

# Shigen Gao

## List of Publications by Year in descending order

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61  
papers

1,156  
citations

394286

19  
h-index

395590

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g-index

61  
all docs

61  
docs citations

61  
times ranked

752  
citing authors

#	ARTICLE	IF	CITATIONS
1	Approximation-Based Robust Adaptive Automatic Train Control: An Approach for Actuator Saturation. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 1733-1742.	4.7	148
2	An Introduction to Parallel Control and Management for High-Speed Railway Systems. IEEE Transactions on Intelligent Transportation Systems, 2011, 12, 1473-1483.	4.7	100
3	Cooperative Prescribed Performance Tracking Control for Multiple High-Speed Trains in Moving Block Signaling System. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2740-2749.	4.7	82
4	Cooperative Control Synthesis and Stability Analysis of Multiple Trains Under Moving Signaling Systems. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2730-2738.	4.7	73
5	Fuzzy dynamic surface control for uncertain nonlinear systems under input saturation via truncated adaptation approach. Fuzzy Sets and Systems, 2016, 290, 100-117.	1.6	66
6	Energy-Saving Metro Train Timetable Rescheduling Model Considering ATO Profiles and Dynamic Passenger Flow. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2774-2785.	4.7	50
7	Error-Driven Nonlinear Feedback Design for Fuzzy Adaptive Dynamic Surface Control of Nonlinear Systems With Prescribed Tracking Performance. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 1013-1023.	5.9	45
8	Neural adaptive control for uncertain nonlinear system with input saturation: State transformation based output feedback. Neurocomputing, 2015, 159, 117-125.	3.5	44
9	Parallel Intelligent Systems for Integrated High-Speed Railway Operation Control and Dynamic Scheduling. IEEE Transactions on Cybernetics, 2018, 48, 3381-3389.	6.2	38
10	Adaptive fault-tolerant automatic train operation using RBF neural networks. Neural Computing and Applications, 2015, 26, 141-149.	3.2	35
11	Neural adaptive control for uncertain MIMO systems with constrained input via intercepted adaptation and single learning parameter approach. Nonlinear Dynamics, 2015, 82, 1109-1126.	2.7	34
12	Neural Networks-Based Sliding Mode Fault-Tolerant Control for High-Speed Trains With Bounded Parameters and Actuator Faults. IEEE Transactions on Vehicular Technology, 2020, 69, 1353-1362.	3.9	33
13	Truncated adaptation design for decentralised neural dynamic surface control of interconnected nonlinear systems under input saturation. International Journal of Control, 2016, 89, 1447-1466.	1.2	32
14	Distributed cooperative control of multiple high-speed trains under a moving block system by nonlinear mapping-based feedback. Science China Information Sciences, 2018, 61, 1.	2.7	31
15	Nonlinear mapping-based feedback technique of dynamic surface control for the chaotic PMSM using neural approximation and parameter identification. IET Control Theory and Applications, 2018, 12, 819-827.	1.2	30
16	High-speed trains automatic operation with protection constraints: a resilient nonlinear gain-based feedback control approach. IEEE/CAA Journal of Automatica Sinica, 2019, 6, 992-999.	8.5	30
17	Single-parameter-learning-based fuzzy fault-tolerant output feedback dynamic surface control of constrained-input nonlinear systems. Information Sciences, 2017, 385-386, 378-394.	4.0	27
18	Global Nested PID Control of Strict-Feedback Nonlinear Systems With Prescribed Output and Virtual Tracking Performance. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 325-329.	2.2	22

#	ARTICLE	IF	CITATIONS
19	Neural adaptive dynamic surface control for uncertain strict-feedback nonlinear systems with nonlinear output and virtual feedback errors. <i>Nonlinear Dynamics</i> , 2017, 90, 2851-2867.	2.7	21
20	Neural adaptive coordination control of multiple trains under bidirectional communication topology. <i>Neural Computing and Applications</i> , 2016, 27, 2497-2507.	3.2	20
21	Observer-based nonlinear feedback decentralized neural adaptive dynamic surface control for large-scale nonlinear systems. <i>International Journal of Adaptive Control and Signal Processing</i> , 2017, 31, 1686-1703.	2.3	19
22	Adaptive neural control with intercepted adaptation for time-delay saturated nonlinear systems. <i>Neural Computing and Applications</i> , 2015, 26, 1849-1857.	3.2	16
23	Characteristic model-based all-coefficient adaptive control for automatic train control systems. <i>Science China Information Sciences</i> , 2014, 57, 1-12.	2.7	15
24	Neural adaptive control of uncertain chaotic systems with input and output saturation. <i>Nonlinear Dynamics</i> , 2015, 80, 375-385.	2.7	12
25	Error-driven nonlinear feedback-based fuzzy adaptive output dynamic surface control for nonlinear systems with partially constrained tracking errors. <i>Journal of the Franklin Institute</i> , 2018, 355, 5452-5474.	1.9	12
26	Fuzzy adaptive automatic train operation control with protection constraints: A residual nonlinearity approximation-based approach. <i>Engineering Applications of Artificial Intelligence</i> , 2020, 96, 103986.	4.3	12
27	Integration of Train Control and Online Rescheduling for High-Speed Railways in Case of Emergencies. <i>IEEE Transactions on Computational Social Systems</i> , 2022, 9, 1574-1582.	3.2	10
28	A fuzzy-rule-based Couzin model. <i>Journal of Control Theory and Applications</i> , 2013, 11, 311-315.	0.8	9
29	Control with prescribed performance tracking for input quantized nonlinear systems using self-scrambling gain feedback. <i>Information Sciences</i> , 2020, 529, 73-86.	4.0	9
30	Virtual Parameter Learning-Based Adaptive Control for Protective Automatic Train Operation. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021, 22, 7943-7954.	4.7	9
31	Robust resilient control for parametric strict feedback systems with prescribed output and virtual tracking errors. <i>International Journal of Robust and Nonlinear Control</i> , 2019, 29, 6212-6226.	2.1	8
32	Fuzzy adaptive event-triggered control for uncertain nonlinear system with prescribed performance: A combinational measurement approach. <i>Journal of the Franklin Institute</i> , 2022, 359, 371-391.	1.9	8
33	A velocity-adaptive Couzin model and its performance. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012, 391, 2145-2153.	1.2	6
34	Controlling uncertain Genesio chaotic system using adaptive dynamic surface and nonlinear feedback. <i>Chaos, Solitons and Fractals</i> , 2017, 105, 180-188.	2.5	5
35	Adaptive prescribed performance control for nonlinear pure-feedback systems: a scalarly virtual parameter adaptation approach. <i>Nonlinear Dynamics</i> , 2020, 102, 2597-2615.	2.7	5
36	Fuzzy Adaptive Protective Control for High-Speed Trains: An Outstretched Error Feedback Approach. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 17966-17975.	4.7	5

