## Seyed Farokh Atashzar

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1674990/publications.pdf Version: 2024-02-01

		331670	434195
114	1,624	21	31
papers	citations	h-index	g-index
123	123	123	1182
all docs	docs citations	times ranked	citing authors
all docs	docs citations	times ranked	citing authors

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#	Article	IF	CITATIONS
1	A Systematic Review of Multilateral Teleoperation Systems. IEEE Transactions on Haptics, 2018, 11, 338-356.	2.7	76
2	COVID-FACT: A Fully-Automated Capsule Network-Based Framework for Identification of COVID-19 Cases from Chest CT Scans. Frontiers in Artificial Intelligence, 2021, 4, 598932.	3.4	75
3	FS-HGR: Few-Shot Learning for Hand Gesture Recognition via Electromyography. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1004-1015.	4.9	65
4	A Passivity-Based Approach for Stable Patient–Robot Interaction in Haptics-Enabled Rehabilitation Systems: Modulated Time-Domain Passivity Control. IEEE Transactions on Control Systems Technology, 2017, 25, 991-1006.	5.2	57
5	Robotics-Assisted Mirror Rehabilitation Therapy: A Therapist-in-the-Loop Assist-as-Needed Architecture. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1954-1965.	5.8	53
6	Deep Learning for Robust Decomposition of High-Density Surface EMG Signals. IEEE Transactions on Biomedical Engineering, 2021, 68, 526-534.	4.2	52
7	A Small-Gain Approach for Nonpassive Bilateral Telerobotic Rehabilitation: Stability Analysis and Controller Synthesis. IEEE Transactions on Robotics, 2017, 33, 49-66.	10.3	46
8	Robotics and AI for Teleoperation, Tele-Assessment, and Tele-Training for Surgery in the Era of COVID-19: Existing Challenges, and Future Vision. Frontiers in Robotics and AI, 2021, 8, 610677.	3.2	41
9	Robust Motion Control of Ultrasonic Motors Under Temperature Disturbance. IEEE Transactions on Industrial Electronics, 2016, 63, 2360-2368.	7.9	37
10	Novel Cooperative Teleoperation Framework: Multi-Master/Single-Slave System. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1668-1679.	5.8	36
11	Networked teleoperation with non-passive environment: Application to tele-rehabilitation. , 2012, , .		34
12	A grasp-based passivity signature for haptics-enabled human-robot interaction: Application to design of a new safety mechanism for robotic rehabilitation. International Journal of Robotics Research, 2017, 36, 778-799.	8.5	33
13	Position-Force Domain Passivity of the Human Arm in Telerobotic Systems. IEEE/ASME Transactions on Mechatronics, 2018, 23, 552-562.	5.8	32
14	Toward Deep Generalization of Peripheral EMG-Based Human-Robot Interfacing: A Hybrid Explainable Solution for NeuroRobotic Systems. IEEE Robotics and Automation Letters, 2021, 6, 2650-2657.	5.1	32
15	Characterization of Upper-Limb Pathological Tremors: Application to Design of an Augmented Haptic Rehabilitation System. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 888-903.	10.8	30
16	Haptics-enabled Interactive NeuroRehabilitation Mechatronics: Classification, Functionality, Challenges and Ongoing Research. Mechatronics, 2019, 57, 1-19.	3.3	30
17	XceptionTime: Independent Time-Window Xceptiontime Architecture for Hand Gesture Classification. , 2020, , .		30

A dual-user teleoperated system with Virtual Fixtures for robotic surgical training. , 2013, , .

