Jony Eckert

List of Publications by Year
in descending order

76 papers	915 citations	430874 18 h-index	552781 26 g-index
79 all docs	79 docs citations	79 times ranked	399 citing authors

#	Article	IF	Citations
1	A fast simulation approach to assess draft gear loads for heavy haul trains during braking. Mechanics Based Design of Structures and Machines, 2023, 51, 1606-1625.	4.7	9
2	Experimental validation for the employment of shifting strategies optimized via i-AWGA in a gear shift indicator system for manual transmission vehicles. Mechanics Based Design of Structures and Machines, 2023, 51, 2861-2881.	4.7	8
3	Vehicle and twin-roller chassis dynamometer model considering slip tire interactions. Mechanics Based Design of Structures and Machines, 2023, 51, 6166-6183.	4.7	9
4	Freight train air brake models. International Journal of Rail Transportation, 2023, 11, 1-49.	2.7	52
5	Electric vehicle powertrain and fuzzy controller optimization using a planar dynamics simulation based on a real-world driving cycle. Energy, 2022, 238, 121979.	8.8	27
6	Robust fuzzy stability control optimization by multi-objective for modular vehicle. Mechanism and Machine Theory, 2022, 167, 104554.	4.5	26
7	Gear shifting optimization applied to a flex-fuel vehicle under real driving conditions. Mechanics Based Design of Structures and Machines, 2022, 50, 2084-2101.	4.7	10
8	Multi-speed gearbox design and shifting control optimization to minimize fuel consumption, exhaust emissions and drivetrain mechanical losses. Mechanism and Machine Theory, 2022, 169, 104644.	4.5	25
9	Parameter influence analysis in an optimized fuzzy stability control for a four-wheel independent-drive electric vehicle. Control Engineering Practice, 2022, 120, 105000.	5.5	13
10	Electric hydraulic hybrid vehicle powertrain design and optimization-based power distribution control to extend driving range and battery life cycle. Energy Conversion and Management, 2022, 252, 115094.	9.2	47
11	Design of triple-beam internal-impact piezoelectric harvester optimized for energy and bandwidth. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, .	1.6	4
12	Optimum fuzzy logic controller applied to a hybrid hydraulic vehicle to minimize fuel consumption and emissions. Expert Systems With Applications, 2022, 207, 117903.	7.6	20
13	Vehicle drivetrain and fuzzy controller optimization using a planar dynamics simulation based on a real-world driving cycle. Energy, 2022, 257, 124769.	8.8	5
14	Vehicle drivetrain design multi-objective optimization. Mechanism and Machine Theory, 2021, 156, 104123.	4.5	25
15	Power Management Strategies for Hybrid Vehicles: A Comparative Study. Communications in Computer and Information Science, 2021, , 103-116.	0.5	0
16	A Small-Scale Dynamometer Roller Analysis by Laval Rotor Approach. Mechanisms and Machine Science, 2021, , 197-206.	0.5	0
17	Multi-objective optimization design and control of plug-in hybrid electric vehicle powertrain for minimization of energy consumption, exhaust emissions and battery degradation. Energy Conversion and Management, 2021, 234, 113909.	9.2	72
18	Electric vehicle battery-ultracapacitor hybrid energy storage system and drivetrain optimization for a real-world urban driving scenario. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	1.6	19

