Markus Lienkamp

List of Publications by Year
in descending order

109 papers	1,622 citations	471061 17 h-index	395343 33 g-index
114 all docs	114 docs citations	114 times ranked	1105 citing authors

#	Article	IF	Citations
1	Revisiting the dual extended Kalman filter for battery state-of-charge and state-of-health estimation: A use-case life cycle analysis. Journal of Energy Storage, 2018, 19, 73-87.	3.9	142
2	An Overview of Parameter and Cost for Battery Electric Vehicles. World Electric Vehicle Journal, 2021, 12, 21.	1.6	122
3	Parameter variations within Li-Ion battery packs â€" Theoretical investigations and experimental quantification. Journal of Energy Storage, 2018, 18, 295-307.	3.9	102
4	Review of fast charging strategies for lithium-ion battery systems and their applicability for battery electric vehicles. Journal of Energy Storage, 2021, 44, 103306.	3.9	86
5	Minimum curvature trajectory planning and control for an autonomous race car. Vehicle System Dynamics, 2020, 58, 1497-1527.	2.2	67
6	Quantifying the state of the art of electric powertrains in battery electric vehicles: Range, efficiency, and lifetime from component to system level of the Volkswagen ID.3. ETransportation, 2022, 12, 100167.	6.8	46
7	Joint Optimization of Vehicle Battery Pack Capacity and Charging Infrastructure for Electrified Public Bus Systems. IEEE Transactions on Transportation Electrification, 2019, 5, 672-682.	5.3	40
8	Quantifiability of inherent cell-to-cell variations of commercial lithium-ion batteries. ETransportation, 2021, 9, 100129.	6.8	37
9	Driving in an Increasingly Automated World â€" Approaches to Improve the Driver-automation Interaction. Procedia Manufacturing, 2015, 3, 2889-2896.	1.9	35
10	Using engineering change forecast to prioritise component modularisation. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2015, 26, 337-353.	1.2	28
11	A Software Architecture for an Autonomous Racecar. , 2019, , .		26
12	Radar Voxel Fusion for 3D Object Detection. Applied Sciences (Switzerland), 2021, 11, 5598.	1.3	26
13	Influence of Current Ripples in Cascaded Multilevel Topologies on the Aging of Lithium Batteries. IEEE Transactions on Power Electronics, 2020, 35, 11879-11890.	5.4	25
14	Experimental investigation of the influence of electrical contact resistance on lithium-ion battery testing for fast-charge applications. Applied Energy, 2021, 295, 117064.	5.1	22
15	What can we learn from autonomous level-5 motorsport?. Proceedings, 2019, , 123-146.	0.2	22
16	Towards Scalable Economic Photovoltaic Potential Analysis Using Aerial Images and Deep Learning. Energies, 2021, 14, 3800.	1.6	21
17	Effect of Low Temperature on Electric Vehicle Range. World Electric Vehicle Journal, 2021, 12, 115.	1.6	21
18	ROS-based localization of a race vehicle at high-speed using LIDAR. E3S Web of Conferences, 2019, 95, 04002.	0.2	20

