Tie-Shan Li

List of Publications by Year
in descending order

132 papers	7,567 citations	87723 38 h-index	53109 85 g-index
134 all docs	134 docs citations	134 times ranked	3366 citing authors

#	Article	IF	Citations
1	A DSC Approach to Robust Adaptive NN Tracking Control for Strict-Feedback Nonlinear Systems. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 915-927.	5.5	469
2	Observer-Based Adaptive Fuzzy Tracking Control of MIMO Stochastic Nonlinear Systems With Unknown Control Directions and Unknown Dead Zones. IEEE Transactions on Fuzzy Systems, 2015, 23, 1228-1241.	6.5	427
3	Composite Adaptive Fuzzy Output Feedback Control Design for Uncertain Nonlinear Strict-Feedback Systems With Input Saturation. IEEE Transactions on Cybernetics, 2015, 45, 2299-2308.	6.2	425
4	Observer-Based Adaptive Fuzzy Backstepping Dynamic Surface Control for a Class of MIMO Nonlinear Systems. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 1124-1135.	5.5	420
5	Hybrid Fuzzy Adaptive Output Feedback Control Design for Uncertain MIMO Nonlinear Systems With Time-Varying Delays and Input Saturation. IEEE Transactions on Fuzzy Systems, 2016, 24, 841-853.	6.5	363
6	Event-Triggered Finite-Time Control for Networked Switched Linear Systems With Asynchronous Switching. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 1874-1884.	5.9	323
7	A Novel Robust Adaptive-Fuzzy-Tracking Control for a Class of NonlinearMulti-Input/Multi-Output Systems. IEEE Transactions on Fuzzy Systems, 2010, 18, 150-160.	6.5	272
8	Finite-Time Formation Control of Under-Actuated Ships Using Nonlinear Sliding Mode Control. IEEE Transactions on Cybernetics, 2018, 48, 3243-3253.	6.2	251
9	Adaptive fuzzy output-feedback control for output constrained nonlinear systems in the presence of input saturation. Fuzzy Sets and Systems, 2014, 248, 138-155.	1.6	239
10	Adaptive Fuzzy Robust Output Feedback Control of Nonlinear Systems With Unknown Dead Zones Based on a Small-Gain Approach. IEEE Transactions on Fuzzy Systems, 2014, 22, 164-176.	6.5	234
11	Output-Feedback Cooperative Formation Maneuvering of Autonomous Surface Vehicles With Connectivity Preservation and Collision Avoidance. IEEE Transactions on Cybernetics, 2020, 50, 2527-2535.	6.2	215
12	Output-Feedback Adaptive Neural Control for Stochastic Nonlinear Time-Varying Delay Systems With Unknown Control Directions. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 1188-1201.	7.2	213
13	NN Reinforcement Learning Adaptive Control for a Class of Nonstrict-Feedback Discrete-Time Systems. IEEE Transactions on Cybernetics, 2020, 50, 4573-4584.	6.2	182
14	Prescribed Performance Adaptive Fuzzy Containment Control for Nonlinear Multiagent Systems Using Disturbance Observer. IEEE Transactions on Cybernetics, 2020, 50, 3879-3891.	6.2	169
15	Adaptive Reinforcement Learning Neural Network Control for Uncertain Nonlinear System With Input Saturation. IEEE Transactions on Cybernetics, 2020, 50, 3433-3443.	6.2	159
16	Adaptive fuzzy output feedback control for a single-link flexible robot manipulator driven DC motor via backstepping. Nonlinear Analysis: Real World Applications, 2013, 14, 483-494.	0.9	145
17	A Survey of Autonomous Underwater Vehicle Formation: Performance, Formation Control, and Communication Capability. IEEE Communications Surveys and Tutorials, 2021, 23, 815-841.	24.8	145
18	Bounded Neural Network Control for Target Tracking of Underactuated Autonomous Surface Vehicles in the Presence of Uncertain Target Dynamics. IEEE Transactions on Neural Networks and Learning Systems, 2019, 30, 1241-1249.	7.2	142

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19	Adaptive fuzzy output feedback control of uncertain nonlinear systems with unknown backlash-like hysteresis. Information Sciences, 2012, 198, 130-146.	4.0	131
