Balazs Kulcsar

List of Publications by Year
in descending order

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67 papers	1,045 citations	471509 17 h-index	454955 30 g-index
67 all docs	67 docs citations	67 times ranked	799 citing authors

#	Article	IF	Citations
1	Energy consumption estimation integrated into the Electric Vehicle Routing Problem. Transportation Research, Part D: Transport and Environment, 2019, 69, 141-167.	6.8	130
2	Back-Pressure Traffic Signal Control With Fixed and Adaptive Routing for Urban Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2134-2143.	8.0	79
3	Electric vehicle routing problem with machine learning for energy prediction. Transportation Research Part B: Methodological, 2021, 145, 24-55.	5.9	76
4	Robust Control for Urban Road Traffic Networks. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 385-398.	8.0	61
5	Emergency vehicle lane pre-clearing: From microscopic cooperation to routing decision making. Transportation Research Part B: Methodological, 2020, 141, 223-239.	5.9	60
6	Dynamic stochastic electric vehicle routing with safe reinforcement learning. Transportation Research, Part E: Logistics and Transportation Review, 2022, 157, 102496.	7.4	50
7	Robust Inversion Based Fault Estimation for Discrete-Time LPV Systems. IEEE Transactions on Automatic Control, 2012, 57, 1581-1586.	5.7	41
8	A platoon regulation algorithm to improve the traffic performance of highway work zones. Computer-Aided Civil and Infrastructure Engineering, 2021, 36, 941-956.	9.8	38
9	Pro-social control of connected automated vehicles in mixed-autonomy multi-lane highway traffic. Communications in Transportation Research, 2021, 1, 100019.	10.7	34
10	Robust servo control of a novel type 1 diabetic model. Optimal Control Applications and Methods, 2011, 32, 215-238.	2.1	29
11	Linear Parameter Varying Identification of Freeway Traffic Models. IEEE Transactions on Control Systems Technology, 2011, 19, 31-45.	5.2	28
12	Optimally combined headway and timetable reliable public transport system. Transportation Research Part C: Emerging Technologies, 2018, 92, 1-26.	7.6	28
13	A modular, adaptive, and autonomous transit system (MAATS): An in-motion transfer strategy and performance evaluation in urban grid transit networks. Transportation Research, Part A: Policy and Practice, 2021, 151, 81-98.	4.2	28
14	Unknown input reconstruction for LPV systems. International Journal of Robust and Nonlinear Control, 2010, 20, 579-595.	3.7	27
15	Network traffic flow optimization under performance constraints. Transportation Research Part C: Emerging Technologies, 2017, 83, 120-133.	7.6	25
16	Public transport trajectory planning with probabilistic guarantees. Transportation Research Part B: Methodological, 2020, 139, 81-101.	5.9	25
17	Control Solutions for Hybrid Solar Vehicle Fuel Consumption Minimization. Intelligent Vehicles Symposium, 2009 IEEE, 2007, , .	0.0	18
18	Parameter-dependent modeling of freeway traffic flow. Transportation Research Part C: Emerging Technologies, 2010, 18, 471-488.	7.6	18

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19	Distributed LPV State-Feedback Control Under Control Input Saturation. IEEE Transactions on Automatic Control, 2017, 62, 2450-2456.	5.7	18
20	Distributed Ramp Meteringâ€"A Constrained Discharge Flow Maximization Approach. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 2525-2538.	8.0	16
21	A Game Approach for Charging Station Placement Based on User Preferences and Crowdedness. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 3654-3669.	8.0	16
22	Variable speed limit design based on mode dependent Cell Transmission Model. Transportation Research Part C: Emerging Technologies, 2017, 85, 429-450.	7.6	15
23	Incident indicators for freeway traffic flow models. Communications in Transportation Research, 2022, 2, 100060.	10.7	14
24	Traffic-adaptive signal control and vehicle routing using a decentralized back-pressure method. , 2015, , .		13
25	Model-based nonlinear optimal blood glucose control of Type I diabetes patients. , 2008, 2008, 1607-10.		12
26	Single-region robust perimeter traffic flow control. , 2015, , .		12
27	Subspace based Fault Detection and Identification for LPV Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 336-341.	0.4	10
28	LPV Subspace Identification of a DC motor with unbalanced disc. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 856-861.	0.4	9
29	Traffic aware electric vehicle routing. , 2016, , .		9
30	On The Similarity State Transformation for Linear Parameter-Varying Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4155-4160.	0.4	8
31	Fault detection for LPV systems using model parameters that can be estimated via linear least squares. International Journal of Robust and Nonlinear Control, 2014, 24, 1989-1999.	3.7	7
32	Freeway traffic incident reconstruction â€" A bi-parameter approach. Transportation Research Part C: Emerging Technologies, 2015, 58, 585-597.	7.6	7
33	Bilevel Optimization for Bunching Mitigation and Eco-Driving of Electric Bus Lines. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 10662-10679.	8.0	7
34	CONSTRAINED SPLIT RATE ESTIMATION BY MOVING HORIZON. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 78-83.	0.4	6
35	Induced L2 Norm Improvement by Interpolating Controllers for Discrete-time LPV Systems. European Journal of Control, 2009, 15, 545-559.	2.6	6
36	Distributed LPV state-feedback control with application to motorway ramp metering. , 2015, , .		6

