

John T Wen

List of Publications by Year in descending order

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152
papers

6,725
citations

87723

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69108

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152
all docs

152
docs citations

152
times ranked

3495
citing authors

#	ARTICLE	IF	CITATIONS
1	Oscillatory valve effect on temperature synchronization in microchannel cooling systems. Applied Thermal Engineering, 2022, 204, 117999.	3.0	3
2	Trajectory Generation for Flexible-Joint Space Manipulators. Frontiers in Robotics and AI, 2022, 9, 687595.	2.0	8
3	Human Alertness Optimization with a Three-Process Dynamic Model. Mathematics, 2022, 10, 1916.	1.1	1
4	Effect of Oscillatory Heat Load on Pressure Drop Oscillation. International Journal of Heat and Mass Transfer, 2022, 194, 123077.	2.5	4
5	Dynamic Control of Pressure Drop Oscillation in a Microchannel Cooling System. Heat Transfer Engineering, 2021, 42, 517-532.	1.2	10
6	Dynamic control of microchannel cooling system with unanticipated evaporator heat loads. Applied Thermal Engineering, 2021, 183, 116225.	3.0	9
7	Building Comfort and Environmental Control. , 2021, , 169-174.		0
8	A Comparison of Finite Element and Lumped Modeling Techniques to Analyze Flow Boiling in Microchannels. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1655-1667.	1.4	4
9	The analysis and prediction of pressure drop oscillation in phase-change cooling systems. International Journal of Heat and Mass Transfer, 2021, 165, 120621.	2.5	12
10	Sensor-Guided Assembly of Segmented Structures with Industrial Robots. Applied Sciences (Switzerland), 2021, 11, 2669.	1.3	5
11	Industrial Robot Trajectory Tracking Control Using Multi-Layer Neural Networks Trained by Iterative Learning Control. Robotics, 2021, 10, 50.	2.1	20
12	Automatic sleeping time estimation and mild traumatic brain injury (mTBI) detection using actigraphy data. Biomedical Signal Processing and Control, 2021, 66, 102430.	3.5	1
13	Manipulation of Massive Objects in Space Using Flexible Joint Manipulators. Journal of Guidance, Control, and Dynamics, 2021, 44, 923-937.	1.6	5
14	Optimization of light exposure and sleep schedule for circadian rhythm entrainment. PLoS ONE, 2021, 16, e0251478.	1.1	6
15	Experimental Study and Mitigation of Pressure Drop Oscillation Using Active Control. Journal of Electronic Packaging, Transactions of the ASME, 2021, 143, .	1.2	3
16	Active grain growth control with distributed heating. Acta Materialia, 2020, 183, 301-312.	3.8	0
17	Moving boundary model for dynamic control of multi-evaporator cooling systems facing variable heat loads. International Journal of Refrigeration, 2020, 120, 481-492.	1.8	11
18	Robotic Deep Rolling With Iterative Learning Motion and Force Control. IEEE Robotics and Automation Letters, 2020, 5, 5581-5588.	3.3	17

