

# Hang Su

## List of Publications by Year in descending order

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88  
papers

3,123  
citations

159585

30  
h-index

168389

53  
g-index

88  
all docs

88  
docs citations

88  
times ranked

2266  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fuzzy Approximation-Based Adaptive Backstepping Control of an Exoskeleton for Human Upper Limbs. IEEE Transactions on Fuzzy Systems, 2015, 23, 555-566.	9.8	206
2	Improved Human-Robot Collaborative Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. IEEE Robotics and Automation Letters, 2019, 4, 1447-1453.	5.1	169
3	Improved recurrent neural network-based manipulator control with remote center of motion constraints: Experimental results. Neural Networks, 2020, 131, 291-299.	5.9	166
4	Printable CsPbI <sub>3</sub> Perovskite Solar Cells with PCE of 19% via an Additive Strategy. Advanced Materials, 2020, 32, e2001243.	21.0	157
5	Constrained Multilegged Robot System Modeling and Fuzzy Control With Uncertain Kinematics and Dynamics Incorporating Foot Force Optimization. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2016, 46, 1-15.	9.3	135
6	Deep Neural Network Approach in Robot Tool Dynamics Identification for Bilateral Teleoperation. IEEE Robotics and Automation Letters, 2020, 5, 2943-2949.	5.1	124
7	Toward Teaching by Demonstration for Robot-Assisted Minimally Invasive Surgery. IEEE Transactions on Automation Science and Engineering, 2021, 18, 484-494.	5.2	116
8	Neural fuzzy approximation enhanced autonomous tracking control of the wheel-legged robot under uncertain physical interaction. Neurocomputing, 2020, 410, 342-353.	5.9	114
9	A Smartphone-Based Adaptive Recognition and Real-Time Monitoring System for Human Activities. IEEE Transactions on Human-Machine Systems, 2020, 50, 414-423.	3.5	112
10	Fuzzy-Torque Approximation-Enhanced Sliding Mode Control for Lateral Stability of Mobile Robot. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 2491-2500.	9.3	108
11	Co-Mn spinel supported self-catalysis induced N-doped carbon nanotubes with high efficiency electron transport channels for zinc-air batteries. Journal of Materials Chemistry A, 2019, 7, 22307-22313.	10.3	92
12	An Incremental Learning Framework for Human-Like Redundancy Optimization of Anthropomorphic Manipulators. IEEE Transactions on Industrial Informatics, 2022, 18, 1864-1872.	11.3	90
13	A Fast and Robust Deep Convolutional Neural Networks for Complex Human Activity Recognition Using Smartphone. Sensors, 2019, 19, 3731.	3.8	79
14	A Cybertwin Based Multimodal Network for ECG Patterns Monitoring Using Deep Learning. IEEE Transactions on Industrial Informatics, 2022, 18, 6663-6670.	11.3	71
15	Fuzzy Approximation-Based Task-Space Control of Robot Manipulators With Remote Center of Motion Constraint. IEEE Transactions on Fuzzy Systems, 2022, 30, 1564-1573.	9.8	61
16	Parallel structure of six wheel-legged robot trajectory tracking control with heavy payload under uncertain physical interaction. Assembly Automation, 2020, 40, 675-687.	1.7	58
17	Trajectory prediction of cyclist based on dynamic Bayesian network and long short-term memory model at unsignalized intersections. Science China Information Sciences, 2021, 64, 1.	4.3	56
18	Deep Neural Network Approach in Human-Like Redundancy Optimization for Anthropomorphic Manipulators. IEEE Access, 2019, 7, 124207-124216.	4.2	55