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19	Real-Time Adaptive Velocity Optimization for Autonomous Electric Cars at the Limits of Handling. IEEE Transactions on Intelligent Vehicles, 2021, 6, 665-677.	9.4	19
20	Scalable Life-Cycle Inventory for Heavy-Duty Vehicle Production. Sustainability, 2020, 12, 5396.	1.6	18
21	Accelerated Aging Characterization of Lithium-ion Cells: Using Sensitivity Analysis to Identify the Stress Factors Relevant to Cyclic Aging. Batteries, 2020, 6, 6.	2.1	17
22	Electric Machine Design Tool for Permanent Magnet Synchronous Machines and Induction Machines. Machines, 2020, 8, 15.	1.2	17
23	Indy Autonomous Challenge - Autonomous Race Cars at the Handling Limits. Proceedings, 2022, , 163-182.	0.2	17
24	SemanticDepth: Fusing Semantic Segmentation and Monocular Depth Estimation for Enabling Autonomous Driving in Roads without Lane Lines. Sensors, 2019, 19, 3224.	2.1	16
25	Design Parameters for the Early Development Phase of Battery Electric Vehicles. World Electric Vehicle Journal, 2020, 11, 47.	1.6	16
26	Influence of Powertrain Topology and Electric Machine Design on Efficiency of Battery Electric Trucksâ€"A Simulative Case-Study. Energies, 2021, 14, 328.	1.6	16
27	Customer-Relevant Properties of Autonomous Vehicle Concepts. Procedia CIRP, 2020, 91, 55-60.	1.0	15
28	A holistic framework for acquisition, processing and evaluation of vehicle fleet test data. , 2017, , .		14
29	Multi-Agent Simulation of a Demand-Responsive Transit System Operated by Autonomous Vehicles. Transportation Research Record, 2018, 2672, 764-774.	1.0	14
30	Statistical Model Verification and Validation Concept in Automotive Vehicle Design. Procedia CIRP, 2020, 91, 261-270.	1.0	14
31	Production Strategy Development: Simulation of Dependencies Using Recurrent Fuzzy Systems. Systems, 2020, 8, 1.	1.2	14
32	Production Challenges in Least Developed Countries. Challenges, 2020, 11, 1.	0.9	14
33	Teardown analysis and characterization of a commercial lithium-ion battery for advanced algorithms in battery electric vehicles. Journal of Energy Storage, 2022, 48, 103909.	3.9	14
34	Fleet Disposition Modeling to Maximize Utilization of Battery Electric Vehicles in Companies with On-Site Energy Generation. Transportation Research Procedia, 2016, 19, 241-257.	0.8	13
35	A Race Simulation for Strategy Decisions in Circuit Motorsports. , 2018, , .		13
36	Modelling and Evaluation of Battery Packs with Different Numbers of Paralleled Cells. World Electric Vehicle Journal, 2018, 9, 8.	1.6	13

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37	Objectification methods for ride comfort. Forschung Im Ingenieurwesen/Engineering Research, 2019, 83, 885-898.	1.0	13
38	Powertrain Optimization for Electric Buses under Optimal Energy-Efficient Driving. Energies, 2020, 13, 6451.	1.6	13
39	Minimum Race-Time Planning-Strategy for an Autonomous Electric Racecar. , 2020, , .		13
40	Teleoperated Driving Robust and Secure Data Connections. ATZelektronik Worldwide, 2014, 9, 42-45.	0.1	12
41	Operational Strategy of Hybrid Heavy-Duty Trucks by Utilizing a Genetic Algorithm to Optimize the Fuel Economy Multiobjective Criteria. IEEE Transactions on Industry Applications, 2018, 54, 3668-3675.	3.3	12
42	Autonomous Driving—A Crash Explained in Detail. Applied Sciences (Switzerland), 2019, 9, 5126.	1.3	12
43	Diagnosing Automotive Damper Defects Using Convolutional Neural Networks and Electronic Stability Control Sensor Signals. Journal of Sensor and Actuator Networks, 2020, 9, 8.	2.3	12
44	Maneuver-Based Objectification of User Comfort Affecting Aspects of Driving Style of Autonomous Vehicle Concepts. Applied Sciences (Switzerland), 2020, 10, 3946.	1.3	12
45	Electric Cars and Electromagnetic Interference With Cardiac Implantable Electronic Devices: A Cross-sectional Evaluation. Annals of Internal Medicine, 2018, 169, 350-352.	2.0	11
46	Application of Monte Carlo Methods to Consider Probabilistic Effects in a Race Simulation for Circuit Motorsport. Applied Sciences (Switzerland), 2020, 10, 4229.	1.3	11
47	Eco-Driving for Different Electric Powertrain Topologies Considering Motor Efficiency. World Electric Vehicle Journal, 2021, 12, 6.	1.6	11
48	Kernel Point Convolution LSTM Networks for Radar Point Cloud Segmentation. Applied Sciences (Switzerland), 2021, 11, 2599.	1.3	11
49	Multi-Criteria, Co-Evolutionary Charging Behavior: An Agent-Based Simulation of Urban Electromobility. World Electric Vehicle Journal, 2021, 12, 18.	1.6	11
50	Range Extension of Electric Vehicles through Improved Battery Capacity Utilization: Potentials, Risks and Strategies. , 2018, , .		10
51	Optimization of a Cascaded H-Bridge Inverter for Electric Vehicle Applications Including Cost Consideration. Energies, 2019, 12, 4272.	1.6	10
52	Exploration of Optimal Powertrain Design Using Realistic Load Profiles. World Electric Vehicle Journal, 2019, 10, 56.	1.6	10
53	Parametric Modeling of Mass and Volume Effects for Battery Electric Vehicles, with Focus on the Wheel Components. World Electric Vehicle Journal, 2020, 11, 63.	1.6	10
54	Range Extension via Electrothermal Recuperation. World Electric Vehicle Journal, 2020, 11, 41.	1.6	10

