

Girish N Nair

List of Publications by Year in descending order

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66
papers

3,513
citations

430874

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35
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66
all docs

66
docs citations

66
times ranked

1193
citing authors

#	ARTICLE	IF	CITATIONS
1	Feedback Control Under Data Rate Constraints: An Overview. Proceedings of the IEEE, 2007, 95, 108-137.	21.3	824
2	Stabilizability of Stochastic Linear Systems with Finite Feedback Data Rates. SIAM Journal on Control and Optimization, 2004, 43, 413-436.	2.1	602
3	Exponential stabilisability of finite-dimensional linear systems with limited data rates. Automatica, 2003, 39, 585-593.	5.0	436
4	Topological Feedback Entropy and Nonlinear Stabilization. IEEE Transactions on Automatic Control, 2004, 49, 1585-1597.	5.7	320
5	Stabilization with data-rate-limited feedback: tightest attainable bounds. Systems and Control Letters, 2000, 41, 49-56.	2.3	288
6	Data Rate Theorem for Stabilization Over Time-Varying Feedback Channels. IEEE Transactions on Automatic Control, 2009, 54, 243-255.	5.7	168
7	Stochastic consensus over noisy networks with Markovian and arbitrary switches. Automatica, 2010, 46, 1571-1583.	5.0	115
8	Systems engineering for irrigation systems: Successes and challenges. Annual Reviews in Control, 2005, 29, 191-204.	7.9	112
9	A Nonstochastic Information Theory for Communication and State Estimation. IEEE Transactions on Automatic Control, 2013, 58, 1497-1510.	5.7	76
10	A note on topological feedback entropy and invariance entropy. Systems and Control Letters, 2013, 62, 377-381.	2.3	75
11	Redundant data transmission in control/estimation over lossy networks. Automatica, 2012, 48, 1612-1620.	5.0	52
12	Networked sensor management and data rate control for tracking maneuvering targets. IEEE Transactions on Signal Processing, 2005, 53, 1979-1991.	5.3	50
13	Power Allocation for Outage Minimization in State Estimation Over Fading Channels. IEEE Transactions on Signal Processing, 2011, 59, 3382-3397.	5.3	49
14	On the Latency, Rate, and Reliability Tradeoff in Wireless Networked Control Systems for IIoT. IEEE Internet of Things Journal, 2021, 8, 723-733.	8.7	40
15	Quantized Filtering Schemes for Multi-Sensor Linear State Estimation: Stability and Performance Under High Rate Quantization. IEEE Transactions on Signal Processing, 2013, 61, 3852-3865.	5.3	29
16	Localization in Densely Packed Swarms Using Interrobot Collisions as a Sensing Modality. IEEE Transactions on Robotics, 2019, 35, 21-34.	10.3	28
17	Internal stability of dynamic quantised control for stochastic linear plants. Automatica, 2009, 45, 1387-1396.	5.0	23
18	Two extensions of topological feedback entropy. Mathematics of Control, Signals, and Systems, 2013, 25, 473-490.	2.3	20

#	ARTICLE	IF	CITATIONS
19	Privacy-Constrained Communication**The work of F. Farokhi was supported by a McKenzie Fellowship, ARC grant LP130100605, a grant from Melbourne School of Engineering. The work of G. Nair was supported by ARC grants DP140100819 and FT140100527.. IFAC-PapersOnLine, 2016, 49, 43-48.	0.9	13
20	Redundant data transmission in control/estimation over wireless networks. , 2009, , .		12
21	A nonstochastic information theory for feedback. , 2012, , .		12
22	Cooperative networked stabilisability of linear systems with measurement noise. , 2007, , .		11
23	Performance Analysis of Gradient-Based Nash Seeking Algorithms Under Quantization. IEEE Transactions on Automatic Control, 2016, 61, 3771-3783.	5.7	11
24	Feedback data rates for nonlinear systems. , 2003, , .		9
25	Convergence analysis of quantized primal-dual algorithm in quadratic network utility maximization problems. , 2015, , .		8
26	Convergence Analysis of Quantized Primal-Dual Algorithms in Network Utility Maximization Problems. IEEE Transactions on Control of Network Systems, 2018, 5, 284-297.	3.7	8
27	A finite-dimensional coder-estimator for rate-constrained state estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 4247-4252.	0.4	7
28	Identification of FIR Systems With Binary Input and Output Observations. IEEE Transactions on Automatic Control, 2021, 66, 1190-1198.	5.7	7
29	Intelligent Reference Curation for Visual Place Recognition Via Bayesian Selective Fusion. IEEE Robotics and Automation Letters, 2021, 6, 588-595.	5.1	7
30	EXPONENTIAL STABILISABILITY OF MULTIDIMENSIONAL LINEAR SYSTEMS WITH FINITE DATA RATES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 73-78.	0.4	6
31	OPTIMAL INFINITE HORIZON CONTROL UNDER A LOW DATA RATE 2. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 1115-1120.	0.4	6
32	Estimation and Control over a Nonstochastic Binary Erasure Channel. IFAC-PapersOnLine, 2018, 51, 265-270.	0.9	6
33	Zero-Error Feedback Capacity for Bounded Stabilization and Finite-State Additive Noise Channels. IEEE Transactions on Information Theory, 2022, 68, 6335-6355.	2.4	6
34	Linear-quadratic-Gaussian mean field games under high rate quantization. , 2013, , .		5
35	State Estimation via Worst-Case Erasure and Symmetric Channels with Memory. , 2019, , .		5
36	An Explicit Formula for the Zero-Error Feedback Capacity of a Class of Finite-State Additive Noise Channels. , 2020, , .		5