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19	Comparing Position- and Image-Based Visual Servoing for Robotic Assembly of Large Structures. , 2020, , .		5
20	Actigraphy-based parameter tuning process for adaptive notch filter and circadian phase shift estimation. Chronobiology International, 2020, 37, 1552-1564.	0.9	6
21	Adaptive Neural Trajectory Tracking Control for Flexible-Joint Robots with Online Learning. , 2020, , .		10
22	Temperature synchronization across parallel microchannels during flow boiling. International Journal of Thermal Sciences, 2020, 156, 106476.	2.6	15
23	Building Comfort and Environmental Control. , 2020, , 1-7.		0
24	Asymptotic Synchronization of Phase Oscillators With a Single Input. IEEE Transactions on Automatic Control, 2019, 64, 1611-1618.	3.6	4
25	A Multi-Sensor Next-Best-View Framework for Geometric Model-Based Robotics Applications. , 2019, , .		5
26	Assessing circadian rhythms and entrainment via intracranial temperature after severe head trauma. Biomedical Signal Processing and Control, 2019, 54, 101610.	3.5	2
27	Characteristics of pressure drop oscillation in a microchannel cooling system. Applied Thermal Engineering, 2019, 160, 113849.	3.0	18
28	Database-Driven Iterative Learning for Building Temperature Control. IEEE Transactions on Automation Science and Engineering, 2019, 16, 1896-1906.	3.4	25
29	Rapid Circadian Entrainment in Models of Circadian Genes Regulation. , 2019, , .		1
30	Neural-Learning Trajectory Tracking Control of Flexible-Joint Robot Manipulators with Unknown Dynamics. , 2019, , .		9
31	Time optimal entrainment control for circadian rhythm. PLoS ONE, 2019, 14, e0225988.	1.1	17
32	Incentive-Based Mechanism for Truthful Occupant Comfort Feedback in Human-in-the-Loop Building Thermal Management. IEEE Systems Journal, 2018, 12, 3725-3736.	2.9	15
33	Collaborative manipulation with multiple dual-arm robots under human guidance. International Journal of Intelligent Robotics and Applications, 2018, 2, 252-266.	1.6	17
34	Singular Perturbation Method for Smart Building Temperature Control Using Occupant Feedback. Asian Journal of Control, 2018, 20, 386-402.	1.9	16
35	Slip Avoidance in Dual-Arm Manipulation. , 2018, , .		4
36	Software Framework for Robot-Assisted Large Structure Assembly. , 2018, , .		4

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37	Analysis and Active Control of Pressure Drop Oscillation in Microchannel Vapor Compression Cycle. , 2018, , .		7
38	Hierarchical Systems Level Thermal Management for Multiple High Transient Heat Loads. , 2018, , 39-90.		0
39	Entrainment Control of Phase Dynamics. IEEE Transactions on Automatic Control, 2017, 62, 445-450.	3.6	13
40	Inverse heat transfer analysis for design and control of a micro-heater array. Inverse Problems in Science and Engineering, 2017, 25, 1259-1277.	1.2	0
41	Human-directed coordinated control of an assistive mobile manipulator. International Journal of Intelligent Robotics and Applications, 2017, 1, 104-120.	1.6	13
42	Iterative Learning Control for Coupled Temperature and Humidity in Buildings. IFAC-PapersOnLine, 2017, 50, 13420-13425.	0.5	7
43	Time-optimal control for circadian entrainment for a model with circadian and sleep dynamics. , 2017, , .		5
44	Multi-input adaptive notch filter and observer for circadian phase estimation. International Journal of Adaptive Control and Signal Processing, 2016, 30, 1375-1388.	2.3	7
45	Model predictive control of vapor compression cycle for large transient heat flux cooling. , 2016, , .		4
46	Material grain growth consensus control: A multi-zone heating approach applied on a Monte-Carlo model. , 2016, , .		2
47	Substrates with Programmable Heater Arrays for In-Situ Observation of Microstructural Evolution of Polycrystalline Films: Towards Real Time Control of Grain Growth. MRS Advances, 2016, 1, 1947-1952.	0.5	2
48	BEES: Real-time occupant feedback and environmental learning framework for collaborative thermal management in multi-zone, multi-occupant buildings. Energy and Buildings, 2016, 125, 142-152.	3.1	63
49	A comfort zone set-based approach for coupled temperature and humidity control in buildings. , 2016, , .		8
50	Motion Blur-Based State Estimation. IEEE Transactions on Control Systems Technology, 2016, 24, 1012-1019.	3.2	6
51	Light-based circadian rhythm control: Entrainment and optimization. Automatica, 2016, 68, 44-55.	3.0	17
52	Design and instrumentation of an intelligent building testbed. , 2015, , .		13
53	Finite element model based temperature consensus control for material microstructure. , 2015, , .		3
54	Collaborative Energy and Thermal Comfort Management Through Distributed Consensus Algorithms. IEEE Transactions on Automation Science and Engineering, 2015, 12, 1285-1296.	3.4	42

