Robert Shorten

List of Publications by Year
in descending order

96 papers	2,909 citations	218677 26 h-index	175258 52 g-index
98 all docs	98 docs citations	98 times ranked	1840 citing authors

#	Article	IF	Citations
1	Access Control for Distributed Ledgers in the Internet of Things: A Networking Approach. IEEE Internet of Things Journal, 2022, 9, 2277-2292.	8.7	10
2	Secure Access Control for DAG-Based Distributed Ledgers. IEEE Internet of Things Journal, 2022, 9, 10792-10806.	8.7	5
3	Electric Vehicle Ensembles for Quality of Service Based Mitigation of Renewable Production Risk. , 2022, , .		0
4	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
5	Post-lockdown abatement of COVID-19 by fast periodic switching. PLoS Computational Biology, 2021, 17, e1008604.	3.2	43
6	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
7	Hysteresis-based supervisory control with application to non-pharmaceutical containment of COVID-19. Annual Reviews in Control, 2021, 52, 508-522.	7.9	0
8	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
9	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
10	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
11	Markovian city-scale modelling and mitigation of micro-particles from tires. PLoS ONE, 2021, 16, e0260226.	2.5	2
12	On the Stability of Unverified Transactions in a DAG-Based Distributed Ledger. IEEE Transactions on Automatic Control, 2020, 65, 3772-3783.	5.7	32
13	SPR based design conditions for quadratic stability of multi-mode switched linear systems. Automatica, 2020, 122, 109254.	5.0	6
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	Boundary feedback stabilization of a reaction–diffusion equation with Robin boundary conditions and state-delay. Automatica, 2020, 116, 108931.	5.0	23
16	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
17	Robustness of Constant-Delay Predictor Feedback with Respect to Distinct Uncertain Time-Varying Input Delays. IFAC-PapersOnLine, 2020, 53, 7677-7682.	0.9	5
18	Distributed Ledger Enabled Control of Tyre Induced Particulate Matter in Smart Cities. Frontiers in Sustainable Cities, 2020, 2, .	2.4	5

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19	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
20	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
21	ISS Property with respect to boundary disturbances for a class of Riesz-spectral boundary control systems. Automatica, 2019, 109, 108504.	5.0	20
22	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
23	Some stability tests for switched descriptor systems. Automatica, 2019, 106, 257-265.	5.0	17
24	Nonhomogeneous Place-dependent Markov Chains, Unsynchronised AIMD, and Optimisation. Journal of the ACM, 2019, 66, 1-37.	2.2	9
25	On the design of cyber-physical control system for a smart pedelec (Ebike). , 2019, , .		6
26	Reinforcement Learning Augmented Optimization for Smart Mobility. , 2019, , .		1
27	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
28	A New Take on Protecting Cyclists in Smart Cities. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 3992-3999.	8.0	10
29	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
30	Communication-efficient Distributed Multi-resource Allocation. , 2018, , .		5
31	Identification of New Patterns in Urban Traffic Flows. , 2018, , .		1
32	dockChain: A Solution for Electric Vehicles Charge Point Anxiety. , 2018, , .		3
33	Distributed Ledger Technology for Smart Cities, the Sharing Economy, and Social Compliance. IEEE Access, 2018, 6, 62728-62746.	4.2	82
34	Clustering behaviour in Markov chains with eigenvalues close to one. Linear Algebra and Its Applications, 2018, 555, 163-185.	0.9	4
35	Smart Procurement of Naturally Generated Energy (SPONGE) for Plug-In Hybrid Electric Buses. IEEE Transactions on Automation Science and Engineering, 2017, 14, 598-607.	5.2	9
36	Consensus with state obfuscation: an application to speed advisory systems. , 2016, , .		6

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37	On the Design of Campus Parking Systems With QoS Guarantees. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 1428-1437.	8.0	32
38	Smart procurement of naturally generated energy (SPONGE) for PHEVs. International Journal of Control, 2016, 89, 1467-1480.	1.9	10
39	A framework for real-time emissions trading in large-scale vehicle fleets. IET Intelligent Transport Systems, 2015, 9, 275-284.	3.0	6
40	A Markov-chain based model for a bike-sharing system. , 2015, , .		6
41	Asynchronous algorithms for network utility maximisation with a single bit. , 2015, , .		1
42	Cooperative control and smart procurement of naturally generated energy (SPONGE) for PHEVs. , 2015, , .		0
43	Residential electrical vehicle charging strategies: the good, the bad and the ugly. Journal of Modern Power Systems and Clean Energy, 2015, 3, 190-202.	5.4	37
44	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
45	Alleviating a form of electric vehicle range anxiety through on-demand vehicle access. International Journal of Control, 2015, 88, 717-728.	1.9	25
46	Signalling and obfuscation for congestion control. International Journal of Control, 2015, 88, 2086-2096.	1.9	9
47	Delay-Tolerant Stochastic Algorithms for Parking Space Assignment. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 1922-1935.	8.0	52
48	Optimal real-time distributed V2G and G2V management of electric vehicles. International Journal of Control, 2014, 87, 1153-1162.	1.9	35
49	On the quadratic stability of switched linear systems associated with symmetric transfer function matrices. Automatica, 2014, 50, 2872-2879.	5.0	10
50	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
51	Classical Results on the Stability of Linear Time-Invariant Systems, and the Schwarz Form. IEEE Transactions on Automatic Control, 2014, 59, 3020-3025.	5.7	4
52	On Optimality Criteria for Reverse Charging of Electric Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 451-456.	8.0	22
53	Plug-and-Play Distributed Algorithms for Optimized Power Generation in a Microgrid. IEEE Transactions on Smart Grid, 2014, 5, 2145-2154.	9.0	78
54	Cooperative Regulation and Trading of Emissions Using Plug-in Hybrid Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 1572-1585.	8.0	23

