

Prabhakar R Pagilla

List of Publications by Year in descending order

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58
papers

1,241
citations

361413
20
h-index

395702
33
g-index

58
all docs

58
docs citations

58
times ranked

764
citing authors

#	ARTICLE	IF	CITATIONS
1	Decentralized Control of Web Processing Lines. IEEE Transactions on Control Systems Technology, 2007, 15, 106-117.	5.2	162
2	Benefits of V2V Communication for Autonomous and Connected Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 1954-1963.	8.0	129
3	A Decentralized Model Reference Adaptive Controller for Large-Scale Systems. IEEE/ASME Transactions on Mechatronics, 2007, 12, 154-163.	5.8	88
4	An adaptive output feedback controller for robot arms: stability and experiments. Automatica, 2001, 37, 983-995.	5.0	61
5	Output Regulation of Nonlinear Systems With Application to Roll-to-Roll Manufacturing Systems. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1089-1098.	5.8	49
6	Periodic event-triggered dynamic output feedback control of switched systems. Nonlinear Analysis: Hybrid Systems, 2019, 31, 247-264.	3.5	49
7	Design and implementation of adaptive PI control schemes for web tension control in roll-to-roll (R2R) manufacturing. ISA Transactions, 2015, 56, 276-287.	5.7	45
8	Periodic Tension Disturbance Attenuation in Web Process Lines Using Active Dancers. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2003, 125, 361-371.	1.6	43
9	Robotic Surface Finishing Processes: Modeling, Control, and Experiments. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2001, 123, 93-102.	1.6	42
10	Effect of Cognitive Fatigue, Operator Sex, and Robot Assistance on Task Performance Metrics, Workload, and Situation Awareness in Human-Robot Collaboration. IEEE Robotics and Automation Letters, 2021, 6, 3049-3056.	5.1	42
11	Characteristics of active and passive dancers: A comparative study. Control Engineering Practice, 2006, 14, 409-423.	5.5	40
12	Dynamic Output Feedback Asynchronous Control of Networked Markovian Jump Systems. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 2705-2715.	9.3	40
13	Distributed Formation Flight Control Using Constraint Forces. Journal of Guidance, Control, and Dynamics, 2009, 32, 112-120.	2.8	33
14	Modeling Print Registration in Roll-to-Roll Printing Presses. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	1.6	28
15	Adaptive Control of Mechanical Systems With Time-Varying Parameters and Disturbances. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2004, 126, 520-530.	1.6	24
16	Governing Equations for Web Tension and Web Velocity in the Presence of Nonideal Rollers. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	1.6	23
17	Adaptive Estimation of Time-Varying Parameters in Linearly Parametrized Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 691-695.	1.6	22
18	Design of linear time-invariant controllers for multirate systems. Automatica, 2010, 46, 1315-1319.	5.0	22

#	ARTICLE	IF	CITATIONS
19	Formation of a Group of Vehicles With Full Information Using Constraint Forces. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2007, 129, 654-661.	1.6	21
20	Optimal location of mouse sensors on mobile robots for position sensing. Automatica, 2011, 47, 2267-2272.	5.0	21
21	A Study on Control of Accumulators in Web Processing Lines. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2004, 126, 453-461.	1.6	16
22	Optimal Web Guiding. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2010, 132, .	1.6	15
23	Dual-edge robotic gear chamfering with registration error compensation. Robotics and Computer-Integrated Manufacturing, 2021, 69, 102082.	9.9	15
24	Modeling of Temperature Distribution in Moving Webs in Roll-to-Roll Manufacturing. Journal of Thermal Science and Engineering Applications, 2014, 6, .	1.5	14
25	Vehicle platooning with constant spacing strategies and multiple vehicle look ahead information. IET Intelligent Transport Systems, 2020, 14, 589-600.	3.0	13
26	A Novel Robotic System for Finishing of Freeform Surfaces. , 2019, , .		12
27	Modeling and Analysis of Web Span Tension Dynamics Considering Thermal and Viscoelastic Effects in Roll-to-Roll Manufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	11
28	A Design Technique for Multirate Linear Systems. IEEE Transactions on Control Systems Technology, 2009, 17, 1342-1349.	5.2	10
29	Location of optical mouse sensors on mobile robots for odometry. , 2010, , .		10
30	Robust repetitive control of semi-Markovian jump systems. International Journal of Systems Science, 2019, 50, 116-129.	5.5	10
31	Effect of Compliance and Backlash on the Output Speed of a Mechanical Transmission System. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	1.6	9
32	Dissipativity-Based Asynchronous Repetitive Control for Networked Markovian Jump Systems: 2-D System Approach. IEEE Transactions on Control of Network Systems, 2020, 7, 1212-1224.	3.7	9
33	A novel 3D path following control framework for robots performing surface finishing tasks. Mechatronics, 2021, 76, 102540.	3.3	9
34	Design and implementation of a robust switching control scheme for a class of constrained robot tasks. International Journal of Systems Science, 2006, 37, 303-321.	5.5	8
35	Uniform Coverage Tool Path Generation for Robotic Surface Finishing of Curved Surfaces. IEEE Robotics and Automation Letters, 2022, 7, 4931-4938.	5.1	8
36	H<inf>∞</inf> unwinding web tension control of a strip processing plant using a pendulum dancer. , 2009, , .		7

