

# Mohamed Darouach

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

118  
papers

3,909  
citations

32  
h-index

59  
g-index

119  
ext. papers

4,783  
ext. citations

3.4  
avg, IF

5.75  
L-index

#	Paper	IF	Citations
118	. <i>IEEE Transactions on Automatic Control</i> , <b>1994</b> , 39, 606-609	5.9	475
117	Generalized state-space observers for chaotic synchronization and secure communication. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , <b>2002</b> , 49, 345-349		195
116	Unbiased minimum variance estimation for systems with unknown exogenous inputs. <i>Automatica</i> , <b>1997</b> , 33, 717-719	5.7	179
115	Convergence analysis of the extended Kalman filter used as an observer for nonlinear deterministic discrete-time systems. <i>IEEE Transactions on Automatic Control</i> , <b>1997</b> , 42, 581-586	5.9	175
114	. <i>IEEE Transactions on Automatic Control</i> , <b>1995</b> , 40, 1323-1327	5.9	154
113	Existence and design of functional observers for linear systems. <i>IEEE Transactions on Automatic Control</i> , <b>2000</b> , 45, 940-943	5.9	149
112	Reduced-order observer design for descriptor systems with unknown inputs. <i>IEEE Transactions on Automatic Control</i> , <b>1996</b> , 41, 1068-1072	5.9	135
111	Linear functional observers for systems with delays in state variables. <i>IEEE Transactions on Automatic Control</i> , <b>2001</b> , 46, 491-496	5.9	120
110	Extension of minimum variance estimation for systems with unknown inputs. <i>Automatica</i> , <b>2003</b> , 39, 867-876	5.7	110
109	Robust stabilization of uncertain descriptor fractional-order systems. <i>Automatica</i> , <b>2013</b> , 49, 1907-1913	5.7	100
108	. <i>IEEE Transactions on Automatic Control</i> , <b>1995</b> , 40, 287-291	5.9	90
107	Kalman filtering with unknown inputs via optimal state estimation of singular systems. <i>International Journal of Systems Science</i> , <b>1995</b> , 26, 2015-2028	2.3	84
106	Optimal two-stage Kalman filter in the presence of random bias. <i>Automatica</i> , <b>1997</b> , 33, 1745-1748	5.7	76
105	Novel bounded real lemma for discrete-time descriptor systems: Application to . <i>Automatica</i> , <b>2012</b> , 48, 449-453	5.7	73
104	Observers for a Class of Nonlinear Singular Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2008</b> , 53, 2627-2633	5.9	68
103	Data reconciliation in generalized linear dynamic systems. <i>AIChE Journal</i> , <b>1991</b> , 37, 193-201	3.6	68
102	. <i>Automatica</i> , <b>2011</b> , 47, 2517-2525	5.7	67

101	State estimation of stochastic singular linear systems. <i>International Journal of Systems Science</i> , <b>1993</b> , 24, 345-354	2.3	64
100	Observer-based approach for fractional-order chaotic synchronization and communication. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2013</b> , 3, 442-450	5.2	63
99	Event-based state estimation of linear dynamic systems with unknown exogenous inputs. <i>Automatica</i> , <b>2016</b> , 69, 275-288	5.7	61
98	$H_{\infty}$ Unbiased Filtering for Linear Descriptor Systems via LMI. <i>IEEE Transactions on Automatic Control</i> , <b>2009</b> , 54, 1966-1972	5.9	54
97	Two-stage Kalman estimator with unknown exogenous inputs. <i>Automatica</i> , <b>1999</b> , 35, 339-342	5.7	54
96	On the functional observers for linear descriptor systems. <i>Systems and Control Letters</i> , <b>2012</b> , 61, 427-434	4.4	50
95	Robust admissibility of uncertain switched singular systems. <i>International Journal of Control</i> , <b>2011</b> , 84, 1587-1600	1.5	49
94	Design of unknown input fractional-order observers for fractional-order systems. <i>International Journal of Applied Mathematics and Computer Science</i> , <b>2013</b> , 23, 491-500	1.7	44
93	Adaptive observers design for a class of linear descriptor systems. <i>Automatica</i> , <b>2014</b> , 50, 578-583	5.7	40
92	Complements to full order observer design for linear systems with unknown inputs. <i>Applied Mathematics Letters</i> , <b>2009</b> , 22, 1107-1111	3.5	39
91	. <i>IEEE Transactions on Automatic Control</i> , <b>1994</b> , 39, 698-699	5.9	38
90	Robust state estimation and unknown inputs reconstruction for a class of nonlinear systems: Multiobjective approach. <i>Automatica</i> , <b>2016</b> , 64, 1-7	5.7	37
89	Solution to Sylvester equation associated to linear descriptor systems. <i>Systems and Control Letters</i> , <b>2006</b> , 55, 835-838	2.4	36
88	Robust $H_{\infty}$ Observer-Based Control of Fractional-Order Systems With Gain Parametrization. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 5710-5723	5.9	35
87	New unified . <i>Automatica</i> , <b>2016</b> , 65, 43-52	5.7	35
86	Design and simulation of a real-time implementable energy-efficient model-predictive cruise controller for electric vehicles. <i>Journal of the Franklin Institute</i> , <b>2015</b> , 352, 603-625	4	32
85	A nonlinear observer design for an activated sludge wastewater treatment process. <i>Journal of Process Control</i> , <b>2009</b> , 19, 1558-1565	3.9	31
84	State estimation in the presence of bounded disturbances. <i>Automatica</i> , <b>2008</b> , 44, 1867-1873	5.7	31

