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	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
2	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
3	Review of modeling methods for HVAC systems. Applied Thermal Engineering, 2014, 67, 507-519.	6.0	307
4	Discrete-time adaptive windowing for velocity estimation. IEEE Transactions on Control Systems Technology, 2000, 8, 1003-1009.	5.2	237
5	Aerial manipulationâ€"A literature survey. Robotics and Autonomous Systems, 2018, 107, 221-235.	5.1	150
6	A Kalman-Filter-Based Method for Pose Estimation in Visual Servoing. IEEE Transactions on Robotics, 2010, 26, 939-947.	10.3	146
7	Comparison of Basic Visual Servoing Methods. IEEE/ASME Transactions on Mechatronics, 2011, 16, 967-983.	5.8	137
8	Gray-box modeling and validation of residential HVAC system for control system design. Applied Energy, 2015, 137, 134-150.	10.1	132
9	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
10	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
11	Hybrid Motion Control and Planning Strategies for Visual Servoing. IEEE Transactions on Industrial Electronics, 2005, 52, 1024-1040.	7.9	89
12	Catheter Kinematics for Intracardiac Navigation. IEEE Transactions on Biomedical Engineering, 2009, 56, 621-632.	4.2	81
13	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
14	Image-based tracking control of VTOL unmanned aerial vehicles. Automatica, 2015, 53, 111-119.	5.0	60
15	A neuro-fuzzy system for looper tension control in rolling mills. Control Engineering Practice, 2005, 13, 1-13.	5.5	57
16	Unscented Kalman filter state estimation for manipulating unmanned aerial vehicles. Aerospace Science and Technology, 2019, 92, 446-463.	4.8	57
17	A Kalman Filter-Based Framework for Enhanced Sensor Fusion. IEEE Sensors Journal, 2015, 15, 3281-3292.	4.7	48
18	Automatic selection of image features for visual servoing. IEEE Transactions on Automation Science and Engineering, 1997, 13, 890-903.	2.3	46

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19	Robot-assisted catheter manipulation for intracardiac navigation. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 307-315.	2.8	46
20	A Brief Review on Robotic Grippers Classifications. , 2019, , .		42
21	Cosserat Rod-Based Dynamic Modeling of Tendon-Driven Continuum Robots: A Tutorial. IEEE Access, 2021, 9, 68703-68719.	4.2	42
22	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
23	A fast approach for the robust trajectory planning of redunant robot manipulators. Journal of Field Robotics, 1995, 12, 147-161.	0.7	39
24	Biomechanical Measurements of Surgical Drilling Force and Torque in Human Versus Artificial Femurs. Journal of Biomechanical Engineering, 2012, 134, 124503.	1.3	39
25	Experimental Analysis of Mobile-Robot Teleoperation via Shared Impedance Control. IEEE Transactions on Systems, Man, and Cybernetics, 2011, 41, 591-606.	5.0	38
26	Adaptive filtering for pose estimation in visual servoing. , 0, , .		36
27	A Haptic Interaction Method Using Visual Information and Physically Based Modeling. IEEE/ASME Transactions on Mechatronics, 2010, 15, 636-645.	5.8	35
28	Adaptive neural network control of cable-driven parallel robots with input saturation. Engineering Applications of Artificial Intelligence, 2017, 65, 252-260.	8.1	35
29	Teleoperation systems design using augmented wave-variables and Smith predictor method for reducing time-delay effects. , 0, , .		34
30	An adaptive system for modelling and simulation of electrical arc furnaces. Control Engineering Practice, 2009, 17, 1202-1219.	5.5	34
31	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
32	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
33	Grey-box modeling of a low pressure electric boiler for domestic hot water system. Applied Thermal Engineering, 2015, 84, 257-267.	6.0	31
34	Design of a Self-Adaptive Fuzzy Tension Controller for Tandem Rolling. IEEE Transactions on Industrial Electronics, 2005, 52, 1428-1438.	7.9	30
35	Dynamic phase measurement in shearography by clustering method and Fourier filtering. Optics Express, 2011, 19, 606.	3.4	28
36	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

