

# Paul Walker

## List of Publications by Year in descending order

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114  
papers

2,762  
citations

159525

30  
h-index

214721

47  
g-index

116  
all docs

116  
docs citations

116  
times ranked

1790  
citing authors

#	ARTICLE	IF	CITATIONS
1	Topology optimization for functionally graded cellular composites with metamaterials by level sets. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 340-364.	3.4	141
2	A comparative study energy consumption and costs of battery electric vehicle transmissions. Applied Energy, 2016, 165, 119-134.	5.1	128
3	Control of gear shifts in dual clutch transmission powertrains. Mechanical Systems and Signal Processing, 2011, 25, 1923-1936.	4.4	113
4	Powertrain dynamics and control of a two speed dual clutch transmission for electric vehicles. Mechanical Systems and Signal Processing, 2017, 85, 1-15.	4.4	111
5	Sliding-Mode Observer Based Voltage-Sensorless Model Predictive Power Control of PWM Rectifier Under Unbalanced Grid Conditions. IEEE Transactions on Industrial Electronics, 2018, 65, 5550-5560.	5.2	101
6	Efficiency comparison of electric vehicles powertrains with dual motor and single motor input. Mechanism and Machine Theory, 2018, 128, 569-585.	2.7	89
7	Numerical and experimental investigation of drag torque in a two-speed dual clutch transmission. Mechanism and Machine Theory, 2014, 79, 46-63.	2.7	87
8	An investigation of hybrid energy storage system in multi-speed electric vehicle. Energy, 2017, 140, 291-306.	4.5	70
9	Robust Deadbeat Predictive Power Control With a Discrete-Time Disturbance Observer for PWM Rectifiers Under Unbalanced Grid Conditions. IEEE Transactions on Power Electronics, 2019, 34, 287-300.	5.4	70
10	Modelling, Simulations, and Optimisation of Electric Vehicles for Analysis of Transmission Ratio Selection. Advances in Mechanical Engineering, 2013, 5, 340435.	0.8	67
11	Modelling of dual clutch transmission equipped powertrains for shift transient simulations. Mechanism and Machine Theory, 2013, 60, 47-59.	2.7	63
12	The dynamic performance and economic benefit of a blended braking system in a multi-speed battery electric vehicle. Applied Energy, 2016, 183, 1240-1258.	5.1	61
13	Modelling and control of a novel two-speed transmission for electric vehicles. Mechanism and Machine Theory, 2018, 127, 13-32.	2.7	59
14	Shifting and power sharing control of a novel dual input clutchless transmission for electric vehicles. Mechanical Systems and Signal Processing, 2018, 104, 725-743.	4.4	56
15	Deadbeat control based on a multipurpose disturbance observer for permanent magnet synchronous motors. IET Electric Power Applications, 2018, 12, 708-716.	1.1	53
16	A review of pivotal energy management strategies for extended range electric vehicles. Renewable and Sustainable Energy Reviews, 2021, 149, 111194.	8.2	51
17	Hybrid Synchronized PWM Schemes for Closed-Loop Current Control of High-Power Motor Drives. IEEE Transactions on Industrial Electronics, 2017, 64, 6920-6929.	5.2	50
18	Power-on shifting in dual input clutchless power-shifting transmission for electric vehicles. Mechanism and Machine Theory, 2018, 121, 487-501.	2.7	50

