

Robert N Shorten

List of Publications by Year in descending order

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97
papers

2,079
citations

361413

20
h-index

265206

42
g-index

98
all docs

98
docs citations

98
times ranked

1431
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability Criteria for Switched and Hybrid Systems. SIAM Review, 2007, 49, 545-592.	9.5	845
2	Distributed Ledger Technology for Smart Cities, the Sharing Economy, and Social Compliance. IEEE Access, 2018, 6, 62728-62746.	4.2	82
3	Stochastic Park-and-Charge Balancing for Fully Electric and Plug-in Hybrid Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 895-901.	8.0	67
4	Stochastic Frequency Control of Grid-Connected Microgrids. IEEE Transactions on Power Systems, 2018, 33, 5704-5713.	6.5	47
5	Post-lockdown abatement of COVID-19 by fast periodic switching. PLoS Computational Biology, 2021, 17, e1008604.	3.2	43
6	Switching Controller Design With Dwell-Times and Sampling. IEEE Transactions on Automatic Control, 2017, 62, 5837-5843.	5.7	40
7	A Large-Scale SUMO-Based Emulation Platform. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 3050-3059.	8.0	35
8	An LMI condition for the robustness of constant-delay linear predictor feedback with respect to uncertain time-varying input delays. Automatica, 2019, 109, 108551.	5.0	35
9	Augmented Reality, Cyber-Physical Systems, and Feedback Control for Additive Manufacturing: A Review. IEEE Access, 2019, 7, 50119-50135.	4.2	33
10	Quadratic Stability and Singular SISO Switching Systems. IEEE Transactions on Automatic Control, 2009, 54, 2714-2718.	5.7	32
11	On the Design of Campus Parking Systems With QoS Guarantees. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 1428-1437.	8.0	32
12	On Synchronization in Continuous-Time Networks of Nonlinear Nodes With State-Dependent and Degenerate Noise Diffusion. IEEE Transactions on Automatic Control, 2019, 64, 389-395.	5.7	32
13	On the Stability of Unverified Transactions in a DAG-Based Distributed Ledger. IEEE Transactions on Automatic Control, 2020, 65, 3772-3783.	5.7	32
14	On the Resilience of DAG-Based Distributed Ledgers in IoT Applications. IEEE Internet of Things Journal, 2020, 7, 7112-7122.	8.7	32
15	On common noise-induced synchronization in complex networks with state-dependent noise diffusion processes. Physica D: Nonlinear Phenomena, 2018, 369, 47-54.	2.8	29
16	A hidden Markov model for route and destination prediction. , 2017, , .		26
17	On the Characterization of Strict Positive Realness for General Matrix Transfer Functions. IEEE Transactions on Automatic Control, 2010, 55, 1899-1904.	5.7	24
18	A Context-Aware E-Bike System to Reduce Pollution Inhalation While Cycling. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 704-715.	8.0	24

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19	Cooperative Regulation and Trading of Emissions Using Plug-in Hybrid Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 1572-1585.	8.0	23
20	A big-data model for multi-modal public transportation with application to macroscopic control and optimisation. International Journal of Control, 2015, 88, 2354-2368.	1.9	23
21	Boundary feedback stabilization of a reaction-diffusion equation with Robin boundary conditions and state-delay. Automatica, 2020, 116, 108931.	5.0	23
22	Electric and Plug-in Hybrid Vehicle Networks. , 0, , .		21
23	ISS Property with respect to boundary disturbances for a class of Riesz-spectral boundary control systems. Automatica, 2019, 109, 108504.	5.0	20
24	Decentralized Assignment of Electric Vehicles at Charging Stations Based on Personalized Cost Functions and Distributed Ledger Technologies. IEEE Internet of Things Journal, 2021, 8, 11112-11122.	8.7	18
25	On a theorem of Redheffer concerning diagonal stability. Linear Algebra and Its Applications, 2009, 431, 2317-2329.	0.9	17
26	Leader and Leaderless Multi-Layer Consensus With State Obfuscation: An Application to Distributed Speed Advisory Systems. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 711-721.	8.0	17
27	An Optimized Decentralized Power Sharing Strategy for Wind Farm De-Loading. IEEE Transactions on Power Systems, 2021, 36, 136-146.	6.5	17
28	Parked cars as a service delivery platform. , 2014, , .		16
29	A Distributed Markovian Parking Assist System. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2230-2240.	8.0	16
30	Localizing Missing Entities Using Parked Vehicles: An RFID-Based System. IEEE Internet of Things Journal, 2018, 5, 4018-4030.	8.7	15
31	Robustness of constant-delay predictor feedback for in-domain stabilization of reaction-diffusion PDEs with time- and spatially-varying input delays. Automatica, 2021, 123, 109347.	5.0	15
32	Pedestrian-Aware Engine Management Strategies for Plug-In Hybrid Electric Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 92-101.	8.0	14
33	Input-to-State Stability of a Clamped-Free Damped String in the Presence of Distributed and Boundary Disturbances. IEEE Transactions on Automatic Control, 2020, 65, 1248-1255.	5.7	13
34	Exponential input-to-state stabilization of a class of diagonal boundary control systems with delay boundary control. Systems and Control Letters, 2020, 138, 104651.	2.3	13
35	On a class of generalized eigenvalue problems and equivalent eigenvalue problems that arise in systems and control theory. Automatica, 2011, 47, 431-442.	5.0	12
36	I-Interact: A Cyber-Physical System for Real-Time Interaction With Physical and Virtual Objects Using Mixed Reality Technologies for Additive Manufacturing. IEEE Access, 2020, 8, 98761-98774.	4.2	12

