

# Teh-Lu Liao

## List of Publications by Year in descending order

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138  
papers

4,084  
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168829

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150775

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g-index

139  
all docs

139  
docs citations

139  
times ranked

2480  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chaos-Based Secure Communications in Biomedical Information Application. Electronics (Switzerland), 2021, 10, 359.	1.8	24
2	Realization of a Secure Visible Light Communication System via Chaos Synchronization. Mathematical Problems in Engineering, 2021, 2021, 1-12.	0.6	4
3	Nonlinear Dynamics and Control of a Cube Robot. Mathematics, 2020, 8, 1840.	1.1	3
4	Counting Classical Nodes in Quantum Networks. Physical Review Letters, 2020, 124, 180503.	2.9	8
5	Power output efficiency in large wind farms with different hub heights and configurations. Renewable Energy, 2019, 132, 941-949.	4.3	40
6	Discrete Sliding Mode Control for Chaos Synchronization and Its Application to an Improved El-Gamal Cryptosystem. Symmetry, 2019, 11, 843.	1.1	11
7	Design of Synchronized Large-Scale Chaos Random Number Generators and Its Application to Secure Communication. Applied Sciences (Switzerland), 2019, 9, 185.	1.3	11
8	Improved Attribute-Based Encryption Using Chaos Synchronization and Its Application to MQTT Security. Applied Sciences (Switzerland), 2019, 9, 4454.	1.3	15
9	Distributed adaptive dynamic surface formation control for uncertain multiple quadrotor systems with interval type-2 fuzzy neural networks. Transactions of the Institute of Measurement and Control, 2019, 41, 1861-1879.	1.1	8
10	Discrete sliding mode control for hybrid synchronization of continuous Lorenz systems with matched/unmatched disturbances. Transactions of the Institute of Measurement and Control, 2018, 40, 1417-1424.	1.1	16
11	Design of High-Security USB Flash Drives Based on Chaos Authentication. Electronics (Switzerland), 2018, 7, 82.	1.8	9
12	Distributed Sliding-Mode Formation Controller Design for Multirobot Dynamic Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	0.9	2
13	Design of an Improved RSA Cryptosystem Based on Synchronization of Discrete Chaotic Systems. , 2016, , .		4
14	Real-Time Driver Drowsiness Detection System Based on PERCLOS and Grayscale Image Processing. , 2016, , .		37
15	No-cloning of quantum steering. Npj Quantum Information, 2016, 2, .	2.8	48
16	Improved Adaptive Sliding Mode Control for a Class of Uncertain Nonlinear Systems Subjected to Input Nonlinearity via Fuzzy Neural Networks. Mathematical Problems in Engineering, 2015, 2015, 1-13.	0.6	6
17	Adaptive tracking control for an uncertain chaotic permanent magnet synchronous motor based on fuzzy neural networks. JVC/Journal of Vibration and Control, 2015, 21, 580-590.	1.5	13
18	Robust Synchronization of Fractional-Order Hyperchaotic Systems Subjected to Input Nonlinearity and Unmatched External Perturbations. Abstract and Applied Analysis, 2014, 2014, 1-8.	0.3	1