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19	Active damping of transient vibration in dual clutch transmission equipped powertrains: A comparison of conventional and hybrid electric vehicles. Mechanism and Machine Theory, 2014, 77, 1-12.	2.7	49
20	Gear shift schedule design for multi-speed pure electric vehicles. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 70-82.	1.1	46
21	An Optimized Real-Time Energy Management Strategy for the Power-Split Hybrid Electric Vehicles. IEEE Transactions on Control Systems Technology, 2019, 27, 1194-1202.	3.2	43
22	Development of continuously variable transmission and multi-speed dual-clutch transmission for pure electric vehicle. Advances in Mechanical Engineering, 2018, 10, 168781401875822.	0.8	42
23	CFD modelling of a small-scale fixed multi-chamber OWC device. Applied Ocean Research, 2019, 88, 37-47.	1.8	42
24	Gearshift and brake distribution control for regenerative braking in electric vehicles with dual clutch transmission. Mechanism and Machine Theory, 2019, 133, 1-22.	2.7	42
25	Dynamic modelling and simulation of a manual transmission based mild hybrid vehicle. Mechanism and Machine Theory, 2017, 112, 218-239.	2.7	40
26	Dynamics and Control of Clutchless Automated Manual Transmissions for Electric Vehicles. Journal of Vibration and Acoustics, Transactions of the ASME, 2017, 139, .	1.0	37
27	A Method to Start Rotating Induction Motor Based on Speed Sensorless Model-Predictive Control. IEEE Transactions on Energy Conversion, 2017, 32, 359-368.	3.7	37
28	Uncertain dynamic analysis for rigid-flexible mechanisms with random geometry and material properties. Mechanical Systems and Signal Processing, 2017, 85, 487-511.	4.4	35
29	Sideslip angle estimation of ground vehicles: a comparative study. IET Control Theory and Applications, 2020, 14, 3490-3505.	1.2	35
30	Two-Speed DCT Electric Powertrain Shifting Control and Rig Testing. Advances in Mechanical Engineering, 2013, 5, 323917.	0.8	34
31	Optimization and coordinated control of gear shift and mode transition for a dual-motor electric vehicle. Mechanical Systems and Signal Processing, 2021, 158, 107731.	4.4	34
32	Engagement and control of synchroniser mechanisms in dual clutch transmissions. Mechanical Systems and Signal Processing, 2012, 26, 320-332.	4.4	32
33	Design of the frequency tuning scheme for a semi-active vibration absorber. Mechanism and Machine Theory, 2019, 140, 641-653.	2.7	31
34	Parametric design and regenerative braking control of a parallel hydraulic hybrid vehicle. Mechanism and Machine Theory, 2020, 146, 103714.	2.7	30
35	Model and gear shifting control of a novel two-speed transmission for battery electric vehicles. Mechanism and Machine Theory, 2020, 152, 103902.	2.7	30
36	Optimal sizing and energy management of an electric vehicle powertrain equipped with two motors and multi-gear ratios. Mechanism and Machine Theory, 2022, 167, 104513.	2.7	30

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37	Nonlinear Modeling and Analysis of Direct Acting Solenoid Valves for Clutch Control. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	0.9	29
38	Energy consumption and cost analysis of hybrid electric powertrain configurations for two wheelers. Applied Energy, 2015, 146, 279-287.	5.1	29
39	Speed sensorless model predictive current control with ability to start a free running induction motor. IET Electric Power Applications, 2017, 11, 893-901.	1.1	29
40	Performance Improvement of a Two Speed EV through Combined Gear Ratio and Shift Schedule Optimization. , 2013, , .		26
41	A novel shift control concept for multi-speed electric vehicles. Mechanical Systems and Signal Processing, 2018, 112, 171-193.	4.4	24
42	Multi-chamber oscillating water column wave energy converters and air turbines: A review. International Journal of Energy Research, 2019, 43, 681-696.	2.2	23
43	A robust energy management strategy for EVs with dual input power-split transmission. Mechanical Systems and Signal Processing, 2018, 111, 442-455.	4.4	21
44	Shifting strategy and energy management of a two-motor drive powertrain for extended-range electric buses. Mechanism and Machine Theory, 2020, 153, 103966.	2.7	21
45	Investigation of synchroniser engagement in dual clutch transmission equipped powertrains. Journal of Sound and Vibration, 2012, 331, 1398-1412.	2.1	18
46	Target torque estimation for gearshift in dual clutch transmission with uncertain parameters. Applied Mathematical Modelling, 2017, 51, 1-20.	2.2	18
47	Modelling and simulation of gear synchronisation and shifting in dual-clutch transmission equipped powertrains. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2013, 227, 276-287.	1.1	17
48	Energy management and shifting stability control for a novel dual input clutchless transmission system. Mechanism and Machine Theory, 2019, 135, 298-321.	2.7	16
49	Mode switching analysis and control for a parallel hydraulic hybrid vehicle. Vehicle System Dynamics, 2021, 59, 928-948.	2.2	16
50	Shift characteristics of a bilateral Harpoon-shift synchronizer for electric vehicles equipped with clutchless AMTs. Mechanical Systems and Signal Processing, 2021, 148, 107166.	4.4	16
51	Transmission of Engine Harmonics to Synchronizer Mechanisms in Dual Clutch Transmissions. Journal of Vibration and Acoustics, Transactions of the ASME, 2014, 136, .	1.0	15
52	Numerical investigations into shift transients of a dual clutch transmission equipped powertrains with multiple nonlinearities. JVC/Journal of Vibration and Control, 2015, 21, 1473-1486.	1.5	15
53	Multi-objective component sizing for a battery-supercapacitor power supply considering the use of a power converter. Energy, 2018, 142, 436-446.	4.5	15
54	Dynamic analysis and control for an electric vehicle with harpoon-shift synchronizer. Mechanism and Machine Theory, 2019, 133, 750-766.	2.7	15

