

Sandip Roy

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5057050/publications.pdf>

Version: 2024-02-01

95
papers

1,200
citations

567281

15
h-index

454955

30
g-index

95
all docs

95
docs citations

95
times ranked

1023
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Complexity and Approximability of Optimal Sensor Selection and Attack for Kalman Filtering. IEEE Transactions on Automatic Control, 2021, 66, 2146-2161.	5.7	15
2	Modal Barriers to Controllability in Networks With Linearly Coupled Homogeneous Subsystems. IEEE Transactions on Automatic Control, 2021, 66, 6187-6193.	5.7	1
3	Using Feedback to Block Controllability at Remote Nodes in Network Synchronization Processes. , 2021, , .		0
4	Almost-Surgical Eigenstructure Assignment for Linear Time Invariant Systems Using State Feedback. , 2021, , .		0
5	A wake-like state in vitro induced by transmembrane TNF/soluble TNF receptor reverse signaling. Brain, Behavior, and Immunity, 2021, 94, 245-258.	4.1	9
6	Small-Signal Voltage Stability Analysis for Droop Controlled Inverter-based Microgrids: An Algebraic Graph Theory Perspective. , 2021, , .		0
7	Occupant-Location-Catered Control of IoT-Enabled Building HVAC Systems. IEEE Transactions on Control Systems Technology, 2020, 28, 2572-2580.	5.2	6
8	Comment on "Detecting Topology Variations in Networks of Linear Dynamical Systems". IEEE Transactions on Control of Network Systems, 2020, 7, 187-188.	3.7	2
9	Resilient Sensor Placement for Kalman Filtering in Networked Systems: Complexity and Algorithms. IEEE Transactions on Control of Network Systems, 2020, 7, 1870-1881.	3.7	10
10	Pole and Residue Estimation from Impulse Response Data: New Error Bounding Techniques. , 2020, , .		4
11	Control-channel interactions in diffusive dynamical networks: A graph-theoretic perspective. International Journal of Robust and Nonlinear Control, 2020, 30, 8382-8401.	3.7	0
12	Spatial Properties of a Mixed Linear-Nonlinear Model for Opinion Formation in Networks. , 2020, , .		0
13	Structural Controllability of Linear Dynamical Networks with Homogeneous Subsystems. IFAC-PapersOnLine, 2019, 52, 25-30.	0.9	4
14	Graph-Theoretic Analyses of MIMO Channels in Diffusive Networks. , 2019, , .		0
15	Interactions Among Heterogeneous Manipulative Actors in Distributed Decision-Making Processes: Static and Dynamic Analysis. , 2019, , .		2
16	Local open- and closed-loop manipulation of multiagent networks. International Journal of Robust and Nonlinear Control, 2019, 29, 1339-1360.	3.7	3
17	The neuron-specific interleukin-1 receptor accessory protein alters emergent network state properties in Vitro. Neurobiology of Sleep and Circadian Rhythms, 2019, 6, 35-43.	2.8	9
18	Controlling Diffusive Network Processes Using Incidental Measurements and Actuation. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
19	Comments on "Upper and Lower Bounds for Controllable Subspaces of Networks of Diffusively Coupled Agents", IEEE Transactions on Automatic Control, 2018, 63, 2306-2306.	5.7	7
20	Optimal Sensor Placement for Kalman Filtering in Stochastically Forced Consensus Networks. , 2018, , .		4
21	Modal Barriers to Controllability in Networks with Linearly-Coupled Homogeneous Subsystems. IFAC-PapersOnLine, 2018, 51, 130-135.	0.9	11
22	Distributed Decision-Making Algorithms with Multiple Manipulative Actors: A Feedback-Control Perspective. , 2018, , .		8
23	Impacts of High and Low Gain Controllers on Remote Channels in Dynamical Networks. , 2018, , .		7
24	Graph-Theoretic Analysis of Estimators for Stochastically-Driven Diffusive Network Processes. , 2018, , .		5
25	On the Complexity and Approximability of Optimal Sensor Selection for Kalman Filtering. , 2018, , .		12
26	Sparse Resource Allocation for Linear Network Spread Dynamics. IEEE Transactions on Automatic Control, 2017, 62, 1714-1728.	5.7	27
27	Local open-loop manipulation of multi-agent networks. , 2017, , .		1
28	Occupant-location-catered control of IOT-enabled building HVAC systems. , 2017, , .		5
29	Feedback control systems with cyber fault-management mechanisms: Modeling and tradeoff analysis for simple examples. , 2017, , .		0
30	Tighter lower bounds on the error variance of pole and residue estimates from impulse response data: An expository example. , 2017, , .		3
31	Local control and estimation performance in dynamical networks: Structural and graph-theoretic results. , 2017, , .		6
32	Interactions among control channels in dynamical networks. , 2017, , .		9
33	Calculating and calibrating a persistence measure for use in monitoring power system vulnerability. , 2017, , .		1
34	A sample-autocorrelation-based approach for monitoring power-system damping from ambient synchrophasor data. , 2017, , .		2
35	A stochastic flow network model with almost-fractional routing. , 2017, , .		0
36	A system response persistence measure for use in ambient data monitoring. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
37	Network invariants for optimal input detection. , 2016, , .		3
38	Power system severe contingency screening considering renewable energy. , 2016, , .		1
39	Client-Catered Control of Engineered Spaces with Software-Defined Sensors and Actuators. , 2016, , .		4
40	Explicit State-Estimation Error Calculations for Flag Hidden Markov Models. IEEE Transactions on Signal Processing, 2016, 64, 4444-4454.	5.3	8
41	Vulnerability of Network Synchronization Processes: A Minimum Energy Perspective. IEEE Transactions on Automatic Control, 2016, 61, 2525-2530.	5.7	22
42	Sleep function: Toward elucidating an enigma. Sleep Medicine Reviews, 2016, 28, 46-54.	8.5	280
43	Explicit estimation-error-probability computation and sensor design for flag Hidden Markov Models. , 2015, , .		4
44	Tumor necrosis factor enhances the sleep-like state and electrical stimulation induces a wake-like state in co-cultures of neurons and glia. European Journal of Neuroscience, 2015, 42, 2078-2090.	2.6	46
45	Situational Awareness for Dynamical Network Processes Using Incidental Measurements. IEEE Journal on Selected Topics in Signal Processing, 2015, 9, 304-316.	10.8	10
46	Implications of a dynamical-network's graph on the estimability of its modes. , 2015, , .		3
47	An Individual-Based Model of Transmission of Resistant Bacteria in a Veterinary Teaching Hospital. PLoS ONE, 2014, 9, e98589.	2.5	18
48	Majorisations for the eigenvectors of graph-adjacency matrices. International Journal of Control, 2014, 87, 2604-2614.	1.9	2
49	Graph-theoretic characterisations of zeros for the input-output dynamics of complex network processes. International Journal of Control, 2014, 87, 940-950.	1.9	25
50	State detection from local measurements in network synchronisation processes. International Journal of Control, 2013, 86, 1634-1645.	1.9	2
51	Connecting network graph structure to linear-system zero structure. , 2013, , .		2
52	Layers of interacting dynamic networks: Motivation and theory. , 2013, , .		1
53	Inverse-affine dependence of recovery-time sensitivities on critical disturbance parameters: A nonlinear dynamics explanation. , 2012, , .		0
54	Cost of fairness in disease spread control. , 2012, , .		7

