

Ruochen Wang

List of Publications by Year in descending order

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76
papers

1,299
citations

361045

20
h-index

414034

32
g-index

78
all docs

78
docs citations

78
times ranked

624
citing authors

#	ARTICLE	IF	CITATIONS
1	Modelling and simulation study of a converging thermoelectric generator for engine waste heat recovery. <i>Applied Thermal Engineering</i> , 2019, 153, 837-847.	3.0	81
2	Parametric study of a thermoelectric module used for both power generation and cooling. <i>Renewable Energy</i> , 2020, 154, 542-552.	4.3	81
3	A numerical study on the performance of a converging thermoelectric generator system used for waste heat recovery. <i>Applied Energy</i> , 2020, 270, 115181.	5.1	68
4	A novel optimization method for thermoelectric module used in waste heat recovery. <i>Energy Conversion and Management</i> , 2020, 209, 112645.	4.4	65
5	Performance investigation of a thermoelectric generator system applied in automobile exhaust waste heat recovery. <i>Energy</i> , 2022, 238, 121816.	4.5	61
6	Application of hybrid electromagnetic suspension in vibration energy regeneration and active control. <i>JVC/Journal of Vibration and Control</i> , 2018, 24, 223-233.	1.5	49
7	Comparison and parametric study of two theoretical modeling approaches based on an air-to-water thermoelectric generator system. <i>Journal of Power Sources</i> , 2019, 439, 227069.	4.0	48
8	Transient numerical modelling of a thermoelectric generator system used for automotive exhaust waste heat recovery. <i>Applied Energy</i> , 2021, 297, 117151.	5.1	45
9	Performance evaluation of a novel thermoelectric module with BiSbTeSe-based material. <i>Applied Energy</i> , 2019, 238, 1299-1311.	5.1	37
10	Numerical investigation on the dynamic response characteristics of a thermoelectric generator module under transient temperature excitations. <i>Renewable Energy</i> , 2021, 170, 811-823.	4.3	37
11	On-line estimation of road profile in semi-active suspension based on unsprung mass acceleration. <i>Mechanical Systems and Signal Processing</i> , 2020, 135, 106370.	4.4	35
12	A modified energy-saving skyhook for active suspension based on a hybrid electromagnetic actuator. <i>JVC/Journal of Vibration and Control</i> , 2019, 25, 286-297.	1.5	34
13	Design and experiment study of a semi-active energy-regenerative suspension system. <i>Smart Materials and Structures</i> , 2015, 24, 015001.	1.8	33
14	Performance optimization of a converging thermoelectric generator system via multiphysics simulations. <i>Energy</i> , 2020, 204, 117974.	4.5	32
15	Performance investigation and energy optimization of a thermoelectric generator for a mild hybrid vehicle. <i>Energy</i> , 2018, 162, 1016-1028.	4.5	31
16	Investigation on the dynamic performance of a new semi-active hydro-pneumatic inerter-based suspension system with MPC control strategy. <i>Mechanical Systems and Signal Processing</i> , 2021, 154, 107569.	4.4	26
17	Analytical research on the dynamic performance of semi-active inerter-based vibration isolator with acceleration-velocity-based control strategy. <i>Structural Control and Health Monitoring</i> , 2019, 26, e2336.	1.9	24
18	Modeling and optimal energy management of a power split hybrid electric vehicle. <i>Science China Technological Sciences</i> , 2017, 60, 713-725.	2.0	22