#	ARTICLE	IF	CITATIONS
37	On the quadratic stability of switched linear systems associated with symmetric transfer function matrices. <i>Automatica</i> , 2014, 50, 2872-2879.	5.0	10
38	Smart procurement of naturally generated energy (SPONGE) for PHEVs. <i>International Journal of Control</i> , 2016, 89, 1467-1480.	1.9	10
39	Hybrid urban navigation for smart cities. , 2017, , .		10
40	A New Take on Protecting Cyclists in Smart Cities. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2018, 19, 3992-3999.	8.0	10
41	On analysis and design of discrete-time constrained switched systems. <i>International Journal of Control</i> , 2018, 91, 437-452.	1.9	10
42	Access Control for Distributed Ledgers in the Internet of Things: A Networking Approach. <i>IEEE Internet of Things Journal</i> , 2022, 9, 2277-2292.	8.7	10
43	Kemeny-based testing for COVID-19. <i>PLoS ONE</i> , 2020, 15, e0242401.	2.5	10
44	A characterisation of common diagonal stability over cones. <i>Linear and Multilinear Algebra</i> , 2012, 60, 1117-1123.	1.0	9
45	Signalling and obfuscation for congestion control. <i>International Journal of Control</i> , 2015, 88, 2086-2096.	1.9	9
46	A Note on Recursive Schur Complements, Block Hurwitz Stability of Metzler Matrices, and Related Results. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 4167-4172.	5.7	9
47	Smart Procurement of Naturally Generated Energy (SPONGE) for Plug-In Hybrid Electric Buses. <i>IEEE Transactions on Automation Science and Engineering</i> , 2017, 14, 598-607.	5.2	9
48	On classical control and smart cities. , 2017, , .		9
49	On the ergodic control of ensembles. <i>Automatica</i> , 2019, 108, 108483.	5.0	9
50	Control Law Realification for the Feedback Stabilization of a Class of Diagonal Infinite-Dimensional Systems With Delay Boundary Control. , 2019, 3, 930-935.		9
51	Nonhomogeneous Place-dependent Markov Chains, Unsynchronised AIMD, and Optimisation. <i>Journal of the ACM</i> , 2019, 66, 1-37.	2.2	9
52	On the design of a route parsing engine for connected vehicles with applications to congestion management systems. , 2016, , .		8
53	On the Design of an Intelligent Speed Advisory System for Cyclists. , 2018, , .		8
54	On the SPRification of Linear Descriptor Systems via Output Feedback. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 1535-1549.	5.7	8