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55	Human-directed robot motion/force control for contact tasks in unstructured environments. , 2015, , .		5
56	Collaborative human-robot manipulation of highly deformable materials. , 2015, , .		47
57	Human-robot cooperative control for mobility impaired individuals. , 2015, , .		4
58	Application of the Smith-Åström Predictor to robot force control. , 2015, , .		0
59	A Sensor-Based Dual-Arm Tele-Robotic System. IEEE Transactions on Automation Science and Engineering, 2015, 12, 4-18.	3.4	75
60	Office building model identification and control design. , 2014, , .		5
61	Groundhog Day: Iterative learning for building temperature control. , 2014, , .		14
62	Modeling and control of color tunable lighting systems. Energy and Buildings, 2014, 68, 242-253.	3.1	60
63	Jamster: A mobile dual-arm assistive robot with Jamboxx control. , 2014, , .		11
64	Vapor compression refrigeration cycle for electronics cooling â€œ Part I: Dynamic modeling and experimental validation. International Journal of Heat and Mass Transfer, 2013, 66, 911-921.	2.5	37
65	Passivity based distributed control: Optimality, stability and robustness. , 2013, , .		1
66	Vapor compression refrigeration cycle for electronics cooling â€œ Part II: gain-scheduling control for critical heat flux avoidance. International Journal of Heat and Mass Transfer, 2013, 66, 922-929.	2.5	19
67	Adaptive circadian argument estimator and its application to circadian argument control. , 2013, , .		3
68	Building temperature control with adaptive feedforward. , 2013, , .		15
69	Optimal and feedback control for light-based circadian entrainment. , 2013, , .		2
70	Modeling and control of single and multiple evaporator vapor compression cycles for electronics cooling. , 2013, , .		8
71	Building temperature control: A passivity-based approach. , 2012, , .		39
72	Optimal circadian rhythm control with light input for rapid entrainment and improved vigilance. , 2012, , .		15

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73	Automated Multiprobe Microassembly Using Vision Feedback. IEEE Transactions on Robotics, 2012, 28, 1090-1103.	7.3	60
74	Adaptive circadian rhythm estimator and its application to locomotor activity. , 2012, , .		5
75	Robot Raconteur: A communication architecture and library for robotic and automation systems. , 2011, , .		23
76	Stability analysis and maldistribution control of two-phase flow in parallel evaporating channels. International Journal of Heat and Mass Transfer, 2011, 54, 5298-5305.	2.5	58
77	Two-phase refrigerant flow instability analysis and active control in transient electronics cooling systems. International Journal of Multiphase Flow, 2011, 37, 84-97.	1.6	75
78	Hybrid model reduction for compressible flow controller design. , 2011, , .		2
79	Cooperative Control Design. Communications and Control Engineering, 2011, , .	1.0	126
80	The steady-state modeling and optimization of a refrigeration system for high heat flux removal. Applied Thermal Engineering, 2010, 30, 2347-2356.	3.0	49
81	Analysis and active control of pressure-drop flow instabilities in boiling microchannel systems. International Journal of Heat and Mass Transfer, 2010, 53, 2347-2360.	2.5	119
82	Experimental identification of evaporator dynamics for vapor compression refrigeration cycle during phase transition. , 2010, , .		4
83	Wide Field Scanning Telescope Using MEMS Deformable Mirrors. International Journal of Optomechatronics, 2010, 4, 285-305.	3.3	8
84	Image Tracking of Multiple <i>C. Elegans</i> Worms Using Adaptive Scanning Optical Microscope (ASOM). International Journal of Optomechatronics, 2010, 4, 1-21.	3.3	1
85	Modeling and control of a fast steering mirror in imaging applications. , 2010, , .		5
86	Circadian system modeling and phase control. , 2010, , .		13
87	Low-order nonlinear models for active flow control of a low L/D inlet duct. , 2010, , .		1
88	Cooperative Load Transport: A Formation-Control Perspective. IEEE Transactions on Robotics, 2010, 26, 742-750.	7.3	114
89	Two-phase flow instability analysis for transient electronics cooling. , 2010, , .		0
90	Coverage of a Planar Point Set With Multiple Robots Subject to Geometric Constraints. IEEE Transactions on Automation Science and Engineering, 2010, 7, 111-122.	3.4	17

