Kathleen H Sienko

List of Publications by Citations

60 papers	859 citations	18 h-index	27 g-index
76 ext. papers	1,092 ext. citations	3.4 avg, IF	4.3 L-index

#	Paper	IF	Citations
60	Cell phone based balance trainer. *Journal of NeuroEngineering and Rehabilitation*, **2012**, 9, 10	5.3	96
59	Novice designers' use of prototypes in engineering design. *Design Studies*, **2017**, 51, 25-65	3.6	54
58	Artificial gravity: head movements during short-radius centrifugation. *Acta Astronautica*, **2001**, 49, 215-26	2.9	52
57	The effect of vibrotactile feedback on postural sway during locomotor activities. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 93	5.3	46
56	Biofeedback improves postural control recovery from multi-axis discrete perturbations. *Journal of NeuroEngineering and Rehabilitation*, **2012**, 9, 53	5.3	38
55	Determining the preferred modality for real-time biofeedback during balance training. *Gait and Posture*, **2013**, 37, 391-6	2.6	37
54	Directional postural responses induced by vibrotactile stimulations applied to the torso. *Experimental Brain Research*, **2012**, 222, 471-82	2.3	37
53	Assessment of vibrotactile feedback on postural stability during pseudorandom multidirectional platform motion. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 944-52	5	35
52	Effects of long-term balance training with vibrotactile sensory augmentation among community-dwelling healthy older adults: a randomized preliminary study. *Journal of NeuroEngineering and Rehabilitation*, **2018**, 15, 5	5.3	34
51	Effects of biofeedback on secondary-task response time and postural stability in older adults. *Gait and Posture*, **2012**, 35, 523-8	2.6	32
50	Effects of multi-directional vibrotactile feedback on vestibular-deficient postural performance during continuous multi-directional support surface perturbations. *Journal of Vestibular Research: Equilibrium and Orientation*, **2008**, 18, 273-85	2.5	30
49	Configurable, wearable sensing and vibrotactile feedback system for real-time postural balance and gait training: proof-of-concept. *Journal of NeuroEngineering and Rehabilitation*, **2017**, 14, 102	5.3	29
48	Potential Mechanisms of Sensory Augmentation Systems on Human Balance Control. *Frontiers in Neurology*, **2018**, 9, 944	4.1	25
47	Adaptation of the vestibulo-ocular reflex, subjective tilt, and motion sickness to head movements during short-radius centrifugation. *Journal of Vestibular Research: Equilibrium and Orientation*, **2003**, 13, 65-77	2.5	25
46	Postural reorganization induced by torso cutaneous covibration. *Journal of Neuroscience*, **2013**, 33, 7870-6	6.6	19
45	Theoretical and experimental indicators of falls during pregnancy as assessed by postural perturbations. *Gait and Posture*, **2014**, 39, 218-23	2.6	18
44	The effects of actuator selection on non-volitional postural responses to torso-based vibrotactile stimulation. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 21	5.3	18

43	The effect of age on postural and cognitive task performance while using vibrotactile feedback. *Journal of Neurophysiology*, **2015**, 113, 2127-36	3.2	18
42	A cutaneous positioning system. *Experimental Brain Research*, **2015**, 233, 1237-45	2.3	15
41	The effects of attractive vs. repulsive instructional cuing on balance performance. *Journal of NeuroEngineering and Rehabilitation*, **2016**, 13, 29	5.3	15
40	Prototyping for context: exploring stakeholder feedback based on prototype type, stakeholder group and question type. *Research in Engineering Design - Theory, Applications, and Concurrent Engineering*, **2019**, 30, 453-471	3.5	15
39	Requirements Development: Approaches and Behaviors of Novice Designers. *Journal of Mechanical Design, Transactions of the ASME*, **2015**, 137,	3	13
38	Traditional male circumcision in Uganda: a qualitative focus group discussion analysis. *PLoS ONE*, **2012**, 7, e45316	3.7	13
37	Effects of long-term vestibular rehabilitation therapy with vibrotactile sensory augmentation for people with unilateral vestibular disorders - A randomized preliminary study. *Journal of Vestibular Research: Equilibrium and Orientation*, **2019**, 29, 323-334	2.5	12
36	Automatically Evaluating Balance: A Machine Learning Approach. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2019**, 27, 179-186	4.8	11
35	Medical device landscape for communicable and noncommunicable diseases in low-income countries. *Globalization and Health*, **2018**, 14, 65	10	11
34	Motion sickness in passenger vehicles during test track operations. *Ergonomics*, **2019**, 62, 1357-1371	2.9	10
33	Reliability of Postural Sway Measures of Standing Balance Tasks. *Journal of Applied Biomechanics*, **2018**, 1-23	1.2	9
32	Deactivation of somatosensory and visual cortices during vestibular stimulation is associated with older age and poorer balance. *PLoS ONE*, **2019**, 14, e0221954	3.7	7
31	A shared neural integrator for human posture control. *Journal of Neurophysiology*, **2017**, 118, 894-903	3.2	6
30	Prototyping strategies for stakeholder engagement during front-end design: Design practitioners approaches in the medical device industry. *Design Studies*, **2020**, 71, 100977	3.6	5
29	Vibrotactile display design: Quantifying the importance of age and various factors on reaction times. *PLoS ONE*, **2019**, 14, e0219737	3.7	5
28	Obstetrics-based clinical immersion of a multinational team of biomedical engineering students in Ghana. *International Journal of Gynecology and Obstetrics*, **2014**, 127, 218-20	4	5
27	Cost effectiveness of medical devices to diagnose pre-eclampsia in low-resource settings. *Development Engineering*, **2017**, 2, 99-106	2.5	5
26	Comparison of non-volitional postural responses induced by two types of torso based vibrotactile stimulations **2012**,		5

