Donghong Ning

List of Publications by Year
in descending order

68 papers	1,476 citations	331259 21 h-index	344852 36 g-index
70 all docs	70 docs citations	70 times ranked	864 citing authors

#	Article	IF	Citations
1	Takagiâ€“Sugeno Fuzzy Control for Semi-Active Vehicle Suspension With a Magnetorheological Damper and Experimental Validation. IEEE/ASME Transactions on Mechatronics, 2017, 22, 291-300.	3.7	107
2	A semi-active suspension using a magnetorheological damper with nonlinear negative-stiffness component. Mechanical Systems and Signal Processing, 2021, 147, 107071.	4.4	95
3	Disturbance observer based Takagi-Sugeno fuzzy control for an active seat suspension. Mechanical Systems and Signal Processing, 2017, 93, 515-530.	4.4	94
4	A seat suspension with a rotary magnetorheological damper for heavy duty vehicles. Smart Materials and Structures, 2016, 25, 105032.	1.8	83
5	Active control of an innovative seat suspension system with acceleration measurement based friction estimation. Journal of Sound and Vibration, 2016, 384, 28-44.	2.1	81
6	An active seat suspension design for vibration control of heavy-duty vehicles. Journal of Low Frequency Noise Vibration and Active Control, 2016, 35, 264-278.	1.3	75
7	An Energy Saving Variable Damping Seat Suspension System With Regeneration Capability. IEEE Transactions on Industrial Electronics, 2018, 65, 8080-8091.	5.2	63
8	Vibration control of an energy regenerative seat suspension with variable external resistance. Mechanical Systems and Signal Processing, 2018, 106, 94-113.	4.4	62
9	A variable resonance magnetorheological-fluid-based pendulum tuned mass damper for seismic vibration suppression. Mechanical Systems and Signal Processing, 2019, 116, 530-544.	4.4	60
10	An electromagnetic variable inertance device for seat suspension vibration control. Mechanical Systems and Signal Processing, 2019, 133, 106259.	4.4	49
11	A New Generation of Magnetorheological Vehicle Suspension System With Tunable Stiffness and Damping Characteristics. IEEE Transactions on Industrial Informatics, 2019, 15, 4696-4708.	7.2	47
12	Vibration reduction of seat suspension using observer based terminal sliding mode control with acceleration data fusion. Mechatronics, 2017, 44, 71-83.	2.0	42
13	Control of a multiple-DOF vehicle seat suspension with roll and vertical vibration. Journal of Sound and Vibration, 2018, 435, 170-191.	2.1	34
14	Controllable Electrically Interconnected Suspension System for Improving Vehicle Vibration Performance. IEEE/ASME Transactions on Mechatronics, 2020, 25, 859-871.	3.7	30
15	An Electromagnetic Variable Stiffness Device for Semiactive Seat Suspension Vibration Control. IEEE Transactions on Industrial Electronics, 2020, 67, 6773-6784.	5.2	29
16	A rotary variable admittance device and its application in vehicle seat suspension vibration control. Journal of the Franklin Institute, 2019, 356, 7873-7895.	1.9	28
17	A novel negative stiffness magnetic spring design for vehicle seat suspension system. Mechatronics, 2020, 68, 102370.	2.0	27
18	Event-triggered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.svg"><mml:mrow><mml:msub><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mi>â^ž</mml:mi></m control for active seat suspension systems based on relaxed conditions for stability. Mechanical Systems and Signal Processing, 2021, 149, 107210.	4.4	26

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19	Development of an MR seat suspension with self-powered generation capability. Smart Materials and Structures, 2017, 26, 085025.	1.8	25
20	A highly stiffness-adjustable robot leg for enhancing locomotive performance. Mechanical Systems and Signal Processing, 2019, 126, 458-468.	4.4	25
21	Integrated active and semi-active control for seat suspension of a heavy duty vehicle. Journal of Intelligent Material Systems and Structures, 2018, 29, 91-100.	1.4	24
22	Investigation of a seat suspension installed with compact variable stiffness and damping rotary magnetorheological dampers. Mechanical Systems and Signal Processing, 2022, 171, 108802.	4.4	24
23	A Novel Electrical Variable Stiffness Device for Vehicle Seat Suspension Control With Mismatched Disturbance Compensation. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2019-2030.	3.7	23
24	Experimental testing and modelling of a rotary variable stiffness and damping shock absorber using magnetorheological technology. Journal of Intelligent Material Systems and Structures, 2019, 30, 1453-1465.	1.4	23
25	Theoretical and experimental investigation of a stiffness-controllable suspension for railway vehicles to avoid resonance. International Journal of Mechanical Sciences, 2020, 187, 105901.	3.6	23
26	A torsional MRE joint for a C-shaped robotic leg. Smart Materials and Structures, 2017, 26, 015002.	1.8	22
27	A semi-active variable equivalent stiffness and inertance device implemented by an electrical network. Mechanical Systems and Signal Processing, 2021, 156, 107676.	4.4	21
28	An Electromagnetic Variable Inertance and Damping Seat Suspension With Controllable Circuits. IEEE Transactions on Industrial Electronics, 2022, 69, 2811-2821.	5.2	18
29	An Innovative Two-Layer Multiple-DOF Seat Suspension for Vehicle Whole Body Vibration Control. IEEE/ASME Transactions on Mechatronics, 2018, 23, 1787-1799.	3.7	16
30	A magnetorheological elastomer rail damper for wideband attenuation of rail noise and vibration. Journal of Intelligent Material Systems and Structures, 2020, 31, 220-228.	1.4	16
31	Decoupling vibration control of a semi-active electrically interconnected suspension based on mechanical hardware-in-the-loop. Mechanical Systems and Signal Processing, 2022, 166, 108455.	4.4	16
32	Integration of an omnidirectional self-powering component to an MRE isolator towards a smart passive isolation system. Mechanical Systems and Signal Processing, 2020, 144, 106853.	4.4	13
33	A controllable mechanical motion rectifier-based semi-active magnetorheological inerter for vibration control. Smart Materials and Structures, 2020, 29, 114005.	1.8	13
34	Torque response characteristics of a controllable electromagnetic damper for seat suspension vibration control. Mechanical Systems and Signal Processing, 2019, 133, 106238.	4.4	12
35	Takagi-Sugeno Fuzzy Model-Based Semi-Active Control for the Seat Suspension With an Electrorheological Damper. IEEE Access, 2020, 8, 98027-98037.	2.6	12
36	Dynamic outputâ€feedback eventâ€triggered Hâˆž control for singular active seat suspension systems with a human body model. IET Control Theory and Applications, 2021, 15, 594-603.	1.2	11