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91	Micro-thermal-fluid transient analysis and active control for two-phase microelectronics cooling. , 2010, , .		2
92	Motion coordination through cooperative payload transport. , 2009, , .		3
93	Experimental verification of formation control with distributed cameras. , 2009, , .		2
94	Ledinegg instability in microchannels. International Journal of Heat and Mass Transfer, 2009, 52, 5661-5674.	2.5	155
95	Adaptive motion coordination: Using relative velocity feedback to track a reference velocity. Automatica, 2009, 45, 1020-1025.	3.0	94
96	Automation of Challenging Spatial-Temporal Biomedical Observations With the Adaptive Scanning Optical Microscope (ASOM). IEEE Transactions on Automation Science and Engineering, 2009, 6, 525-535.	3.4	11
97	Stability analysis of refrigeration systems for electronics cooling. , 2009, , .		2
98	Power control for multicell CDMA wireless networks: A team optimization approach. Wireless Networks, 2008, 14, 647-657.	2.0	55
99	Adaptive design for reference velocity recovery in motion coordination. Systems and Control Letters, 2008, 57, 602-610.	1.3	94
100	Rigid body attitude coordination without inertial frame information. Automatica, 2008, 44, 3170-3175.	3.0	142
101	Design of Adaptive Optics Based Systems by Using MEMS Deformable Mirror Models. International Journal of Optomechatronics, 2008, 2, 104-125.	3.3	4
102	Off-axis aberration correction for a wide field scanning telescope. , 2008, , .		1
103	Passivity based iterative learning control for mechanical systems subject to dry friction. , 2008, , .		5
104	Adaptive motion coordination: Using velocity feedback to achieve parameter convergence. , 2008, , .		0
105	Using orientation agreement to achieve planar rigid formation. , 2008, , .		5
106	Robust Control for Linear Stages in Electronic Manufacturing. Proceedings of the American Control Conference, 2007, , .	0.0	0
107	A decentralized design for group alignment and synchronous rotation without inertial frame information. , 2007, , .		7
108	High Performance Motion Tracking Control for Electronic Manufacturing. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2007, 129, 767-776.	0.9	38

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109	Iterative learning control for nonsmooth dynamical systems. , 2007, , .		1
110	Group Coordination when the Reference Velocity is Available Only to the Leader: An Adaptive Design. Proceedings of the American Control Conference, 2007, , .	0.0	7
111	Coverage of a Planar Point Set with Multiple Constrained Robots. , 2007, , .		4
112	BP neural network prediction-based variable-period sampling approach for networked control systems. Applied Mathematics and Computation, 2007, 185, 976-988.	1.4	135
113	A Two-Time-Scale Design for Edge-Based Detection and Rectification of Uncooperative Flows. IEEE/ACM Transactions on Networking, 2006, 14, 1313-1322.	2.6	8
114	Determination of unstable singularities in parallel robots with N arms. , 2006, 22, 160-167.		17
115	Automation of Challenging Spatial-Temporal Biomedical Observations with the Adaptive Scanning Optical Microscope (ASOM). , 2006, , .		4
116	Adaptive Scanning Optical Microscope (ASOM): A multidisciplinary optical microscope design for large field of view and high resolution imaging. Optics Express, 2005, 13, 6504.	1.7	90
117	Order Reduction for Large-Scale Finite Element Models: A Systems Perspective. International Journal for Multiscale Computational Engineering, 2005, 3, 337-362.	0.8	12
118	Nonlinear Model Predictive Control for the Swing-Up of a Rotary Inverted Pendulum. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2004, 126, 666-673.	0.9	39
119	Robustness of network flow control against disturbances and time-delay. Systems and Control Letters, 2004, 53, 13-29.	1.3	39
120	A Unifying Passivity Framework for Network Flow Control. IEEE Transactions on Automatic Control, 2004, 49, 162-174.	3.6	175
121	Singularities in three-legged platform-type parallel mechanisms. IEEE Transactions on Automation Science and Engineering, 2003, 19, 720-726.	2.4	32
122	SINGULARITY COMPUTATION FOR ITERATIVE CONTROL OF NONLINEAR AFFINE SYSTEMS. Asian Journal of Control, 2000, 2, 57-75.	1.9	12
123	Kinematic manipulability of general constrained rigid multibody systems. IEEE Transactions on Automation Science and Engineering, 1999, 15, 558-567.	2.4	73
124	Robotic system for collaborative control in minimally invasive surgery. Industrial Robot, 1999, 26, 476-484.	1.2	13
125	Successive galerkin approximation of the isaacs equation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 2071-2076.	0.4	7
126	Approximate Solutions to the Time-Invariant Hamiltonâ€™Jacobiâ€™Bellman Equation. Journal of Optimization Theory and Applications, 1998, 96, 589-626.	0.8	162

