

U-Xuan Tan

List of Publications by Year in descending order

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113
papers

1,899
citations

361045

20
h-index

315357

38
g-index

113
all docs

113
docs citations

113
times ranked

1711
citing authors

#	ARTICLE	IF	CITATIONS
1	A survey of data fusion in smart city applications. Information Fusion, 2019, 52, 357-374.	11.7	199
2	3D food printing of fresh vegetables using food hydrocolloids for dysphagic patients. Food Hydrocolloids, 2021, 114, 106546.	5.6	167
3	Design and Control of a 1-DOF MRI-Compatible Pneumatically Actuated Robot With Long Transmission Lines. IEEE/ASME Transactions on Mechatronics, 2011, 16, 1040-1048.	3.7	82
4	Feedforward Controller of Ill-Conditioned Hysteresis Using Singularity-Free Prandtl–Ishlinskii Model. IEEE/ASME Transactions on Mechatronics, 2009, 14, 598-605.	3.7	80
5	Tracking control of hysteretic piezoelectric actuator using adaptive rate-dependent controller. Sensors and Actuators A: Physical, 2009, 150, 116-123.	2.0	61
6	Collaborative SLAM Based on WiFi Fingerprint Similarity and Motion Information. IEEE Internet of Things Journal, 2020, 7, 1826-1840.	5.5	61
7	Design, development, and evaluation of a master–slave surgical system for breast biopsy under continuous MRI. International Journal of Robotics Research, 2014, 33, 616-630.	5.8	58
8	Stable and Compliant Motion of Physical Human–Robot Interaction Coupled With a Moving Environment Using Variable Admittance and Adaptive Control. IEEE Robotics and Automation Letters, 2018, 3, 2493-2500.	3.3	58
9	Estimating Displacement of Periodic Motion With Inertial Sensors. IEEE Sensors Journal, 2008, 8, 1385-1388.	2.4	57
10	Personal Dead Reckoning Using IMU Mounted on Upper Torso and Inverted Pendulum Model. IEEE Sensors Journal, 2016, 16, 7600-7608.	2.4	53
11	Triaxial MRI-Compatible Fiber-optic Force Sensor. IEEE Transactions on Robotics, 2011, 27, 65-74.	7.3	52
12	Bandlimited Multiple Fourier Linear Combiner for Real-time Tremor Compensation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2847-50.	0.5	51
13	Designettes: An Approach to Multidisciplinary Engineering Design Education. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	50
14	Cooperative positioning for emergency responders using self IMU and peer-to-peer radios measurements. Information Fusion, 2020, 56, 93-102.	11.7	44
15	Fusing Similarity-Based Sequence and Dead Reckoning for Indoor Positioning Without Training. IEEE Sensors Journal, 2017, 17, 4197-4207.	2.4	43
16	Cooperative relative positioning of mobile users by fusing IMU inertial and UWB ranging information. , 2017, , .		39
17	Compact Sensing Design of a Handheld Active Tremor Compensation Instrument. IEEE Sensors Journal, 2009, 9, 1864-1871.	2.4	35
18	A Low-Cost Flexure-Based Handheld Mechanism for Micromanipulation. IEEE/ASME Transactions on Mechatronics, 2011, 16, 773-778.	3.7	33

