6	4
116	. *IEEE Internet of Things Journal*, **2021**, 8, 12826-12846	10.7	20
115	Adequacy of Existing Surveillance Systems to Monitor Racism, Social Stigma and COVID Inequities: A Detailed Assessment and Recommendations.. *International Journal of Environmental Research and Public Health*, **2021**, 18,	4.6	2
114	TAPER: Time-Aware Patient EHR Representation. *IEEE Journal of Biomedical and Health Informatics*, **2020**, 24, 3268-3275	7.2	14
113	Biomedical REAl-Time Health Evaluation (BREATHE): toward an mHealth informatics platform. *JAMIA Open*, **2020**, 3, 190-200	2.9	9
112	EXTRA: Exercise Tracking and Analysis Platform for Remote-monitoring of Knee Rehabilitation **2019**,		1
111	Applying Multivariate Segmentation Methods to Human Activity Recognition From Wearable SensorsSData. *JMIR MHealth and UHealth*, **2019**, 7, e11201	5.5	18
110	A Combination of Indoor Localization and Wearable Sensor-Based Physical Activity Recognition to Assess Older Patients Undergoing Subacute Rehabilitation: Baseline Study Results. *JMIR MHealth and UHealth*, **2019**, 7, e14090	5.5	11
109	Feasibility study of an EHR-integrated mobile shared decision making application. *International Journal of Medical Informatics*, **2019**, 124, 24-30	5.3	12
108	A SURVEY OF SMARTWATCHES IN REMOTE HEALTH MONITORING. *Journal of Healthcare Informatics Research*, **2018**, 2, 1-24	4	30
107	Children Activity Recognition: Challenges and Strategies. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 4331-4334	0.9	6
106	A Survey of Diet Monitoring Technology. *IEEE Pervasive Computing*, **2017**, 16, 57-65	1.3	28
105	Predicting adherence to use of remote health monitoring systems in a cohort of patients with chronic heart failure. *Technology and Health Care*, **2017**, 25, 425-433	1.1	2
104	Temperature and Humidity Calibration of a Low-Cost Wireless Dust Sensor for Real-Time Monitoring **2017**, 2017,		25
103	Probabilistic time-series segmentation. *Pervasive and Mobile Computing*, **2017**, 41, 397-412	3.5	3
102	Identifying predictors for postoperative clinical outcome in lumbar spinal stenosis patients using smart-shoe technology. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 77	5.3	9

101	Unobtrusive and Continuous Monitoring of Alcohol-impaired Gait Using Smart Shoes. *Methods of Information in Medicine*, **2017**, 56, 74-82	1.5	14
100	Smartwatch Based Activity Recognition Using Active Learning **2017**,		24
99	Feasibility of a Secure Wireless Sensing Smartwatch Application for the Self-Management of Pediatric Asthma. *Sensors*, **2017**, 17,	3.8	15
98	Pedometers Without Batteries: An Energy Harvesting Shoe. *IEEE Sensors Journal*, **2016**, 1-1	4	10
97	Kalman-Filter-Based Walking Distance Estimation for a Smart-Watch **2016**,		6
96	Gait velocity estimation for a smartwatch platform using Kalman filter peak recovery **2016**,		8
95	HIPAA Compliant Wireless Sensing Smartwatch Application for the Self-Management of Pediatric Asthma **2016**, 2016, 49-54		15
94	User-optimized activity recognition for exergaming. *Pervasive and Mobile Computing*, **2016**, 26, 3-16	3.5	7
93	Objectively quantifying walking ability in degenerative spinal disorder patients using sensor equipped smart shoes. *Medical Engineering and Physics*, **2016**, 38, 442-9	2.4	20
92	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. *JAMA Internal Medicine*, **2016**, 176, 310-8	11.5	321
91	Detection of Gestures Associated With Medication Adherence Using Smartwatch-Based Inertial Sensors. *IEEE Sensors Journal*, **2016**, 16, 1054-1061	4	31
