

Kenneth J Hunt

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

1,218
citations

471061

17
h-index

395343

33
g-index

67
all docs

67
docs citations

67
times ranked

1063
citing authors

#	ARTICLE	IF	CITATIONS
1	High-volume FES-cycling partially reverses bone loss in people with chronic spinal cord injury. <i>Bone</i> , 2008, 43, 169-176.	1.4	157
2	Effects of cardiovascular exercise early after stroke: systematic review and meta-analysis. <i>BMC Neurology</i> , 2012, 12, 45.	0.8	133
3	Control strategies for integration of electric motor assist and functional electrical stimulation in paraplegic cycling: utility for exercise testing and mobile cycling. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2004, 12, 89-101.	2.7	124
4	Long-term intensive electrically stimulated cycling by spinal cord-injured people: Effect on muscle properties and their relation to power output. <i>Muscle and Nerve</i> , 2008, 38, 1304-1311.	1.0	76
5	Morphological Computation and Morphological Control: Steps Toward a Formal Theory and Applications. <i>Artificial Life</i> , 2013, 19, 9-34.	1.0	63
6	On the efficiency of FES cycling: A framework and systematic review. <i>Technology and Health Care</i> , 2012, 20, 395-422.	0.5	58
7	Cardiorespiratory and Power Adaptations to Stimulated Cycle Training in Paraplegia. <i>Medicine and Science in Sports and Exercise</i> , 2008, 40, 1573-1580.	0.2	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. <i>Journal of Rehabilitation Medicine</i> , 2009, 41, 282-285.	0.8	40
9	Heart rate control during treadmill exercise using input-sensitivity shaping for disturbance rejection of very-low-frequency heart rate variability. <i>Biomedical Signal Processing and Control</i> , 2016, 30, 31-42.	3.5	31
10	Comparison of strategies and performance of functional electrical stimulation cycling in spinal cord injury pilots for competition in the first ever CYBATHLON. <i>European Journal of Translational Myology</i> , 2017, 27, 7219.	0.8	29
11	Changes in heart rate variability with respect to exercise intensity and time during treadmill running. <i>BioMedical Engineering OnLine</i> , 2018, 17, 128.	1.3	28
12	Metabolic efficiency of volitional and electrically stimulated cycling in able-bodied subjects. <i>Medical Engineering and Physics</i> , 2013, 35, 919-925.	0.8	27
13	Identification of heart rate dynamics during moderate-to-vigorous treadmill exercise. <i>BioMedical Engineering OnLine</i> , 2015, 14, 117.	1.3	23
14	Comparison of peak cardiopulmonary performance parameters during robotics-assisted treadmill exercise and arm crank ergometry in incomplete spinal cord injury. <i>Technology and Health Care</i> , 2010, 18, 285-296.	0.5	22
15	Efficacy of Feedback-Controlled Robotics-Assisted Treadmill Exercise to Improve Cardiovascular Fitness Early After Stroke. <i>Journal of Neurologic Physical Therapy</i> , 2015, 39, 156-165.	0.7	22
16	Feedback Control of Oxygen Uptake During Robot-Assisted Gait. <i>IEEE Transactions on Control Systems Technology</i> , 2010, 18, 136-142.	3.2	19
17	Power output and fatigue properties using spatially distributed sequential stimulation in a dynamic knee extension task. <i>European Journal of Applied Physiology</i> , 2017, 117, 1787-1798.	1.2	17
18	Stimulation of paralysed quadriceps muscles with sequentially and spatially distributed electrodes during dynamic knee extension. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 5.	2.4	16