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19	Multi-objective optimization of piezoelectric vibrational energy harvester orthogonal spirals for ore freight cars. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	1.6	11
20	Energy management and gear shifting control for a hybridized vehicle to minimize gas emissions, energy consumption and battery aging. Energy Conversion and Management, 2021, 240, 114222.	9.2	24
21	Fuel saving and lower pollutants emissions using an ethanol-fueled engine in a hydraulic hybrid passengers vehicle. Energy, 2021, 235, 121361.	8.8	24
22	Multi-body Dynamics Co-simulation of Planetary Gear Train for Dynamic Meshing Force Analysis. Mechanisms and Machine Science, 2021, , 159-167.	0.5	2
23	Multi-objective Optimization of the Steering System and Fuzzy Logic Control Applied to a Car-Like Robot. Mechanisms and Machine Science, 2021, , 195-202.	0.5	4
24	Parallel simulation of railway pneumatic brake using openMP. International Journal of Rail Transportation, 2020, 8, 180-194.	2.7	11
25	Optimizing strain energy extraction from multi-beam piezoelectric devices for heavy haul freight cars. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	20
26	Electric Vehicle Powertrain and Fuzzy Control Multi-Objective Optimization, Considering Dual Hybrid Energy Storage Systems. IEEE Transactions on Vehicular Technology, 2020, 69, 3773-3782.	6.3	53
27	Design of an Aftermarket Hybridization Kit: Reducing Costs and Emissions Considering a Local Driving Cycle. Vehicles, 2020, 2, 210-235.	3.1	8
28	Rule-based Control and Fuzzy Control for Power Management Strategies for Hybrid Vehicles. , 2020, , .		3
29	Particle Swarm Optimization of a Fuzzy Controlled Hybrid Energy Storage System - HESS. , 2020, , .		2
30	Application of Pattern Recognition for the Mitigation of Systematic Errors in an Optical Incremental Encoder. Mechanisms and Machine Science, 2019, , 65-78.	0.5	1
31	Fuzzy gear shifting control optimisation to improve vehicle performance, fuel consumption and engine emissions. IET Control Theory and Applications, 2019, 13, 2658-2669.	2.1	38
32	A dissipated energy model of shock evolution in the simulation of the dynamics of DGMâ€™s of railway compositions. Mechanism and Machine Theory, 2019, 134, 365-375.	4.5	6
33	Optimization of electric propulsion system for a hybridized vehicle. Mechanics Based Design of Structures and Machines, 2019, 47, 175-200.	4.7	33
34	CONCEPTUAL DESIGN OF A SMALL-SCALE DYNAMOMETER PROTOTYPE FOR ELECTRIC VEHICLE ANALYSIS. , 2019, , .		0
35	PARAMETERIZATION OF TIRE MODEL FOR LIGHT WEIGHT VEHICLE REGARDING THE COMBINED SLIP. , 2019, , .		1
36	MECHANICAL DESIGN OF A LOW-COST MODULAR ELECTRIC VEHICLE IN SMALL-SCALE. , 2019, , .		0

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37	IMPLEMENTATION OF FUZZY STABILITY CONTROL IN A LOW-COST MICROCONTROLLER FOR HYBRID VEHICLES. , 2019, , .		1
38	Comparison between two models of BLDC motor, simulation and data acquisition. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	1.6	8
39	Gear shifting multi-objective optimization to improve vehicle performance, fuel consumption, and engine emissions. Mechanics Based Design of Structures and Machines, 2018, 46, 238-253.	4.7	28
40	Experimental Characterization of a Feedforward Control for the Replication of Moving Resistances on a Chassis Dynamometer. Mechanisms and Machine Science, 2018, , 379-388.	0.5	0
41	Multibody Model of a Small Tire Test Bench. Mechanisms and Machine Science, 2018, , 549-558.	0.5	1
42	Optimization of EH Multi-beam Structures for Freight Car Vibration. IFAC-PapersOnLine, 2018, 51, 849-854.	0.9	6
43	Vibration Energy Harvesting to Power Ultrasonic Sensors in Heavy Haul Railway Cars. , 2018, , .		2
44	Energy storage and control optimization for an electric vehicle. International Journal of Energy Research, 2018, 42, 3506-3523.	4.5	47
45	Projeto Virtual de Bancada para Parametrização de Modelo de Pneu com Aplicação em Robótica. , 2018, , .		0
46	Co-simulation to evaluate acceleration performance and fuel consumption of hybrid vehicles. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 53-66.	1.6	14
47	Electric vehicle drivetrain optimisation. IET Electrical Systems in Transportation, 2017, 7, 32-40.	2.4	37
48	A lateral dynamics of a wheelchair: identification and analysis of tire parameters. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 332-341.	1.6	9
49	Electric Vehicle Battery-Ultracapacitor Energy System Optimization. , 2017, , .		9
50	Modeling of electronic differential system for vehicles with rear wheel drive. , 2017, , .		2
51	Development and Implementation of a Shift Assistance System for an Automotive Chassis Dynamometer. , 2017, , .		1
52	Economic and Energy Analysis of Hybridized Vehicle by Means of Experimental Mapping. , 2016, , .		3
53	Evaluation of Energy Recovery Potential through Regenerative Braking for a Hybrid Electric Vehicle in a Real Urban Drive Scenario. , 2016, , .		8
54	Measurement of wheelchair contact force with a low cost bench test. Medical Engineering and Physics, 2016, 38, 163-170.	1.7	18