#	ARTICLE	IF	CITATIONS
37	Time to Failure of Quantized Control via a Binary Symmetric Channel. , 2006, , .		4
38	A non-stochastic information theory for communication and state estimation over erroneous channels. , 2011, , .		4
39	Identification of a gain system with binary input and output measurements. , 2015, , .		4
40	Nonstochastic information concepts for estimation and control. , 2015, , .		4
41	On the identification of FIR systems with binary input and output observations. , 2016, , .		4
42	Zero-Error Capacity of Multiple Access Channels via Nonstochastic Information. , 2019, , .		4
43	Distributed State Estimation with Bounded Errors over Multiple Access Channels. , 2020, , .		4
44	Sample Complexity of Solving Non-Cooperative Games. IEEE Transactions on Information Theory, 2020, 66, 1261-1280.	2.4	4
45	On multi-sensor linear state estimation under high rate quantization. , 2012, , .		3
46	Learning and information for dual control. , 2013, , .		3
47	Parameter estimation with binary observations of input and output signals. , 2016, , .		3
48	An Information Analysis of Iterative Algorithms for Network Utility Maximization and Strategic Games. IEEE Transactions on Control of Network Systems, 2019, 6, 151-162.	3.7	3
49	Sensor Adaptive Target Tracking over Variable Bandwidth Networks. , 2001, , 105-124.		3
50	A DATA-RATE LIMITED VIEW OF ADAPTIVE CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 1109-1114.	0.4	2
51	A quantized filtering scheme for multi-sensor linear state estimation with non-detectability at the sensors and fusion center feedback. , 2013, , .		2
52	Granger Causality of Gaussian Signals from Quantized Measurements. , 2019, , .		2
53	Bounded Estimation Over Finite-State Channels: Relating Topological Entropy and Zero-Error Capacity. IEEE Transactions on Automatic Control, 2022, 67, 4029-4044.	5.7	2
54	Performance analysis of bit-rate-limited stochastic control systems. , 2007, , .		1

#	ARTICLE	IF	CITATIONS
55	Towards feedback stabilization over fading channels. , 2007, , .		1
56	Internal Stability of Dynamically Quantised Control for Stochastic Scalar Plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 5197-5202.	0.4	1
57	Multi-Sensor Linear State Estimation Under High Rate Quantization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 115-120.	0.4	1
58	Lower Bounds on the Best-Case Complexity of Solving a Class of Non-cooperative Games**This work was supported by the Australian Research Council's Discovery Projects funding scheme (DP140100819).. IFAC-PapersOnLine, 2016, 49, 244-249.	0.9	1
59	Zero-Error Capacity Region of a Class of Multiple Access Channels with Inter-User Correlation. , 2021, , .		1
60	Non-Stochastic Private Function Evaluation. , 2021, , .		1
61	Optimal Redundant Transmission for State Estimation with Packet Drops. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 163-168.	0.4	0
62	When is n-pairs information a multicommodity flow?. , 2011, , .		0
63	Quantized Control and Data Rate Constraints. , 2013, , 1-9.		0
64	Quantized Control and Data Rate Constraints. , 2021, , 1794-1800.		0
65	Structural Routability of n-Pairs Information Networks. Lecture Notes in Control and Information Sciences, 2014, , 215-239.	1.0	0
66	Quantized Control and Data Rate Constraints. , 2020, , 1-7.		0