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55	An Estimation of the Lightweight Potential of Battery Electric Vehicles. Energies, 2021, 14, 4655.	1.6	10
56	Technoecological analysis of energy carriers for long‑haul transportation. Journal of Industrial Ecology, 2020, 24, 165-177.	2.8	9
57	Novel method for the on-line estimation of low-frequency impedance of lithium-ion batteries. Journal of Energy Storage, 2020, 32, 101818.	3.9	9
58	S-glass/Kevlar-149 hybrid microcomposites in stress-rupture: A Monte Carlo simulation. Composites Science and Technology, 1995, 54, 211-221.	3.8	8
59	Topology analysis of electric vehicles, with a focus on the traction battery. Forschung Im Ingenieurwesen/Engineering Research, 2021, 85, 457-467.	1.0	8
60	Building representative velocity profiles using FastDTW and spectral clustering. , 2015, , .		7
61	Approach for the development of a method for the integration of battery electric vehicles in commercial companies, including intelligent management systems. Automotive and Engine Technology, 2016, 1, 107-117.	0.7	7
62	Case Study of Holistic Energy Management Using Genetic Algorithms in a Sliding Window Approach. World Electric Vehicle Journal, 2019, 10, 46.	1.6	7
63	Patients with pacemakers or defibrillators do not need to worry about e-Cars: An observational study. Technology and Health Care, 2020, 28, 1-12.	0.5	7
64	Conceptual Design Optimization of Autonomous Electric Buses in Public Transportation. World Electric Vehicle Journal, 2021, 12, 30.	1.6	7
65	RID—Roof Information Dataset for Computer Vision-Based Photovoltaic Potential Assessment. Remote Sensing, 2022, 14, 2299.	1.8	7
66	Autonomous Racing. , 2019, , .		6
67	A systematic method for accelerated aging characterization of lithium-Ion cells in automotive applications. Forschung Im Ingenieurwesen/Engineering Research, 2019, 83, 831-841.	1.0	6
68	City-scale assessment of stationary energy storage supporting end-station fast charging for different bus-fleet electrification levels. Journal of Energy Storage, 2020, 32, 101794.	3.9	6
69	Compressed Driving Cycles Using Markov Chains for Vehicle Powertrain Design. World Electric Vehicle Journal, 2020, 11, 52.	1.6	6
70	Derivation of Geometrical Interdependencies between the Passenger Compartment and the Traction Battery Using Dimensional Chains. World Electric Vehicle Journal, 2020, 11, 39.	1.6	6
71	A Predictive Fleet Management Strategy for On-Demand Mobility Services: A Case Study in Munich. Electronics (Switzerland), 2020, 9, 1021.	1.8	6
72	Analysis of the Influence of Air Curtain on Reducing the Heat Infiltration and Costs in Urban Electric Buses. International Journal of Automotive Technology, 2020, 21, 147-157.	0.7	6

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73	Impacts of electrification & automation of public bus transportation on sustainability—Acase study in Singapore. Forschung Im Ingenieurwesen/Engineering Research, 2021, 85, 431-442.	1.0	6
74	Combining a Genetic Algorithm and a Fuzzy System to Optimize User Centricity in Autonomous Vehicle Concept Development. Systems, 2021, 9, 25.	1.2	6
75	Teleoperated Road Vehicles: A Novel Study on the Effect of Blur on Speed Perception. International Journal of Advanced Robotic Systems, 2013, 10, 333.	1.3	5
76	Guide for the Focused Utilization of Aging Models for Lithium-Ion Batteries - An Automotive Perspective. SAE International Journal of Passenger Cars - Electronic and Electrical Systems, 2015, 8, 195-206.	0.3	5
77	Potential of an improved energy efficiency in the chassis. Automotive and Engine Technology, 2016, 1, 15-25.	0.7	5
78	Finding the ideal automotive battery concept. Forschung Im Ingenieurwesen/Engineering Research, 2019, 83, 817-830.	1.0	5
79	PACKAGE PLANNING OF AUTONOMOUS VEHICLE CONCEPTS. Proceedings of the Design Society, 2021, 1, 2369-2378.	0.5	5
80	Analyzing and Modeling a City's Spatiotemporal Taxi Supply and Demand: A Case Study for Munich. Journal of Traffic and Logistics Engineering, 2016, , .	0.3	5
81	Effect of a flexible battery module bracing on cell aging. , 2017, , .		4
82	New Approach for an Easily Detachable Electric Drive Unit for Off-the-Shelf Bicycles. World Electric Vehicle Journal, 2018, 9, 37.	1.6	4
83	Derivation of a real-life driving cycle from fleet testing data with the Markov-Chain-Monte-Carlo Method. , 2018, , .		4
84	Prospective and Monetary Effectiveness Assessment Method for Advanced Driver Assistance Systems-Usage of Naturalistic Driving Studies and Experimental System Tests. IEEE Intelligent Transportation Systems Magazine, 2018, 10, 10-23.	2.6	4
85	Sustainability – Recommendations for an Electric Vehicle Manufacturing in Sub-Saharan Africa. Procedia CIRP, 2019, 81, 1148-1153.	1.0	4
86	Optimized stator design method using machine parameter permutation. Forschung Im Ingenieurwesen/Engineering Research, 2019, 83, 853-861.	1.0	4
87	Potential of statistical model verification, validation and uncertainty quantification in automotive vehicle dynamics simulations: a review. Vehicle System Dynamics, 2022, 60, 1292-1321.	2.2	4
88	USER NEED-ORIENTED CONCEPT DEVELOPMENT OF AUTONOMOUS VEHICLES. Proceedings of the Design Society, 2021, 1, 3349-3358.	0.5	4
89	Techno-economic design of battery thermal management systems in different climates. Journal of Energy Storage, 2022, 48, 103832.	3.9	4
90	Influence of pulse width modulated auxiliary consumers on battery aging in electric vehicles. Journal of Energy Storage, 2022, 48, 104009.	3.9	4