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#	Article	IF	CITATIONS
19	Review of Advanced Medical Telerobots. Applied Sciences (Switzerland), 2021, 11, 209.	2.5	27
20	Haptic Feedback and Force-Based Teleoperation in Surgical Robotics. Proceedings of the IEEE, 2022, 110, 1012-1027.	21.3	27
21	A Computational-Model-Based Study of Supervised Haptics-Enabled Therapist-in-the-Loop Training for Upper-Limb Poststroke Robotic Rehabilitation. IEEE/ASME Transactions on Mechatronics, 2018, 23, 563-574.	5.8	26
22	Adaptive Spatial Filtering of High-Density EMG for Reducing the Influence of Noise and Artefacts in Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1511-1517.	4.9	26
23	A Multi-Functional Lower- and Upper-Limb Stroke Rehabilitation Robot. IEEE Transactions on Medical Robotics and Bionics, 2020, 2, 549-552.	3.2	25
24	Review: How Can Intelligent Robots and Smart Mechatronic Modules Facilitate Remote Assessment, Assistance, and Rehabilitation for Isolated Adults With Neuro-Musculoskeletal Conditions?. Frontiers in Robotics and AI, 2021, 8, 610529.	3.2	24
25	Kinematic instability in concentric-tube robots: Modeling and analysis. , 2014, , .		22
26	Semg-Based Hand Gesture Recognition Via Dilated Convolutional Neural Networks. , 2019, , .		22
27	Multimodal Sensorimotor Integration for Expert-in-the-Loop Telerobotic Surgical Training. IEEE Transactions on Robotics, 2018, 34, 1549-1564.	10.3	21
28	PHTNet: Characterization and Deep Mining of Involuntary Pathological Hand Tremor using Recurrent Neural Network Models. Scientific Reports, 2020, 10, 2195.	3.3	21
29	WAKE: Wavelet decomposition coupled with adaptive Kalman filtering for pathological tremor extraction. Biomedical Signal Processing and Control, 2019, 48, 179-188.	5.7	19
30	Temporal Dilation of Deep LSTM for Agile Decoding of sEMC: Application in Prediction of Upper-Limb Motor Intention in NeuroRobotics. IEEE Robotics and Automation Letters, 2021, 6, 6212-6219.	5.1	19
31	Wearable MMG-Plus-One Armband: Evaluation of Normal Force on Mechanomyography (MMG) to Enhance Human-Machine Interfacing. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 196-205.	4.9	18
32	Tracking control of flexible-link manipulators based on environmental force disturbance observer. , 2010, , .		17
33	Surface EMG-Based Hand Gesture Recognition via Hybrid and Dilated Deep Neural Network Architectures for Neurorobotic Prostheses. Journal of Medical Robotics Research, 2020, 05, 2041001.	1.2	17
34	A novel shared structure for dual user systems with unknown time-delay utilizing adaptive impedance control. , 2011, , .		16
35	An expertise-oriented training framework for robotics-assisted surgery. , 2014, , .		16
36	A Multimodal Intention Detection Sensor Suite for Shared Autonomy of Upper-Limb Robotic Prostheses. Sensors, 2020, 20, 6097.	3.8	16

#	Article	IF	CITATIONS
37	Control of time-delayed telerobotic systems with flexible-link slave manipulators. , 2012, , .		15
38	Projection-based force reflection algorithms for teleoperated rehabilitation therapy. , 2013, , .		15
39	Toward Universal Neural Interfaces for Daily Use: Decoding the Neural Drive to Muscles Generalises Highly Accurate Finger Task Identification Across Humans. IEEE Access, 2020, 8, 149025-149035.	4.2	15
40	A deep explainable artificial intelligent framework for neurological disorders discrimination. Scientific Reports, 2021, 11, 9630.	3.3	15
41	Few-Shot Learning for Decoding Surface Electromyography for Hand Gesture Recognition. , 2021, , .		14
42	Robust solution to three-dimensional pose estimation using composite extended Kalman observer and Kalman filter. IET Computer Vision, 2012, 6, 140.	2.0	13
43	Differential Temporal Perception Abilities in Parkinson's Disease Patients Based on Timing Magnitude. Scientific Reports, 2019, 9, 19638.	3.3	13
44	Intraoperative Localization of STN During DBS Surgery Using a Data-Driven Model. IEEE Journal of Translational Engineering in Health and Medicine, 2020, 8, 1-9.	3.7	13
45	Perspective: Wearable Internet of Medical Things for Remote Tracking of Symptoms, Prediction of Health Anomalies, Implementation of Preventative Measures, and Control of Virus Spread During the Era of COVID-19. Frontiers in Robotics and Al, 2021, 8, 610653.	3.2	13
46	A sliding-mode controller for dual-user teleoperation with unknown constant time delays. Robotica, 2013, 31, 589-598.	1.9	12
47	Wearable multichannel haptic device for encoding proprioception in the upper limb. Journal of Neural Engineering, 2020, 17, 056035.	3.5	12
48	Kinematic biomarkers of chronic neck pain measured during gait: A data-driven classification approach. Journal of Biomechanics, 2021, 118, 110190.	2.1	12
49	Hand Gesture Recognition Using Temporal Convolutions and Attention Mechanism. , 2022, , .		12
50	A new passivity-based control technique for safe patient-robot interaction in haptics-enabled rehabilitation systems. , 2015, , .		11
51	HMFP-DBRNN: Real-Time Hand Motion Filtering and Prediction via Deep Bidirectional RNN. IEEE Robotics and Automation Letters, 2019, 4, 1061-1068.	5.1	11
52	Wearable Dual-Frequency Vibrotactile System for Restoring Force and Stiffness Perception. IEEE Transactions on Haptics, 2020, 13, 191-196.	2.7	11
53	Muscle network topology analysis for the classification of chronic neck pain based on EMG biomarkers extracted during walking. PLoS ONE, 2021, 16, e0252657.	2.5	11

Robot-assisted lung motion compensation during needle insertion. , 2013, , .

