Kenneth J Hunt

List of Publications by Year
in descending order

66	1,218	471509 17	395702 33
papers	citations	h-index	g-index

67	67	67	1063
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-volume FES-cycling partially reverses bone loss in people with chronic spinal cord injury. Bone, 2008, 43, 169-176.	2.9	157
2	Effects of cardiovascular exercise early after stroke: systematic review and meta-analysis. BMC Neurology, 2012, 12, 45.	1.8	133
3	Control strategies for integration of electric motor assist and functional electrical stimulation in paraplegic cycling: utility for exercise testing and mobile cycling. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2004, 12, 89-101.	4.9	124
4	Longâ€term intensive electrically stimulated cycling by spinal cordâ€“injured people: Effect on muscle properties and their relation to power output. Muscle and Nerve, 2008, 38, 1304-1311.	2.2	76
5	Morphological Computation and Morphological Control: Steps Toward a Formal Theory and Applications. Artificial Life, 2013, 19, 9-34.	1.3	63
6	On the efficiency of FES cycling: A framework and systematic review. Technology and Health Care, 2012, 20, 395-422.	1.2	58
7	Cardiorespiratory and Power Adaptations to Stimulated Cycle Training in Paraplegia. Medicine and Science in Sports and Exercise, 2008, 40, 1573-1580.	0.4	44
8	Effect of detraining on bone and muscle tissue in subjects with chronic spinal cord injury after a period of electrically-stimulated cycling: A small cohort study. Journal of Rehabilitation Medicine, 2009, 41, 282-285.	1.1	40
9	Heart rate control during treadmill exercise using input-sensitivity shaping for disturbance rejection of very-low-frequency heart rate variability. Biomedical Signal Processing and Control, 2016, 30, 31-42.	5.7	31
10	Comparison of strategies and performance of functional electrical stimulation cycling in spinal cord injury pilots for competition in the first ever CYBATHLON. European Journal of Translational Myology, 2017, 27, 7219.	1.7	29
11	Changes in heart rate variability with respect to exercise intensity and time during treadmill running. BioMedical Engineering OnLine, 2018, 17, 128.	2.7	28
12	Metabolic efficiency of volitional and electrically stimulated cycling in able-bodied subjects. Medical Engineering and Physics, 2013, 35, 919-925.	1.7	27
13	Identification of heart rate dynamics during moderate-to-vigorous treadmill exercise. BioMedical Engineering OnLine, 2015, 14, 117.	2.7	23
14	Comparison of peak cardiopulmonary performance parameters during robotics-assisted treadmill exercise and arm crank ergometry in incomplete spinal cord injury. Technology and Health Care, 2010, 18, 285-296.	1.2	22
15	Efficacy of Feedback-Controlled Robotics-Assisted Treadmill Exercise to Improve Cardiovascular Fitness Early After Stroke. Journal of Neurologic Physical Therapy, 2015, 39, 156-165.	1.4	22
16	Feedback Control of Oxygen Uptake During Robot-Assisted Gait. IEEE Transactions on Control Systems Technology, 2010, 18, 136-142.	5.2	19
17	Power output and fatigue properties using spatially distributed sequential stimulation in a dynamic knee extension task. European Journal of Applied Physiology, 2017, 117, 1787-1798.	2.5	17
18	Stimulation of paralysed quadriceps muscles with sequentially and spatially distributed electrodes during dynamic knee extension. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 5.	4.6	16