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37	Stability and robustness of visual servoing methods. , 0, , .		27
38	Model-based Force Estimation for Intra-cardiac Catheters. IEEE/ASME Transactions on Mechatronics, 2015, , 1-1.	5.8	25
39	Sensitivity analysis of EKF and iterated EKF pose estimation for position-based visual servoing. , 0, , .		24
40	Echocardiographic image segmentation using deep Res-U network. Biomedical Signal Processing and Control, 2021, 64, 102248.	5.7	24
41	Cooperative Continuum Robots: Concept, Modeling, and Workspace Analysis. IEEE Robotics and Automation Letters, 2018, 3, 426-433.	5.1	23
42	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
43	Fuzzy looperless tension control for hot strip rolling. Fuzzy Sets and Systems, 2009, 160, 521-536.	2.7	21
44	Modeling and Control of Aerial Continuum Manipulation Systems: A Flying Continuum Robot Paradigm. IEEE Access, 2020, 8, 176883-176894.	4.2	21
45	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
46	Generalizations to Control Laws of Image-Based Visual Servoing. International Journal of Optomechatronics, 2009, 3, 167-186.	6.6	19
47	Nonlinear control of aerial manipulation systems. Aerospace Science and Technology, 2020, 104, 105945.	4.8	19
48	Data-driven modeling of thermal energy storage tank. , 2014, , .		18
49	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
50	An image-based trajectory planning approach for robust robot programming by demonstration. Robotics and Autonomous Systems, 2017, 98, 241-257.	5.1	18
51	UKFâ€"Based LQR Control of a Manipulating Unmanned Aerial Vehicle. Unmanned Systems, 2017, 05, 131-139.	3.6	17
52	Image-Based Force Estimation in Medical Applications: A Review. IEEE Sensors Journal, 2021, 21, 8805-8830.	4.7	17
53	Force and torque modelling of drilling simulation for orthopaedic surgery. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1285-1294.	1.6	16
54	Design and kinematic analysis of a rotary positioner. Robotica, 2007, 25, 75-85.	1.9	15

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55	Kinematic characterization of a cardiac ablation catheter. , 2007, , .		14
56	A modified adaptive controller design for teleoperation systems. Robotics and Autonomous Systems, 2010, 58, 676-683.	5.1	14
57	Temperature Independent Triaxial Force and Torque Sensor for Minimally Invasive Interventions. IEEE/ASME Transactions on Mechatronics, 2020, 25, 449-459.	5.8	14
58	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
59	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
60	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
61	An Efficient Static Analysis of Continuum Robots. Journal of Mechanisms and Robotics, 2014, 6, .	2.2	12
62	Visual Tracking System for Dense Traffic Intersections. , 2006, , .		11
63	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
64	A PbD approach for learning pseudo-periodic robot trajectories over curved surfaces. , 2010, , .		11
65	Dynamic modeling and system identification of internally actuated, small-sized continuum robots. Mechanism and Machine Theory, 2020, 154, 104043.	4.5	11
66	Visual servoing of continuum robots: Methods, challenges, and prospects. International Journal of Medical Robotics and Computer Assisted Surgery, 2022, 18, e2384.	2.3	11
67	Self-tuning fuzzy looper control for rolling mills. , 0, , .		10
68	A learning fuzzy system for looper control in rolling mills. , 0, , .		10
69	A practical approach to control and self-localization of Persia omni directional mobile robot. , 2005, , .		10
70	Quantitative phase retrieval in dynamic laser speckle interferometry. Optics and Lasers in Engineering, 2012, 50, 534-539.	3.8	10
71	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
72	Coupled Dynamic Modeling and Control of Aerial Continuum Manipulation Systems. Applied Sciences (Switzerland), 2021, 11, 9108.	2.5	10