20	Modular Adaptive Control for LOS-Based Cooperative Path Maneuvering of Multiple Underactuated Autonomous Surface Vehicles. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 1613-1624.	5.9	128
21	Cooperative Path Following Ring-Networked Under-Actuated Autonomous Surface Vehicles: Algorithms and Experimental Results. IEEE Transactions on Cybernetics, 2020, 50, 1519-1529.	6.2	124
22	Decentralized adaptive neural control of nonlinear interconnected large-scale systems with unknown time delays and input saturation. Neurocomputing, 2011, 74, 2277-2283.	3.5	110
23	Adaptive leader-following formation control with collision avoidance for a class of second-order nonlinear multi-agent systems. Neurocomputing, 2019, 350, 282-290.	3.5	104
24	Adaptive neural control for a class of stochastic nonlinear timeâ€delay systems with unknown dead zone using dynamic surface technique. International Journal of Robust and Nonlinear Control, 2016, 26, 759-781.	2.1	97
25	Fault Tolerant Control for Dynamic Positioning of Unmanned Marine Vehicles Based on T-S Fuzzy Model With Unknown Membership Functions. IEEE Transactions on Vehicular Technology, 2021, 70, 146-157.	3.9	92
26	Neural Network-Based Adaptive Control for Pure-Feedback Stochastic Nonlinear Systems With Time-Varying Delays and Dead-Zone Input. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 5317-5329.	5.9	82
27	Command Filter-Based Adaptive Neural Control Design for Nonstrict-Feedback Nonlinear Systems With Multiple Actuator Constraints. IEEE Transactions on Cybernetics, 2022, 52, 12561-12570.	6.2	68
28	Adaptive NN event-triggered control for path following of underactuated vessels with finite-time convergence. Neurocomputing, 2020, 379, 203-213.	3.5	67
29	Adaptive Neural Control Using Tangent Time-Varying BLFs for a Class of Uncertain Stochastic Nonlinear Systems With Full State Constraints. IEEE Transactions on Cybernetics, 2021, 51, 1943-1953.	6.2	65
30	Distributed Fault-Tolerant Containment Control Protocols for the Discrete-Time Multiagent Systems via Reinforcement Learning Method. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 3979-3991.	7.2	62
31	Event-Triggered Multigradient Recursive Reinforcement Learning Tracking Control for Multiagent Systems. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 366-379.	7.2	50
32	Adaptive neural control of nonlinear MIMO systems with unknown time delays. Neurocomputing, 2012, 78, 83-88.	3.5	49
33	Single neural network approximation based adaptive control for a class of uncertain strict-feedback nonlinear systems. Nonlinear Dynamics, 2013, 72, 175-184.	2.7	48
34	Asynchronous Tracking Control of Leaderâ€“Follower Multiagent Systems With Input Uncertainties Over Switching Signed Digraphs. IEEE Transactions on Cybernetics, 2022, 52, 6379-6390.	6.2	48
35	Adaptive fuzzy control of uncertain MIMO non-linear systems in block-triangular forms. Nonlinear Dynamics, 2011, 63, 105-123.	2.7	43
36	Quantized Output-Feedback Control for Unmanned Marine Vehicles With Thruster Faults via Sliding-Mode Technique. IEEE Transactions on Cybernetics, 2022, 52, 9363-9376.	6.2	43

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37	Adaptive terminal sliding mode control for anti-synchronization of uncertain chaotic systems. Nonlinear Dynamics, 2013, 74, 991-1002.	2.7	40
38	Decentralized adaptive neural control of nonlinear systems with unknown time delays. Nonlinear Dynamics, 2012, 67, 2017-2026.	2.7	38
39	Adaptive robust control based on single neural network approximation for a class of uncertain strict-feedback discrete-time nonlinear systems. Neurocomputing, 2014, 138, 325-331.	3.5	37