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55	Vehicle gear shifting strategy optimization with respect to performance and fuel consumption. Mechanics Based Design of Structures and Machines, 2016, 44, 123-136.	4.7	31
56	Gear Shifting Strategy to Improve the Parallel Hybrid Vehicle Fuel Consumption. , 2015, , .		2
57	<b>Multiobjective gear shifting optimization considering a known driving cycle. Acta Scientiarum - Technology, 2015, 37, 361.	0.4	2
58	A study of battery power for a different electric vehicle propulsion system. , 2015, , .		7
59	Study of Different Electric Vehicle Propulsion System Configurations. , 2015, , .		8
60	Parallel Hybrid Vehicle Power Management Co-Simulation. , 2014, , .		5
61	Evaluation of Available Energy for Regenerative Breaking at the Brazilian Driving Cycle. , 2013, , .		4
62	Computational and Experimental Analysis of Fuel Consumption of a Hybridized Vehicle. , 0, , .		9
63	Fuel Consumption Reduction Based on the Optimization of the Vehicle Gear Shifting Strategy Considering New Gear Ratios. , 0, , .		7
64	Experimental Evaluation of Rotational Inertia and Tire Rolling Resistance for a Twin Roller Chassis Dynamometer. , 0, , .		9
65	Modelagem e simulação de um sistema start/stop para redução de consumo de combustível e emissões de gases poluentes. , 0, , .		0
66	Análise Cinemática para uma caixa de engrenagens planetárias aplicadas em veículos híbridos e elétricos. , 0, , .		0
67	Desenvolvimento de um modelo de dinâmica planar para veículos. , 0, , .		0
68	VEHICLE GEAR SHIFTING CO-SIMULATION TO OPTIMIZE PERFORMANCE AND FUEL CONSUMPTION IN THE BRAZILIAN STANDARD URBAN DRIVING CYCLE. , 0, , .		11
69	AN INFLUENCE STUDY OF PARALLEL HYBRID VEHICLE PROPULSION SYSTEM CONFIGURATIONS. , 0, , .		2
70	RELEVÂNCIA DO MODELO DE EMBREAGEM NO DESEMPENHO LONGITUDINAL DO VEÍCULO. , 0, , .		0
71	Development of a Tire Modeling with Adams/Simulink to study the vehicle control. , 0, , .		0
72	The influence of tire characteristics on Shimmy stability. , 0, , .		0

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73	A INFLUÃŠNCIA DO Ã‚NGULO DE CASTER NA ESTABILIDADE DO SHIMMY. , 0, , .		0
74	Fuel consumption and emissions analysis for a hybridized vehicle. , 0, , .		1
75	Desenvolvimento de um Novo Ciclo de ConduÃ§Ã£o em CondiÃ§Ãµes Reais de TrÃ¡fego Urbano. , 0, , .		0
76	Application of CFD into an automotive torque converter. , 0, , .		0