Dongsuk Kum

List of Publications by Year
in descending order

56 papers	2,041 citations	331670 21 h-index	315739 38 g-index
56 all docs	56 docs citations	56 times ranked	1996 citing authors

#	Article	IF	Citations
1	Economic Analysis of the Dynamic Charging Electric Vehicle. IEEE Transactions on Power Electronics, 2015, 30, 6368-6377.	7.9	263
2	Robust control of heterogeneous vehicular platoon with uncertain dynamics and communication delay. IET Intelligent Transport Systems, 2016, 10, 503-513.	3.0	169
3	$\hbox{Prius}^{+}$ and $\hbox{Volt}^{-}$: Configuration Analysis of Power-Split Hybrid Vehicles With a Single Planetary Gear. IEEE Transactions on Vehicular Technology, 2012, 61, 3544-3552.	6.3	162
4	A survey of powertrain configuration studies on hybrid electric vehicles. Applied Energy, 2020, 262, 114553.	10.1	135
5	Optimal adaptation of equivalent factor of equivalent consumption minimization strategy for fuel cell hybrid electric vehicles under active state inequality constraints. Journal of Power Sources, 2014, 267, 491-502.	7.8	116
6	A comprehensive design methodology of organic Rankine cycles for the waste heat recovery of automotive heavy-duty diesel engines. Applied Thermal Engineering, 2015, 87, 574-585.	6.0	94
7	Collision Risk Assessment Algorithm via Lane-Based Probabilistic Motion Prediction of Surrounding Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 2965-2976.	8.0	80
8	Supervisory Control of Parallel Hybrid Electric Vehicles for Fuel and Emission Reduction. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2011, 133, .	1.6	79
9	Optimal Path Tracking Control of Autonomous Vehicle: Adaptive Full-State Linear Quadratic Gaussian (LQG) Control. IEEE Access, 2019, 7, 109120-109133.	4.2	76
10	Optimal Energy and Catalyst Temperature Management of Plug-in Hybrid Electric Vehicles for Minimum Fuel Consumption and Tail-Pipe Emissions. IEEE Transactions on Control Systems Technology, 2013, 21, 14-26.	5.2	74
11	Comprehensive Design Methodology of Input- and Output-Split Hybrid Electric Vehicles: In Search of Optimal Configuration. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2912-2923.	5.8	67
12	The multilayer perceptron approach to lateral motion prediction of surrounding vehicles for autonomous vehicles. , 2016, , .		65
13	Charging Automation for Electric Vehicles: Is a Smaller Battery Good for the Wireless Charging Electric Vehicles?. IEEE Transactions on Automation Science and Engineering, 2019, 16, 486-497.	5.2	62
14	Collision Avoidance/Mitigation System: Motion Planning of Autonomous Vehicle via Predictive Occupancy Map. IEEE Access, 2019, 7, 52846-52857.	4.2	56
15	Synthesis of Predictive Equivalent Consumption Minimization Strategy for Hybrid Electric Vehicles Based on Closed-Form Solution of Optimal Equivalence Factor. IEEE Transactions on Vehicular Technology, 2017, 66, 5604-5616.	6.3	51
16	Simplification of pseudo two dimensional battery model using dynamic profile of lithium concentration. Journal of Power Sources, 2015, 286, 510-525.	7.8	47
17	Control of Engine-Starts for Optimal Drivability of Parallel Hybrid Electric Vehicles. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	1.6	43
18	Robust multi-lane detection and tracking using adaptive threshold and lane classification. Machine Vision and Applications, 2019, 30, 111-124.	2.7	33