#	ARTICLE	IF	CITATIONS
55	Vulnerable links and secure architectures in the stabilization of networks of controlled dynamical systems. , 2012, , .		18
56	Kronecker products of defective matrices: Some spectral properties and their implications on observability. , 2012, , .		1
57	Designing linear distributed algorithms with memory for fast convergence. International Journal of Robust and Nonlinear Control, 2012, 22, 1691-1702.	3.7	5
58	The ATP-cytokine-adenosine hypothesis: How the brain translates past activity into sleep. Sleep and Biological Rhythms, 2011, 9, 29-33.	1.0	3
59	Constructing consensus controllers for networks with identical general linear agents. International Journal of Robust and Nonlinear Control, 2011, 21, 1237-1256.	3.7	129
60	Using deliberate-delay decentralized controllers to stop spread dynamics in canonical network models. , 2011, , .		5
61	Performance analysis of an influence-model-based graph partitioning algorithm. , 2011, , .		4
62	A Network Control Theory Approach to Modeling and Optimal Control of Zoonoses: Case Study of Brucellosis Transmission in Sub-Saharan Africa. PLoS Neglected Tropical Diseases, 2011, 5, e1259.	3.0	29
63	An alternative approach to designing stabilizing compensators for saturating linear time-invariant plants. International Journal of Robust and Nonlinear Control, 2010, 20, 1520-1528.	3.7	2
64	Semi-global stabilization of discrete-time systems subject to non-right invertible constraints. International Journal of Robust and Nonlinear Control, 2010, 20, 1234-1254.	3.7	4
65	On multiple-delay output feedback stabilization of LTI plants. International Journal of Robust and Nonlinear Control, 2010, 20, 1299-1305.	3.7	4
66	Decentralized control of discrete-time linear time invariant systems with input saturation. International Journal of Robust and Nonlinear Control, 2010, 20, 1353-1362.	3.7	4
67	Semiglobal stabilization of sandwich systems by dynamic output feedback. , 2010, , .		2
68	A pre- + post- + feedforward compensator design for zero placement. , 2010, , .		1
69	The Design of Multi-Lead-Compensators for Stabilization and Pole Placement in Double-Integrator Networks. IEEE Transactions on Automatic Control, 2010, 55, 2870-2875.	5.7	17
70	A pre- + post- + feedforward compensator design for zero placement. International Journal of Control, 2010, 83, 1839-1843.	1.9	4
71	Stabilization of a Class of Sandwich Systems Via State Feedback \$ \$. IEEE Transactions on Automatic Control, 2010, 55, 2156-2160.	5.7	12
72	Uncertainty Evaluation Through Mapping Identification in Intensive Dynamic Simulations. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2010, 40, 1094-1104.	2.9	21