83	A reduced-order observer for non-linear discrete-time systems. <i>Systems and Control Letters</i> , <b>2000</b> , 39, 141-151	2.4	28
82	UNKNOWN INPUTS OBSERVERS DESIGN FOR DELAY SYSTEMS. <i>Asian Journal of Control</i> , <b>2010</b> , 9, 426-434.	4.7	27
81	Reduced-order observers for linear neutral delay systems. <i>IEEE Transactions on Automatic Control</i> , <b>2005</b> , 50, 1407-1413	5.9	26
80	Design of reduced-order observers without internal delays. <i>IEEE Transactions on Automatic Control</i> , <b>1999</b> , 44, 1711-1713	5.9	25
79	Adaptive observer for nonlinear fractional-order systems. <i>International Journal of Adaptive Control and Signal Processing</i> , <b>2017</b> , 31, 314-331	2.8	23
78	Linear functional observers for systems with delays in State variables: the discrete-time case. <i>IEEE Transactions on Automatic Control</i> , <b>2005</b> , 50, 228-233	5.9	23
77	Analytical estimator of measurement error variances in data reconciliation. <i>Computers and Chemical Engineering</i> , <b>1992</b> , 16, 185-188	4	23
76	Robust $H_2$ reduced order filtering for uncertain bilinear systems. <i>Automatica</i> , <b>2006</b> , 42, 405-415	5.7	22
75	A Fast Model-Predictive Speed Controller for Minimised Charge Consumption of Electric Vehicles. <i>Asian Journal of Control</i> , <b>2016</b> , 18, 133-149	1.7	21
74	Static output feedback $H_2$ control for a fractional-order glucose-insulin system. <i>International Journal of Control, Automation and Systems</i> , <b>2015</b> , 13, 798-807	2.9	19
73	Functional observers design for descriptor systems via LMI: Continuous and discrete-time cases. <i>Automatica</i> , <b>2017</b> , 86, 216-219	5.7	18
72	$H_2$ Filter for Bilinear Systems Using LPV Approach. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 1668-1674	5.9	18
71	Kalman filter with unknown inputs and robust two-stage filter. <i>International Journal of Systems Science</i> , <b>1998</b> , 29, 41-47	2.3	18
70	. <i>IEEE Transactions on Automatic Control</i> , <b>1993</b> , 38, 1671-1675	5.9	18
69	Fault detection of multiple biases or process leaks in linear steady state systems. <i>Computers and Chemical Engineering</i> , <b>1994</b> , 18, 1001-1004	4	17
68	Unknown inputs functional observers designs for delay descriptor systems. <i>International Journal of Control</i> , <b>2013</b> , 86, 1850-1858	1.5	16
67	Exponential stabilization of a class of nonlinear systems: A generalized Gronwall-Bellman lemma approach. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , <b>2011</b> , 74, 7333-7341	1.3	16
66	Moving horizon state estimation for linear discrete-time singular systems. <i>IET Control Theory and Applications</i> , <b>2010</b> , 4, 339-350	2.5	16