#	Article	IF	Citations
19	Camera and Radar Sensor Fusion for Robust Vehicle Localization via Vehicle Part Localization. IEEE Access, 2020, 8, 75223-75236.	4.2	29
20	Development of cell selection framework for second-life cells with homogeneous properties. International Journal of Electrical Power and Energy Systems, 2019, 105, 429-439.	5.5	28
21	Synthesis of Robust Lane Keeping Systems: Impact of Controller and Design Parameters on System Performance. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 3129-3141.	8.0	25
22	Autonomous Vehicle Cut-In Algorithm for Lane-Merging Scenarios via Policy-Based Reinforcement Learning Nested Within Finite-State Machine. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 17594-17606.	8.0	23
23	Predictive Cruise Control Using Radial Basis Function Network-Based Vehicle Motion Prediction and Chance Constrained Model Predictive Control. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 3832-3843.	8.0	22
24	Synthesis of multiple model switching controllers using <mml:math altimg="si0001.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	5.9	20
25	Feasibility Assessment and Design Optimization of a Clutchless Multimode Parallel Hybrid Electric Powertrain. IEEE/ASME Transactions on Mechatronics, 2016, 21, 774-786.	5.8	20
26	Extended Single Particle Model of Li-Ion Batteries Towards High Current Applications. , 2013, , .		17
27	Energy saving potentials of a photovoltaic assisted heat pump for hybrid building heating system via optimal control. Journal of Building Engineering, 2020, 27, 100854.	3.4	17
28	Efficient and accurate computation of model predictive control using pseudospectral discretization. Neurocomputing, 2016, 177, 363-372.	5.9	14
29	Automatic Enumeration of Feasible Kinematic Diagrams for Split Hybrid Configurations With a Single Planetary Gear. Journal of Mechanical Design, Transactions of the ASME, 2017, 139, .	2.9	14
30	Optimal Engine Starts of an Input-Split Hybrid Electric Vehicle. SAE International Journal of Alternative Powertrains, 0, 4, 343-351.	0.8	12
31	Complete design space exploration of isolated hybrid renewable energy system via dynamic programming. Energy Conversion and Management, 2019, 196, 920-934.	9.2	12
32	Systematic Design of Input- and Output-Split Hybrid Electric Vehicles With a Speed Reduction/Multiplication Gear Using Simplified-Lever Model. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 3799-3810.	8.0	12
33	Automatic Generation of Design Space Conversion Maps and Its Application for the Design of Compound Split Hybrid Powertrains. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	11
34	Compound Lever Based Optimal Configuration Selection of Compound-Split Hybrid Vehicles. , 0, , .		10
35	RECUP Net: RECUrsive Prediction Network for Surrounding Vehicle Trajectory Prediction with Future Trajectory Feedback. , 2020, , .		10
36	Systematic Configuration Selection Methodology of Power-Split Hybrid Electric Vehicles With a Single Planetary Gear. , 2014, , .		8

#	Article	IF	Citations
37	Comprehensive Design Methodology of Compound-Split Hybrid Electric Vehicles: Introduction of the Compound Lever as a Design Tool. IEEE Access, 2019, 7, 84744-84756.	4.2	8
38	Modeling and Control of Hybrid Electric Vehicles for Fuel and Emission Reduction. , 2008, , .		7
39	Bird's eye view localization of surrounding vehicles: Longitudinal and lateral distance estimation with partial appearance. Robotics and Autonomous Systems, 2019, 112, 178-189.	5.1	6
40	Efficient Design Space Exploration of Multi-Mode, Two-Planetary-Gear, Power-Split Hybrid Electric Powertrains via Virtual Levers. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 3498-3509.	8.0	6
41	Impact of Speed Reduction (Multiplication) Gear on the Performance of Input- and Output-Split Hybrid Electric Vehicles. , 0, , .		5
42	The Impact of Energy Dispatch Strategy on Design Optimization of Hybrid Renewable Energy Systems. , 2019, , .		5
43	Modeling and Control Problems in Sustainable Transportation and Power Systems. Mathematical Problems in Engineering, 2016, 2016, 1-3.	1.1	4
44	Magnetic flux waveform estimation for fast efficiency map calculation in permanent magnet synchronous motors. International Journal of Applied Electromagnetics and Mechanics, 2018, 56, 373-386.	0.6	4
45	A Study on How to Utilize Hilly Road Information in Equivalent Consumption Minimization Strategy of FCHEVs. SAE International Journal of Alternative Powertrains, 2014, 3, 72-77.	0.8	3
46	Design optimization of the OLEV system considering battery lifetime. , 2014, , .		3
47	Feasibility Analysis and Performance Evaluation of a Novel Power-Split Flywheel Hybrid Vehicle. Energies, 2018, 11, 1744.	3.1	3
48	Sensitivity analysis for assessing robustness of position-based predictive energy management strategy for fuel cell hybrid electric vehicle. World Electric Vehicle Journal, 2015, 7, 330-341.	3.0	2
49	The impact of inhomogeneous particle size distribution on Li-ion cell performance under galvanostatic and transient loads. , 2016, , .		2
50	Feature-based lateral position estimation of surrounding vehicles using stereo vision. , 2017, , .		2
51	Automated Schematic Design of Power-Split Hybrid Vehicles With a Single Planetary Gear. , 2014, , .		2
52	Robust Control of Active Suspensions. , 2007, , .		1
53	Optimal Control of Engine-Starts for Drivability of Parallel Hybrid Electric Vehicles. , 2011, , .		1
54	Optimal catalyst temperature management of Plug-in Hybrid Electric Vehicles. , 2011, , .		1

#	Article	IF	Citations
55	Dynamic Modeling of the Organic Rankine Cycle for the Waste Heat Recovery of Internal Combustion Engines. , 2012, , .		0
56	Development of Control Strategy of Hybrid Electric Truck with Manual Transmission. , 2019, , .		0