25	Global health front-end medical device design: The use of prototypes to engage stakeholders. *Development Engineering*, **2020**, 5, 100055	2.5	5
24	The Use of Vibrotactile Feedback During Dual-Task Standing Balance Conditions in People With Unilateral Vestibular Hypofunction. *Otology and Neurotology*, **2018**, 39, e349-e356	2.6	4
23	Investigating prototyping approaches of Ghanaian novice designers. *Design Science*, **2019**, 5,	2.8	4
22	A mathematical model for incorporating biofeedback into human postural control. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 14	5.3	4
21	Reliability and Validity of Ratings of Perceived Difficulty During Performance of Static Standing Balance Exercises. *Physical Therapy*, **2019**, 99, 1381-1393	3.3	3
20	Sensory garments with vibrotactile feedback for monitoring and informing seated posture **2019**,		2
19	Development of culturally appropriate pictorial cards to facilitate maternal health histories in rural Ghana. *International Journal of Gynecology and Obstetrics*, **2013**, 123, 244-5	4	2
18	Determining inertial measurement unit placement for estimating human trunk sway while standing, walking and running. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 4651-4	0.9	2
17	Age Differences in Vestibular Brain Connectivity Are Associated With Balance Performance. *Frontiers in Aging Neuroscience*, **2020**, 12, 566331	5.3	2
16	Defining and characterizing task-shifting medical devices. *Globalization and Health*, **2021**, 17, 60	10	2
15	Automated Loss-of-Balance Event Identification in Older Adults at Risk of Falls during Real-World Walking Using Wearable Inertial Measurement Units. *Sensors*, **2021**, 21,	3.8	2
14	Design and evaluation of a subcutaneous contraceptive implant training simulator. *International Journal of Gynecology and Obstetrics*, **2019**, 147, 36-42	4	1
13	Blood salvage device for use during ruptured ectopic pregnancy in low-resource countries. *International Journal of Gynecology and Obstetrics*, **2015**, 128, 74-5	4	1
12	Standing balance of vehicle passengers: The effect of vehicle motion, task performance on post-drive balance. *Gait and Posture*, **2020**, 82, 189-195	2.6	1
11	An in-depth investigation of student information gathering meetings with stakeholders and domain experts. *International Journal of Technology and Design Education*, **2020**, 1	1.1	1
10	Discrepancies between clinicians and rural healthcare workers regarding referral procedures based on blood pressure measurements. *International Journal of Gynecology and Obstetrics*, **2013**, 123, 246-7	4	1
9	Effects of co-vibrotactile stimulations around the torso on non-volitional postural responses. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 6149-52	0.9	1
8	User-Based Design Approach to Develop a Traditional Adult Male Circumcision Device. *Journal of Medical Devices, Transactions of the ASME*, **2013**, 7,	1.3	1

List of Publications

7	Assessing the Usability of a Task-Shifting Device for Inserting Subcutaneous Contraceptive Implants for Use in Low-Income Countries. *Journal of Medical Devices, Transactions of the ASME*, **2020**, 14,	1.3	1
6	Students' perceptions of the value of stakeholder engagement during engineering design. *Journal of Engineering Education*, **2020**, 109, 760-779	2.3	1
5	Preliminary clinical assessment of a task-shifting device for subcutaneous contraceptive implants. *International Journal of Gynecology and Obstetrics*, **2021**, 155, 159-161	4	1
4	Automatically evaluating balance using machine learning and data from a single inertial measurement unit. *Journal of NeuroEngineering and Rehabilitation*, **2021**, 18, 114	5.3	0
3	Product representations in conjoint analysis in an LMIC setting: Comparing attribute valuation when three-dimensional physical prototypes are shown versus two-dimensional renderings. *Development Engineering*, **2021**, 6, 100063	2.5	0
2	INITIAL CHARACTERIZATION OF NOVICE ENGINEERING DESIGNERS' CONSIDERATION OF CONTEXTUAL FACTORS. *Proceedings of the Design Society*, **2021**, 1, 1857-1866		
1	Reducing Slip Risk: A Feasibility Study of Gait Training with Semi-Real-Time Feedback of Foot–Floor Contact Angle. *Sensors*, **2022**, 22, 3641	3.8	