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127	Feedback Control Using Shape Memory Alloy Actuators. Journal of Intelligent Material Systems and Structures, 1998, 9, 242-250.	1.4	38
128	Trajectory tracking control of a car-trailer system. IEEE Transactions on Control Systems Technology, 1997, 5, 269-278.	3.2	126
129	A path space approach to nonholonomic motion planning in the presence of obstacles. IEEE Transactions on Automation Science and Engineering, 1997, 13, 443-451.	2.4	101
130	Preisach modeling of piezoceramic and shape memory alloy hysteresis. Smart Materials and Structures, 1997, 6, 287-300.	1.8	217
131	Title is missing!. Smart Materials and Structures, 1997, 6, 265-277.	1.8	99
132	Galerkin approximations of the generalized Hamilton-Jacobi-Bellman equation. Automatica, 1997, 33, 2159-2177.	3.0	519
133	Attitude control without angular velocity measurement: a passivity approach. IEEE Transactions on Automatic Control, 1996, 41, 468-472.	3.6	348
134	Passivity motivated controller design for flexible structures. Journal of Guidance, Control, and Dynamics, 1996, 19, 726-729.	1.6	6
135	A global approach to path planning for redundant manipulators. IEEE Transactions on Automation Science and Engineering, 1995, 11, 152-160.	2.4	69
136	Robust attitude stabilization of spacecraft using nonlinear quaternion feedback. IEEE Transactions on Automatic Control, 1995, 40, 1800-1803.	3.6	234
137	Lyapunov function-based control laws for revolute robot arms: tracking control, robustness, and adaptive control. IEEE Transactions on Automatic Control, 1992, 37, 231-237.	3.6	55
138	Asymptotically stable set point control laws for flexible robots. Systems and Control Letters, 1992, 19, 119-129.	1.3	41
139	Motion and force control of multiple robotic manipulators. Automatica, 1992, 28, 729-743.	3.0	161
140	The attitude control problem. IEEE Transactions on Automatic Control, 1991, 36, 1148-1162.	3.6	889
141	Stability analysis of position and force control for robot arms. IEEE Transactions on Automatic Control, 1991, 36, 365-371.	3.6	102
142	An all-geodesic algorithm for filament winding of a T-shaped form. IEEE Transactions on Industrial Electronics, 1991, 38, 484-490.	5.2	15
143	A unified perspective on robot control: The energy lyapunov function approach. International Journal of Adaptive Control and Signal Processing, 1990, 4, 487-500.	2.3	49
144	Stability Analysis of Position and Force Control Problems for Robot Arms. , 1990, , .		2

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145	The Optimal Multiplier Method for Nonlinear Robustness Analysis. , 1990, , .		1
146	Finite dimensional controller design for infinite dimensional systems: The circle criterion approach. Systems and Control Letters, 1989, 13, 445-454.	1.3	6
147	Robust adaptive control in Hilbert Space. Journal of Mathematical Analysis and Applications, 1989, 143, 1-26.	0.5	115
148	Finite Dimensional Controller Design for Infinite Dimensional Systems: A Passivity Approach. , 1989, , .		0
149	Time domain and frequency domain conditions for strict positive realness. IEEE Transactions on Automatic Control, 1988, 33, 988-992.	3.6	222
150	New class of control laws for robotic manipulators Part 1. Non-adaptive case. International Journal of Control, 1988, 47, 1361-1385.	1.2	211
151	New class of control laws for robotic manipulators Part 2. Adaptive case. International Journal of Control, 1988, 47, 1387-1406.	1.2	103
152	Control system design for a robotic autoloader. , 1984, , .		2