#	ARTICLE	IF	CITATIONS
19	Safety-enhanced Collaborative Framework for Tele-operated Minimally Invasive Surgery Using a 7-DoF Torque-controlled Robot. <i>International Journal of Control, Automation and Systems</i> , 2018, 16, 2915-2923.	2.7	53
20	Adaptive control with a fuzzy tuner for cable-based rehabilitation robot. <i>International Journal of Control, Automation and Systems</i> , 2016, 14, 865-875.	2.7	49
21	Depth vision guided hand gesture recognition using electromyographic signals. <i>Advanced Robotics</i> , 2020, 34, 985-997.	1.8	49
22	A human activity-aware shared control solution for medical human-robot interaction. <i>Assembly Automation</i> , 2022, 42, 388-394.	1.7	49
23	Deep C-LSTM Neural Network for Epileptic Seizure and Tumor Detection Using High-Dimension EEG Signals. <i>IEEE Access</i> , 2020, 8, 37495-37504.	4.2	43
24	Neural Approximation-based Model Predictive Tracking Control of Non-holonomic Wheel-legged Robots. <i>International Journal of Control, Automation and Systems</i> , 2021, 19, 372-381.	2.7	43
25	Online human-like redundancy optimization for tele-operated anthropomorphic manipulators. <i>International Journal of Advanced Robotic Systems</i> , 2018, 15, 172988141881469.	2.1	40
26	Pneumatic Soft Robots: Challenges and Benefits. <i>Actuators</i> , 2022, 11, 92.	2.3	39
27	Neural Network Enhanced Robot Tool Identification and Calibration for Bilateral Teleoperation. <i>IEEE Access</i> , 2019, 7, 122041-122051.	4.2	37
28	Safety-Enhanced Human-Robot Interaction Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. , 2018, , .		35
29	Deep Neural Network Approach in EMG-Based Force Estimation for Human-robot Interaction. <i>IEEE Transactions on Artificial Intelligence</i> , 2021, 2, 404-412.	4.7	35
30	Automatic Parking Control of Unmanned Vehicle Based on Switching Control Algorithm and Backstepping. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022, 27, 1233-1243.	5.8	35
31	Nonlinear Model Predictive Control for Mobile Medical Robot Using Neural Optimization. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 12636-12645.	7.9	33
32	Towards Model-Free Tool Dynamic Identification and Calibration Using Multi-Layer Neural Network. <i>Sensors</i> , 2019, 19, 3636.	3.8	32
33	Internet of Things (IoT)-based Collaborative Control of a Redundant Manipulator for Teleoperated Minimally Invasive Surgeries. , 2020, , .		32
34	Manipulability Optimization Control of a Serial Redundant Robot for Robot-assisted Minimally Invasive Surgery. , 2019, , .		31
35	DCNN based human activity recognition framework with depth vision guiding. <i>Neurocomputing</i> , 2022, 486, 261-271.	5.9	28
36	A novel autonomous learning framework to enhance sEMG-based hand gesture recognition using depth information. <i>Biomedical Signal Processing and Control</i> , 2021, 66, 102444.	5.7	27

#	ARTICLE	IF	CITATIONS
37	Human-in-the-Loop Control Strategy of Unilateral Exoskeleton Robots for Gait Rehabilitation. IEEE Transactions on Cognitive and Developmental Systems, 2021, 13, 57-66.	3.8	25
38	Visible Light-Driven Reforming of Lignocellulose into $H_2$ by Intrinsic Monolayer Carbon Nitride. ACS Applied Materials & Interfaces, 2021, 13, 44243-44253.	8.0	24
39	Fuzzy adaptive control of nonlinear MIMO systems with unknown dead zone outputs. Journal of the Franklin Institute, 2018, 355, 5690-5720.	3.4	23
40	An Approach for Robotic Learning Inspired by Biomimetic Adaptive Control. IEEE Transactions on Industrial Informatics, 2022, 18, 1479-1488.	11.3	23
41	Nonlinear Model Predictive Control for Mobile Robot Using Varying-Parameter Convergent Differential Neural Network. Robotics, 2019, 8, 64.	3.5	22
42	$CuCo_2S_4$ Nanosheets Coupled With Carbon Nanotube Heterostructures for Highly Efficient Capacitive Energy Storage. ChemElectroChem, 2018, 5, 2496-2502.	3.4	21
43	Bilateral Teleoperation Control of a Redundant Manipulator with an RCM Kinematic Constraint. , 2020, , .		20
44	A novel muscle-computer interface for hand gesture recognition using depth vision. Journal of Ambient Intelligence and Humanized Computing, 2020, 11, 5569-5580.	4.9	20
45	Novel Adaptive Sensor Fusion Methodology for Hand Pose Estimation With Multileap Motion. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	20
46	A Robot Learning Method with Physiological Interface for Teleoperation Systems. Applied Sciences (Switzerland), 2019, 9, 2099.	2.5	19
47	Fuzzy adaptive control for SISO nonlinear uncertain systems based on backstepping and small-gain approach. Neurocomputing, 2017, 238, 212-226.	5.9	18
48	Novel Design and Lateral Stability Tracking Control of a Four-Wheeled Rollator. Applied Sciences (Switzerland), 2019, 9, 2327.	2.5	17
49	Human-Robot Shared Control for Surgical Robot Based on Context-Aware Sim-to-Real Adaptation. , 2022, , .		16
50	A Small Opening Workspace Control Strategy for Redundant Manipulator Based on RCM Method. IEEE Transactions on Control Systems Technology, 2022, 30, 2717-2725.	5.2	15
51	Adaptive fuzzy control of MIMO nonstrict-feedback nonlinear systems with fuzzy dead zones and time delays. Nonlinear Dynamics, 2019, 95, 1565-1583.	5.2	14
52	Development of multi-fingered dexterous hand for grasping manipulation. Science China Information Sciences, 2014, 57, 1-10.	4.3	13
53	Adaptive fuzzy FTC design of nonlinear stochastic systems with actuator faults and unmodeled dynamics. International Journal of Adaptive Control and Signal Processing, 2018, 32, 1081-1101.	4.1	12
54	Reinforcement Learning Based Manipulation Skill Transferring for Robot-assisted Minimally Invasive Surgery. , 2020, , .		10