90	A comparison of piezoelectric-based inertial sensing and audio-based detection of swallows. *Obesity Medicine*, **2016**, 1, 6-14	2.6	11
89	Improving Biomedical Signal Search Results in Big Data Case-Based Reasoning Environments. *Pervasive and Mobile Computing*, **2016**, 28, 69-80	3.5	4
88	A wearable sensor system for medication adherence prediction. *Artificial Intelligence in Medicine*, **2016**, 69, 43-52	7.4	38
87	Engaging Cervical Spinal Cord Networks to Reenable Volitional Control of Hand Function in Tetraplegic Patients. *Neurorehabilitation and Neural Repair*, **2016**, 30, 951-962	4.7	73
86	A flexible data-driven comorbidity feature extraction framework. *Computers in Biology and Medicine* , **2016**, 73, 165-72	7	15
85	Probabilistic segmentation of time-series audio signals using Support Vector Machines. *Microprocessors and Microsystems*, **2016**, 46, 96-104	2.4	6
84	Low-cost indoor health monitoring system **2016**,		12

83	Audio-based detection and evaluation of eating behavior using the smartwatch platform. *Computers in Biology and Medicine*, **2015**, 65, 1-9	7	49
82	Use of multivariate linear regression and support vector regression to predict functional outcome after surgery for cervical spondylotic myelopathy. *Journal of Clinical Neuroscience*, **2015**, 22, 1444-9	2.2	21
81	Monitoring eating habits using a piezoelectric sensor-based necklace. *Computers in Biology and Medicine*, **2015**, 58, 46-55	7	91
80	Recognition of Nutrition Intake Using Time-Frequency Decomposition in a Wearable Necklace Using a Piezoelectric Sensor. *IEEE Sensors Journal*, **2015**, 15, 3909-3916	4	57
79	Examining the effects of remote monitoring systems on activation, self-care, and quality of life in older patients with chronic heart failure. *Journal of Cardiovascular Nursing*, **2015**, 30, 51-7	2.1	35
78	A smartwatch-based medication adherence system **2015**,		24
77	Investigation of gait characteristics in glaucoma patients with a shoe-integrated sensing system **2015**,		1
76	Power-Aware Computing in Wearable Sensor Networks: An Optimal Feature Selection. *IEEE Transactions on Mobile Computing*, **2015**, 14, 800-812	4.6	63
75	A pilot study using global positioning systems (GPS) devices and surveys to ascertain older adultsS travel patterns. *Journal of Applied Gerontology*, **2015**, 34, NP190-201	3.3	14
74	Examining Older AdultsSPerceptions of Usability and Acceptability of Remote Monitoring Systems to Manage Chronic Heart Failure. *Gerontology and Geriatric Medicine*, **2015**, 1, 2333721415618050	2.3	5
73	Can smartwatches replace smartphones for posture tracking?. *Sensors*, **2015**, 15, 26783-800	3.8	47
72	Multiple model recognition for near-realistic exergaming **2015**,		1
71	Using pressure map sequences for recognition of on bed rehabilitation exercises. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 411-8	7.2	14
70	Energy Efficient Collaborative Sensing-Based Design: Soft Keyboard Case Study. *IEEE Transactions on Human-Machine Systems*, **2014**, 44, 115-124	4.1	3
69	Sleep posture analysis using a dense pressure sensitive bedsheet. *Pervasive and Mobile Computing*, **2014**, 10, 34-50	3.5	38
68	Adrasteia: A Smartphone App for Securing Legacy Mobile Medical Devices **2014**,		1
67	Spectrogram-based audio classification of nutrition intake **2014**,		10
66	Non-invasive monitoring of eating behavior using spectrogram analysis in a wearable necklace **2014** ,		12

65	A Framework for Predicting Adherence in Remote Health Monitoring Systems **2014**,		5
64	Multimodal energy expenditure calculation for pervasive health: A data fusion model using wearable sensors **2013**,		6
