

Zhiqiang Gao

List of Publications by Year in descending order

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60
papers

4,072
citations

304368

22
h-index

360668

35
g-index

60
all docs

60
docs citations

60
times ranked

1936
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling and bandwidth-parameterization based controller tuning. , 0, , .		678
2	On the centrality of disturbance rejection in automatic control. ISA Transactions, 2014, 53, 850-857.	3.1	346
3	A DSP-Based Active Disturbance Rejection Control Design for a 1-kW H-Bridge DC-DC Power Converter. IEEE Transactions on Industrial Electronics, 2005, 52, 1271-1277.	5.2	308
4	Active disturbance rejection control: a paradigm shift in feedback control system design. , 2006, , .		263
5	On stability analysis of active disturbance rejection control for nonlinear time-varying plants with unknown dynamics. , 2007, , .		249
6	Active Disturbance Rejection Control for MEMS Gyroscopes. IEEE Transactions on Control Systems Technology, 2009, 17, 1432-1438.	3.2	239
7	On Validation of Extended State Observer Through Analysis and Experimentation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2012, 134, .	0.9	197
8	Modified active disturbance rejection control for time-delay systems. ISA Transactions, 2014, 53, 882-888.	3.1	178
9	Predictive active disturbance rejection control for processes with time delay. ISA Transactions, 2014, 53, 873-881.	3.1	131
10	Discrete implementation and generalization of the extended state observer. , 2006, , .		119
11	A comparison study of advanced state observer design techniques. , 0, , .		107
12	An Active Disturbance Rejection Based Approach to Vibration Suppression in Two-Inertia Systems. Asian Journal of Control, 2013, 15, 350-362.	1.9	106
13	Add-On Module of Active Disturbance Rejection for Set-Point Tracking of Motion Control Systems. IEEE Transactions on Industry Applications, 2017, 53, 4028-4040.	3.3	87
14	A Wavelet-Based Multiresolution PID Controller. IEEE Transactions on Industry Applications, 2005, 41, 537-543.	3.3	81
15	On active disturbance rejection based control design for superconducting RF cavities. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 643, 11-16.	0.7	80
16	Active Disturbance Rejection Control of LCL-Filtered Grid-Connected Inverter Using Padé Approximation. IEEE Transactions on Industry Applications, 2018, 54, 6179-6189.	3.3	79
17	From linear to nonlinear control means: A practical progression. ISA Transactions, 2002, 41, 177-189.	3.1	78
18	Active disturbance rejection control: some recent experimental and industrial case studies. Control Theory and Technology, 2018, 16, 301-313.	1.0	76

#	ARTICLE	IF	CITATIONS
19	On transitioning from PID to ADRC in thermal power plants. Control Theory and Technology, 2021, 19, 3-18.	1.0	54
20	Active disturbance rejection control: between the formulation in time and the understanding in frequency. Control Theory and Technology, 2016, 14, 250-259.	1.0	52
21	A stable self-tuning fuzzy logic control system for industrial temperature regulation. IEEE Transactions on Industry Applications, 2002, 38, 414-424.	3.3	45
22	Active disturbance rejection control for MEMS gyroscopes. , 2008, , .		40
23	Absolute stability analysis of non-linear active disturbance rejection control for single-input-single-output systems via the circle criterion method. IET Control Theory and Applications, 2015, 9, 2320-2329.	1.2	34
24	An Active Disturbance Rejection Approach to Tension and Velocity Regulations in Web Processing Lines. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	32
25	On Decoupling Control of the VGT-EGR System in Diesel Engines: A New Framework. IEEE Transactions on Control Systems Technology, 2016, 24, 1788-1796.	3.2	30
26	Fractional order active disturbance rejection control with the idea of cascaded fractional order integrator equivalence. ISA Transactions, 2021, 114, 359-369.	3.1	26
27	A Dynamic Decoupling Control Approach and Its Applications to Chemical Processes. Proceedings of the American Control Conference, 2007, , .	0.0	24
28	Exponential Stabilization of a Star-Shaped Thermoelastic Network System Based on the Extended State Observer With Time-Varying Gains. IEEE Transactions on Automatic Control, 2021, 66, 267-274.	3.6	24
29	On asymptotic stability for nonlinear ADRC based control system with application to the ball-beam problem. , 2016, , .		23
30	Active Disturbance Rejection Control of Chemical Processes. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	21
31	Control and Rotation Rate Estimation of Vibrational MEMS Gyroscopes. Control Applications (CCA), Proceedings of the IEEE International Conference on, 2007, , .	0.0	21
32	Robust Tracking in Underactuated Systems Using Flatness-Based ADRC With Cascade Observers. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, .	0.9	21
33	Towards a turnkey solution of industrial control under the active disturbance rejection paradigm. , 2015, , .		20
34	On ADRC for non-minimum phase systems: canonical form selection and stability conditions. Control Theory and Technology, 2016, 14, 199-208.	1.0	20
35	On convergence of the linear extended state observer. , 2006, , .		19
36	Benchmark tests of Active Disturbance Rejection Control on an industrial motion control platform. , 2009, , .		19