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19	Feedback control of heart rate during outdoor running: A smartphone implementation. <i>Biomedical Signal Processing and Control</i> , 2016, 26, 90-97.	3.5	15
20	Feedback-controlled robotics-assisted treadmill exercise to assess and influence aerobic capacity early after stroke: a proof-of-concept study. <i>Disability and Rehabilitation: Assistive Technology</i> , 2014, 9, 271-278.	1.3	14
21	Modelling of the toe trajectory during normal gait using circle-fit approximation. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1481-1489.	1.6	14
22	Control design for a lower-limb paediatric therapy device using linear motor technology. <i>Biomedical Signal Processing and Control</i> , 2017, 38, 119-127.	3.5	13
23	Comparison of proximally versus distally placed spatially distributed sequential stimulation electrodes in a dynamic knee extension task. <i>European Journal of Translational Myology</i> , 2016, 26, 6016.	0.8	12
24	Comparison of Peak Cardiopulmonary Performance Parameters on a Robotics-Assisted Tilt Table, a Cycle and a Treadmill. <i>PLoS ONE</i> , 2015, 10, e0122767.	1.1	11
25	Work-rate-guided exercise testing in patients with incomplete spinal cord injury using a robotics-assisted tilt-table. <i>Disability and Rehabilitation: Assistive Technology</i> , 2015, 10, 433-438.	1.3	11
26	Effect of stochastic modulation of inter-pulse interval during stimulated isokinetic leg extension. <i>European Journal of Translational Myology</i> , 2016, 26, 6160.	0.8	11
27	Cardiopulmonary responses to robotic end-effector-based walking and stair climbing. <i>Medical Engineering and Physics</i> , 2014, 36, 425-431.	0.8	10
28	Cardiopulmonary exercise testing early after stroke using feedback-controlled robotics-assisted treadmill exercise: test-retest reliability and repeatability. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 145.	2.4	9
29	Feasibility of cardiopulmonary exercise testing and training using a robotics-assisted tilt table in dependent-ambulatory stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015, 12, 88.	2.4	9
30	Comparison of linear and nonlinear feedback control of heart rate for treadmill running. <i>Systems Science and Control Engineering</i> , 2016, 4, 87-98.	1.8	9
31	A generalized stochastic optimal control formulation for heart rate regulation during treadmill exercise. <i>Systems Science and Control Engineering</i> , 2017, 5, 481-494.	1.8	9
32	Identification and comparison of heart-rate dynamics during cycle ergometer and treadmill exercise. <i>PLoS ONE</i> , 2019, 14, e0220826.	1.1	9
33	Test-retest reliability and four-week changes in cardiopulmonary fitness in stroke patients: evaluation using a robotics-assisted tilt table. <i>BMC Neurology</i> , 2016, 16, 163.	0.8	8
34	A unified heart rate control approach for cycle ergometer and treadmill exercise. <i>Biomedical Signal Processing and Control</i> , 2019, 54, 101601.	3.5	8
35	Characterisation of oxygen uptake response to linearly increasing work rate during robotics-assisted treadmill exercise in incomplete spinal cord injury. <i>Biomedical Signal Processing and Control</i> , 2010, 5, 70-75.	3.5	7
36	Feedback control of heart rate during robotics-assisted treadmill exercise. <i>Technology and Health Care</i> , 2012, 20, 179-194.	0.5	7