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73	A comprehensive grasp taxonomy of continuum robots. Robotics and Autonomous Systems, 2021, 145, 103860.	5.1	10
74	Characteristics of robot visual servoing methods and target model estimation. , 0, , .		9
75	Backlash characterization and position control of a robotic catheter manipulator using experimentally-based kinematic model. Mechatronics, 2017, 44, 94-106.	3.3	9
76	A hybrid vision-based surface coverage measurement method for robotic inspection. Robotics and Computer-Integrated Manufacturing, 2019, 57, 138-145.	9.9	9
77	Design and experimental evaluation of an automated catheter operating system. Artificial Organs, 2021, 45, E171-E186.	1.9	9
78	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
79	A Fast Approach for Robot Motion Planning. Journal of Intelligent and Robotic Systems: Theory and Applications, 1999, 25, 187-212.	3.4	8
80	Dynamic performance of the position-based visual servoing method in the cartesian and image spaces. , 0, , .		8
81	Dynamic image-based tracking control for VTOL UAVs. , 2013, , .		8
82	Depth-based Visual Predictive Control of Tendon-Driven Continuum Robots. , 2020, , .		8
83	Constrained visual predictive control of tendon-driven continuum robots. Robotics and Autonomous Systems, 2021, 145, 103856.	5.1	8
84	Dynamic Modeling of Tendon-Driven Co-Manipulative Continuum Robots. IEEE Robotics and Automation Letters, 2022, 7, 1643-1650.	5.1	8
85	Dynamic phase evaluation in sparse-sampled temporal speckle pattern sequence. Optics Letters, 2011, 36, 526.	3.3	7
86	Hybrid predictive control for constrained visual servoing. , 2014, , .		7
87	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
88	Grasp synthesis of continuum robots. Mechanism and Machine Theory, 2022, 168, 104575.	4.5	7
89	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
90	A neural network-based method for coverage measurement of shot-peened panels. Neural Computing and Applications, 2019, 31, 4829-4836.	5.6	6

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91	Vision-based reduced-order adaptive control of aerial continuum manipulation systems. Aerospace Science and Technology, 2022, 121, 107322.	4.8	6
92	A Cascaded and Adaptive Visual Predictive Control Approach for Real-Time Dynamic Visual Servoing. Drones, 2022, 6, 127.	4.9	6
93	A rotary parallel manipulator: modeling and workspace analysis. , 2004, , .		5
94	Adaptive teleoperation systems design. , 0, , .		5
95	Kinematic modeling and analysis of the human workspace for visual perceptibility. International Journal of Industrial Ergonomics, 2008, 38, 73-89.	2.6	5
96	Force and Torque Measurements of Surgical Drilling Into Whole Bone. , 2017, , 85-100.		5
97	Internet-based teleoperation of a mobile robot using shared impedance control scheme: a pilot study. , 0, , .		4
98	Closed-loop uncertainty modeling for visual servoing. , 2013, , .		4
99	Echocardiogram segmentation using active shape model and mean squared eigenvalue error. Biomedical Signal Processing and Control, 2021, 69, 102807.	5.7	4
100	Conjugated Visual Predictive Control for Constrained Visual Servoing. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 101, 1.	3.4	4
101	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
102	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
103	Neuro-fuzzy looper control with T-operator and rule tuning for rolling mills: theory and comparative study. , 0, , .		3
104	Neuro-fuzzy tension controller for tandem rolling. , 0, , .		3
105	Prediction of delay time in internet by neural network. , 0, , .		3
106	Using adaptive neuro fuzzy inference system in developing an electrical arc furnace simulator. , 0, , .		3
107	A physically-based haptic rendering for telemanipulation with visual information: Macro and micro applications. , 2008, , .		3
108	An Efficient Static Model for Steerabl&#x00E8; Catheters. , 2014, , .		3