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55	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
56	An ergodic AIMD algorithm with application to high-speed networks. International Journal of Control, 2012, 85, 746-764.	1.9	8
57	A Passivity Based Decentralized Control Design Methodology With Application to Vehicle Dynamics Control. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	1.6	4
58	A Nonconservative LMI Condition for Stability of Switched Systems With Guaranteed Dwell Time. IEEE Transactions on Automatic Control, 2012, 57, 1297-1302.	5.7	138
59	A characterisation of common diagonal stability over cones. Linear and Multilinear Algebra, 2012, 60, 1117-1123.	1.0	9
60	Deterministic and stochastic convergence properties of AIMD algorithms with nonlinear back-off functions. Automatica, 2012, 48, 1291-1299.	5.0	6
61	Traffic modelling framework for electric vehicles. International Journal of Control, 2012, 85, 880-897.	1.9	27
62	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
63	Dwell time analysis for continuous-time switched linear positive systems. , 2010, , .		43
64	Adaptive Williams filters for active vehicle suspensions. Transactions of the Institute of Measurement and Control, 2010, 32, 660-676.	1.7	7
65	On the Characterization of Strict Positive Realness for General Matrix Transfer Functions. IEEE Transactions on Automatic Control, 2010, 55, 1899-1904.	5.7	24
66	On the diagonal stability of a class of almost positive switched systems. , 2010, , .		2
67	Hurwitz Stability of Metzler Matrices. IEEE Transactions on Automatic Control, 2010, 55, 1484-1487.	5.7	56
68	Strict positive realness of descriptor systems in state space. International Journal of Control, 2010, 83, 1799-1809.	1.9	10
69	Adaptive williams filters with application to suspension control: The vector case. , 2009, , .		0
70	An alternative proof of the Barker, Berman, Plemmons (BBP) result on diagonal stability and extensions. Linear Algebra and Its Applications, 2009, 430, 34-40.	0.9	64
71	On a theorem of Redheffer concerning diagonal stability. Linear Algebra and Its Applications, 2009, 431, 2317-2329.	0.9	17
72	A result on second order nonlinear operators arising in high-speed networking applications. Automatica, 2009, 45, 1207-1214.	5.0	0

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73	On linear co-positive Lyapunov functions for sets of linear positive systems. Automatica, 2009, 45, 1943-1947.	5.0	196
74	A control design method for a class of switched linear systems. Automatica, 2009, 45, 2592-2596.	5.0	25
75	Stability and D-stability for Switched Positive Systems. Lecture Notes in Control and Information Sciences, 2009, , 101-109.	1.0	10
76	Generalized distributed rate limiting. , 2009, , .		7
77	Quadratic Stability and Singular SISO Switching Systems. IEEE Transactions on Automatic Control, 2009, 54, 2714-2718.	5.7	32
78	Applications of Linear Co-positive Lyapunov Functions for Switched Linear Positive Systems. Lecture Notes in Control and Information Sciences, 2009, , 331-338.	1.0	7
79	PadÃ© Approximations of and preservation of quadratic Lyapunov functions. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10807-10808.	0.2	0
80	A novel matrix approach for controlling the invariant densities of chaotic maps. Chaos, Solitons and Fractals, 2008, 35, 161-175.	5.1	14
81	A design methodology for switched discrete time linear systems with applications to automotive roll dynamics control. Automatica, 2008, 44, 2358-2363.	5.0	27
82	Distributed Probabilistic Synchronization Algorithms for Communication Networks. IEEE Transactions on Automatic Control, 2008, 53, 389-393.	5.7	26
83	Real-time multiple-model estimation of centre of gravity position in automotive vehicles. Vehicle System Dynamics, 2008, 46, 763-788.	3.7	56
84	SYNTHESIS OF PIECEWISE-LINEAR CHAOTIC MAPS: INVARIANT DENSITIES, AUTOCORRELATIONS, AND SWITCHING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 2169-2189.	1.7	11
85	On the ergodicity of AIMD networks. Proceedings of the American Control Conference, 2007, , .	0.0	0
86	Quadratic and Copositive Lyapunov Functions and the Stability of Positive Switched Linear Systems. Proceedings of the American Control Conference, 2007, , .	0.0	29
87	A methodology for the design of robust rollover prevention controllers for automotive vehicles: Part 2-Active steering. Proceedings of the American Control Conference, 2007, , .	0.0	26
88	On the Dynamics of TCP's Higher Moments. IEEE Communications Letters, 2007, 11, 210-212.	4.1	3
89	Nonlinear AIMD Congestion Control and Contraction Mappings. SIAM Journal on Control and Optimization, 2007, 46, 1882-1896.	2.1	9
90	Stability Criteria for Switched and Hybrid Systems. SIAM Review, 2007, 49, 545-592.	9.5	845

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91	Modelling TCP congestion control dynamics in drop-tail environments. Automatica, 2007, 43, 441-449.	5.0	90
92	On the simultaneous diagonal stability of a pair of positive linear systems. Linear Algebra and Its Applications, 2006, 413, 13-23.	0.9	61
93	On the second eigenvalue of matrices associated with TCP. Linear Algebra and Its Applications, 2006, 416, 175-183.	0.9	7
94	On nonlinear AIMD congestion control for high-speed networks. , 2006, , .		3
95	Positive matrices associated with synchronised communication networks. Linear Algebra and Its Applications, 2004, 393, 47-54.	0.9	29
96	On the 45Â° -Region and the uniform asymptotic stability of classes of second order parameter-varying and switched systems. International Journal of Control, 2002, 75, 812-823.	1.9	11