

# Jony Eckert

## List of Publications by Year in descending order

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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	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
2	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
3	Freight train air brake models. International Journal of Rail Transportation, 2023, 11, 1-49.	2.7	52
4	Energy storage and control optimization for an electric vehicle. International Journal of Energy Research, 2018, 42, 3506-3523.	4.5	47
5	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
6	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
7	Electric vehicle drivetrain optimisation. IET Electrical Systems in Transportation, 2017, 7, 32-40.	2.4	37
8	Optimization of electric propulsion system for a hybridized vehicle. Mechanics Based Design of Structures and Machines, 2019, 47, 175-200.	4.7	33
9	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
10	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
11	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
12	Robust fuzzy stability control optimization by multi-objective for modular vehicle. Mechanism and Machine Theory, 2022, 167, 104554.	4.5	26
13	Vehicle drivetrain design multi-objective optimization. Mechanism and Machine Theory, 2021, 156, 104123.	4.5	25
14	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
15	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
16	Fuel saving and lower pollutants emissions using an ethanol-fueled engine in a hydraulic hybrid passengers vehicle. Energy, 2021, 235, 121361.	8.8	24
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	Measurement of wheelchair contact force with a low cost bench test. Medical Engineering and Physics, 2016, 38, 163-170.	1.7	18
21	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
22	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
23	Parallel simulation of railway pneumatic brake using openMP. International Journal of Rail Transportation, 2020, 8, 180-194.	2.7	11
24	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
25	VEHICLE GEAR SHIFTING CO-SIMULATION TO OPTIMIZE PERFORMANCE AND FUEL CONSUMPTION IN THE BRAZILIAN STANDARD URBAN DRIVING CYCLE. , 0, , .		11
26	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
27	Computational and Experimental Analysis of Fuel Consumption of a Hybridized Vehicle. , 0, , .		9
28	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
29	Electric Vehicle Battery-Ultracapacitor Energy System Optimization. , 2017, , .		9
30	Experimental Evaluation of Rotational Inertia and Tire Rolling Resistance for a Twin Roller Chassis Dynamometer. , 0, , .		9
31	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
32	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
33	Study of Different Electric Vehicle Propulsion System Configurations. , 2015, , .		8
34	Evaluation of Energy Recovery Potential through Regenerative Braking for a Hybrid Electric Vehicle in a Real Urban Drive Scenario. , 2016, , .		8
35	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
36	Design of an Aftermarket Hybridization Kit: Reducing Costs and Emissions Considering a Local Driving Cycle. Vehicles, 2020, 2, 210-235.	3.1	8

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37	Experimental validation for the employment of shifting strategies optimized via i-AWGA in a gear shift indicator system for manual transmission vehicles. <i>Mechanics Based Design of Structures and Machines</i> , 2023, 51, 2861-2881.	4.7	8
38	Fuel Consumption Reduction Based on the Optimization of the Vehicle Gear Shifting Strategy Considering New Gear Ratios. , 0, , .		7
39	A study of battery power for a different electric vehicle propulsion system. , 2015, , .		7
40	Optimization of EH Multi-beam Structures for Freight Car Vibration. <i>IFAC-PapersOnLine</i> , 2018, 51, 849-854.	0.9	6
41	A dissipated energy model of shock evolution in the simulation of the dynamics of DGMâ€™s of railway compositions. <i>Mechanism and Machine Theory</i> , 2019, 134, 365-375.	4.5	6
42	Parallel Hybrid Vehicle Power Management Co-Simulation. , 2014, , .		5
43	Vehicle drivetrain and fuzzy controller optimization using a planar dynamics simulation based on a real-world driving cycle. <i>Energy</i> , 2022, 257, 124769.	8.8	5
44	Evaluation of Available Energy for Regenerative Breaking at the Brazilian Driving Cycle. , 2013, , .		4
45	Multi-objective Optimization of the Steering System and Fuzzy Logic Control Applied to a Car-Like Robot. <i>Mechanisms and Machine Science</i> , 2021, , 195-202.	0.5	4
46	Design of triple-beam internal-impact piezoelectric harvester optimized for energy and bandwidth. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2022, 44, .	1.6	4
47	Economic and Energy Analysis of Hybridized Vehicle by Means of Experimental Mapping. , 2016, , .		3
48	Rule-based Control and Fuzzy Control for Power Management Strategies for Hybrid Vehicles. , 2020, , .		3
49	Gear Shifting Strategy to Improve the Parallel Hybrid Vehicle Fuel Consumption. , 2015, , .		2
50	<b>Multiobjective gear shifting optimization considering a known driving cycle. <i>Acta Scientiarum - Technology</i> , 2015, 37, 361.	0.4	2
51	Vibration Energy Harvesting to Power Ultrasonic Sensors in Heavy Haul Railway Cars. , 2018, , .		2
52	Modeling of electronic differential system for vehicles with rear wheel drive. , 2017, , .		2
53	AN INFLUENCE STUDY OF PARALLEL HYBRID VEHICLE PROPULSION SYSTEM CONFIGURATIONS. , 0, , .		2
54	Multi-body Dynamics Co-simulation of Planetary Gear Train for Dynamic Meshing Force Analysis. <i>Mechanisms and Machine Science</i> , 2021, , 159-167.	0.5	2