40	Modified genetic optimization-based locally weighted learning identification modeling of ship maneuvering with full scale trial. Future Generation Computer Systems, 2019, 93, 1036-1045.	4.9	37
41	Attacks on Formation Control for Multiagent Systems. IEEE Transactions on Cybernetics, 2022, 52, 12805-12817.	6.2	36
42	Finite-Time LOS Path Following of Unmanned Surface Vessels With Time-Varying Sideslip Angles and Input Saturation. IEEE/ASME Transactions on Mechatronics, 2022, 27, 463-474.	3.7	36
43	Extended-state-observer-based distributed model predictive formation control of under-actuated unmanned surface vehicles with collision avoidance. Ocean Engineering, 2021, 238, 109587.	1.9	36
44	IBLF-Based Adaptive Neural Control of State-Constrained Uncertain Stochastic Nonlinear Systems. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 7345-7356.	7.2	35
45	Event-Triggered Output Regulation for Networked Flight Control System Based on an Asynchronous Switched System Approach. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 7675-7684.	5.9	34
46	Sliding mode fault-tolerant control for unmanned marine vehicles with signal quantization and time-delay. Ocean Engineering, 2020, 215, 107882.	1.9	33
47	Distributed Containment Maneuvering of Uncertain Multiagent Systems in MIMO Strict-Feedback Form. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 1354-1364.	5.9	33
48	A novel neural network-based adaptive control for a class of uncertain nonlinear systems in strict-feedback form. Nonlinear Dynamics, 2015, 79, 1005-1013.	2.7	32
49	Model-Free Containment Control of Underactuated Surface Vessels Under Switching Topologies Based on Guiding Vector Fields and Data-Driven Neural Predictors. IEEE Transactions on Cybernetics, 2022, 52, 10843-10854.	6.2	32
50	Adaptive cooperative control for a class of nonlinear multi-agent systems with dead zone and input delay. Nonlinear Dynamics, 2019, 96, 2707-2719.	2.7	31
51	COLREGs-Compliant Unmanned Surface Vehicles Collision Avoidance Based on Multi-Objective Genetic Algorithm. IEEE Access, 2020, 8, 190367-190377.	2.6	30
52	Robust Adaptive Neural Network Control for Strict-Feedback Nonlinear Systems Via Small-Gain Approaches. Lecture Notes in Computer Science, 2006, , 888-897.	1.0	28
53	Adaptive NN control for a class of stochastic nonlinear systems with unmodeled dynamics using DSC technique. Neurocomputing, 2015, 149, 142-150.	3.5	28
54	An adaptive neural network approach for ship roll stabilization via fin control. Neurocomputing, 2016, 173, 953-957.	3.5	27

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55	Neural-network-based formation control with collision, obstacle avoidance and connectivity maintenance for a class of second-order nonlinear multi-agent systems. Neurocomputing, 2021, 439, 243-255.	3.5	27
56	Asynchronous Frequency-Dependent Fault Detection for Nonlinear Markov Jump Systems Under Wireless Fading Channels. IEEE Transactions on Cybernetics, 2022, 52, 13598-13608.	6.2	26
57	Multi-Innovation Gradient Iterative Locally Weighted Learning Identification for A Nonlinear Ship Maneuvering System. China Ocean Engineering, 2018, 32, 288-300.	0.6	24
58	Gait Prediction and Variable Admittance Control for Lower Limb Exoskeleton With Measurement Delay and Extended-State-Observer. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 8693-8706.	7.2	23
59	Anti-Attack Event-Triggered Control for Nonlinear Multi-Agent Systems With Input Quantization. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 10105-10115.	7.2	23
60	Online optimal consensus control of unknown linear multi-agent systems via time-based adaptive dynamic programming. Neurocomputing, 2020, 404, 137-144.	3.5	22