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19	Analyzing the influence of automatic steering system on the trajectory tracking accuracy of intelligent vehicle. <i>Advances in Engineering Software</i> , 2018, 121, 188-196.	1.8	22
20	Energy consumption sensitivity analysis and energy-reduction control of hybrid electromagnetic active suspension. <i>Mechanical Systems and Signal Processing</i> , 2019, 134, 106301.	4.4	21
21	Switching control of semi-active suspension based on road profile estimation. <i>Vehicle System Dynamics</i> , 2022, 60, 1972-1992.	2.2	20
22	Comparison of different fluid-thermal-electric multiphysics modeling approaches for thermoelectric generator systems. <i>Renewable Energy</i> , 2021, 180, 1266-1277.	4.3	20
23	An investigation of the dynamic performance of lateral inerter-based vibration isolator with geometrical nonlinearity. <i>Archive of Applied Mechanics</i> , 2019, 89, 1953-1972.	1.2	19
24	Review on multi-power sources dynamic coordinated control of hybrid electric vehicle during driving mode transition process. <i>International Journal of Energy Research</i> , 2020, 44, 6128-6148.	2.2	19
25	Performance optimization of a segmented converging thermoelectric generator for waste heat recovery. <i>Applied Thermal Engineering</i> , 2022, 202, 117843.	3.0	19
26	Study on coordinated control of the energy regeneration and the vibration isolation in a hybrid electromagnetic suspension. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2017, 231, 1530-1539.	1.1	18
27	Trajectory control for tire burst vehicle using the standalone and roll interconnected active suspensions with safety-comfort control strategy. <i>Mechanical Systems and Signal Processing</i> , 2020, 142, 106776.	4.4	18
28	Evaluation of energy recovery potential of solar thermoelectric generators using a three-dimensional transient numerical model. <i>Energy</i> , 2022, 256, 124667.	4.5	18
29	Design and test of vehicle suspension system with inerters. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2014, 228, 2684-2689.	1.1	16
30	Analysis and Comparison of the Dynamic Performance of One-Stage Inerter-Based and Linear Vibration Isolators. <i>International Journal of Applied Mechanics</i> , 2018, 10, 1850005.	1.3	16
31	A study of the hydraulically interconnected inerter-spring-damper suspension system. <i>Mechanics Based Design of Structures and Machines</i> , 2017, 45, 415-429.	3.4	14
32	Development and performance evaluation of a comprehensive automotive energy recovery system with a refined energy management strategy. <i>Energy</i> , 2019, 189, 116365.	4.5	14
33	Performance analysis of a new hydropneumatic inerter-based suspension system with semi-active control effect. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2020, 234, 1883-1896.	1.1	13
34	A Comprehensive Study on X-Type Thermoelectric Generator Modules. <i>Journal of Electronic Materials</i> , 2020, 49, 4343-4354.	1.0	13
35	The stability and accuracy analysis of automatic steering system with time delay. <i>ISA Transactions</i> , 2020, 104, 278-286.	3.1	12
36	Investigation of Intelligent Vehicle Path Tracking Based on Longitudinal and Lateral Coordinated Control. <i>IEEE Access</i> , 2020, 8, 105031-105046.	2.6	12

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37	Parametric study of asymmetric thermoelectric devices for power generation. International Journal of Energy Research, 2020, 44, 6950-6963.	2.2	12
38	Battery pack topology structure on state-of-charge estimation accuracy in electric vehicles. Electrochimica Acta, 2016, 219, 711-720.	2.6	11
39	Research on Energy-Regenerative Performance of Suspension System with Semi-active Control. Journal of Vibration Engineering and Technologies, 2019, 7, 465-475.	1.3	10
40	A Comparative Research on the Energy Recovery Potential of Different Vehicle Energy Regeneration Technologies. Energy Procedia, 2019, 158, 2543-2548.	1.8	9
41	Mode-switching control and stability analysis of a hybrid electromagnetic actuator for the vehicle suspension. JVC/Journal of Vibration and Control, 2020, 26, 1804-1814.	1.5	9
42	Theoretical analysis of energy recovery potential for different types of conventional vehicles with a thermoelectric generator. Energy Procedia, 2019, 158, 142-147.	1.8	8
43	Experimental Test and Estimation of the Equivalent Thermoelectric Properties for a Thermoelectric Module. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	8
44	Vehicle attitude compensation control of magneto-rheological semi-active suspension based on state observer. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2021, 235, 3299-3313.	1.1	8
45	Energy harvesting approach to utilize the dissipated energy during hydraulic active suspension operation with comfort oriented control scheme. Energy, 2021, 224, 120124.	4.5	8
46	Hybrid model predictive control of damping multi-mode switching damper for vehicle suspensions. Journal of Vibroengineering, 2017, 19, 2910-2930.	0.5	8
47	Research on time-delay-dependent H_{∞} / H_2 optimal control of magnetorheological semi-active suspension with response delay. JVC/Journal of Vibration and Control, 2023, 29, 1447-1458.	1.5	8
48	Energy Conservation Analysis and Control of Hybrid Active Semiactive Suspension with Three Regulating Damping Levels. Shock and Vibration, 2016, 2016, 1-14.	0.3	7
49	Modelling and control of a semi-active dual-chamber hydro-pneumatic inerter-based suspension system. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 0, , 095440702199091.	1.1	7
50	Self-tuning Control on Integrated System of EPS and SAS Based on Pole Placement. Procedia Engineering, 2011, 16, 271-277.	1.2	6
51	Integrated control of semi-active suspension and electric power steering based on multi-agent system. International Journal of Bio-Inspired Computation, 2012, 4, 73.	0.6	6
52	A study of the novel vision guided IV trajectory tracking control system based on expected yaw velocity. Advances in Engineering Software, 2019, 131, 196-204.	1.8	6
53	Design and test study of a new mixed control method for magnetorheological semi-active suspension based on electromechanical analogy theory. Journal of Theoretical and Applied Mechanics, 2021, , 189-201.	0.2	5
54	Research into the Effect of Supercapacitor Terminal Voltage on Regenerative Suspension Energy-Regeneration and Dynamic Performance. Shock and Vibration, 2017, 2017, 1-8.	0.3	4