63	A pervasive assessment of motor function: a lightweight grip strength tracking system. *IEEE Journal of Biomedical and Health Informatics*, **2013**, 17, 1023-30	7.2	8
62	Multi-dimensional signal search with applications in remote medical monitoring **2013**,		2
61	A dense pressure sensitive bedsheet design for unobtrusive sleep posture monitoring **2013**,		51
60	Robust human intensity-varying activity recognition using Stochastic Approximation in wearable sensors **2013**,		12
59	Objective assessment of overexcited hand movements using a lightweight sensory device **2013**,		2
58	MET calculations from on-body accelerometers for exergaming movements **2013**,		11
57	On-bed monitoring for range of motion exercises with a pressure sensitive bedsheet **2013**,		6
56	eCushion: A Textile Pressure Sensor Array Design and Calibration for Sitting Posture Analysis. *IEEE Sensors Journal*, **2013**, 13, 3926-3934	4	107
55	Robust human activity and sensor location corecognition via sparse signal representation. *IEEE Transactions on Biomedical Engineering*, **2012**, 59, 3169-76	5	32
54	Automated Wolf Motor Function Test (WMFT) for Upper Extremities Rehabilitation **2012**,		3
53	Near-Realistic Motion Video Games with Enforced Activity **2012**,		9
52	Fourier Series Approximation for Max Operation in Non-Gaussian and Quadratic Statistical Static Timing Analysis. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2012**, 20, 1383-1391	2.6	8
51	Aggregated Indexing of Biomedical Time Series Data **2012**, 2012, 23-30		1
50	Dynamic Task Optimization in Remote Diabetes Monitoring Systems **2012**, 2012, 3-11		3
49	Machine Learning-Based Adaptive Wireless Interval Training Guidance System. *Mobile Networks and Applications*, **2012**, 17, 163-177	2.9	4
48	Cluster Size Optimization in Sensor Networks with Decentralized Cluster-Based Protocols. *Computer Communications*, **2012**, 35, 207-220	5.1	64

47	Lock-free Hash Table on Graphics Processors **2012**,		5
46	Energy efficient E-Textile based portable keyboard **2011**,		3
45	In-Place FPGA Retiming for Mitigation of Variational Single-Event Transient Faults. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2011**, 58, 1372-1381	3.9	8
44	eCushion: An eTextile Device for Sitting Posture Monitoring **2011**,		31
43	A remote patient monitoring system for congestive heart failure. *Journal of Medical Systems*, **2011**, 35, 1165-79	5.1	94
42	Joint consideration of energy-efficiency and coverage-preservation in microsensor networks. *Wireless Communications and Mobile Computing*, **2011**, 11, 707-722	1.9	9
41	On-body device localization for health and medical monitoring applications **2011**,		34
40	Salient Segmentation of Medical Time Series Signals **2011**, 2011, 1-8		4
39	HIP: Health integration platform **2010**,		6
38	Providing a cushion for wireless healthcare application development. *IEEE Potentials*, **2010**, 29, 19-23	1	20
37	Semi-Automatic Control Unit Generation for Complex VLSI Designs. *IPSJ Transactions on System LSI Design Methodology*, **2010**, 3, 234-243	0.2	
36	A memory optimization technique for software-managed scratchpad memory in GPUs **2009**,		15
35	Energy minimization for real-time systems with non-convex and discrete operation modes **2009**,		3
34	Press the Cancel Button! A Performance Evaluation of Scalable In-Network Data Aggregation **2009**,		1
33	A telehealth architecture for networked embedded systems: a case study in in vivo health monitoring. *IEEE Transactions on Information Technology in Biomedicine*, **2009**, 13, 351-9		16