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55	Optimal coordinating gearshift control of a two-speed transmission for battery electric vehicles. <i>Mechanical Systems and Signal Processing</i> , 2020, 136, 106521.	4.4	15
56	Two Motor Two Speed Power-Train System Research of Pure Electric Vehicle. , 0, , .		14
57	Comparison of Power Consumption Efficiency of CVT and Multi-Speed Transmissions for Electric Vehicle. <i>International Journal of Automotive Engineering</i> , 2018, 9, 268-275.	0.3	14
58	Application of an adaptive tuned vibration absorber on a dual lay-shaft dual clutch transmission powertrain for vibration reduction. <i>Mechanical Systems and Signal Processing</i> , 2019, 121, 725-744.	4.4	14
59	Power on gear shift control strategy design for a parallel hydraulic hybrid vehicle. <i>Mechanical Systems and Signal Processing</i> , 2021, 159, 107798.	4.4	13
60	Simulations of drag torque affecting synchronisers in a dual clutch transmission. <i>Japan Journal of Industrial and Applied Mathematics</i> , 2011, 28, 119-140.	0.5	12
61	Off-Line Optimization Based Active Control of Torsional Oscillation for Electric Vehicle Drivetrain. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 1261.	1.3	12
62	Comparative fuel economy, cost and emissions analysis of a novel mild hybrid and conventional vehicles. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2018, 232, 1846-1862.	1.1	11
63	Using a low-cost bluetooth torque sensor for vehicle jerk and transient torque measurement. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2020, 234, 423-437.	1.1	10
64	Dynamics modeling and shift control of a novel spring-based synchronizer for electric vehicles. <i>Mechanism and Machine Theory</i> , 2022, 168, 104586.	2.7	10
65	The Safety and Dynamic Performance of Blended Brake System on a Two-Speed DCT Based Battery Electric Vehicle. <i>SAE International Journal of Passenger Cars - Mechanical Systems</i> , 0, 9, 143-153.	0.4	9
66	Modelling of the multi-chamber oscillating water column in regular waves at model scale. <i>Energy Procedia</i> , 2017, 136, 316-322.	1.8	9
67	Modeling and simulation of longitudinal dynamics coupled with clutch engagement dynamics for ground vehicles. <i>Multibody System Dynamics</i> , 2018, 43, 153-174.	1.7	9
68	Accelerated Adaptive Second Order Super-Twisting Sliding Mode Observer. <i>IEEE Access</i> , 2019, 7, 25232-25238.	2.6	9
69	Parameter study of synchroniser mechanisms applied to Dual Clutch Transmissions. <i>International Journal of Powertrains</i> , 2011, 1, 198.	0.1	8
70	An Optimal Regenerative Braking Energy Recovery System for Two-Speed Dual Clutch Transmission-Based Electric Vehicles. , 0, , .		8
71	Vibration reduction performance parameters matching for adaptive tunable vibration absorber. <i>Journal of Intelligent Material Systems and Structures</i> , 2019, 30, 198-212.	1.4	8
72	Eliminating the torque hole: Using a mild hybrid EV architecture to deliver better driveability. , 2016, , .		7

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73	The effects of surface compliance on greyhound galloping dynamics. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2019, 233, 1033-1043.	0.5	7
74	Intelligent estimation for electric vehicle mass with unknown uncertainties based on particle filter. IET Intelligent Transport Systems, 2020, 14, 463-467.	1.7	7
75	Emissions life cycle assessment of diesel, hybrid and electric buses. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2022, 236, 1233-1245.	1.1	7
76	A system analysis and modeling of a HEV based on ultracapacitor battery. , 2017, , .		6
77	Greyhound racing ideal trajectory path generation for straight to bend based on jerk rate minimization. Scientific Reports, 2020, 10, 7088.	1.6	6
78	Modelling and Vibration Analysis of a Parallel Hydraulic Hybrid Vehicle. IEEE Transactions on Vehicular Technology, 2020, 69, 10710-10723.	3.9	6
79	Accelerated adaptive super twisting sliding mode observer-based drive shaft torque estimation for electric vehicle with automated manual transmission. IET Intelligent Transport Systems, 2019, 13, 160-167.	1.7	5
80	Efficiency improvement of a novel dual motor powertrain for plug-in hybrid electric buses. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2020, 234, 1869-1882.	1.1	5
81	Corresponding drivability control and energy control strategy in uninterrupted multi-speed mining trucks. Journal of the Franklin Institute, 2021, 358, 1214-1239.	1.9	5
82	Comparison of Powertrain System Configurations for Electric Passenger Vehicles. , 0, , .		4
83	The investigation of a segment multi-chamber oscillating water column in physical scale model. , 2016, , .		4
84	An innovative control strategy for a hybrid energy storage system (HESS). , 2017, , .		4
85	A Comparative Fuel Analysis of a Novel HEV with Conventional Vehicle. , 2017, , .		4
86	Robust Digital Current Control Based on Adaptive Disturbance Estimation for PMSM Drives with Low Pulse Ratio. , 2018, , .		4
87	Hardware-in-the-Loop Simulation for the Design and Testing of Motor in Advanced Powertrain Applications. , 2018, , .		4
88	Comparison on Energy Economy and Vibration Characteristics of Electric and Hydraulic in-Wheel Drive Vehicles. Energies, 2021, 14, 2290.	1.6	4
89	Experimental Investigation of the Small-scale Fixed Multi-chamber OWC Device. Chinese Journal of Mechanical Engineering (English Edition), 2021, 34, .	1.9	4
90	Comparison of effect on motor among 2-, 3- and 4-speed transmission in electric vehicle. , 2017, , .		3