#	ARTICLE	IF	CITATIONS
19	An Improved Adaptive Tracking Controller of Permanent Magnet Synchronous Motor. Abstract and Applied Analysis, 2014, 2014, 1-12.	0.3	2
20	Adaptive Sliding Mode Control of Chaos in Permanent Magnet Synchronous Motor via Fuzzy Neural Networks. Mathematical Problems in Engineering, 2014, 2014, 1-11.	0.6	18
21	Iterative Synchronization-Assisted Detection of OFDM Signals in Cognitive Radio Systems. IEEE Transactions on Vehicular Technology, 2014, 63, 1633-1644.	3.9	16
22	An improved real-time positioning method of indoor navigation system based on IEEE 802.11 Wlan. , 2014, , .		0
23	Robust chaos suppression design for a nonlinear energy resource system with uncertainties in the control input. , 2013, , .		1
24	Design and Synchronization of Master-Slave Electronic Horizontal Platform System. Discrete Dynamics in Nature and Society, 2012, 2012, 1-11.	0.5	2
25	Design and implementation of the Sprott chaotic secure digital communication systems. Applied Mathematics and Computation, 2012, 218, 11799-11805.	1.4	25
26	The design of quasi-sliding mode control for a permanent magnet synchronous motor with unmatched uncertainties. Computers and Mathematics With Applications, 2012, 64, 1036-1043.	1.4	31
27	Sliding mode control design for generalized projective synchronization of unified chaotic systems containing nonlinear inputs. JVC/Journal of Vibration and Control, 2012, 18, 808-816.	1.5	10
28	Quasi sliding mode control for chaotic symmetric gyros with linear-plus-cubic damping and input nonlinearity. JVC/Journal of Vibration and Control, 2012, 18, 1330-1335.	1.5	14
29	Passivity analysis for uncertain discrete switched systems with interval time-varying delay. , 2012, , .		0
30	H <sub>∞</sub> SYNCHRONIZATION OF SWITCHED CHAOTIC SYSTEMS AND ITS APPLICATION TO SECURE COMMUNICATIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250058.	0.7	7
31	T-S fuzzy design for permanent magnet synchronous motor control system via sliding mode control. , 2012, , .		1
32	Finite-time synchronization of switched stochastic Rössler systems. Nonlinear Dynamics, 2012, 70, 315-322.	2.7	6
33	Volterra system-based neural network modeling by particle swarm optimization approach. Neurocomputing, 2012, 82, 179-185.	3.5	12
34	Robust synchronization for a class of chaotic systems via quasi sliding mode control. , 2011, , .		0
35	Design of random digital sequence generators and its application of secure communication. , 2011, , .		1
36	Partial Finite-Time Synchronization of Switched Stochastic Chua's Circuits via Sliding-Mode Control. Mathematical Problems in Engineering, 2011, 2011, 1-13.	0.6	7

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37	Quasi-Sliding Mode Control of Chaos in Permanent Magnet Synchronous Motor. Mathematical Problems in Engineering, 2011, 2011, 1-10.	0.6	16
38	Implementation of Synchronized Chaotic $L^{\frac{1}{4}}$ Systems and Its Application in Secure Communication Using $\Psi$ PSO-Based PI Controller. Circuits, Systems, and Signal Processing, 2010, 29, 527-538.	1.2	19
39	Exponential synchronization of chaotic systems subject to uncertainties in the control input. Applied Mathematics and Computation, 2010, 216, 2441-2449.	1.4	11
40	Design and implementation of digital secure communication based on synchronized chaotic systems. , 2010, 20, 229-237.		52
41	Human face recognition system using modified PCA algorithm and ARM platform. , 2010, , .		3
42	Based on sliding mode control to synchronize of switched fractional Lorenz systems. , 2010, , .		1
43	Time-driven switching synchronization of modified Chua's Circuit systems via sliding mode control. , 2010, , .		1
44	Design of active queue management algorithms for TCP networks: Nonlinear output feedback approach. , 2010, , .		3
45	Implementation of electronic horizontal platform system. , 2009, , .		0
46	Guaranteed cost control for uncertain non-linear systems with time-varying delays using Tâ€™S fuzzy model. International Journal of General Systems, 2009, 38, 485-504.	1.2	6
47	Design and Implementation of Real-Time Object Tracking System Using the Gaussian Motion Model and the Otsu Algorithm. , 2009, , .		2
48	Robust Synchronization of Fractional Chaotic Systems via Adaptive Sliding Mode Control. International Journal of Nonlinear Sciences and Numerical Simulation, 2009, 10, .	0.4	9
49	Reliable synchronization of nonlinear chaotic systems. Mathematics and Computers in Simulation, 2009, 79, 1627-1635.	2.4	20
50	Synchronization of two chaotic systems: Dynamic compensator approach. Chaos, Solitons and Fractals, 2009, 39, 1055-1063.	2.5	7
51	Active queue management controller design for TCP communication networks: Variable structure control approach. Chaos, Solitons and Fractals, 2009, 40, 277-285.	2.5	17
52	Adaptive variable structure control for chaos suppression of unified chaotic systems. Applied Mathematics and Computation, 2009, 209, 391-398.	1.4	21
53	GA-based PID active queue management control design for a class of TCP communication networks. Expert Systems With Applications, 2009, 36, 1903-1913.	4.4	32
54	Robust Synchronization of Fractional Lorenz Systems Containing Nonlinear Inputs. , 2009, , .		0

