Farrokh Janabi-Sharifi

List of Publications by Year
in descending order

148 papers	4,554 citations	172457 29 h-index	114465 63 g-index
149 all docs	149 docs citations	149 times ranked	3694 citing authors

#	ARTICLE	IF	CITATIONS
1	Grasp synthesis of continuum robots. Mechanism and Machine Theory, 2022, 168, 104575.	4.5	7
2	Dynamic Modeling of Tendon-Driven Co-Manipulative Continuum Robots. IEEE Robotics and Automation Letters, 2022, 7, 1643-1650.	5.1	8
3	Vision-based reduced-order adaptive control of aerial continuum manipulation systems. Aerospace Science and Technology, 2022, 121, 107322.	4.8	6
4	Visual servoing of continuum robots: Methods, challenges, and prospects. International Journal of Medical Robotics and Computer Assisted Surgery, 2022, 18, e2384.	2.3	11
5	Public Opinion About the Benefit, Risk, and Acceptance of Aerial Manipulation Systems. IEEE Transactions on Human-Machine Systems, 2022, 52, 1069-1085.	3.5	4
6	A Cascaded and Adaptive Visual Predictive Control Approach for Real-Time Dynamic Visual Servoing. Drones, 2022, 6, 127.	4.9	6
7	A Visual Predictive Control Framework for Robust and Constrained Multi-Agent Formation Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2022, 105, .	3.4	4
8	An optimized non-local LMMSE approach for speckle noise reduction of medical ultrasound images. Multimedia Tools and Applications, 2021, 80, 9231-9253.	3.9	13
9	Design and experimental evaluation of an automated catheter operating system. Artificial Organs, 2021, 45, E171-E186.	1.9	9
10	Echocardiographic image segmentation using deep Res-U network. Biomedical Signal Processing and Control, 2021, 64, 102248.	5.7	24
11	Cosserat Rod-Based Dynamic Modeling of Tendon-Driven Continuum Robots: A Tutorial. IEEE Access, 2021, 9, 68703-68719.	4.2	42
12	Efficient Coverage Path Planning for Mobile Disinfecting Robots Using Graph-Based Representation of Environment. Frontiers in Robotics and AI, 2021, 8, 624333.	3.2	28
13	Image-Based Force Estimation in Medical Applications: A Review. IEEE Sensors Journal, 2021, 21, 8805-8830.	4.7	17
14	Echocardiogram segmentation using active shape model and mean squared eigenvalue error. Biomedical Signal Processing and Control, 2021, 69, 102807.	5.7	4
15	Inverse Kinematics of Concentric Tube Robots in the Presence of Environmental Constraints. Applied Bionics and Biomechanics, 2021, 2021, 1-12.	1.1	1
16	Coupled Dynamic Modeling and Control of Aerial Continuum Manipulation Systems. Applied Sciences (Switzerland), 2021, 11, 9108.	2.5	10
17	Constrained visual predictive control of tendon-driven continuum robots. Robotics and Autonomous Systems, 2021, 145, 103856.	5.1	8
18	A comprehensive grasp taxonomy of continuum robots. Robotics and Autonomous Systems, 2021, 145, 103860.	5.1	10