#	ARTICLE	IF	CITATIONS
37	Conditions for the ripple-free response of multirate systems using linear time-invariant controllers. Systems and Control Letters, 2010, 59, 510-516.	2.3	7
38	Analysis and Minimization of Interaction in Decentralized Control Systems With Application to Roll-to-Roll Manufacturing. IEEE Transactions on Control Systems Technology, 2014, 22, 520-530.	5.2	7
39	Mechatronic design and control of a robot system interacting with an external environment. Mechatronics, 2002, 12, 791-811.	3.3	6
40	Temperature Distribution in Moving Webs Heated by Radiation Panels: Model Development and Experimental Validation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.6	6
41	Design and Development of a New Edge Sensor for Web Guiding. IEEE Sensors Journal, 2007, 7, 698-706.	4.7	5
42	Distributed Constraint Force Approach for Coordination of Multiple Mobile Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 56, 5-21.	3.4	5
43	Input-state model matching and ripple-free response for dual-rate systems. Systems and Control Letters, 2011, 60, 815-824.	2.3	5
44	Modeling and control of a rotating turret winder used in roll-to-roll manufacturing. Control Engineering Practice, 2015, 41, 164-175.	5.5	5
45	Design of a model-based observer for estimation of steel strip tension in continuous galvanizing/annealing lines. , 2016, , .		5
46	Asynchronous repetitive control of switched systems via periodic event-based dynamic output feedback. IMA Journal of Mathematical Control and Information, 2020, 37, 644-673.	1.7	5
47	Path-constrained optimal trajectory planning for robot manipulators with obstacle avoidance. , 2021, , .		5
48	Adaptive control of web tension in a heat transfer section of a roll-to-roll manufacturing process line. , 2014, , .		4
49	Robotic Surface Finishing of Curved Surfaces: Real-Time Identification of Surface Profile and Control. , 2018, , .		4
50	Ripple-free conditions in multirate systems using LTI controllers. , 2010, , .		2
51	A governing equation for moving web temperature heated by radiative panels. , 2016, , .		2
52	Repetitive Control of Discrete-Time Markov Jump Linear Systems. , 2018, , .		2
53	Event-triggered equivalent-input-disturbance estimation and control for disturbance attenuation. IFAC Journal of Systems and Control, 2021, 16, 100137.	1.7	2
54	The next-best-view for workpiece localization in robot workspace. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
55	Fiber-Optic Sensor for Web Velocity Measurement. IEEE Sensors Journal, 2008, 8, 1099-1104.	4.7	1
56	A novel force and motion control strategy for robotic chamfering of gears. IFAC-PapersOnLine, 2020, 53, 8710-8715.	0.9	1
57	Modeling and analysis of a rotating turret winder in roll-to-roll manufacturing systems. , 2013, , .		0
58	Preview Control of Switched Systems. , 2019, , .		0