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55	H8 Synchronization of Switched Chaotic Systems via Output Feedback Control. , 2009, , .		0
56	Sliding mode control design for fractional chaotic systems. , 2009, , .		1
57	Impulsive synchronization of chaotic systems via linear matrix inequality approach. , 2009, , .		0
58	Message Masking Communication of Switched Chaotic Systems. , 2009, , .		0
59	A New Structure of Chaotic Secure Communication in Wireless AWGN Channel. , 2009, , .		2
60	Robust active queue management controller design for a stochastic TCP/AQM system. , 2009, , .		2
61	Adaptive synchronization for nonlinear FitzHugh-Nagumo neurons in external electrical stimulation. International Journal of Adaptive Control and Signal Processing, 2008, 22, 833-844.	2.3	9
62	Projective synchronization of Chua's chaotic systems with dead-zone in the control input. Mathematics and Computers in Simulation, 2008, 77, 374-382.	2.4	26
63	An EP algorithm for stability analysis of interval neutral delay-differential systems. Expert Systems With Applications, 2008, 34, 920-924.	4.4	8
64	EP-based PID control design for chaotic synchronization with application in secure communication. Expert Systems With Applications, 2008, 34, 1169-1177.	4.4	50
65	Optimal PID control design for synchronization of delayed discrete chaotic systems. Chaos, Solitons and Fractals, 2008, 35, 781-785.	2.5	30
66	Generalized projective synchronization of chaotic nonlinear gyros coupled with dead-zone input. Chaos, Solitons and Fractals, 2008, 35, 181-187.	2.5	25
67	Synchronization of a modified Chua's circuit system via adaptive sliding mode control. Chaos, Solitons and Fractals, 2008, 36, 45-52.	2.5	28
68	Controlling chaos of the family of Rössler systems using sliding mode control. Chaos, Solitons and Fractals, 2008, 37, 609-622.	2.5	45
69	Robust chaos synchronization of noise-perturbed chaotic systems with multiple time-delays. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 3093-3102.	1.2	28
70	Parameter identification of chaotic systems using evolutionary programming approach. Expert Systems With Applications, 2008, 35, 2074-2079.	4.4	43
71	Anti-synchronization of uncertain unified chaotic systems with dead-zone nonlinearity. Nonlinear Analysis: Theory, Methods & Applications, 2008, 68, 2629-2637.	0.6	63
72	Robust chaos suppression for the family of nonlinear chaotic systems with noise perturbation. Nonlinear Analysis: Theory, Methods & Applications, 2008, 69, 14-23.	0.6	13

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73	Adaptive synchronization of chaotic systems via T-S fuzzy model. , 2008, , .		0
74	Chaos synchronization of a horizontal platform system via output feedback control. , 2008, , .		1
75	Chaos suppression of generalized Lorenz system: Adaptive fuzzy sliding mode control approach. , 2008, , .		2
76	ELBOW LOAD DURING DIFFERENT TYPES OF BENCH-PRESS EXERCISE. Biomedical Engineering - Applications, Basis and Communications, 2008, 20, 185-189.	0.3	2
77	Sliding mode control for synchronization of Rössler systems with time delays and its application to secure communication. Physica Scripta, 2007, 76, 436-441.	1.2	22
78	Stability analysis of neural networks with interval time-varying delays. Chaos, 2007, 17, 033120.	1.0	14
79	Stability Analysis of Takagi-Sugeno Fuzzy Cellular Neural Networks With Time-Varying Delays. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 720-726.	5.5	52
80	Controlling chaos of a chaotic nonlinear gyro using variable structure control. Mechanical Systems and Signal Processing, 2007, 21, 2515-2522.	4.4	25
81	Design of robust active queue management controllers for a class of TCP communication networks. Information Sciences, 2007, 177, 4059-4071.	4.0	47
82	Decentralized control for synchronization of delayed neural networks subject to dead-zone nonlinearity. Nonlinear Analysis: Theory, Methods & Applications, 2007, 67, 1980-1987.	0.6	10
83	Global asymptotic stability for a class of nonlinear neural networks with multiple delays. Nonlinear Analysis: Theory, Methods & Applications, 2007, 67, 3037-3040.	0.6	22
84	H $\infty$ synchronization of chaotic systems using output feedback control design. Physica A: Statistical Mechanics and Its Applications, 2007, 379, 81-89.	1.2	97
85	On the synchronization of neural networks containing time-varying delays and sector nonlinearity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 361, 70-77.	0.9	24
86	Robust dynamic compensator for a class of time delay systems containing saturating control input. Chaos, Solitons and Fractals, 2007, 31, 1223-1231.	2.5	7
87	Adaptive Chaos Synchronization of FitzHugh-Nagumo Neurons. Communications in Computer and Information Science, 2007, , 142-150.	0.4	1
88	Exponential synchronization of a class of neural networks with time-varying delays. IEEE Transactions on Systems, Man, and Cybernetics, 2006, 36, 209-215.	5.5	96
89	Globally Asymptotic Stability of a Class of Neutral-Type Neural Networks With Delays. IEEE Transactions on Systems, Man, and Cybernetics, 2006, 36, 1191-1195.	5.5	77
90	A cell counting/sorting system incorporated with a microfabricated flow cytometer chip. Measurement Science and Technology, 2006, 17, 2001-2009.	1.4	117