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19	Design and experimental evaluation of block-pulse functions and Legendre polynomials observer for attitude-heading reference system. ISA Transactions, 2021, 116, 232-244.	5.7	7
20	Conjugated Visual Predictive Control for Constrained Visual Servoing. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 101, 1.	3.4	4
21	A Switching Image-Based Visual Servoing Method for Cooperative Continuum Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 103, 1.	3.4	9
22	Modeling and Control of Aerial Continuum Manipulation Systems: A Flying Continuum Robot Paradigm. IEEE Access, 2020, 8, 176883-176894.	4.2	21
23	Dynamic modeling and system identification of internally actuated, small-sized continuum robots. Mechanism and Machine Theory, 2020, 154, 104043.	4.5	11
24	A Fuzzy Reinforcement Learning Approach for Continuum Robot Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 100, 809-826.	3.4	32
25	Depth-based Visual Predictive Control of Tendon-Driven Continuum Robots. , 2020, , .		8
26	Nonlinear control of aerial manipulation systems. Aerospace Science and Technology, 2020, 104, 105945.	4.8	19
27	Vision-Based Robotic Traversal of Textureless Smooth Surfaces. IEEE Transactions on Robotics, 2020, 36, 1287-1306.	10.3	3
28	Temperature Independent Triaxial Force and Torque Sensor for Minimally Invasive Interventions. IEEE/ASME Transactions on Mechatronics, 2020, 25, 449-459.	5.8	14
29	Unscented Kalman filter state estimation for manipulating unmanned aerial vehicles. Aerospace Science and Technology, 2019, 92, 446-463.	4.8	57
30	A Neutrosophic based Non-Local Means Filter for Despeckling of Medical Ultrasound Images. , 2019, , .		1
31	Precision Modeling and Optimally-safe Design of Quadcopters for Controlled Crash Landing in Case of Rotor Failure. , 2019, , .		0
32	A Brief Review on Robotic Grippers Classifications. , 2019, , .		42
33	A hybrid vision-based surface coverage measurement method for robotic inspection. Robotics and Computer-Integrated Manufacturing, 2019, 57, 138-145.	9.9	9
34	A neural network-based method for coverage measurement of shot-peened panels. Neural Computing and Applications, 2019, 31, 4829-4836.	5.6	6
35	6D Object Pose Estimation for Robot Programming by Demonstration. Springer Proceedings in Physics, 2019, , 93-101.	0.2	1
36	Cooperative Continuum Robots: Concept, Modeling, and Workspace Analysis. IEEE Robotics and Automation Letters, 2018, 3, 426-433.	5.1	23

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37	Development of an accurate gray-box model of ubiquitous residential HVAC system for precise performance prediction during summer and winter seasons. Energy and Buildings, 2018, 171, 168-182.	6.7	13
38	Aerial manipulation—A literature survey. Robotics and Autonomous Systems, 2018, 107, 221-235.	5.1	150
39	Development and performance comparison of low-order black-box models for a residential HVAC system. Journal of Building Engineering, 2018, 15, 137-155.	3.4	22
40	Image segmentation techniques for real-time coverage measurement in shot peening processes. International Journal of Advanced Manufacturing Technology, 2017, 91, 859-867.	3.0	10
41	A soft robotics nonlinear hybrid position/force control for tendon driven catheters. International Journal of Control, Automation and Systems, 2017, 15, 54-63.	2.7	18
42	Artificial neural network (ANN) based model predictive control (MPC) and optimization of HVAC systems: A state of the art review and case study of a residential HVAC system. Energy and Buildings, 2017, 141, 96-113.	6.7	433
43	Backlash characterization and position control of a robotic catheter manipulator using experimentally-based kinematic model. Mechatronics, 2017, 44, 94-106.	3.3	9
44	UKF—Based LQR Control of a Manipulating Unmanned Aerial Vehicle. Unmanned Systems, 2017, 05, 131-139.	3.6	17
45	An image-based trajectory planning approach for robust robot programming by demonstration. Robotics and Autonomous Systems, 2017, 98, 241-257.	5.1	18
46	Adaptive neural network control of cable-driven parallel robots with input saturation. Engineering Applications of Artificial Intelligence, 2017, 65, 252-260.	8.1	35
47	Supervisory model predictive controller (MPC) for residential HVAC systems: Implementation and experimentation on archetype sustainable house in Toronto. Energy and Buildings, 2017, 154, 268-282.	6.7	41
48	Force and Torque Measurements of Surgical Drilling Into Whole Bone. , 2017, , 85-100.		5
49	Effects of dead-band and set-point settings of on/off controllers on the energy consumption and equipment switching frequency of a residential HVAC system. Journal of Process Control, 2016, 47, 161-174.	3.3	20
50	Subgroup analysis of PD tremor with loading: Action tremor as a combination of classical rest and physiological tremor. Clinical Biomechanics, 2015, 30, 114-120.	1.2	2
51	A Kalman Filter-Based Framework for Enhanced Sensor Fusion. IEEE Sensors Journal, 2015, 15, 3281-3292.	4.7	48
52	Image-based tracking control of VTOL unmanned aerial vehicles. Automatica, 2015, 53, 111-119.	5.0	60
53	Grey-box modeling of a low pressure electric boiler for domestic hot water system. Applied Thermal Engineering, 2015, 84, 257-267.	6.0	31
54	Black-box modeling of residential HVAC system and comparison of gray-box and black-box modeling methods. Energy and Buildings, 2015, 94, 121-149.	6.7	111