#	Article	IF	Citations
19	Feedback control of heart rate during outdoor running: A smartphone implementation. Biomedical Signal Processing and Control, 2016, 26, 90-97.	5.7	15
20	Feedback-controlled robotics-assisted treadmill exercise to assess and influence aerobic capacity early after stroke: a proof-of-concept study. Disability and Rehabilitation: Assistive Technology, 2014, 9, 271-278.	2.2	14
21	Modelling of the toe trajectory during normal gait using circle-fit approximation. Medical and Biological Engineering and Computing, 2016, 54, 1481-1489.	2.8	14
22	Control design for a lower-limb paediatric therapy device using linear motor technology. Biomedical Signal Processing and Control, 2017, 38, 119-127.	5.7	13
23	Comparison of proximally versus distally placed spatially distributed sequential stimulation electrodes in a dynamic knee extension task. European Journal of Translational Myology, 2016, 26, 6016.	1.7	12
24	Comparison of Peak Cardiopulmonary Performance Parameters on a Robotics-Assisted Tilt Table, a Cycle and a Treadmill. PLoS ONE, 2015, 10, e0122767.	2.5	11
25	Work-rate-guided exercise testing in patients with incomplete spinal cord injury using a robotics-assisted tilt-table. Disability and Rehabilitation: Assistive Technology, 2015, 10, 433-438.	2.2	11
26	Effect of stochastic modulation of inter-pulse interval during stimulated isokinetic leg extension. European Journal of Translational Myology, 2016, 26, 6160.	1.7	11
27	Cardiopulmonary responses to robotic end-effector-based walking and stair climbing. Medical Engineering and Physics, 2014, 36, 425-431.	1.7	10
28	Cardiopulmonary exercise testing early after stroke using feedback-controlled robotics-assisted treadmill exercise: test-retest reliability and repeatability. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 145.	4.6	9
29	Feasibility of cardiopulmonary exercise testing and training using a robotics-assisted tilt table in dependent-ambulatory stroke patients. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 88.	4.6	9
30	Comparison of linear and nonlinear feedback control of heart rate for treadmill running. Systems Science and Control Engineering, 2016, 4, 87-98.	3.1	9
31	A generalized stochastic optimal control formulation for heart rate regulation during treadmill exercise. Systems Science and Control Engineering, 2017, 5, 481-494.	3.1	9
32	Identification and comparison of heart-rate dynamics during cycle ergometer and treadmill exercise. PLoS ONE, 2019, 14, e0220826.	2.5	9
33	Test-retest reliability and four-week changes in cardiopulmonary fitness in stroke patients: evaluation using a robotics-assisted tilt table. BMC Neurology, 2016, 16, 163.	1.8	8
34	A unified heart rate control approach for cycle ergometer and treadmill exercise. Biomedical Signal Processing and Control, 2019, 54, 101601.	5.7	8
35	Characterisation of oxygen uptake response to linearly increasing work rate during robotics-assisted treadmill exercise in incomplete spinal cord injury. Biomedical Signal Processing and Control, 2010, 5, 70-75.	5.7	7
36	Feedback control of heart rate during robotics-assisted treadmill exercise. Technology and Health Care, 2012, 20, 179-194.	1.2	7