32	Development of a fully implantable wireless pressure monitoring system. *Biomedical Microdevices*, **2009**, 11, 259-64	3.7	43
31	SmartLDWS: A robust and scalable lane departure warning system for the smartphones **2009**,		17
30	General Methodology for Soft-Error-Aware Power Optimization Using Gate Sizing. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, **2008**, 27, 1788-1797	2.5	13

29	Remote Medical Monitoring Through Vehicular Ad Hoc Network **2008**,		14
28	What is wireless health?. *ACM SIGDA Newsletter*, **2008**, 38, 1-1		
27	Opportunistic medical monitoring using bluetooth P2P networks **2008**,		1
26	What is Wireless Health?. *ACM SIGDA Newsletter*, **2008**, 38, 1-1		
25	What is Wireless Health?. *ACM SIGDA Newsletter*, **2008**, 38, 1-1		
24	New Methodologies for Congestion Estimation and Reduction. *Statistical Science and Interdisciplinary Research*, **2008**, 139-160		
23	Hierarchical Concurrent Congestion and Wirelength Estimation in the Presence of IP Blocks **2007**,		2
22	The advanced health and disaster aid network: a light-weight wireless medical system for triage. *IEEE Transactions on Biomedical Circuits and Systems*, **2007**, 1, 203-16	5.1	180
21	Localization Using Low-Resolution Optical Sensors **2007**,		3
20	System Level Estimation of Interconnect Length in the Presence of IP Blocks **2007**,		3
19	CMAS: Clinical movement assessment system for neuromotor disorders **2006**,		2
18	General Delay Budgeting on Directed Acyclic Graphs with Applications in CAD. *Electronic Notes in Discrete Mathematics*, **2006**, 27, 95-96	0.3	
17	Efficient Timing Budget Management for Accuracy Improvement in a Collaborative Object Tracking System. *Journal of Signal Processing Systems*, **2006**, 42, 43-55		
16	Collaborative and Reconfigurable Object Tracking. *Journal of Supercomputing*, **2004**, 30, 213-238	2.5	10
15	PREDICTABILITY IN RT-LEVEL DESIGNS. *Journal of Circuits, Systems and Computers*, **2002**, 11, 323-332	0.9	2
14	Optimal Energy Aware Clustering in Sensor Networks. *Sensors*, **2002**, 2, 258-269	3.8	193
13	Power Optimization of Delay Constrained Circuits. *VLSI Design*, **2001**, 12, 125-138		
12	An application of dynamic programming to crew balancing at Burlington Northern Santa Fe Railway. *International Journal of Services, Technology and Management*, **2000**, 1, 174	0.2	9

11	3-D Floorplanning: Simulated Annealing and Greedy Placement Methods for Reconfigurable Computing Systems. *Design Automation for Embedded Systems*, **2000**, 5, 329-338	0.6	9
10	Placement with Incomplete Data. *VLSI Design*, **1999**, 10, 57-70		
9	On Rectilinear Distance-Preserving Trees. *VLSI Design*, **1998**, 7, 15-30		
8	Exploiting Sleep Mode for Memory Partitioning and Other Applications. *VLSI Design*, **1998**, 7, 271-287		8
7	Sliceable Floorplanning by Graph Dualization. *SIAM Journal on Discrete Mathematics*, **1995**, 8, 258-280	0.7	25
6	An Optimal Algorithm for the Maximum Three-Chain Problem. *SIAM Journal on Computing*, **1993**, 22, 976-993	1.1	7
5	Floor-Planning by Graph Dualization: 2-Concave Rectilinear Modules. *SIAM Journal on Computing*, **1993**, 22, 500-526	1.1	52
4	Floorplanning by graph dualization: L-shaped modules. *Algorithmica*, **1993**, 10, 429-456	0.9	16
3	An optimal algorithm for rectilinear steiner trees for channels with obstacles. *International Journal of Circuit Theory and Applications*, **1991**, 19, 551-563	2	6
2	On problem transformability in VLSI. *Algorithmica*, **1987**, 2, 97-111	0.9	10
1	Adaptive medical feature extraction for resource constrained distributed embedded systems		1