#	ARTICLE	IF	CITATIONS
19	Design and implementation of a pneumatically-actuated robot for breast biopsy under continuous MRI. , 2011, , .		31
20	Design of a Feedforward-Feedback Controller for a Piezoelectric-Driven Mechanism to Achieve High-Frequency Nonperiodic Motion Tracking. IEEE/ASME Transactions on Mechatronics, 2019, 24, 853-862.	3.7	31
21	Electromyography-Driven Progressive Assist-as-Needed Control for Lower Limb Exoskeleton. IEEE Transactions on Medical Robotics and Bionics, 2020, 2, 50-58.	2.1	28
22	Three-Dimensional Printing of Food Foams Stabilized by Hydrocolloids for Hydration in Dysphagia. International Journal of Bioprinting, 2021, 7, 393.	1.7	27
23	A compact hand-held active physiological tremor compensation instrument. , 2009, , .		23
24	Modeling Piezoelectric Actuator Hysteresis with Singularity Free Prandtl-Ishlinskii Model. , 2006, , .		19
25	Placement of accelerometers for high sensing resolution in micromanipulation. Sensors and Actuators A: Physical, 2011, 167, 304-316.	2.0	19
26	A Control Scheme for Physical Human-Robot Interaction Coupled with an Environment of Unknown Stiffness. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 100, 165-182.	2.0	19
27	A Non-invasive Real-time Localization System for Enhanced Efficacy in Nasogastric Intubation. Annals of Biomedical Engineering, 2015, 43, 2941-2952.	1.3	18
28	Seed: A Segmentation-Based Egocentric 3D Point Cloud Descriptor for Loop Closure Detection. , 2020, , .		18
29	Design and Calibration of an Optical Micro Motion Sensing System for Micromanipulation Tasks. , 2007, , .		17
30	Systematic Engineering approach for optimization of multi-component alternative protein-fortified 3D printing food Ink. Food Hydrocolloids, 2022, 131, 107803.	5.6	17
31	A Novel Exoskeleton System Based on Magnetorheological Fluid for Tremor Suppression of Wrist Joints. , 2019, 2019, 1115-1120.		16
32	Relative Positioning by Fusing Signal Strength and Range Information in a Probabilistic Framework. , 2016, , .		15
33	Relative Localization of Mobile Robots with Multiple Ultra-WideBand Ranging Measurements. , 2021, , .		15
34	Design of a Passive Self-Regulating Gravity Compensator for Variable Payloads. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, .	1.7	14
35	Physiological tremor sensing using only accelerometers for real-time compensation. , 2009, , .		12
36	Towards a multi-DOF passive balancing mechanism for upper limbs. , 2015, , .		12

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37	Automatic Vision-Guided Micromanipulation for Versatile Deployment and Portable Setup. IEEE Transactions on Automation Science and Engineering, 2018, 15, 1609-1620.	3.4	12
38	Real-Time Compensation System via Gyroscope and Fast Steering Mirror for Wide-Bandwidth Multiple-Frequency Vehicle Disturbance. IEEE/ASME Transactions on Mechatronics, 2020, 25, 650-660.	3.7	12
39	Multi-AGV's Temporal Memory-Based RRT Exploration in Unknown Environment. IEEE Robotics and Automation Letters, 2022, 7, 9256-9263.	3.3	12
40	Design of an infrastructureless in-door localization device using an IMU sensor. , 2015, , .		11
41	Towards automatic robot-assisted microscopy: An uncalibrated approach for robotic vision-guided micromanipulation. , 2016, , .		11
42	Real-Time Forward Collision Warning System Using Nested Kalman Filter for Monocular Camera. , 2018, , .		11
43	Tracking extraction of blastomere for embryo biopsy. , 2015, , .		9
44	A micro motion sensing system for micromanipulation tasks. Sensors and Actuators A: Physical, 2012, 173, 254-266.	2.0	8
45	Design and analysis of a compliant non-invasive real-time localization system for nasogastric intubation. , 2014, , .		8
46	Towards to a Robotic Assisted System for Percutaneous Nephrolithotomy. , 2018, , .		8
47	Closed-Loop System for Myoelectric Hand Control Based on Electrotactile Stimulation. , 2018, , .		8
48	Confidence-Based Hybrid Tracking to Overcome Visual Tracking Failures in Calibration-Less Vision-Guided Micromanipulation. IEEE Transactions on Automation Science and Engineering, 2020, 17, 524-536.	3.4	8
49	Modeling and simulation for wear prediction in planar mechanical systems with multiple clearance joints. Nonlinear Dynamics, 2022, 108, 887-910.	2.7	8
50	A study of a hand-held instrument's angular motion due to physiological tremor in micromanipulation tasks. , 2008, 2008, 1952-5.		7
51	Design and development of a novel balancer with variable difficulty for training and evaluation. Disability and Rehabilitation: Assistive Technology, 2008, 3, 325-331.	1.3	7
52	Self-initialization and recovery for uninterrupted tracking in vision-guided micromanipulation. , 2017, , .		7
53	A Control Scheme for Smooth Transition in Physical Human-Robot-Environment Between Two Modes: Augmentation and Autonomous. IEEE Robotics and Automation Letters, 2020, 5, 5803-5810.	3.3	7
54	Forward collision warning system for motorcyclist using smart phone sensors based on time-to-collision and trajectory prediction. Journal of Intelligent and Connected Vehicles, 2021, 4, 93-103.	3.6	7