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55	Energy-saving control strategy design and structure realization for electromagnetic active suspension. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 3060-3075.	1.1	4
56	Investigation on adaptive preview distance path tracking control with directional error compensation. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2020, 234, 484-500.	0.7	4
57	Design and experimental research on electromagnetic active suspension with energy-saving perspective. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2020, 234, 487-500.	1.1	4
58	Optimal Design and Experimental Research on a New Hybrid Electromagnetic Actuator for Vehicles. IEEE Access, 2020, 8, 95768-95778.	2.6	4
59	Design and experimental verification of self-powered electromagnetic vibration suppression and absorption system for in-wheel motor electric vehicles. JVC/Journal of Vibration and Control, 2022, 28, 2544-2555.	1.5	3
60	Study of Mode Switch of the Hydraulically Interconnected Inerter-spring-damper Suspension System. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2017, 53, 110.	0.7	3
61	Research on Module Layout and Module Coverage of an Automobile Exhaust Thermoelectric Power Generation System. Energies, 2022, 15, 987.	1.6	3
62	Stability analysis of the anti-lock braking system with time delay. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2022, 236, 671-682.	0.7	3
63	A new hybrid electromagnetic actuator for a modified skyhook control strategy with energy reduction. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2020, 234, 2025-2037.	1.1	2
64	Mode Transition Control of a Power-Split Hybrid Electric Vehicle Based on Improved Extended State Observer. IEEE Access, 2020, 8, 207260-207274.	2.6	2
65	Investigation on hierarchical control for driving stability and safety of intelligent HEV during car-following and lane-change process. Science China Technological Sciences, 2022, 65, 53.	2.0	2
66	Energy optimization for intelligent hybrid electric vehicles based on hybrid system approach in a car-following process. Optimal Control Applications and Methods, 2022, 43, 1020-1046.	1.3	2
67	Research on Green Path Planning Model for Road Logistics Vehicle. , 2010, , .		1
68	Chaotic Motion in a Nonlinear Car Model Excited by Multi-frequency Road Surface Profile. Chinese Journal of Mechanical Engineering (English Edition), 2017, 30, 689-697.	1.9	1
69	Research on modeling and compensation control strategy of automatic steering system. Science Progress, 2020, 103, 003685041987502.	1.0	1
70	Modeling and Experimental Study of a BiSbTeSe-Based Thermoelectric Module for Thermal Energy Recovery. Journal of Electronic Materials, 2020, 49, 3039-3051.	1.0	1
71	Research on Intelligent Vehicle Path Tracking with Subsystems Based on Multimodel Intelligent Hierarchical Control Theory. Mathematical Problems in Engineering, 2021, 2021, 1-15.	0.6	1
72	Dynamic Performance Analysis of Hydraulic ISD Suspension Based on Virtual Prototype Model. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2015, 51, 137.	0.7	1

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73	Parameter sensitivity analysis and optimization of vibration energy of a hybrid energy-regenerative suspension. Journal of Theoretical and Applied Mechanics, 2019, 57, 641-653.	0.2	1
74	Control of Damping Nonlinearity of Semi-Active Suspension. Key Engineering Materials, 0, 464, 233-236.	0.4	0
75	Research on Inerter-Spring-Damper Semi-Active Suspension with Robust Control. , 0, , .		0
76	A new compound control method for sine-on-random mixed vibration test. IOP Conference Series: Materials Science and Engineering, 2017, 231, 012184.	0.3	0