#	ARTICLE	IF	CITATIONS
37	A novel motion control design approach based on active disturbance rejection. , 0, , .		18
38	An active disturbance rejection based approach to vibration suppression in two-inertia systems. , 2010, , .		15
39	Load frequency control for multiple-area power systems. , 2009, , .		13
40	Active Disturbance Rejection Control for Reference Trajectory Tracking Tasks in the Pendubot System. IEEE Access, 2021, 9, 102663-102670.	2.6	11
41	From Poncelet's invariance principle to Active Disturbance Rejection. , 2009, , .		10
42	A Novel Oscillation Controller for Vibrational MEMS Gyroscopes. Proceedings of the American Control Conference, 2007, , .	0.0	9
43	Active disturbance rejection control for human postural sway. , 2011, , .		8
44	On model-free accommodation of actuator nonlinearities. , 2012, , .		8
45	On the tracking of fast trajectories of a 3DOF torsional plant: A flatness based ADRC approach. Asian Journal of Control, 2021, 23, 1367-1379.	1.9	8
46	An FPGA-based digital control and communication module for space power management and distribution systems. , 0, , .		7
47	Achieving Minimum Settling Time Subject to Undershoot Constraint in Systems With One or Two Real Right Half Plane Zeros. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2013, 135, .	0.9	7
48	A controller design method for high-order unstable linear time-invariant systems. ISA Transactions, 2022, 130, 500-515.	3.1	6
49	Robust ADRC for nonlinear time-varying system with uncertainties. , 2017, , .		5
50	On the Principle and Applications of Conditional Disturbance Negation. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 6757-6767.	5.9	5
51	A novel self-tuning control design approach for industrial applications. , 0, , .		4
52	A two-degree-of-freedom time-optimal solution for hard disk drive servo problems. International Journal of Adaptive Control and Signal Processing. 2008, 22, 388-401.	2.3	3
53	On the augmentation of Luenberger Observer-based state feedback design for better robustness and disturbance rejection. , 2015, , .		3
54	A time-optimal unified servo control method with a two-degree-offreedom structure for a hard disk drive. , 0, , .		1

#	ARTICLE	IF	CITATIONS
55	On a robust control system design for an electric power assist steering system. , 2010, , .		1
56	A Disturbance Rejection Framework for the Study of Traditional Chinese Medicine. Evidence-based Complementary and Alternative Medicine, 2014, 2014, 1-8.	0.5	1
57	Add-on module of Active Disturbance Rejection for set-point tracking of motion control systems. , 2016, , .		1
58	Periodic tracking for piezo-actuated displacement stage based on disturbance rejection proportional integral derivative and repetitive control. Advanced Control for Applications, 2021, 3, e67.	0.8	1
59	A closed loop feedback method for a manual bar straightener. , 0, , .		0
60	Active disturbance rejection control of LCL filtered grid-connected inverter using padé approximation. , 2017, , .		0