61	Active Disturbance Rejection with Sliding Mode Control Based Course and Path Following for Underactuated Ships. Mathematical Problems in Engineering, 2013, 2013, 1-9.	0.6	21
62	Neural network based fin control for ship roll stabilization with guaranteed robustness. Neurocomputing, 2017, 230, 210-218.	3.5	21
63	A Survey of Technologies for Unmanned Merchant Ships. IEEE Access, 2020, 8, 224461-224486.	2.6	21
64	Grid index subspace constructed locally weighted learning identification modeling for high dimensional ship maneuvering system. ISA Transactions, 2019, 86, 144-152.	3.1	19
65	Fault estimation and fault tolerant control for discrete-time nonlinear systems with perturbation by a mixed design scheme. Journal of the Franklin Institute, 2021, 358, 1860-1887.	1.9	19
66	Observer-Based Adaptive Fuzzy Event-Triggered Path Following Control of Marine Surface Vessel. International Journal of Fuzzy Systems, 2021, 23, 2021-2036.	2.3	19
67	Adaptive path following controller of underactuated ships using serret-frenet frame. Journal of Shanghai Jiaotong University (Science), 2010, 15, 334-339.	0.5	18
68	Load Distributed and Benign-Bot Mitigation Methods for IoT DNS Flood Attacks. IEEE Internet of Things Journal, 2020, 7, 986-1000.	5.5	18
69	Data-driven adaptive extended state observer design for autonomous surface vehicles with unknown input gains based on concurrent learning. Neurocomputing, 2022, 467, 337-347.	3.5	18
70	Neural network-based event-triggered fault detection for nonlinear Markov jump system with frequency specifications. Nonlinear Dynamics, 2021, 103, 2671-2687.	2.7	17
71	Background Noise Filtering and Clustering With 3D LiDAR Deployed in Roadside of Urban Environments. IEEE Sensors Journal, 2021, 21, 20629-20639.	2.4	17
72	Robust Fuzzy Adaptive Output Feedback Optimal Tracking Control for Dynamic Positioning of Marine Vessels with Unknown Disturbances and Uncertain Dynamics. International Journal of Fuzzy Systems, 2021, 23, 2283-2296.	2.3	16

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73	Broad Learning System Approximation-Based Adaptive Optimal Control for Unknown Discrete-Time Nonlinear Systems. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 5028-5038.	5.9	16
74	Eventâ€triggered adaptive fuzzy bipartite consensus control of multiple autonomous underwater vehicles. IET Control Theory and Applications, 2020, 14, 3632-3642.	1.2	16
75	Adaptive Decentralized <scp>NN</scp> Control of Nonlinear Interconnected Timeâ€Delay Systems with Input Saturation. Asian Journal of Control, 2013, 15, 533-542.	1.9	15
76	Broad learning system-based adaptive optimal control design for dynamic positioning of marine vessels. Nonlinear Dynamics, 2021, 105, 1593-1609.	2.7	15
77	Optimized Backstepping Design for Ship Course Following Control Based on Actor-Critic Architecture With Input Saturation. IEEE Access, 2019, 7, 73516-73528.	2.6	14
78	Minimum-Learning-Parameters-Based Adaptive Neural Fault Tolerant Control With Its Application to Continuous Stirred Tank Reactor. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 1275-1285.	5.9	14
79	PWM-driven model predictive speed control for an unmanned surface vehicle with unknown propeller dynamics based on parameter identification and neural prediction. Neurocomputing, 2021, 432, 1-9.	3.5	14
80	Virtual guide automatic berthing control of marine ships based on heuristic dynamic programming iteration method. Neurocomputing, 2021, 437, 289-299.	3.5	14
81	Online optimal control for dynamic positioning of vessels via time-based adaptive dynamic programming. Journal of Ambient Intelligence and Humanized Computing, 2023, 14, 15629-15641.	3.3	13