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55	Model-based Force Estimation for Intra-cardiac Catheters. IEEE/ASME Transactions on Mechatronics, 2015, , 1-1.	5.8	25
56	Gray-box modeling and validation of residential HVAC system for control system design. Applied Energy, 2015, 137, 134-150.	10.1	132
57	Hybrid predictive control for constrained visual servoing. , 2014, , .		7
58	Force and torque modelling of drilling simulation for orthopaedic surgery. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1285-1294.	1.6	16
59	Review of modeling methods for HVAC systems. Applied Thermal Engineering, 2014, 67, 507-519.	6.0	307
60	Theory and applications of HVAC control systems â€" A review of model predictive control (MPC). Building and Environment, 2014, 72, 343-355.	6.9	815
61	An Efficient Static Model for Steerabl&#x00E8; Catheters. , 2014, , .		3
62	Data-driven modeling of thermal energy storage tank. , 2014, , .		18
63	Two DOF controller for decoupled image-based visual servoing. , 2014, , .		1
64	An Efficient Static Analysis of Continuum Robots. Journal of Mechanisms and Robotics, 2014, 6, .	2.2	12
65	A greener MAC layer protocol for smart home wireless sensor networks. , 2013, , .		2
66	Dynamic image-based tracking control for VTOL UAVs. , 2013, , .		8
67	Closed-loop uncertainty modeling for visual servoing. , 2013, , .		4
68	Biomechanical Measurements of Surgical Drilling Force and Torque in Human Versus Artificial Femurs. Journal of Biomechanical Engineering, 2012, 134, 124503.	1.3	39
69	Transferring skills to robots for tasks with cyclic motions via dynamical systems approach. , 2012, , .		0
70	Trajectory Learning for Robot Programming by Demonstration Using Hidden Markov Model and Dynamic Time Warping. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 1039-1052.	5.0	116
71	Quantitative phase retrieval in dynamic laser speckle interferometry. Optics and Lasers in Engineering, 2012, 50, 534-539.	3.8	10
72	Dynamic phase measurement in shearography by clustering method and Fourier filtering. Optics Express, 2011, 19, 606.	3.4	28