65	Finite-Time Stabilizability, Detectability, and Dynamic Output Feedback Finite-Time Stabilization of Linear Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 6521-6528	5.9	15
64	H <sub>∞</sub> dynamical observers design for linear descriptor systems. Application to state and unknown input estimation. <i>European Journal of Control</i> , <b>2015</b> , 26, 35-43	2.5	15
63	A new polytopic approach for the unknown input functional observer design. <i>International Journal of Control</i> , <b>2018</b> , 91, 658-677	1.5	14
62	Optimal unbiased functional filtering in the frequency domain. <i>Systems Science and Control Engineering</i> , <b>2014</b> , 2, 308-315	2	14
61	On the robustness of linear systems with nonlinear uncertain parameters. <i>Automatica</i> , <b>1998</b> , 34, 1005-1008	5.9	14
60	Robustness analysis of interval matrices based on Kharitonov's theorem. <i>IEEE Transactions on Automatic Control</i> , <b>1998</b> , 43, 273-278	5.9	14
59	State estimation for a class of singular systems. <i>International Journal of Systems Science</i> , <b>1992</b> , 23, 517-530	5.9	14
58	Nonlinear model predictive extended eco-cruise control for battery electric vehicles <b>2016</b> ,		14
57	Reduced-Order Kalman Filter with Unknown Inputs. <i>Automatica</i> , <b>1998</b> , 34, 1463-1468	5.7	13
56	Kalman filtering for continuous descriptor systems <b>1997</b> ,		12
55	Generalized likelihood ratio approach for fault detection in linear dynamic stochastic systems with unknown inputs. <i>International Journal of Systems Science</i> , <b>1996</b> , 27, 1231-1241	2.3	12
54	Reduced-order observer-based point-to-point and trajectory controllers for robot manipulators. <i>Control Engineering Practice</i> , <b>1996</b> , 4, 991-1000	3.9	12
53	A controller design based on a functional H <sub>∞</sub> filter for descriptor systems: The time and frequency domain cases. <i>Automatica</i> , <b>2012</b> , 48, 542-549	5.7	11
52	Optimal unbiased reduced order filtering for discrete-time descriptor systems via LMI. <i>Systems and Control Letters</i> , <b>2009</b> , 58, 436-444	2.4	11
51	Observers for discrete-time systems with multiple delays. <i>IEEE Transactions on Automatic Control</i> , <b>2001</b> , 46, 746-750	5.9	11
50	On the optimal unbiased functional filtering. <i>IEEE Transactions on Automatic Control</i> , <b>2000</b> , 45, 1374-1379	5.9	11
49	H <sub>∞</sub> filtering for singular bilinear systems with application to a single-link flexible-joint robot. <i>International Journal of Control, Automation and Systems</i> , <b>2014</b> , 12, 590-598	2.9	10
48	An efficient nonlinear model-predictive eco-cruise control for electric vehicles <b>2013</b> ,		10

47	New dynamical observers design for linear descriptor systems. <i>IET Control Theory and Applications</i> , <b>2016</b> , 10, 2223-2232	2.5	10
46	Nonlinear Model Predictive Control for Ecological Driver Assistance Systems in Electric Vehicles. <i>Robotics and Autonomous Systems</i> , <b>2019</b> , 112, 291-303	3.5	10
45	A discrete-time nonlinear state observer for the anaerobic digestion process. <i>International Journal of Robust and Nonlinear Control</i> , <b>2019</b> , 29, 1279-1301	3.6	10
44	Design of functional fractional-order observers for linear time-delay fractional-order systems in the time domain <b>2014</b> ,		9
43	. <i>IEEE Transactions on Automatic Control</i> , <b>1995</b> , 40, 696-699	5.9	8
42	Attack-tolerant control and observer-based trajectory tracking for Cyber-Physical Systems. <i>European Journal of Control</i> , <b>2019</b> , 47, 30-36	2.5	8
41	. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 65, 2751-2759	5.9	8
40	Unknown inputs observer design for descriptor systems with monotone nonlinearities. <i>International Journal of Robust and Nonlinear Control</i> , <b>2018</b> , 28, 5481-5494	3.6	8
39	Approximate discretization of regular descriptor (singular) systems with impulsive mode. <i>Automatica</i> , <b>2016</b> , 73, 231-236	5.7	7
38	Generalized dynamic observers for quasi-LPV systems with unmeasurable scheduling functions. <i>International Journal of Robust and Nonlinear Control</i> , <b>2018</b> , 28, 5262-5278	3.6	7
37	<b>2013</b> ,		7
36	Robust functional observer design for uncertain fractional-order time-varying delay systems <b>2016</b> ,		7
35	H <sub>∞</sub> observer design for linear fractional-order systems in time and frequency domains <b>2014</b> ,		6
34	Unknown Inputs Functional Observers Designs For Descriptor Systems with Constant Time Delay. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 1162-1167		6
33	Unknown Input Observer Design for Linear Fractional-Order Time-Delay Systems. <i>Journal of Applied Nonlinear Dynamics</i> , <b>2015</b> , 4, 117-130	2	6
32	H <sub>∞</sub> generalized dynamic unknown inputs observer design for discrete LPV systems. Application to wind turbine. <i>European Journal of Control</i> , <b>2018</b> , 44, 40-49	2.5	6
31	Robust reduced order unbiased filtering for uncertain systems. <i>International Journal of Control</i> , <b>2006</b> , 79, 93-106	1.5	5
30	Generalised dynamic observer design for Lipschitz non-linear descriptor systems. <i>IET Control Theory and Applications</i> , <b>2019</b> , 13, 2270-2280	2.5	5