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37	Robot-Assisted End-Effector-Based Stair Climbing for Cardiopulmonary Exercise Testing: Feasibility, Reliability, and Repeatability. PLoS ONE, 2016, 11, e0148932.	2.5	7
38	Entwicklung eines Biofeedback-Systems zur Regelung der Leistung, Herzrate und Sauerstoffaufnahme fÃ¼r robotische Kipptisch-Therapie. Automatisierungstechnik, 2011, 59, 622-628.	0.8	6
39	Robust control of heart rate for cycle ergometer exercise. Medical and Biological Engineering and Computing, 2019, 57, 2471-2482.	2.8	6
40	Identification of heart rate dynamics during treadmill exercise: comparison of first- and second-order models. BioMedical Engineering OnLine, 2021, 20, 37.	2.7	6
41	Heart rate control using first- and second-order models during treadmill exercise. Systems Science and Control Engineering, 2021, 9, 651-662.	3.1	6
42	Feedback Control of Oxygen Uptake During Treadmill Exercise. IEEE Transactions on Control Systems Technology, 2008, 16, 624-635.	5.2	5
43	Cardiovascular rehabilitation soon after stroke using feedback-controlled robotics-assisted treadmill exercise: study protocol of a randomised controlled pilot trial. Trials, 2013, 14, 304.	1.6	5
44	Kinetic analysis of supine stepping for early rehabilitation of walking. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 456-464.	1.8	5
45	Investigation of cardiopulmonary exercise testing using a dynamic leg press and comparison with a cycle ergometer. BMC Sports Science, Medicine and Rehabilitation, 2018, 10, 5.	1.7	5
46	Foot trajectory approximation using the pendulum model of walking. Medical and Biological Engineering and Computing, 2014, 52, 45-52.	2.8	4
47	Submaximal cardiopulmonary thresholds on a robotics-assisted tilt table, a cycle and a treadmill: a comparative analysis. BioMedical Engineering OnLine, 2015, 14, 104.	2.7	4
48	Short-time weight-bearing capacity assessment for non-ambulatory patients with subacute stroke: reliability and discriminative power. BMC Research Notes, 2015, 8, 723.	1.4	4
49	A new method for selfâ€paced peak performance testing on a treadmill. Clinical Physiology and Functional Imaging, 2018, 38, 108-117.	1.2	4
50	Optimal control of heart rate during treadmill exercise. Optimal Control Applications and Methods, 2018, 39, 503-518.	2.1	4
51	Development of an Active Cable-Driven, Force-Controlled Robotic System for Walking Rehabilitation. Frontiers in Neurorobotics, 2021, 15, 651177.	2.8	4
52	Feedback control of human metabolic work rate during robotics-assisted treadmill exercise. Biomedical Signal Processing and Control, 2012, 7, 537-541.	5.7	3
53	Feedback control of oxygen uptake profiles during roboticsâ€assisted treadmill exercise. IET Control Theory and Applications, 2015, 9, 1433-1443.	2.1	3
54	Feedback control of heart rate during robotics-assisted end-effector-based stair climbing. Systems Science and Control Engineering, 2016, 4, 223-234.	3.1	3

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55	A method for predicting peak work rate for cycle ergometer and treadmill ramp tests. Clinical Physiology and Functional Imaging, 2017, 37, 610-614.	1.2	3
56	Feedback control of oxygen uptake during robotics-assisted end-effector-based stair climbing. Systems Science and Control Engineering, 2017, 5, 142-155.	3.1	3
57	Mechanical stimulation of the foot sole in a supine position for ground reaction force simulation. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 159.	4.6	2
58	Design of an isokinetic knee dynamometer for evaluation of functional electrical stimulation strategies. Medical Engineering and Physics, 2019, 73, 100-106.	1.7	2
59	Preliminary development and technical evaluation of a belt-actuated robotic rehabilitation platform. Technology and Health Care, 2021, 29, 595-607.	1.2	2
60	Mechanical Design and Control System Development of a Rehabilitation Robotic System for Walking With Arm Swing. Frontiers in Rehabilitation Sciences, 2021, 2, .	1.2	2
61	Design and evaluation of a prototype gait orthosis for early rehabilitation of walking. Technology and Health Care, 2014, 22, 273-288.	1.2	1
62	Technical feasibility of constant-load and high-intensity interval training for cardiopulmonary conditioning using a re-engineered dynamic leg press. BMC Biomedical Engineering, 2019, 1, 26.	2.6	1
63	Usability evaluation of an interactive leg press training robot for children with neuromuscular impairments. Technology and Health Care, 2022, 30, 1183-1197.	1.2	1
64	Time dependence of heart rate variability during treadmill running. Systems Science and Control Engineering, 2022, 10, 436-442.	3.1	1
65	Heart Rate Dynamics Identification and Control in Cycle Ergometer Exercise: Comparison of First- and Second-Order Performance. Frontiers in Control Engineering, 2022, 3, .	0.6	1
66	Dynamic balance training with sensory electrical stimulation in chronic stroke patients. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0