#	ARTICLE	IF	CITATIONS
37	Adaptive cooperation of multiple trains in moving block system using local neighboring information. , 2016, , .		4
38	Stabilization of Switched Nonlinear Systems by Adaptive Observer-Based Dynamic Surface Control with Nonlinear Virtual and Output Feedback. Circuits, Systems, and Signal Processing, 2019, 38, 1063-1085.	1.2	4
39	Timetable Optimization and Trial Test for Regenerative Braking Energy Utilization in Rapid Transit Systems. Energies, 2022, 15, 4879.	1.6	4
40	Protection-enveloped Automatic Train Operation: A Virtual Parameter Adaptation-based Finite-time Control Approach. , 2020, , .		3
41	Distributed Fixed-time Cooperative Cruise Control for Train Formation. , 2020, , .		3
42	Extended prescribed performance control with input quantization for nonlinear systems. International Journal of Robust and Nonlinear Control, 2022, 32, 3801-3821.	2.1	3
43	A Nonlinear Feedback Adaptive Control Method for Improving the Control Performance of Automatic Train Operation. , 2018, , .		2
44	A Hybrid Intelligent Algorithm for Real Time Metro Traffic Regulation in Cases of Disturbance. , 2018, , .		2
45	Complete Test Suites Generation of CTCS -3 Target Speed Monitor Based on Combinatorial Testing. , 2019, , .		2
46	Output tracking control of strictâ€ feedback nonâ€ linear systems under asymmetrically bilateral and timeâ€ varying fullâ€ state constraints. IET Control Theory and Applications, 2020, 14, 156-164.	1.2	2
47	Parallel Intelligence Method for Timetable Rescheduling of High-speed Railways under Disturbances. , 2021, , .		2
48	Automatic Train Operation of High-Speed Trains with State Constraints: A Nested Proportion-like Control Approach. , 2018, , .		1
49	Adaptive Tracking Control with Input Saturation and Asymmetrically Time-varying Full-State Constraints for Automatic Train Operation. , 2019, , .		1
50	Composite Error-based Prescribed Performance Control with Unknown Initial Error for Multiple Trains Cooperation. , 2020, , .		1
51	Robust PI protective tracking control of decentralizedâ€ power trains with model uncertainties against overâ€ speed and signal passed at danger. IET Control Theory and Applications, 2021, 15, 1314-1334.	1.2	1
52	Adaptive fault-tolerant control of power-distributed trains with partial ineffective and loss-effective actuators. , 2016, , .		0
53	Nonlinear feedback design for observer-based neural adaptive dynamic surface control of MIMO uncertain nonlinear systems. , 2017, , .		0
54	Neural adaptive dynamic surface control for mismatched uncertain nonlinear systems with nonlinear feedback errors. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
55	PI-like Adaptive Asymptotic Control for Automatic Train Operation with Protection Constraints and Applications. , 2019, , .		0
56	Expansive Errors-Based Fuzzy Adaptive Prescribed Performance Control by Residual Approximation. IEEE Transactions on Fuzzy Systems, 2022, 30, 2736-2746.	6.5	0
57	Neural Adaptive Dynamic Surface Control of Nonlinear Systems with Partially Constrained Tracking Errors and Input Saturation. Lecture Notes in Computer Science, 2017, , 20-27.	1.0	0
58	Cooperative Control of High-speed Trains with Transmission Delay via Active Compensation Approach. , 2020, , .		0
59	Extended Prescribed Performance Control for Train Tracking Operation with Switching Dynamics. , 2020, , .		0
60	Preset Performance Train Tracking Control using Quantified State and Dilated Error Feedback. , 2021, , .		0
61	Control for Saltatory Speed Profile Tracking under Equipment Failures for High-speed Automatic Train Operation. , 2021, , .		0