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73	Dynamic phase evaluation in sparse-sampled temporal speckle pattern sequence. Optics Letters, 2011, 36, 526.	3.3	7
74	Experimental Analysis of Mobile-Robot Teleoperation via Shared Impedance Control. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 591-606.	5.0	38
75	Comparison of Basic Visual Servoing Methods. IEEE/ASME Transactions on Mechatronics, 2011, 16, 967-983.	5.8	137
76	Analysis of visual acuity and motion resolvability as measures for optimal visual perception of the workspace. Applied Ergonomics, 2011, 42, 473-486.	3.1	2
77	Finite difference modeling of bipolar OLED. , 2010, , .		0
78	Model Reference Adaptive Control Design for a Teleoperation System with Output Prediction. Journal of Intelligent and Robotic Systems: Theory and Applications, 2010, 59, 319-339.	3.4	65
79	A modified adaptive controller design for teleoperation systems. Robotics and Autonomous Systems, 2010, 58, 676-683.	5.1	14
80	Zero-dispersion wavelength and mode field diameter managements of ZDSF by optimization technique. , 2010, , .		0
81	A PbD approach for learning pseudo-periodic robot trajectories over curved surfaces. , 2010, , .		11
82	Design and temperature analysis of ZDSF based on triangular graded-index single-mode optical fiber. , 2010, , .		1
83	Proposal for 1×4 ultracompact arrayed waveguide grating based on Si-nanowire spirals. , 2010, , .		0
84	Performance enhancement of organic solar cells using plasmonic effects. , 2010, , .		1
85	A Kalman-Filter-Based Method for Pose Estimation in Visual Servoing. IEEE Transactions on Robotics, 2010, 26, 939-947.	10.3	146
86	A Haptic Interaction Method Using Visual Information and Physically Based Modeling. IEEE/ASME Transactions on Mechatronics, 2010, 15, 636-645.	5.8	35
87	Adaptive particle filter based pose estimation using a monocular camera model. , 2010, , .		0
88	A data fusion approach for multi-camera based visual servoing. , 2010, , .		2
89	Enlarging effective mode area of photonic crystal fibers using defected core structures. , 2010, , .		2
90	All-optical switching using microring resonators including Quantum-Dots. , 2010, , .		2

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91	Quantum-wire conductance manipulating by asymmetric quantum dot-molecules. , 2010, , .		0
92	Isometric Torque Generation in a Parkinsonian tremulous elbow and the effect of medication. , 2009, , .		0
93	Prediction of the behavior of a microcantilever based optomechatronic force sensor by finite element method. , 2009, , .		0
94	Generalizations to Control Laws of Image-Based Visual Servoing. International Journal of Optomechatronics, 2009, 3, 167-186.	6.6	19
95	Catheter Kinematics for Intracardiac Navigation. IEEE Transactions on Biomedical Engineering, 2009, 56, 621-632.	4.2	81
96	Robot-assisted catheter manipulation for intracardiac navigation. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 307-315.	2.8	46
97	Fuzzy looperless tension control for hot strip rolling. Fuzzy Sets and Systems, 2009, 160, 521-536.	2.7	21
98	An adaptive system for modelling and simulation of electrical arc furnaces. Control Engineering Practice, 2009, 17, 1202-1219.	5.5	34
99	An Active Zooming Strategy for Variable Field of View and Depth of Field in Vision-Based Microassembly. IEEE Transactions on Automation Science and Engineering, 2009, 6, 504-513.	5.2	11
100	Multi channel narrowband DWDM optical filters based on generalized aperiodic Thue-Morse structures. , 2009, , .		0
101	Kinematic modeling and analysis of the human workspace for visual perceptibility. International Journal of Industrial Ergonomics, 2008, 38, 73-89.	2.6	5
102	Guest Editorial: Special Issue on Visual Servoing. International Journal of Optomechatronics, 2008, 2, 163-165.	6.6	0
103	A physically-based haptic rendering for telemanipulation with visual information: Macro and micro applications. , 2008, , .		3
104	Kinematic characterization of a cardiac ablation catheter. , 2007, , .		14
105	Design and kinematic analysis of a rotary positioner. Robotica, 2007, 25, 75-85.	1.9	15
106	Design and implementation of a graphic-haptic display system. Displays, 2007, 28, 118-128.	3.7	2
107	Visual Tracking System for Dense Traffic Intersections. , 2006, , .		11
108	A neuro-fuzzy system for looper tension control in rolling mills. Control Engineering Practice, 2005, 13, 1-13.	5.5	57