#	ARTICLE	IF	CITATIONS
73	On generating sets of binary random variables with specified first- and second- moments. , 2010, , .		0
74	A class of neutral-type delay differential equations that are effectively retarded. , 2009, , .		3
75	On inference of network time constants from impulse response data: graph-theoretic Cramer-Rao bounds. , 2009, , .		24
76	Stabilization of a class of sandwich nonlinear systems via state feedback. , 2009, , .		2
77	An explicit formula for differences between Laplacian-eigenvector components using coalesced graphs. , 2009, , .		1
78	The design of multi-lead-compensators for stabilization and pole placement in double-integrator networks under saturation. , 2009, , .		6
79	Time varying controllers in discrete-time decentralized control. , 2009, , .		0
80	Computation of the recoverable region and stabilisation problem in the recoverable region for discrete-time systems. International Journal of Control, 2009, 82, 1870-1881.	1.9	4
81	Decentralized control of discrete-time linear time invariant systems with input saturation. , 2009, , .		1
82	Designing linear distributed algorithms with memory for fast convergence. , 2009, , .		0
83	On time-scale designs for networks. International Journal of Control, 2009, 82, 1313-1325.	1.9	23
84	Explicit precompensator design for invariant-zero cancellation. International Journal of Control, 2009, 82, 808-811.	1.9	8
85	On multiple-delay approximations of multiple-derivative controllers. , 2009, , .		1
86	A network model for activity-dependent sleep regulation. Journal of Theoretical Biology, 2008, 253, 462-468.	1.7	59
87	On the structure of graph edge designs that optimize the algebraic connectivity. , 2008, , .		13
88	On multiple-delay static output feedback stabilization of LTI plants. , 2008, , .		5
89	A Scalable Methodology for Evaluating and Designing Coordinated Air-Traffic Flow Management Strategies Under Uncertainty. IEEE Transactions on Intelligent Transportation Systems, 2008, 9, 644-656.	8.0	54
90	On time-scale designs for networks. , 2008, , .		3

#	ARTICLE	IF	CITATIONS
91	Network design problems for controlling virus spread. , 2007, , .		29
92	Toward a Control Theory for Networks. International Journal of Robust and Nonlinear Control, 2007, 17, 897-897.	3.7	9
93	A control-theoretic perspective on the design of distributed agreement protocols. International Journal of Robust and Nonlinear Control, 2007, 17, 1034-1066.	3.7	37
94	MOMENT-LINEAR STOCHASTIC SYSTEMS. , 2006, , 263-271.		6
95	Static decentralized control of a single-integrator network with Markovian sensing topology. Automatica, 2005, 41, 1867-1877.	5.0	33