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55	Energetic Passivity Decoding of Human Hip Joint for Physical Human-Robot Interaction. IEEE Robotics and Automation Letters, 2020, 5, 5953-5960.	5.1	10
56	Real-time trajectory tracking for externally loaded concentric-tube robots. , 2014, , .		9
57	A framework for supervised robotics-assisted mirror rehabilitation therapy. , 2014, , .		9
58	Telerobotics-Assisted Platform for Enhancing Interaction with Physical Environments for People Living with Cerebral Palsy. Journal of Medical Robotics Research, 2017, 02, 1740001.	1.2	9
59	Multiclass Detection and Tracking of Transient Motor Activation based on Decomposed Myoelectric Signals. , 2019, , .		9
60	A robust feedback linearization approach for tracking control of flexible-link manipulators using an EKF disturbance estimator. , 2010, , .		8
61	Deep Heterogeneous Dilation of LSTM for Transient-Phase Gesture Prediction Through High-Density Electromyography: Towards Application in Neurorobotics. IEEE Robotics and Automation Letters, 2022, 7, 2851-2858.	5.1	8
62	Simulation of carbon nanotube growth at optimized temperature. Chemical Physics Letters, 2006, 419, 154-157.	2.6	7
63	A new set of desired objectives for dual-user systems in the presence of unknown communication delay. , 2011, , .		7
64	Discrete Windowed-Energy Variable Structure Passivity Signature Control for Physical Human-(Tele)Robot Interaction. IEEE Robotics and Automation Letters, 2021, 6, 3647-3654.	5.1	7
65	Gamma-band enhancement of functional brain connectivity following transcutaneous electrical nerve stimulation. Journal of Neural Engineering, 2022, 19, 026020.	3.5	7
66	Kinematic and kinetic assessment of upper limb movements in patients with writer's cramp. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 15.	4.6	6
67	Parallel Haptic Rendering for Orthopedic Surgery Simulators. IEEE Robotics and Automation Letters, 2020, 5, 6388-6395.	5.1	6
68	Influence of Antagonistic Tensions on Distributed Friction Forces of Multisegment Tendon-Driven Continuum Manipulators With Irregular Geometry. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2418-2428.	5.8	6
69	Adaptive Wave Reconstruction Through Regulated-BMFLC for Transparency-Enhanced Telerobotics Over Delayed Networks. IEEE Transactions on Robotics, 2022, 38, 2928-2942.	10.3	6
70	Control challenges in non-minimum phase tele-robotics systems. , 2011, , .		5
71	A Multi-Master / Single-Slave Teleoperation System. , 2012, , .		5
72	Robust trajectory modification for tip position tracking of flexible-link manipulators. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2012, 226, 523-536.	1.0	5

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73	Involuntary movement during haptics-enabled robotic rehabilitation: Analysis and control design. , 2014, , .		5
74	Dynamic estimation strategy for E-BMFLC filters in analyzing pathological hand tremors. , 2017, , .		5
75	Predicting Improvement in Writer's Cramp Symptoms following Botulinum Neurotoxin Injection Therapy. Tremor and Other Hyperkinetic Movements, 2020, 6, 410.	2.0	5
76	Trustworthy Adaptation with Few-Shot Learning for Hand Gesture Recognition. , 2021, , .		5
77	Active Sensorimotor Augmentation in Robotics-Assisted Surgical Systems. , 2018, , 61-81.		5
78	Hand Gesture Recognition via Transient sEMG Using Transfer Learning of Dilated Efficient CapsNet: Towards Generalization for Neurorobotics. IEEE Robotics and Automation Letters, 2022, 7, 9216-9223.	5.1	5
79	A six-degree-of-freedom robotic system for lower extremity rehabilitation. , 2015, , .		4
80	Haptic Feedback Manipulation During Botulinum Toxin Injection Therapy for Focal Hand Dystonia Patients: A Possible New Assistive Strategy. IEEE Transactions on Haptics, 2016, 9, 523-535.	2.7	4
81	Predicting Improvement in Writer's Cramp Symptoms following Botulinum Neurotoxin Injection Therapy. Tremor and Other Hyperkinetic Movements, 2016, 6, 410.	2.0	4
82	Synergistic Upper-Limb Functional Muscle Connectivity Using Acoustic Mechanomyography. IEEE Transactions on Biomedical Engineering, 2022, 69, 2569-2580.	4.2	4
83	Tip position tracking of flexible-link manipulators based on online robust trajectory modification. , 2010, , .		3
84	Therapist-in-the-Loop robotics-assisted mirror rehabilitation therapy: An Assist-as-Needed framework. , 2015, , .		3
85	ELECTROPHYSIOLOGICAL SIGNAL PROCESSING FOR INTRAOPERATIVE LOCALIZATION OF SUBTHALAMIC NUCLEUS DURING DEEP BRAIN STIMULATION SURGERY. , 2018, , .		3
86	Visual Displacement Perception in Parkinson's Disease Analyzed Using a Computer-Generated Graphical Tool. , 2018, 2018, 2748-2751.		3
87	Design and Implementation of a Two-DOF Robotic System with an Adjustable Force Limiting Mechanism for Ankle Rehabilitation. , 2019, , .		3
88	Vibration Analysis in Robot-Driven Glenoid Reaming Procedure. , 2020, , .		3
89	3D-Mechanomyography: Accessing Deeper Muscle Information Non-Invasively for Human-Machine Interfacing. , 2020, , .		3
90	Design, Fabrication, and Validation of a New Family of 3D-Printable Structurally-Programmable Actuators for Soft Robotics. IEEE Robotics and Automation Letters, 2021, 6, 7941-7948.	5.1	3