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37	Robot-Assisted End-Effector-Based Stair Climbing for Cardiopulmonary Exercise Testing: Feasibility, Reliability, and Repeatability. <i>PLoS ONE</i> , 2016, 11, e0148932.	1.1	7
38	Entwicklung eines Biofeedback-Systems zur Regelung der Leistung, Herzrate und Sauerstoffaufnahme für robotische Kipptisch-Therapie. <i>Automatisierungstechnik</i> , 2011, 59, 622-628.	0.4	6
39	Robust control of heart rate for cycle ergometer exercise. <i>Medical and Biological Engineering and Computing</i> , 2019, 57, 2471-2482.	1.6	6
40	Identification of heart rate dynamics during treadmill exercise: comparison of first- and second-order models. <i>BioMedical Engineering OnLine</i> , 2021, 20, 37.	1.3	6
41	Heart rate control using first- and second-order models during treadmill exercise. <i>Systems Science and Control Engineering</i> , 2021, 9, 651-662.	1.8	6
42	Feedback Control of Oxygen Uptake During Treadmill Exercise. <i>IEEE Transactions on Control Systems Technology</i> , 2008, 16, 624-635.	3.2	5
43	Cardiovascular rehabilitation soon after stroke using feedback-controlled robotics-assisted treadmill exercise: study protocol of a randomised controlled pilot trial. <i>Trials</i> , 2013, 14, 304.	0.7	5
44	Kinetic analysis of supine stepping for early rehabilitation of walking. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2014, 228, 456-464.	1.0	5
45	Investigation of cardiopulmonary exercise testing using a dynamic leg press and comparison with a cycle ergometer. <i>BMC Sports Science, Medicine and Rehabilitation</i> , 2018, 10, 5.	0.7	5
46	Foot trajectory approximation using the pendulum model of walking. <i>Medical and Biological Engineering and Computing</i> , 2014, 52, 45-52.	1.6	4
47	Submaximal cardiopulmonary thresholds on a robotics-assisted tilt table, a cycle and a treadmill: a comparative analysis. <i>BioMedical Engineering OnLine</i> , 2015, 14, 104.	1.3	4
48	Short-time weight-bearing capacity assessment for non-ambulatory patients with subacute stroke: reliability and discriminative power. <i>BMC Research Notes</i> , 2015, 8, 723.	0.6	4
49	A new method for self-paced peak performance testing on a treadmill. <i>Clinical Physiology and Functional Imaging</i> , 2018, 38, 108-117.	0.5	4
50	Optimal control of heart rate during treadmill exercise. <i>Optimal Control Applications and Methods</i> , 2018, 39, 503-518.	1.3	4
51	Development of an Active Cable-Driven, Force-Controlled Robotic System for Walking Rehabilitation. <i>Frontiers in Neurorobotics</i> , 2021, 15, 651177.	1.6	4
52	Feedback control of human metabolic work rate during robotics-assisted treadmill exercise. <i>Biomedical Signal Processing and Control</i> , 2012, 7, 537-541.	3.5	3
53	Feedback control of oxygen uptake profiles during robotics-assisted treadmill exercise. <i>IET Control Theory and Applications</i> , 2015, 9, 1433-1443.	1.2	3
54	Feedback control of heart rate during robotics-assisted end-effector-based stair climbing. <i>Systems Science and Control Engineering</i> , 2016, 4, 223-234.	1.8	3

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55	A method for predicting peak work rate for cycle ergometer and treadmill ramp tests. <i>Clinical Physiology and Functional Imaging</i> , 2017, 37, 610-614.	0.5	3
56	Feedback control of oxygen uptake during robotics-assisted end-effector-based stair climbing. <i>Systems Science and Control Engineering</i> , 2017, 5, 142-155.	1.8	3
57	Mechanical stimulation of the foot sole in a supine position for ground reaction force simulation. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 159.	2.4	2
58	Design of an isokinetic knee dynamometer for evaluation of functional electrical stimulation strategies. <i>Medical Engineering and Physics</i> , 2019, 73, 100-106.	0.8	2
59	Preliminary development and technical evaluation of a belt-actuated robotic rehabilitation platform. <i>Technology and Health Care</i> , 2021, 29, 595-607.	0.5	2
60	Mechanical Design and Control System Development of a Rehabilitation Robotic System for Walking With Arm Swing. <i>Frontiers in Rehabilitation Sciences</i> , 2021, 2, .	0.5	2
61	Design and evaluation of a prototype gait orthosis for early rehabilitation of walking. <i>Technology and Health Care</i> , 2014, 22, 273-288.	0.5	1
62	Technical feasibility of constant-load and high-intensity interval training for cardiopulmonary conditioning using a re-engineered dynamic leg press. <i>BMC Biomedical Engineering</i> , 2019, 1, 26.	1.7	1
63	Usability evaluation of an interactive leg press training robot for children with neuromuscular impairments. <i>Technology and Health Care</i> , 2022, 30, 1183-1197.	0.5	1
64	Time dependence of heart rate variability during treadmill running. <i>Systems Science and Control Engineering</i> , 2022, 10, 436-442.	1.8	1
65	Heart Rate Dynamics Identification and Control in Cycle Ergometer Exercise: Comparison of First- and Second-Order Performance. <i>Frontiers in Control Engineering</i> , 2022, 3, .	0.4	1
66	Dynamic balance training with sensory electrical stimulation in chronic stroke patients. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006, , .	0.5	0