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91	Generalized projective synchronization of chaotic systems with unknown dead-zone input: Observer-based approach. <i>Chaos</i> , 2006, 16, 033125.	1.0	25
92	Image-processing algorithms realized by discrete-time cellular neural networks and their circuit implementations. <i>Chaos, Solitons and Fractals</i> , 2006, 29, 1100-1108.	2.5	52
93	A non-correlator-based digital communication system using interleaved chaotic differential peaks keying (I-CDPK) modulation and chaotic synchronization. <i>Chaos, Solitons and Fractals</i> , 2006, 29, 965-977.	2.5	3
94	Adaptive sliding mode control for synchronization of chaotic gyros with fully unknown parameters. <i>Journal of Sound and Vibration</i> , 2006, 298, 298-306.	2.1	76
95	High accuracy ultrasonic air temperature measurement using multi-frequency continuous wave. <i>Sensors and Actuators A: Physical</i> , 2006, 132, 526-532.	2.0	46
96	Robust control of chaos in Lorenz systems subject to mismatch uncertainties. <i>Chaos, Solitons and Fractals</i> , 2006, 27, 501-510.	2.5	17
97	SYNCHRONIZATION CONTROL OF NEURAL NETWORKS SUBJECT TO TIME-VARYING DELAYS AND INPUT NONLINEARITY. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2006, 16, 3643-3654.	0.7	3
98	Exponential synchronization of a class of chaotic neural networks. <i>Chaos, Solitons and Fractals</i> , 2005, 24, 197-206.	2.5	75
99	Design of secure digital communication systems using chaotic modulation, cryptography and chaotic synchronization. <i>Chaos, Solitons and Fractals</i> , 2005, 24, 241-255.	2.5	80
100	Chaotic synchronization via adaptive sliding mode observers subject to input nonlinearity. <i>Chaos, Solitons and Fractals</i> , 2005, 24, 371-381.	2.5	46
101	New implementation of high-precision and instant-response air thermometer by ultrasonic sensors. <i>Sensors and Actuators A: Physical</i> , 2005, 117, 88-94.	2.0	18
102	Synchronization of neural networks by decentralized feedback control. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 338, 28-35.	0.9	45
103	Globally exponential stability condition of a class of neural networks with time-varying delays. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 339, 333-342.	0.9	31
104	Synchronization of unidirectional coupled chaotic systems with unknown channel time-delay: Adaptive robust observer-based approach. <i>Chaos, Solitons and Fractals</i> , 2005, 26, 971-978.	2.5	40
105	Optimal control of quantum systems: a projection approach. <i>Journal of Physics A</i> , 2005, 38, 929-942.	1.6	2
106	An ultrasonic air temperature measurement system with self-correction function for humidity. <i>Measurement Science and Technology</i> , 2005, 16, 548-555.	1.4	65
107	Design of secure digital communication systems using chaotic modulation, cryptography and chaotic synchronization. <i>Chaos, Solitons and Fractals</i> , 2005, 24, 241-255.	2.5	42
108	A new ultrasonic temperature measurement system for air conditioners in automobiles. <i>Measurement Science and Technology</i> , 2004, 15, 413-419.	1.4	14