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109	A practical approach to control and self-localization of Persia omni directional mobile robot. , 2005, , .		10
110	Hybrid Motion Control and Planning Strategies for Visual Servoing. IEEE Transactions on Industrial Electronics, 2005, 52, 1024-1040.	7.9	89
111	Design of a Self-Adaptive Fuzzy Tension Controller for Tandem Rolling. IEEE Transactions on Industrial Electronics, 2005, 52, 1428-1438.	7.9	30
112	A rotary parallel manipulator: modeling and workspace analysis. , 2004, , .		5
113	Formulation of Radiometric Feasibility Measures for Feature Selection and Planning in Visual Servoing. IEEE Transactions on Systems, Man, and Cybernetics, 2004, 34, 978-987.	5.0	6
114	Discrete-time adaptive windowing for velocity estimation. IEEE Transactions on Control Systems Technology, 2000, 8, 1003-1009.	5.2	237
115	A Fast Approach for Robot Motion Planning. Journal of Intelligent and Robotic Systems: Theory and Applications, 1999, 25, 187-212.	3.4	8
116	Automatic selection of image features for visual servoing. IEEE Transactions on Automation Science and Engineering, 1997, 13, 890-903.	2.3	46
117	Collision: Modeling, simulation and identification of robotic manipulators interacting with environments. Journal of Intelligent and Robotic Systems: Theory and Applications, 1995, 13, 1-44.	3.4	32
118	An intelligent assembly robotic system based on Relative Pose measurements. Journal of Intelligent and Robotic Systems: Theory and Applications, 1995, 12, 49-86.	3.4	13
119	A fast approach for the robust trajectory planning of redundant robot manipulators. Journal of Field Robotics, 1995, 12, 147-161.	0.7	39
120	Peak stick RBF network for online system identification. , 0, , .		0
121	A grasp planning approach for visual servo controlled robot manipulators. , 0, , .		0
122	Self-tuning fuzzy looper control for rolling mills. , 0, , .		10
123	A learning fuzzy system for looper control in rolling mills. , 0, , .		10
124	Fuzzy looper control with neural-net based tuning for rolling mills. , 0, , .		0
125	A neural-net based self-tuning fuzzy looper control for rolling mills. , 0, , .		0
126	Neuro-fuzzy looper control with T-operator and rule tuning for rolling mills: theory and comparative study. , 0, , .		3

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127	Adaptive filtering for pose estimation in visual servoing. , 0, , .		36
128	Radiometric measures for feature selection in visual servoing. , 0, , .		0
129	Characteristics of robot visual servoing methods and target model estimation. , 0, , .		9
130	Genetic fuzzy tension controller for tandem rolling. , 0, , .		0
131	Stability and robustness of visual servoing methods. , 0, , .		27
132	Fuzzy multiple stand tension control of a roughing rolling mill. , 0, , .		2
133	Neuro-fuzzy tension controller for tandem rolling. , 0, , .		3
134	Decoupling of multiple stand interactions in looperless rolling control process. , 0, , .		2
135	Teleoperation systems design using augmented wave-variables and Smith predictor method for reducing time-delay effects. , 0, , .		34
136	Adaptive velocity estimation for disk drive head positioning. , 0, , .		1
137	Dynamic performance of the position-based visual servoing method in the cartesian and image spaces. , 0, , .		8
138	An adaptive velocity estimation approach for improved disk drive control performance. , 0, , .		1
139	Combined target model estimation and position-based visual servoing. , 0, , .		2
140	Shape constrained discrete dynamic contours for noisy object segmentation. , 0, , .		0
141	Adaptive teleoperation systems design. , 0, , .		5
142	Internet-based teleoperation of a mobile robot using shared impedance control scheme: a pilot study. , 0, , .		4
143	Learning distributed grasp in presence of redundant agents. , 0, , .		0
144	Prediction of delay time in internet by neural network. , 0, , .		3

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145	Using adaptive neuro fuzzy inference system in developing an electrical arc furnace simulator. , 0, , .		3
146	Sensitivity analysis of EKF and iterated EKF pose estimation for position-based visual servoing. , 0, , .		24
147	Jacobian Formulation for Two Classes of Cooperative Continuum Robots. , 0, , .		3
148	A hybrid approach for tracking borders in echocardiograms. Signal, Image and Video Processing, 0, , .	2.7	0