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37	Development and evaluation of an MRE-based absorber with two individually controllable natural frequencies. Smart Materials and Structures, 2018, 27, 095002.	1.8	10
38	Development and evaluation of a highly adaptive MRF-based absorber with a large effective frequency range. Smart Materials and Structures, 2019, 28, 105003.	1.8	10
39	The variable resonance magnetorheological pendulum tuned mass damper: Mathematical modelling and seismic experimental studies. Journal of Intelligent Material Systems and Structures, 2020, 31, 263-276.	1.4	10
40	A Takagi-Sugeno Fuzzy Model-Based Control Strategy for Variable Stiffness and Variable Damping Suspension. IEEE Access, 2020, 8, 71628-71641.	2.6	8
41	Innovative variable stiffness and variable damping magnetorheological actuation system for robotic arm positioning. Journal of Intelligent Material Systems and Structures, 2023, 34, 123-137.	1.4	8
42	Relaxed fuzzy observerâ€based output feedback control synthesis of discreteâ€time nonlinear control systems. Complexity, 2016, 21, 593-601.	0.9	7
43	Friction observer-based hybrid controller for a seat suspension with semi-active electromagnetic damper. Mechatronics, 2021, 76, 102568.	2.0	7
44	Development of a smart rubber joint for train using shear thickening fluids. Smart Materials and Structures, 2020, 29, 055036.	1.8	6
45	Robust Adaptive Sliding Mode PI Control for Active Vehicle Seat Suspension Systems. , 2019, , .		5
46	A smart passive MR damper with a hybrid powering system for impact mitigation: An experimental study. Journal of Intelligent Material Systems and Structures, 2021, 32, 1452-1461.	1.4	5
47	A novel magneto-rheological fluid dual-clutch design for two-speed transmission of electric vehicles. Smart Materials and Structures, 2021, 30, 075035.	1.8	5
48	Singular System-Based Approach for Active Vibration Control of Vehicle Seat Suspension. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	0.9	5
49	Design and testing of a novel two-way controllable overrunning clutch based magneto-rheological brake. Smart Materials and Structures, 2019, 28, 095013.	1.8	4
50	A variable inertance and variable damping vibration control system with electric circuit. , 2019, , .		4
51	Optimization of electrically interconnected suspension for vibration control. , 2021, , .		3
52	Semi-actively Controllable Vehicle Seat Suspension System with Negative Stiffness Magnetic Spring. IEEE/ASME Transactions on Mechatronics, 2020, , 1-1.	3.7	2
53	Modelling and experimental evaluation of a variable stiffness MR suspension with self-powering capability. Journal of Intelligent Material Systems and Structures, 2021, 32, 1473-1483.	1.4	2
54	Active seat suspension control algorithm. , 2020, , 209-242.		1

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55	Nonlinear Force Model of Electromagnetic Damper and Its Influence on Vibration Control. , 0, , .		1
56	Event-triggered <i>H</i>_{âˆž} control for active seat suspension systems with state delay. Transactions of the Institute of Measurement and Control, 2021, 43, 3428-3437.	1.1	1
57	Experimental Vibration Simulation for Heavy Duty Vehicle Seat Suspension with a Multiple-DOF Motion Platform. , 2015, , .		0
58	Takagi-Sugeno Fuzzy Control for the Semi-active Seat Suspension with an Electromagnetic Damper. , 2019, , .		0
59	Self-powered MR seat suspension. , 2020, , 57-77.		0
60	Variable equivalent inertance seat suspension. , 2020, , 121-167.		0
61	Single-DOF active seat suspension. , 2020, , 171-179.		0
62	Multiple-DOF active seat suspension. , 2020, , 181-208.		0
63	Vibration control of a negative stiffness mechanism-based semiactive seat suspension system. , 2020, , 275-293.		0
64	Variable equivalent stiffness seat suspension. , 2020, , 79-119.		0
65	Hybrid active and semi-active seat suspension. , 2020, , 245-265.		0
66	Variable Admittance Network with Indirect Energy Supply for Semiactive Vibration Control. Lecture Notes in Electrical Engineering, 2022, , 987-1002.	0.3	0
67	Output Reachable Set Estimation for Singular Seat Suspension Systems. , 2021, , 143-149.		0
68	Front vehicle detection based on improved fusion method for lidar and visual image. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 0, , 095440702110685.	1.1	0