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109	Globally exponential stability of generalized Cohenâ€“Grossberg neural networks with delays. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 319, 157-166.	0.9	112
110	Variable Structure Controller Design for Output Tracking of a Class of Discrete-time Nonlinear Systems.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2002, 45, 462-469.	0.3	1
111	Nonlinear linearization controller and genetic algorithm-based fuzzy logic controller for ABS systems and their comparison. International Journal of Vehicle Design, 2000, 24, 334.	0.1	12
112	Adaptive synchronization of chaotic systems and its application to secure communications. Chaos, Solitons and Fractals, 2000, 11, 1387-1396.	2.5	488
113	An exponentially stable adaptive friction compensator. IEEE Transactions on Automatic Control, 2000, 45, 977-980.	3.6	49
114	Global stability for cellular neural networks with time delay. IEEE Transactions on Neural Networks, 2000, 11, 1481-1484.	4.8	211
115	Global stability condition for cellular neural networks with delay. Electronics Letters, 1999, 35, 1347.	0.5	33
116	Design of an adaptive nonlinear controller to improve stabilization of a power system. International Journal of Electrical Power and Energy Systems, 1999, 21, 433-441.	3.3	10
117	Adaptive control and synchronization of Lorenz systems. Journal of the Franklin Institute, 1999, 336, 925-937.	1.9	112
118	Design and circuit simulation of observer-based chaotic synchronization and communication systems. International Journal of Electronics, 1999, 86, 1423-1440.	0.9	8
119	An observer-based approach for chaotic synchronization with applications to secure communications. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1999, 46, 1144-1150.	0.1	310
120	Genetic algorithm-based self-learning fuzzy PI controller for buck converter. European Transactions on Electrical Power, 1999, 9, 233-239.	1.0	7
121	Synchronisation of hyperchaotic oscillator using scalar transmitted signal. Electronics Letters, 1999, 35, 245.	0.5	1
122	ADAPTIVE CONTROL AND SYNCHRONIZATION OF CHUA'S CIRCUITS. Asian Journal of Control, 1999, 1, 75-87.	1.9	10
123	Adaptive Synchronization of Two Lorenz Systemsfn1fn1Communicated by Prof. Y. H. Ichikawa.. Chaos, Solitons and Fractals, 1998, 9, 1555-1561.	2.5	142
124	Control of Chua's circuit with a cubic nonlinearity via nonlinear linearization technique. Circuits, Systems, and Signal Processing, 1998, 17, 719-731.	1.2	24
125	Adaptive robust neural tracking control of a class of unknown nonlinear systems. International Journal of Systems Science, 1998, 29, 731-743.	3.7	1
126	Observer-based approach for controlling chaotic systems. Physical Review E, 1998, 57, 1604-1610.	0.8	26



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127	Adaptive Robust Control for Nonlinear Systems with Mismatched Uncertainties.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1998, 41, 751-758.	0.3	0
128	Adaptive Output Tracking of Unknown MIMO Nonlinear Systems Using Radial Basis Function Neural Networks. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1997, 40, 52-59.	0.1	4
129	Adaptive tracking control of a class of nonlinear systems using CMAC network. Journal of the Franklin Institute, 1996, 333, 861-878.	1.9	5
130	Stabilization of nonlinear singularly perturbed systems using multilayered neural networks. Journal of the Franklin Institute, 1995, 332, 607-618.	1.9	3
131	Robust output tracking for nonlinear systems with weakly non-minimum phase. International Journal of Control, 1993, 58, 301-316.	1.2	16
132	Output tracking control of nonlinear systems with mismatched uncertainties. Systems and Control Letters, 1992, 18, 39-47.	1.3	59
133	Output Tracking Control of Nonlinear Systems with Weakly Non-minimum Phase. , 1992, , .		0
134	Robust Output Tracking Control of Mismatched Uncertain Nonlinear Systems. , 1991, , .		1
135	Adaptive robust tracking of nonlinear systems and with an application to a robotic manipulator. Systems and Control Letters, 1990, 15, 339-348.	1.3	35
136	Globally stable robust tracking of nonlinear systems using variable structure control and with an application to a robotic manipulator. IEEE Transactions on Automatic Control, 1990, 35, 1345-1350.	3.6	97
137	Chaotic secure communication systems design via nonlinear state observer technique. , 0, , .		1
138	On global stability of planar systems with state-dependent Riccati equation control. Asian Journal of Control, 0, , .	1.9	1