

Mohamed Darouach

List of Publications by Year in descending order

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119
papers

5,320
citations

94433

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69
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119
all docs

119
docs citations

119
times ranked

2498
citing authors

#	ARTICLE	IF	CITATIONS
1	Full-order observers for linear systems with unknown inputs. IEEE Transactions on Automatic Control, 1994, 39, 606-609.	5.7	653
2	Generalized state-space observers for chaotic synchronization and secure communication. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 345-349.	0.1	248
3	Convergence analysis of the extended Kalman filter used as an observer for nonlinear deterministic discrete-time systems. IEEE Transactions on Automatic Control, 1997, 42, 581-586.	5.7	239
4	Unbiased minimum variance estimation for systems with unknown exogenous inputs. Automatica, 1997, 33, 717-719.	5.0	235
5	Design of observers for descriptor systems. IEEE Transactions on Automatic Control, 1995, 40, 1323-1327.	5.7	207
6	Existence and design of functional observers for linear systems. IEEE Transactions on Automatic Control, 2000, 45, 940-943.	5.7	207
7	Reduced-order observer design for descriptor systems with unknown inputs. IEEE Transactions on Automatic Control, 1996, 41, 1068-1072.	5.7	178
8	Linear functional observers for systems with delays in state variables. IEEE Transactions on Automatic Control, 2001, 46, 491-496.	5.7	158
9	Extension of minimum variance estimation for systems with unknown inputs. Automatica, 2003, 39, 867-876.	5.0	140
10	Robust stabilization of uncertain descriptor fractional-order systems. Automatica, 2013, 49, 1907-1913.	5.0	139
11	Kalman filtering with unknown inputs via optimal state estimation of singular systems. International Journal of Systems Science, 1995, 26, 2015-2028.	5.5	114
12	Optimal two-stage Kalman filter in the presence of random bias. Automatica, 1997, 33, 1745-1748.	5.0	107
13	Recursive identification method for MISO Wiener-Hammerstein model. IEEE Transactions on Automatic Control, 1995, 40, 287-291.	5.7	106
14	Novel bounded real lemma for discrete-time descriptor systems: Application to H_∞ control design. Automatica, 2012, 48, 449-453.	5.0	106
15	State estimation of stochastic singular linear systems. International Journal of Systems Science, 1993, 24, 345-354.	5.5	89
16	H_∞ observers design for a class of nonlinear singular systems. Automatica, 2011, 47, 2517-2525.	5.0	89
17	Data reconciliation in generalized linear dynamic systems. AIChE Journal, 1991, 37, 193-201.	3.6	83
18	Observers for a Class of Nonlinear Singular Systems. IEEE Transactions on Automatic Control, 2008, 53, 2627-2633.	5.7	81

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19	Event-based state estimation of linear dynamic systems with unknown exogenous inputs. Automatica, 2016, 69, 275-288.	5.0	81
20	Observer-Based Approach for Fractional-Order Chaotic Synchronization and Secure Communication. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2013, 3, 442-450.	3.6	80
21	H_{∞} Unbiased Filtering for Linear Descriptor Systems via LMI. IEEE Transactions on Automatic Control, 2009, 54, 1966-1972.	5.7	72
22	Two-stage Kalman estimator with unknown exogenous inputs. Automatica, 1999, 35, 339-342.	5.0	71
23	On the functional observers for linear descriptor systems. Systems and Control Letters, 2012, 61, 427-434.	2.3	62
24	Design of unknown input fractional-order observers for fractional-order systems. International Journal of Applied Mathematics and Computer Science, 2013, 23, 491-500.	1.5	59
25	Robust admissibility of uncertain switched singular systems. International Journal of Control, 2011, 84, 1587-1600.	1.9	55
26	Robust H_{∞} Observer-Based Control of Fractional-Order Systems With Gain Parametrization. IEEE Transactions on Automatic Control, 2017, 62, 5710-5723.	5.7	52
27	On the novel approach to the design of unknown input observers. IEEE Transactions on Automatic Control, 1994, 39, 698-699.	5.7	50
28	Complements to full order observer design for linear systems with unknown inputs. Applied Mathematics Letters, 2009, 22, 1107-1111.	2.7	50
29	New unified H_{∞} dynamic observer design for linear systems with unknown inputs. Automatica, 2016, 65, 43-52.	5.0	50
30	Robust state estimation and unknown inputs reconstruction for a class of nonlinear systems: Multiobjective approach. Automatica, 2016, 64, 1-7.	5.0	50
31	Adaptive observers design for a class of linear descriptor systems. Automatica, 2014, 50, 578-583.	5.0	49
32	State estimation in the presence of bounded disturbances. Automatica, 2008, 44, 1867-1873.	5.0	48
33	Solution to Sylvester equation associated to linear descriptor systems. Systems and Control Letters, 2006, 55, 835-838.	2.3	46
34	Design and simulation of a real-time implementable energy-efficient model-predictive cruise controller for electric vehicles. Journal of the Franklin Institute, 2015, 352, 603-625.	3.4	45
35	Linear functional observers for systems with delays in State variables: the discrete-time case. IEEE Transactions on Automatic Control, 2005, 50, 228-233.	5.7	44
36	A nonlinear observer design for an activated sludge wastewater treatment process. Journal of Process Control, 2009, 19, 1558-1565.	3.3	40