#	Article	IF	CITATIONS
91	TELEOPERATION FOR MINIMALLY INVASIVE ROBOTICS-ASSISTED SURGERY. , 2018, , 341-372.		3
92	Nerve Injury Decreases Hyperacute Resting-State Connectivity Between the Anterior Cingulate and Primary Somatosensory Cortex in Anesthetized Rats. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2691-2698.	4.9	3
93	A machine learning approach for the identification of kinematic biomarkers of chronic neck pain during single- and dual-task gait. Gait and Posture, 2022, 96, 81-86.	1.4	3
94	Sensory manipulation in writer's cramp: Possibilities for rehabilitation. , 2013, , .		2
95	A force observation method for tracking control of flexible-link manipulators. Robotica, 2013, 31, 669-677.	1.9	2
96	A multi-rate and auto-adjustable wavelet decomposition framework for pathological hand tremor extraction. , 2017, , .		2
97	Unsupervised Clustering of Micro-Electrophysiological Signals for localization of Subthalamic Nucleus during DBS Surgery. , 2019, , .		2
98	Kinematic Biomarkers of Chronic Neck Pain During Curvilinear Walking: A Data-driven Differential Diagnosis Approach. , 2020, 2020, 5162-5166.		2
99	Time-Domain Passivity-based Controller with an Optimal Two-channel Lawrence Telerobotic Architecture. , 2021, , .		2
100	Time delayed non-minimum phase slave tele-robotics. , 2011, , .		1
101	Effect of kinesthetic force feedback and visual sensory input on writer's cramp. , 2013, , .		1
102	Visual Temporal Perception in Parkinson's Disease Analyzed Using a Computer-Generated Graphical Tool. , 2019, , .		1
103	Training of Deep Bidirectional Rnns for Hand Motion Filtering Via Multimodal Data Fusion. , 2019, , .		1
104	Semi-autonomous Robot-assisted Cooperative Therapy Exercises for a Therapist's Interaction with a Patient. , 2019, , .		1
105	Altered evoked low-frequency connectivity from SI to ACC following nerve injury in rats. Journal of Neural Engineering, 2021, 18, 046063.	3.5	1
106	Abnormal Vision-Based Displacement Perception in Parkinson's Disease. Frontiers in Neuroscience, 2021, 15, 676469.	2.8	1
107	Autonomous Data-Driven Manipulation of an Unknown Deformable Tissue Within Constrained Environments: A Pilot Study. , 2022, , .		1
108	The Alternating Electrostatic Force Needed to Optimize Growth of a Carbon Nanotube. Journal of Computational and Theoretical Nanoscience, 2008, 5, 2170-2175.	0.4	0

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109	Simultaneous arm joint angles and force changes in writer's cramp. , 2014, , .		0
110	Video Context Improves Performance in Identifying Operative Planes on Static Surgical Images. Journal of the American College of Surgeons, 2018, 227, e212.	0.5	0
111	Multiple-Model and Reduced-Order Kalman Filtering for Pathological Hand Tremor Extraction. , 2018, ,		0
112	An Online Spectral Information-Enhanced Approach for Artifact Detection and Fault Attentuation in Myoelectric Control*. , 2019, 2019, 671-675.		0
113	Editorial: Autonomy and Intelligence in Neurorehabilitation Robotic and Prosthetic Technologies. Journal of Medical Robotics Research, 2020, 05, 2002001.	1.2	0
114	Video Context Improves Performance in Identifying Operative Planes on Static Surgical Images. Journal of Surgical Education, 2022, 79, 492-499.	2.5	0