82	Consensus of multi-agent systems with impulsive perturbations and time-varying delays by dynamic delay interval method. Communications in Nonlinear Science and Numerical Simulation, 2019, 78, 104890.	1.7	12
83	Memory-Based Event-Triggered Output Regulation for Networked Switched Systems With Unstable Switching Dynamics. IEEE Transactions on Cybernetics, 2022, 52, 12429-12439.	6.2	12
84	Navigation Multisensor Fault Diagnosis Approach for an Unmanned Surface Vessel Adopted Particle-Filter Method. IEEE Sensors Journal, 2021, 21, 27093-27105.	2.4	12
85	Direct adaptive NN control of ship course autopilot with input saturation. , 2011, , .		11
86	Direct Adaptive Fuzzy Tracking Control of Non-affine Stochastic Nonlinear Time-Delay Systems. International Journal of Fuzzy Systems, 2021, 23, 309-321.	2.3	11
87	Online event-triggered optimal control for multi-agent systems using simplified ADP and experience replay technique. Nonlinear Dynamics, 2021, 106, 509-522.	2.7	11
88	Adaptive Fuzzy Output Feedback Control for High-Order Switched Systems with Fuzzy Dead Zone. Journal of the Franklin Institute, 2019, 356, 7967-7989.	1.9	10
89	Observer-Based Adaptive Fuzzy Control for Intelligent Ship Autopilot with Input Saturation. International Journal of Fuzzy Systems, 2020, 22, 1416-1429.	2.3	10
90	A peak-to-peak filtering for continuous Takagi-Sugeno fuzzy systems by a local method. Fuzzy Sets and Systems, 2021, 402, 51-77.	1.6	9

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91	$${L_infty }$$ Fault Estimation and Fault-Tolerant Control for Nonlinear Systems by Tâ€“S Fuzzy Model Method with Local Nonlinear Models. International Journal of Fuzzy Systems, 2021, 23, 1714-1727.	2.3	9
92	Adaptive swarm control for high-order self-organized system with unknown heterogeneous nonlinear dynamics and unmeasured states. Neurocomputing, 2021, 440, 24-35.	3.5	9
93	Sensor fault estimation in finite-frequency domain for nonlinear time-delayed systems by Tâ€“S fuzzy model approach with local nonlinear models. International Journal of Systems Science, 2019, 50, 2226-2247.	3.7	8
94	Vessel Navigation Behavior Analysis and Multiple-Trajectory Prediction Model Based on AIS Data. Journal of Advanced Transportation, 2022, 2022, 1-10.	0.9	8
95	Event-triggered output feedback sliding mode control of mechanical systems. Nonlinear Dynamics, 2022, 107, 3543-3555.	2.7	8
96	Impacts of GPS Spoofing on Path Planning of Unmanned Surface Ships. Electronics (Switzerland), 2022, 11, 801.	1.8	8
97	ISS-based robust adaptive fuzzy algorithm for maintaining a shipâ€™s track. Journal of Marine Science and Application, 2007, 6, 1-7.	0.7	7
98	Path following control of underactuated ships based on unscented Kalman filter. Journal of Shanghai Jiaotong University (Science), 2010, 15, 108-113.	0.5	7
99	Data-Driven Decision-Support System for Speaker Identification Using E-Vector System. Scientific Programming, 2020, 2020, 1-13.	0.5	7
100	A new fault tolerant control scheme for nonâ€linear systems by Tâ€S fuzzy model approach. IET Control Theory and Applications, 2021, 15, 1915-1930.	1.2	7
101	Design of PID Controller Based on Echo State Network With Time-Varying Reservoir Parameter. IEEE Transactions on Cybernetics, 2022, 52, 6615-6626.	6.2	7
102	Artificial Potential-Based Formation Control with Collision and Obstacle Avoidance for Second-order Multi-Agent Systems. , 2020, , .		7
103	DSC-backstepping based robust adaptive fuzzy control for a class of strict-feedback nonlinear systems. , 2008, , .		6
104	Adaptive NN control for a class of strict-feedback nonlinear systems. , 2008, , .		5
105	Combined adaptive fuzzy control for uncertain MIMO nonlinear systems. , 2009, , .		5