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55	Exponential stabilization of a class of nonlinear systems: A generalized Gronwall-Bellman lemma approach. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2011, 74, 7333-7341.	1.1	21
56	Nonlinear Model Predictive Control for Ecological Driver Assistance Systems in Electric Vehicles. <i>Robotics and Autonomous Systems</i> , 2019, 112, 291-303.	5.1	21
57	Robustness analysis of interval matrices based on Kharitonov's theorem. <i>IEEE Transactions on Automatic Control</i> , 1998, 43, 273-278.	5.7	20
58	Unknown Inputs Functional Observers Designs For Descriptor Systems with Constant Time Delay. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 1162-1167.	0.4	20
59	A new polytopic approach for the unknown input functional observer design. <i>International Journal of Control</i> , 2018, 91, 658-677.	1.9	20
60	On the Existence and Design of Functional Observers. <i>IEEE Transactions on Automatic Control</i> , 2020, 65, 2751-2759.	5.7	19
61	State estimation for a class of singular systems. <i>International Journal of Systems Science</i> , 1992, 23, 517-530.	5.5	18
62	Simultaneous observation of linear systems. <i>IEEE Transactions on Automatic Control</i> , 1995, 40, 696-699.	5.7	17
63	On the robustness of linear systems with nonlinear uncertain parameters. <i>Automatica</i> , 1998, 34, 1005-1008.	5.0	17
64	A controller design based on a functional $\hat{z} = Hx$ filter for descriptor systems: The time and frequency domain cases. <i>Automatica</i> , 2012, 48, 542-549.	5.0	17
65	Unknown inputs functional observers designs for delay descriptor systems. <i>International Journal of Control</i> , 2013, 86, 1850-1858.	1.9	17
66	Reduced-order observer-based point-to-point and trajectory controllers for robot manipulators. <i>Control Engineering Practice</i> , 1996, 4, 991-1000.	5.5	16
67	Observers for discrete-time systems with multiple delays. <i>IEEE Transactions on Automatic Control</i> , 2001, 46, 746-750.	5.7	16
68	Reduced-Order Kalman Filter with Unknown Inputs. <i>Automatica</i> , 1998, 34, 1463-1468.	5.0	15
69	On the optimal unbiased functional filtering. <i>IEEE Transactions on Automatic Control</i> , 2000, 45, 1374-1379.	5.7	15
70	Optimal unbiased reduced order filtering for discrete-time descriptor systems via LMI. <i>Systems and Control Letters</i> , 2009, 58, 436-444.	2.3	15
71	Nonlinear model predictive extended eco-cruise control for battery electric vehicles. , 2016, , .		15
72	Unknown inputs observer design for descriptor systems with monotone nonlinearities. <i>International Journal of Robust and Nonlinear Control</i> , 2018, 28, 5481-5494.	3.7	15

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73	An efficient nonlinear model-predictive eco-cruise control for electric vehicles. , 2013, , .		14
74	Optimal unbiased functional filtering in the frequency domain. Systems Science and Control Engineering, 2014, 2, 308-315.	3.1	14
75	H ∞ filtering for singular bilinear systems with application to a single-link flexible-joint robot. International Journal of Control, Automation and Systems, 2014, 12, 590-598.	2.7	14
76	Generalised dynamic observer design for Lipschitz non-linear descriptor systems. IET Control Theory and Applications, 2019, 13, 2270-2280.	2.1	14
77	Generalized likelihood ratio approach for fault detection in linear dynamic stochastic systems with unknown inputs. International Journal of Systems Science, 1996, 27, 1231-1241.	5.5	13
78	New dynamical observers design for linear descriptor systems. IET Control Theory and Applications, 2016, 10, 2223-2232.	2.1	13
79	A discrete-time nonlinear state observer for the anaerobic digestion process. International Journal of Robust and Nonlinear Control, 2019, 29, 1279-1301.	3.7	13
80	Kalman filtering for continuous descriptor systems. , 1997, , .		12
81	H ∞ generalized dynamic unknown inputs observer design for discrete LPV systems. Application to wind turbine. European Journal of Control, 2018, 44, 40-49.	2.6	12
82	Design of functional fractional-order observers for linear time-delay fractional-order systems in the time domain. , 2014, , .		11
83	H ∞ observer design for linear fractional-order systems in time and frequency domains. , 2014, , .		11
84	Robust functional observer design for uncertain fractional-order time-varying delay systems. , 2016, , .		10
85	Design of full and reduced orders observers for linear fractional-order systems in the time and frequency domains. , 2013, , .		9
86	Approximate discretization of regular descriptor (singular) systems with impulsive mode. Automatica, 2016, 73, 231-236.	5.0	9
87	Generalized dynamic observers for quasi-LPV systems with unmeasurable scheduling functions. International Journal of Robust and Nonlinear Control, 2018, 28, 5262-5278.	3.7	9
88	Fractional Order Time-Varying-Delay Systems. , 2018, , 133-158.		9
89	Fault estimation for descriptor linear systems based on the generalised dynamic observer. International Journal of Systems Science, 2018, 49, 2398-2409.	5.5	7
90	Robust reduced order unbiased filtering for uncertain systems. International Journal of Control, 2006, 79, 93-106.	1.9	6