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55	System to Assess Accuracy of Micromanipulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5744-7.	0.5	6
56	Rate-Dependent Hysteresis Model of Piezoelectric using Singularity Free Prandtl-Ishlinskii Model. , 2007, , .		6
57	Indoor positioning using similarity-based sequence and dead reckoning without training. , 2017, , .		6
58	Towards A Compliant and Accurate Cooperative Micromanipulator using Variable Admittance Control. , 2018, , .		6
59	Compact sensing design of a hand-held active tremor compensation instrument for better ergonomics. , 2008, , .		5
60	Real-time estimation and prediction of periodic signals from attenuated and phase-shifted sensed signals. , 2009, , .		5
61	Identification of accelerometer orientation errors and compensation for acceleration estimation errors. , 2009, , .		5
62	Algorithm for design of compliant mechanisms for torsional applications. , 2014, , .		5
63	Using heterogeneous sensory measurements in a compliant magnetic localization system for medical intervention. , 2015, , .		5
64	Mobile Robot Localization Based On Low-Cost LTE And Odometry In GPS-Denied Outdoor Environment. , 2019, , .		5
65	Towards Robotic Picking of Targets with Background Distractors using Deep Reinforcement Learning. , 2019, , .		5
66	Detect-Focus-Track-Servo (DFTS): A vision-based workflow algorithm for robotic image-guided micromanipulation. , 2017, , .		5
67	Placement of accelerometers in a hand-held active tremor compensation instrument for high angular sensing resolution. , 2009, , .		4
68	Design and development of a 3-axis MRI-compatible force sensor. , 2010, , .		4
69	Non-contact parametric estimation and localization of human head for transcranial magnetic stimulation (TMS). , 2013, , .		4
70	Human-micromanipulator cooperation using a variable admittance controller. Science China Information Sciences, 2019, 62, 1.	2.7	4
71	Gaussian Process Auto Regression for vehicle center coordinates Trajectory Prediction. , 2019, , .		4
72	Trajectory tracking of piezoelectric-driven stage via a hybrid controller for both periodic and non-periodic motion. Smart Materials and Structures, 2019, 28, 025023.	1.8	4

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73	Parametric study of planar flexible deployable structures consisting of Scissor-like elements using a novel multibody dynamic analysis methodology. <i>Archive of Applied Mechanics</i> , 2021, 91, 4517.	1.2	4
74	Detect-Remove-Replace: A Robotic Solution That Enables Unmanned Continuous 3D Printing. <i>IEEE Robotics and Automation Magazine</i> , 2022, 29, 33-45.	2.2	4
75	Real-Time Disturbance Compensation with Accelerometers & Piezoelectric-Driven Mechanism. , 2007, , .		3
76	Design and development of a low-cost flexure-based hand-held mechanism for micromanipulation. , 2009, , .		3
77	Transfer Function Compensation in Gyroscope-Free Inertial Measurement Units for Accurate Angular Motion Sensing. <i>IEEE Sensors Journal</i> , 2012, 12, 1207-1208.	2.4	3
78	Towards the Development of a Master-Slave Surgical System for Breast Biopsy under Continuous MRI. <i>Springer Tracts in Advanced Robotics</i> , 2013, , 565-577.	0.3	3
79	A feedforward controller with neural-network based rate-dependent model for piezoelectric-driven mechanism. , 2016, , .		3
80	Preliminary study of integrated physics and mathematics bridging course. , 2017, , .		3
81	Physical Human-Robot Interaction Coupled with a Moving Environment or Target: Contact and Track. , 2018, , .		3
82	Ultrasound-Guided Involuntary Motion Compensation of Kidney Stones in Percutaneous Nephrolithotomy Surgery. , 2018, , .		3
83	Scene-Adaptive Fusion of Visual and Motion Tracking for Vision-Guided Micromanipulation in Plant Cells. , 2018, , .		3
84	Novel Velocity Update Applied for IMU-based Wearable Device to Estimate the Vertical Distance. , 2019, , .		3
85	Nonlinear dynamic characteristics and control of planar linear array deployable structures consisting of scissor-like elements with revolute clearance joint. <i>Advances in Structural Engineering</i> , 2021, 24, 1439-1455.	1.2	3
86	Dynamic simulation for beam to beam frictionless contact using a novel region detection algorithm. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 385, 114025.	3.4	3
87	Monocular UAV Localisation With Deep Learning and Uncertainty Propagation. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 7998-8005.	3.3	3
88	Handling light disturbances in a Micro Motion Sensing System and investigation of the system performance. , 2008, , .		2
89	Adaptive rate-dependent feedforward controller for hysteretic piezoelectric actuator. , 2008, , .		2
90	Motion Control of Piezo-Driven Stage via a Chattering-Free Sliding Mode Controller with Hysteresis Compensation. , 2018, , .		2