106	General Projection Neural Network Based Nonlinear Model Predictive Control for Multi-Robot Formation and Tracking. IFAC-PapersOnLine, 2017, 50, 838-843.	0.5	5
107	NN adaptive optimal tracking control for a class of uncertain nonstrict feedback nonlinear systems. Neurocomputing, 2022, 491, 382-394.	3.5	5
108	Distributed adaptive impedance control of networked Lagrangian systems with neighborhood interaction feedback. International Journal of Robust and Nonlinear Control, 2022, 32, 2251-2272.	2.1	5

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109	Traffic Sign Based Point Cloud Data Registration with Roadside LiDARs in Complex Traffic Environments. Electronics (Switzerland), 2022, 11, 1559.	1.8	5
110	Application of support vector machine to ship steering. Journal of Shanghai Jiaotong University (Science), 2009, 14, 462-466.	0.5	4
111	Path following control of underactuated ships based on nonswitch analytic model predictive control. Journal of Control Theory and Applications, 2010, 8, 429-434.	0.8	4
112	A novel single fuzzy approximation based adaptive control for a class of uncertain strict-feedback discrete-time nonlinear systems. Neurocomputing, 2015, 167, 179-186.	3.5	4
113	DSC Approach to Robust Adaptive Fuzzy Tracking Control for Strict-Feedback Nonlinear Systems. , 2008, , .		2
114	A novel adaptive NN control for a class of strict-feedback nonlinear systems. , 2009, , .		2
115	Adaptive fuzzy backstepping dynamic surface control of uncertain nonlinear systems based on filters. , 2012, , .		2
116	Terminal sliding mode control for anti-synchronization of chaotic systems containing dead-zone nonlinearity. , 2014, , .		2
117	A Euclidean metric based voice feature extraction method using IDCT cepstrum coefficient. , 2019, , .		2
118	Observer-based adaptive fuzzy prescribed performance control for intelligent ship autopilot. Systems Science and Control Engineering, 2021, 9, 489-496.	1.8	2
119	Perceptual Fusion of Electronic Chart and Marine Radar Image. Journal of Marine Science and Engineering, 2021, 9, 1245.	1.2	2
120	A simple adaptive fuzzy control for a class of strict-feedback SISO systems. , 2009, , .		1
121	Synchronization of uncertain chaotic systems via an adaptive terminal sliding mode control. , 2014, , .		1
122	A collision feedback based multiple access control protocol for very high frequency data exchange system in E-navigation. Journal of Navigation, 2021, 74, 822-837.	1.0	1
123	Robust adaptive fuzzy control of nonlinear systems with input saturation based on DSC and K-filter techniques. , 2012, , .		0
124	A novel adaptive fuzzy control for a class of discrete-time nonlinear systems in strict-feedback form. , 2014, , .		0
125	Direct adaptive neural network control of a class of nonlinear systems. , 2014, , .		0
126	Neural network based robust adaptive tracking control for the automomous underwater vehicle. , 2016, , .		0

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127	Design of Ship Heading Autopilot with Input Time-Delay. , 2019, , .		0
128	Integral Backstepping Based ADRC for Path Following of Underactuated Surface Vessel. , 2021, , .		0
129	Power Management Method for Clean Energy Ships Based on Supply Capacity Constraints. , 2021, , .		0
130	A Novel Reinforcement Learning Control for a class of Strict-feedback Discrete-time Systems via Multi-Gradient Recursive. , 2021, , .		0
131	ESO-based guidance law for distributed path maneuvering of multiple autonomous surface vehicles with a time-varying formation. , 2020, , 287-308.		0
132	Online optimal control for nonlinear fin stabilizer system of marine vessels via time-based ADP algorithm. , 2020, , .		0