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91	Stability and stabilizability analysis of fractional-order time-varying delay systems via diffusive representation. , 2016, , .		6
92	Unknown Input Observer Design for Linear Fractional-Order Time-Delay Systems. Journal of Applied Nonlinear Dynamics, 2015, 4, 117-130.	0.3	6
93	H^∞ filter design for a class of nonlinear discrete-time singular systems. International Journal of Control, 2013, 86, 1597-1606.	1.9	5
94	H^∞ dynamical observer design for linear descriptor systems. , 2014, , .		5
95	A Formal Modeling Framework for Anaerobic Digestion Systems. , 2015, , .		5
96	Generalized dynamic observers for LPV singular systems. IFAC-PapersOnLine, 2015, 48, 152-157.	0.9	5
97	H^∞ filters design for fractional-order time-varying delay systems. , 2015, , .		5
98	Risk-averse Stochastic Nonlinear Model Predictive Control for Real-time Safety-critical Systems. IFAC-PapersOnLine, 2017, 50, 5991-5997.	0.9	5
99	H_∞ Functional Filtering for Linear Systems With Unknown Inputs. IEEE Transactions on Automatic Control, 2021, 66, 4858-4865.	5.7	5
100	Robust observer-based controller design for uncertain fractional-order time-varying delay systems. International Journal of Robust and Nonlinear Control, 2021, 31, 6314-6333.	3.7	5
101	Generalized H^∞ observers design for systems with unknown inputs. , 2013, , .		4
102	An H^∞ adaptive observer design for linear descriptor systems. , 2015, , .		4
103	Robust H_∞ Observer-Based Stabilization of Disturbed Uncertain Fractional-Order Systems Using a Two-Step Procedure. Lecture Notes in Electrical Engineering, 2016, , 167-180.	0.4	4
104	Fast stochastic non-linear model predictive control for electric vehicle advanced driver assistance systems. , 2017, , .		4
105	H^∞ dynamic observer design for linear discrete-time systems * *This work is supported by the Fundamental Research Funds for the Central Universities (under Grant 310822171005), in Chang'an University, China.. IFAC-PapersOnLine, 2017, 50, 2756-2761.	0.9	4
106	Generalized dynamic observer design for quasi-LPV systems. Automatisierungstechnik, 2018, 66, 225-233.	0.8	4
107	Adaptive observer design for LPV systems. IFAC-PapersOnLine, 2019, 52, 140-145.	0.9	4
108	H^∞ dynamic observer design for linear time invariant systems. , 2014, , .		3

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109	H _∞ dynamical observer-based control for descriptor systems. , 2014, , .		3
110	LMI-based discrete-time nonlinear state observer for an anaerobic digestion model. , 2017, , .		3
111	H _∞ Dynamic Output Feedback Controller Design For Disturbed Fractional-Order Systems. IFAC-PapersOnLine, 2017, 50, 9724-9729.	0.9	3
112	Discussion on: A Comparison of Sliding Mode and Unknown Input Observer for Fault Reconstruction. European Journal of Control, 2006, 12, 261-277.	2.6	3
113	An LMI-Based H _∞ Discrete-Time Nonlinear State Observer Design for an Anaerobic Digestion Model. IFAC-PapersOnLine, 2017, 50, 11547-11552.	0.9	2
114	A Polytopic Observer Design Approach for Landing Control of a Quadrotor UAV. IFAC-PapersOnLine, 2017, 50, 9753-9759.	0.9	2
115	Adaptive observer design for linear descriptor systems. , 2018, , .		2
116	LMI-based invariant like nonlinear state observer for anaerobic digestion model. , 2017, , .		1
117	Deadzone-Quadratic Penalty Function for Predictive Extended Cruise Control with Experimental Validation. Advances in Intelligent Systems and Computing, 2018, , 446-459.	0.6	1
118	Stochastic Optimum Energy Management for Advanced Transportation Network. IFAC-PapersOnLine, 2018, 51, 317-322.	0.9	1
119	Optimal discrete-time unbiased filtering for systems with unknown inputs. Systems and Control Letters, 2022, 166, 105305.	2.3	1