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91	Plant Cell Segmentation with Adaptive Thresholding. , 2018, , .		2
92	A New Impedance Controller Based on Nonlinear Model Reference Adaptive Control for Exoskeleton Systems. International Journal of Humanoid Robotics, 2019, 16, 1950020.	0.6	2
93	Buckling analysis of planar linear uniform deployable structures consisting of scissor-like element in space under compression. Science China Technological Sciences, 2021, 64, 493-507.	2.0	2
94	Initialisation of Autonomous Aircraft Visual Inspection Systems via CNN-Based Camera Pose Estimation. , 2021, , .		2
95	Crowd-sensing Simultaneous Localization and Radio Fingerprint Mapping Based on Probabilistic Similarity Models. , 0, , .		2
96	Gaze Assisted Visual Grounding. Lecture Notes in Computer Science, 2021, , 191-202.	1.0	2
97	Collaborative Radio SLAM for Multiple Robots based on WiFi Fingerprint Similarity. , 2021, , .		2
98	Adaptive filtering of physiological tremor for real-time compensation. , 2009, , .		1
99	Real-time sensor fault detection and compensation in a passive magnetic field-based localization system. , 2016, , .		1
100	Wide bandwidth sensing of micro angular motion. , 2016, , .		1
101	Adaptive rate-dependent feedforward control for piezoelectric actuator. , 2017, , .		1
102	Localizing Heterogeneous Access Points using Similarity-based Sequence. , 2018, , .		1
103	Real-time Estimation of Angular Vibration Motion using Gyroscope for Long Distance Targeting Applications. , 2018, , .		1
104	Automatic Targeting of Plant Cells via Cell Segmentation and Robust Scene-Adaptive Tracking. , 2019, , .		1
105	Complementing Speech Interaction Design with Touch for Multi-Robot Systems. , 2019, , .		1
106	Towards a Manipulator System for Disposal of Waste from Patients Undergoing Chemotherapy. , 2021, , .		1
107	Personal dead reckoning using IMU device at upper torso for walking and running. , 2016, , .		0
108	Follow a Human using a Mobile Robot Regardless of the Walking Speed. , 2018, , .		0

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109	Online Revision to Achieve Interdisciplinary Learning with Minimal Students' Effort. , 2019, , .		0
110	Real-Time Sensor Fusion and Compensation for Wide-bandwidth Micro Vibration using Gyroscope and Camera. , 2019, , .		0
111	Analysis of Super High Speed Permanent Magnet Brushless Motor Noise Source and Its Attenuation. Lecture Notes in Mechanical Engineering, 2021, , 1013-1024.	0.3	0
112	Cell Targeting of Plant Cells Array using Uncalibrated Vision-Based Approach. , 2020, , .		0
113	Multiple Order Fourier Linear Combiner: Estimating Phase Shift for Real-Time Vibration Compensation. IEEE Sensors Journal, 2022, 22, 14284-14293.	2.4	0