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37	Setâ€theoretic analysis of the isolated ramp metering problem. International Journal of Robust and Nonlinear Control, 2016, 26, 1246-1266.	3.7	6
38	Freeway ramp metering: An LPV set theoretical analysis. , 2011, , .		5
39	Incident parameter scheduled freeway traffic control - a ramp meter approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11338-11343.	0.4	5
40	Energy-aware predictive control for electrified bus networks. Applied Energy, 2019, 252, 113477.	10.1	5
41	Piecewise linear parameter varying mathematical model of a Hybrid Solar Vehicle. , 2008, , .		3
42	An exact solution for the infinite horizon LQ optimal output tracking problem. , 2008, , .		3
43	Discrete time minimax tracking control with disturbance estimation. , 2009, , .		3
44	Induced L2-norm Minimization of Glucose-Insulin System for Type I Diabetic Patients. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 55-60.	0.4	3
45	Fault estimation for discrete time LPV systems under noisy scheduling measurements. IFAC-PapersOnLine, 2015, 48, 1018-1023.	0.9	3
46	Robust tracking controller design for active dolly steering. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2018, 232, 695-706.	1.9	3
47	Induced L2-gain computation for rational LPV systems using Finslerâ€™s lemma and minimal generators. Systems and Control Letters, 2020, 142, 104738.	2.3	3
48	Can AI Abuse Personal Information in an EV Fast-Charging Market?. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 8759-8769.	8.0	3
49	Towards a robust traffic admission control in homogeneous urban vehicular networks under QoS constraints. , 2018, , .		2
50	Set-based multi-objective control of metered ramps at ring road junctions. Transportmetrica A: Transport Science, 2020, 16, 337-357.	2.0	2
51	H âˆž Disturbance Rejection on Residual Output. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 489-494.	0.4	1
52	ON THE DETECTION OF UNKNOWN INPUT IN POSITIONAL CONTROL PROBLEMS WITH NOISY MEASUREMENTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 802-807.	0.4	1
53	On the use of proper weighting in reference tracking optimal control with guaranteed DARE solvability. , 2008, , .		1
54	Parameter dependent freeway modelling. Periodica Polytechnica Transportation Engineering, 2008, 36, 61.	1.2	1

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55	Robust cautious data driven control with guaranteed mean square stability. , 2010, , .		1
56	Traffic flow optimization with QoS constrained network admission control * *This research is supported by Chalmersâ€™ initiatives in transport research, the Transport Area of Advance at Chalmers University of Technology and SAFER (Vehicle and Traffic Safety Centre) and by the National Research, Development and Innovation Office of Hungary - NKFIH through grant No. 115694.. IFAC-PapersOnLine, 2017, 50, 5275-5280.	0.9	1
57	Ramp metering for flow maximisation and emission reduction â€“ a set-based multi-objective design approach. Transportation Research Procedia, 2017, 27, 937-944.	1.5	1
58	Optimal headway merging for balanced public transport service in urban networks. IFAC-PapersOnLine, 2018, 51, 416-421.	0.9	1
59	Passivity analysis of rational LPV systems using Finslerâ€™s lemma. , 2019, , .		1
60	Hierarchical Control of Electric Bus Lines. IFAC-PapersOnLine, 2020, 53, 14179-14184.	0.9	1
61	Constrained H_∞ control for discrete-time LPV systems using interpolation. , 2008, , .		0
62	Correction to â€œRobust Inversion Based Fault Estimation for Discrete-Time LPV Systemsâ€•[Jun 12 1581-1586]. IEEE Transactions on Automatic Control, 2012, 57, 2159-2159.	5.7	0
63	Distributed dynamic output feedback control for discrete-time linear parameter varying systems. , 2016, , .		0
64	An alternative formulation of the interpolation based constrained Hâˆž control of discrete-time LPV systems. , 2009, , .		0
65	Villamosenergia elÅ‘Ã¡llÃ¤tÃ¡sa megÃºjulÃ³ energiaforrÃ¡sok segÃ¤tsÃ©gÃ©vel egy telepÃ¼lÃ©s pÃ©ldÃ¡jÃ¡n keresztÃ¼l. International Journal of Engineering and Management Sciences, 2016, 1, 9-17.	0.1	0
66	KÃ¶telezÅ‘ Ã¡tvÃ©teli rendszerben benyÃºjtott naperÅ‘mÅ± lÃ©tesÃ¤tÃ©si igÃ©nyek, megvalÃ³sulÃ¡sÃ¡nak hatÃ¡sa a magyarorszÃ¡gi telepÃ¼lÃ©sÃ¡llomÃ¡ny villamosenergia-ellÃ¡tÃ¡sÃ¡ra. International Journal of Engineering and Management Sciences, 2019, 4, 54-60.	0.1	0
67	Network-level optimal control for public bus operation. IFAC-PapersOnLine, 2020, 53, 15003-15010.	0.9	0