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55	Particle Swarm Optimization of a Fuzzy Controlled Hybrid Energy Storage System - HESS. , 2020, , .		2
56	Multibody Model of a Small Tire Test Bench. Mechanisms and Machine Science, 2018, , 549-558.	0.5	1
57	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
58	Development and Implementation of a Shift Assistance System for an Automotive Chassis Dynamometer. , 2017, , .		1
59	Fuel consumption and emissions analysis for a hybridized vehicle. , 0, , .		1
60	PARAMETERIZATION OF TIRE MODEL FOR LIGHT WEIGHT VEHICLE REGARDING THE COMBINED SLIP. , 2019, , .		1
61	IMPLEMENTATION OF FUZZY STABILITY CONTROL IN A LOW-COST MICROCONTROLLER FOR HYBRID VEHICLES. , 2019, , .		1
62	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
63	Power Management Strategies for Hybrid Vehicles: A Comparative Study. Communications in Computer and Information Science, 2021, , 103-116.	0.5	0
64	A Small-Scale Dynamometer Roller Analysis by Laval Rotor Approach. Mechanisms and Machine Science, 2021, , 197-206.	0.5	0
65	Modelagem e simulaçŁo de um sistema start/stop para reduçŁo de consumo de combustŁvel e emissŁes de gases poluentes. , 0, , .		0
66	AnŁlise CinemŁtica para uma caixa de engrenagens planetŁrias aplicadas em veŁculos hŁbridos e elŁtricos. , 0, , .		0
67	Desenvolvimento de um modelo de dinŁmica planar para veŁculos. , 0, , .		0
68	RELEVŁNCIA DO MODELO DE EMBREAGEM NO DESEMPENHO LONGITUDINAL DO VEŁCULO. , 0, , .		0
69	Development of a Tire Modeling with Adams/Simulink to study the vehicle control. , 0, , .		0
70	The influence of tire characteristics on Shimmy stability. , 0, , .		0
71	A INFLUŁNCIA DO ŅNGULO DE CASTER NA ESTABILIDADE DO SHIMMY. , 0, , .		0
72	Desenvolvimento de um Novo Ciclo de ConduçŁo em CondiçŁes Reais de TrŁfego Urbano. , 0, , .		0

#	ARTICLE	IF	CITATIONS
73	Projeto Virtual de Bancada para Parametriza��o de Modelo de Pneu com Aplica��o em Rob��tica. , 2018, , .		0
74	CONCEPTUAL DESIGN OF A SMALL-SCALE DYNAMOMETER PROTOTYPE FOR ELECTRIC VEHICLE ANALYSIS. , 2019, , .		0
75	MECHANICAL DESIGN OF A LOW-COST MODULAR ELECTRIC VEHICLE IN SMALL-SCALE. , 2019, , .		0
76	Application of CFD into an automotive torque converter. , 0, , .		0