29	Robust ( $H_{\infty}$ ) Observer-Based Stabilization of Disturbed Uncertain Fractional-Order Systems Using a Two-Step Procedure. <i>Lecture Notes in Electrical Engineering</i> , <b>2016</b> , 167-180	0.2	4
28	Generalized dynamic observer design for quasi-LPV systems. <i>Automatisierungstechnik</i> , <b>2018</b> , 66, 225-233	0.8	4
27	Fractional Order Time-Varying-Delay Systems <b>2018</b> , 133-158		4
26	Generalized $H_{\infty}$ observers design for systems with unknown inputs <b>2013</b> ,		4
25	Fast stochastic non-linear model predictive control for electric vehicle advanced driver assistance systems <b>2017</b> ,		4
24	Stability and stabilizability analysis of fractional-order time-varying delay systems via diffusive representation <b>2016</b> ,		4
23	$H_{\infty}$ filters design for fractional-order time-varying delay systems <b>2015</b> ,		3
22	Fault estimation for descriptor linear systems based on the generalised dynamic observer. <i>International Journal of Systems Science</i> , <b>2018</b> , 49, 2398-2409	2.3	3
21	$H_{\infty}$ filter design for a class of nonlinear discrete-time singular systems. <i>International Journal of Control</i> , <b>2013</b> , 86, 1597-1606	1.5	3
20	LMI-based discrete-time nonlinear state observer for an anaerobic digestion model <b>2017</b> ,		3
19	A Formal Modeling Framework for Anaerobic Digestion Systems <b>2015</b> ,		3
18	Generalized dynamic observers for LPV singular systems. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 152-157	0.7	3
17	Discussion on: A Comparison of Sliding Mode and Unknown Input Observer for Fault Reconstruction. <i>European Journal of Control</i> , <b>2006</b> , 12, 261-277	2.5	3
16	Risk-averse Stochastic Nonlinear Model Predictive Control for Real-time Safety-critical Systems. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 5991-5997	0.7	2
15	An $H_{\infty}$ adaptive observer design for linear descriptor systems <b>2015</b> ,		2
14	$H_{\infty}$ dynamic observer design for linear time invariant systems <b>2014</b> ,		2
13	$H_{\infty}$ dynamical observer design for linear descriptor systems <b>2014</b> ,		2
12	Robust observer-based-controller design for uncertain fractional-order time-varying-delay systems. <i>International Journal of Robust and Nonlinear Control</i> , <b>2021</b> , 31, 6314-6333	3.6	2

11	Adaptive observer design for LPV systems. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 140-145	0.7	2
10	Deadzone-Quadratic Penalty Function for Predictive Extended Cruise Control with Experimental Validation. <i>Advances in Intelligent Systems and Computing</i> , <b>2018</b> , 446-459	0.4	1
9	Adaptive observer design for linear descriptor systems <b>2018</b> ,		1
8	LMI-based invariant like nonlinear state observer for anaerobic digestion model <b>2017</b> ,		1
7	$H_{\infty}$ Dynamic Output Feedback Controller Design For Disturbed Fractional-Order Systems. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 9724-9729	0.7	1
6	A Polytopic Observer Design Approach for Landing Control of a Quadrotor UAV. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 9753-9759	0.7	1
5	$H_{\infty}$ dynamical observer-based control for descriptor systems <b>2014</b> ,		1
4	Stochastic Optimum Energy Management for Advanced Transportation Network. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 317-322	0.7	1
3	$H_{\infty}$ dynamic observer design for linear discrete-time systems. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 2756-2761	0.7	0
2	$H_{\infty}$ Functional Filtering for Linear Systems With Unknown Inputs. <i>IEEE Transactions on Automatic Control</i> , <b>2020</b> , 1-1	5.9	0
1	An LMI-Based $H_{\infty}$ Discrete-Time Nonlinear State Observer Design for an Anaerobic Digestion Model. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 11547-11552	0.7	