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109	Vision-Based Robotic Traversal of Textureless Smooth Surfaces. IEEE Transactions on Robotics, 2020, 36, 1287-1306.	10.3	3
110	Jacobian Formulation for Two Classes of Cooperative Continuum Robots. , 0, , .		3
111	Fuzzy multiple stand tension control of a roughing rolling mill. , 0, , .		2
112	Decoupling of multiple stand interactions in looperless rolling control process. , 0, , .		2
113	Combined target model estimation and position-based visual servoing. , 0, , .		2
114	Design and implementation of a graphic-haptic display system. Displays, 2007, 28, 118-128.	3.7	2
115	A data fusion approach for multi-camera based visual servoing. , 2010, , .		2
116	Enlarging effective mode area of photonic crystal fibers using defected core structures. , 2010, , .		2
117	All-optical switching using microring resonators including Quantum-Dots. , 2010, , .		2
118	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
119	A greener MAC layer protocol for smart home wireless sensor networks. , 2013, , .		2
120	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
121	Adaptive velocity estimation for disk drive head positioning. , 0, , .		1
122	An adaptive velocity estimation approach for improved disk drive control performance. , 0, , .		1
123	Design and temperature analysis of ZDSF based on triangular graded-index single-mode optical fiber. , 2010, , .		1
124	Performance enhancement of organic solar cells using plasmonic effects. , 2010, , .		1
125	Two DOF controller for decoupled image-based visual servoing. , 2014, , .		1
126	A Neutrosophic based Non-Local Means Filter for Despeckling of Medical Ultrasound Images. , 2019, , .		1

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127	Inverse Kinematics of Concentric Tube Robots in the Presence of Environmental Constraints. Applied Bionics and Biomechanics, 2021, 2021, 1-12.	1.1	1
128	6D Object Pose Estimation for Robot Programming by Demonstration. Springer Proceedings in Physics, 2019, , 93-101.	0.2	1
129	Peak stick RBF network for online system identification. , 0, , .		0
130	A grasp planning approach for visual servo controlled robot manipulators. , 0, , .		0
131	Fuzzy looper control with neural-net based tuning for rolling mills. , 0, , .		0
132	A neural-net based self-tuning fuzzy looper control for rolling mills. , 0, , .		0
133	Radiometric measures for feature selection in visual servoing. , 0, , .		0
134	Genetic fuzzy tension controller for tandem rolling. , 0, , .		0
135	Shape constrained discrete dynamic contours for noisy object segmentation. , 0, , .		0
136	Learning distributed grasp in presence of redundant agents. , 0, , .		0
137	Guest Editorial: Special Issue on Visual Servoing. International Journal of Optomechatronics, 2008, 2, 163-165.	6.6	0
138	Isometric Torque Generation in a Parkinsonian tremulous elbow and the effect of medication. , 2009, , .		0
139	Prediction of the behavior of a microcantilever based optomechatronic force sensor by finite element method. , 2009, , .		0
140	Multi channel narrowband DWDM optical filters based on generalized aperiodic Thue-Morse structures. , 2009, , .		0
141	Finite difference modeling of bipolar OLED. , 2010, , .		0
142	Zero-dispersion wavelength and mode field diameter managements of ZDSF by optimization technique. , 2010, , .		0
143	Proposal for 1×4 ultracompact arrayed waveguide grating based on Si-nanowire spirals. , 2010, , .		0
144	Adaptive particle filter based pose estimation using a monocular camera model. , 2010, , .		0

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145	Quantum-wire conductance manipulating by asymmetric quantum dot-molecules. , 2010, , .		0
146	Transferring skills to robots for tasks with cyclic motions via dynamical systems approach. , 2012, , .		0
147	Precision Modeling and Optimally-safe Design of Quadcopters for Controlled Crash Landing in Case of Rotor Failure. , 2019, , .		0
148	A hybrid approach for tracking borders in echocardiograms. Signal, Image and Video Processing, 0, , .	2.7	0