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55	Locomotion Prediction for Lower Limb Prostheses in Complex Environments via sEMG and Inertial Sensors. Complexity, 2020, 2020, 1-12.	1.6	10
56	Neuromorphic Visual Odometry System For Intelligent Vehicle Application With Bio-inspired Vision Sensor. , 2019, , .		9
57	Sensor Fusion-based Anthropomorphic Control of Under-Actuated Bionic Hand in Dynamic Environment. , 2021, , .		9
58	Pyrenesulfonic Acid Sodium Salt for Effective Bottomâ€Surface Passivation to Attain High Performance of Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100416.	5.8	8
59	Teleoperation Control of an Underactuated Bionic Hand: Comparison between Wearable and Vision-Tracking-Based Methods. Robotics, 2022, 11, 61.	3.5	8
60	Experimental validation of manipulability optimization control of a 7â€DoF serial manipulator for robotâ€assisted surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, 1-11.	2.3	7
61	Development and Continuous Control of an Intelligent Upper-Limb Neuroprosthesis for Reach and Grasp Motions Using Biological Signals. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 3431-3441.	9.3	7
62	The snake-inspired robots: a review. Assembly Automation, 2022, 42, 567-583.	1.7	7
63	Observer-Based Adaptive Fuzzy Fault-Tolerant Control for Nonlinear Systems Using Small-Gain Approach. International Journal of Fuzzy Systems, 2019, 21, 685-699.	4.0	6
64	Adaptive sensor fusion labeling framework for hand pose recognition in robot teleoperation. Assembly Automation, 2021, 41, 393-400.	1.7	6
65	Design and evaluation of the target spray platform. International Journal of Advanced Robotic Systems, 2021, 18, 172988142199614.	2.1	6
66	Study on cutting force and induced thermal damage of carbon fiber reinforced polymer composites using microscopic simulation modeling. Polymer Composites, 2022, 43, 1626-1636.	4.6	6
67	Adaptive Robust Force Position Control for Flexible Active Prosthetic Knee Using Gait Trajectory. Applied Sciences (Switzerland), 2020, 10, 2755.	2.5	5
68	Hierarchical optimization Control of Redundant Manipulator for Robot-assisted Minimally Invasive Surgery. , 2020, , .		5
69	Depth Vision Guided Human Activity Recognition in Surgical Procedure using Wearable Multisensor. , 2020, , .		4
70	Improving Motion Planning for Surgical Robot with Active Constraints. , 2020, , .		4
71	Multimodal data fusion framework enhanced robot-assisted minimally invasive surgery. Transactions of the Institute of Measurement and Control, 0, , 014233122098435.	1.7	3
72	Cation Engineering for Effective Defect Passivation to Improve Efficiency and Stability of FA0.5MA0.5PbI3 Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 7654-7660.	5.1	3

#	ARTICLE	IF	CITATIONS
73	Whole-body Spatial Teleoperation Control of a Hexapod Robot in Unstructured Environment. , 2021, , .		3
74	Incorporating model predictive control with fuzzy approximation for robot manipulation under remote center of motion constraint. Complex & Intelligent Systems, 0, , 1.	6.5	3
75	Time-frequency analysis based on Compressive Sensing. , 2016, , .		2
76	Machine Learning Driven Human Skill Transferring for Control of Anthropomorphic Manipulators. , 2020, , .		2
77	Adaptive Finite-Time Trajectory Tracking Control of Autonomous Vehicles That Experience Disturbances and Actuator Saturation. IEEE Intelligent Transportation Systems Magazine, 2022, 14, 80-91.	3.8	2
78	Barrier Lyapunov Based Control of dual-arm exoskeleton robots performing asymmetric bimanual tasks. , 2014, , .		1
79	Application ofN-substituted (aminomethyl)benzoate Strategy in Design of Scutellarein Derivatives with Improved Caco-2 Cell Permeability andIn VitroAntioxidative Activity. Bulletin of the Korean Chemical Society, 2015, 36, 1959-1965.	1.9	1
80	A mode mixing elimination method of HHT in fault detection. , 2016, , .		1
81	Novel adefovir mono L-amino acid ester, mono bile acid ester derivatives: Design, synthesis, biological evaluation, and molecular docking study. Medicinal Chemistry Research, 2017, 26, 1812-1821.	2.4	1
82	Hierarchical Task Impedance Control of a Serial Manipulator for Minimally Invasive Surgery. , 2020, , .		1
83	Human Activity Recognition Enhanced Robot-Assisted Minimally Invasive Surgery. Mechanisms and Machine Science, 2020, , 121-129.	0.5	1
84	A study of surface integrity in carbon fiber-reinforced polymer composites cutting with the coupling effect of the multiple machining parameters. Journal of Composite Materials, 2022, 56, 2385-2397.	2.4	1
85	Supermarket commodity identification using convolutional neural networks. , 2016, , .		0
86	Guest Editorial: Integrating sensor fusion and perception for humanâ€™robot interaction. Cognitive Computation and Systems, 2021, 3, 183-186.	1.4	0
87	Neural network-enhanced optimal motion planning for robot manipulation under remote center of motion. , 2022, , 247-264.		0
88	Theory, Applications, and Challenges of Cyber-Physical Systems 2021. Complexity, 2022, 2022, 1-3.	1.6	0