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55	<i>r</i> -extreme signalling for congestion control. International Journal of Control, 2016, 89, 1972-1984.	1.9	7
56	A framework for real-time emissions trading in large-scale vehicle fleets. IET Intelligent Transport Systems, 2015, 9, 275-284.	3.0	6
57	An assessment on the use of stationary vehicles to support cooperative positioning systems. International Journal of Control, 2018, 91, 608-621.	1.9	6
58	On the design of cyber-physical control system for a smart pedelec (Ebike)., 2019, , .		6
59	SPR based design conditions for quadratic stability of multi-mode switched linear systems. Automatica, 2020, 122, 109254.	5.0	6
60	Active Limitation of Tire Wear and Emissions for Electrified Vehicles. , 0, , .		6
61	Communication-efficient Distributed Multi-resource Allocation. , 2018, , .		5
62	Robustness of Constant-Delay Predictor Feedback with Respect to Distinct Uncertain Time-Varying Input Delays. IFAC-PapersOnLine, 2020, 53, 7677-7682.	0.9	5
63	Distributed Ledger Enabled Control of Tyre Induced Particulate Matter in Smart Cities. Frontiers in Sustainable Cities, 2020, 2, .	2.4	5
64	Secure Access Control for DAG-Based Distributed Ledgers. IEEE Internet of Things Journal, 2022, 9, 10792-10806.	8.7	5
65	Preservation of common quadratic Lyapunov functions and Padé approximations. , 2010, , .		4
66	Localization of missing entities using parked cars. , 2015, , .		4
67	On charge point anxiety and the sharing economy. , 2017, , .		4
68	Spatial Positioning Token (SPToken) for Smart Mobility. , 2019, , .		4
69	Integral action for setpoint regulation control of a reaction-diffusion equation in the presence of a state delay. Automatica, 2021, 134, 109935.	5.0	4
70	Low Tyre Particle Control. , 2020, , .		4
71	A Numerical Study on Constant Spacing Policies for Starting Platoons at Oversaturated Intersections. IEEE Access, 2022, 10, 43766-43786.	4.2	4
72	An extension of the KYP-lemma for the design of state-dependent switching systems with uncertainty. Systems and Control Letters, 2013, 62, 626-631.	2.3	3

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73	Derandomized Distributed Multi-resource Allocation with Little Communication Overhead. , 2018, , .		3
74	dockChain: A Solution for Electric Vehicles Charge Point Anxiety. , 2018, , .		3
75	In-Domain Stabilization of Block Diagonal Infinite-Dimensional Systems With Time-Varying Input Delays. IEEE Transactions on Automatic Control, 2021, 66, 6017-6024.	5.7	3
76	A new stability result for switched linear systems. , 2013, , .		2
77	Using stationary vehicles to enhance cooperative positioning in Vehicular Ad-hoc Networks. , 2014, , .		2
78	A Vehicle-in-the-Loop Emulation Platform for Demonstrating Intelligent Transportation Systems. Lecture Notes in Control and Information Sciences, 2019, , 133-154.	1.0	2
79	\hat{A}_{22} and $\hat{A}_{\tilde{z}}$ analysis and state feedback control design for discrete-time constrained switched linear systems. International Journal of Control, 2021, 94, 2834-2845.	1.9	2
80	Predictability and Fairness in Social Sensing. IEEE Internet of Things Journal, 2022, 9, 37-54.	8.7	2
81	Markovian city-scale modelling and mitigation of micro-particles from tires. PLoS ONE, 2021, 16, e0260226.	2.5	2
82	Regulating the Searching Behaviour of Parked Vehicles Attempting to Locate Moving, Missing Entities. , 2018, , .		1
83	Identification of New Patterns in Urban Traffic Flows. , 2018, , .		1
84	Ad-hocChain: Cooperative Sharing and Trading Infrastructure for Electric Vehicle Charging Networks. , 2019, , .		1
85	Spatial Positioning Token (SPToken) for Smart Mobility. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 1529-1542.	8.0	1
86	Tire Particle Control with Comfort Bounds for Electric Vehicles. , 2021, , .		1
87	ISS of a Clamped-Free Damped String for the Configurations Associated with the Loss of the Riesz-Spectral Properties. , 2019, , .		0
88	Hysteresis-based supervisory control with application to non-pharmaceutical containment of COVID-19. Annual Reviews in Control, 2021, 52, 508-522.	7.9	0
89	A Note on Order and Index Reduction for Descriptor Systems. IEEE Transactions on Automatic Control, 2021, , 1-1.	5.7	0
90	On the Derivation of Stability Properties for Time-Delay Systems Without Constraint on the Time-Derivative of the Initial Condition. IEEE Transactions on Automatic Control, 2021, 66, 5401-5406.	5.7	0

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91	An Optimized Decentralized Power Sharing Strategy for Wind Farm De-Loading. , 2021, , .		0
92	Electric Vehicle Ensembles for Quality of Service Based Mitigation of Renewable Production Risk. , 2022, , .		0
93	A non-Invasive Tyre-Emission Mitigation Strategy for Vehicles with Over-Actuated Traction Control. , 2022, , .		0
94	Kemeny-based testing for COVID-19. , 2020, 15, e0242401.		0
95	Kemeny-based testing for COVID-19. , 2020, 15, e0242401.		0
96	Kemeny-based testing for COVID-19. , 2020, 15, e0242401.		0
97	Kemeny-based testing for COVID-19. , 2020, 15, e0242401.		0