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91	Definition And Optimization Of The Drive Train Topology For Electric Vehicles. World Electric Vehicle Journal, 2012, 5, 24-35.	1.6	3
92	Model-Predictive Energy Management for the Integration of Plug-In-Hybrid Electric Vehicles into Building Energy Systems. , 0, , .		3
93	An approach for predicting vehicle velocity in combination with driver turns. Automotive and Engine Technology, 2016, 1, 27-33.	0.7	3
94	Configuration Parameters within Electric Vehicle Production Strategies in Sub-Saharan Africa - the aCar mobility Case. Procedia CIRP, 2019, 86, 288-293.	1.0	3
95	A Holistic Approach for Simulation and Evaluation of Electrical and Thermal Loads in Lithium-Ion Battery Systems. , 2019, , .		3
96	Dependency of Machine Efficiency on the Thermal Behavior of Induction Machines. Machines, 2020, 8, 9.	1.2	3
97	Virtual Vehicle Design based on Key Performance Indicators Assessing the Vehicle Portfolio. SAE International Journal of Commercial Vehicles, 2014, 7, 599-612.	0.4	2
98	Acceleration-based criterion for intrusions in frontal impacts. International Journal of Crashworthiness, 2017, 22, 83-94.	1.1	2
99	Scube—Concept and Implementation of a Self-balancing, Autonomous Mobility Device for Personal Transport. World Electric Vehicle Journal, 2018, 9, 48.	1.6	2
100	Simulation of Lithium Plating Due to Spatial Inhomogeneous Separator Strain in Lithium-Ion-Cells. International Journal of Automotive Engineering, 2019, 10, 242-248.	0.3	2
101	An Evaluation of Autoencoder and Sparse Filter as Automated Feature Extraction Process for Automotive Damper Defect Diagnosis. , 2019, , .		2
102	Road Network Coverage Models for Cloud-based Automotive Applications: A Case Study in the City of Munich. , 2019, , .		2
103	Requirements for Electric Machine Design based on Operating Points from Real Driving Data in Cities. World Electric Vehicle Journal, 2019, 10, 60.	1.6	2
104	PARAMETRIC MODELLING OF WEIGHT AND VOLUME EFFECTS IN BATTERY ELECTRIC VEHICLES, WITH FOCUS ON THE GEARBOX. Proceedings of the Design Society, 2021, 1, 2389-2398.	0.5	2
105	Lane-Level Matching Algorithm Based on GNSS, IMU and Map Data. , 2021, , .		2
106	An Approach for the Development and the Validation of Generic Simulation Models for Crash-Compatibility Investigations. SAE International Journal of Transportation Safety, 2016, 4, 219-228.	0.4	1
107	Optimal Battery Cell Design for Electric Vehicles – A Holistic Method with Consideration of Ageing due to Electrothermal Gradients. , 2019, , .		1
108	Agent-based Simulation of a Car-sharing System with Hydrogen-powered Vehicles. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
109	Unified Mobility Estimation Model. , 2021, , .		0