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91	A low-cost and novel approach in gearshift control for a mild-hybrid powertrain. , 2017, , .		3
92	Dynamic analysis of unilateral harpoon-shift synchronizer for electric vehicles. Mechanism and Machine Theory, 2021, 157, 104173.	2.7	3
93	A Power Consumption and Total Cost of Ownership Analysis of Extended Range System for a Logistics Van. IEEE Transactions on Transportation Electrification, 2022, 8, 72-81.	5.3	3
94	Parameter Design of a Parallel Hydraulic Hybrid Vehicle Driving System Based on Regenerative Braking Control Strategy. , 0, , .		3
95	Study of Power Losses in a Two-Speed Dual Clutch Transmission. , 0, , .		2
96	Modelling and optimisation of pure electric vehicle powertrains: a comparison of single and two speed transmissions. International Journal of Vehicle Performance, 2015, 2, 85.	0.2	2
97	An Experimental Investigation into the Wave Power Extraction of a Smallâ€Scale Fixed Multiâ€Chamber OWC Device. , 2019, , .		2
98	Simulation of Racing Greyhound Kinematics. , 2019, , .		2
99	Robustness Analysis of Two-Speed Electric Vehicles. , 2013, , .		1
100	Configuration Design and Energy Balancing of Compact-Hybrid Powertrains. , 2014, , .		1
101	A Simple Spring-Loaded Inverted Pendulum (SLIP) Model of a Bio-Inspired Quadrupedal Robot Over Compliant Terrains. , 2018, , .		1
102	Clutch-to-Clutch Gearshift Control for Multi-Speed Electric Vehicles during Regenerative Braking Events. , 2019, , .		1
103	The prediction of braking noise in regenerative braking system using closed-loop coupling disk brake model. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 3721-3735.	1.1	1
104	Vibration energy and repeated-root modes of disc rotor for high-frequency brake squeal. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2019, 233, 363-378.	0.5	1
105	Direct yaw moment control of an ultra-lightweight solar-electric passenger vehicle with variation in loading conditions. Vehicle System Dynamics, 2020, , 1-23.	2.2	1
106	A Comparative Study of Rapid Quadrupedal Sprinting and Turning Dynamics on Different Terrains and Conditions: Racing Greyhounds Galloping Dynamics. , 2018, , .		1
107	Influence of Engine Harmonics on Synchroniser Mechanism Dynamics. , 2013, , .		0
108	Managing the Conceptualization Process in Innovative Engineering Design, Demonstrated on a Hybrid Two-Wheeler Design Case Study. , 2014, , .		0

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109	A numerical study of the impact of wet clutch drag torque on the performance of two-speed electric vehicles. <i>International Journal of Vehicle Performance</i> , 2016, 2, 178.	0.2	0
110	Impact of Low and High Congestion Traffic Patterns on a Mild-HEV Performance. , 0, , .		0
111	New methods for modelling and optimisation of multispeed transmission in an electric vehicle. <i>International Journal of Vehicle Performance</i> , 2018, 4, 259.	0.2	0
112	Power-split strategy of a novel dual-input series-parallel hybrid electric vehicle. , 2019, , .		0
113	Greyhound Racing Track Lure Systemsâ€™ Acoustical Measurements within and Adjacent to the Starting Boxes. <i>Technologies</i> , 2021, 9, 74.	3.0	0
114	Measuring Road Conditions with an IMU and GPS Monitoring System. , 2021, , 95-101.		0