

Mahmoud Tavakoli

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

2,441
citations

218677

26
h-index

223800

46
g-index

76
all docs

76
docs citations

76
times ranked

2076
citing authors

#	ARTICLE	IF	CITATIONS
1	EGaIn-Assisted Room-Temperature Sintering of Silver Nanoparticles for Stretchable, Inkjet-Printed, Thin-Film Electronics. <i>Advanced Materials</i> , 2018, 30, e1801852.	21.0	225
2	Robust hand gesture recognition with a double channel surface EMG wearable armband and SVM classifier. <i>Biomedical Signal Processing and Control</i> , 2018, 46, 121-130.	5.7	110
3	Hydroprinted Electronics: Ultrathin Stretchable Ag-In-Ga E-Skin for Bioelectronics and Human-Machine Interaction. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 38760-38768.	8.0	108
4	OmniClimbers: Omni-directional magnetic wheeled climbing robots for inspection of ferromagnetic structures. <i>Robotics and Autonomous Systems</i> , 2013, 61, 997-1007.	5.1	106
5	Single channel surface EMG control of advanced prosthetic hands: A simple, low cost and efficient approach. <i>Expert Systems With Applications</i> , 2017, 79, 322-332.	7.6	104
6	Digitally printed stretchable electronics: a review. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14035-14068.	5.5	93
7	The UC SoftHand: Light Weight Adaptive Bionic Hand with a Compact Twisted String Actuation System. <i>Actuators</i> , 2016, 5, 1.	2.3	92
8	Fabrication and characterization of bending and pressure sensors for a soft prosthetic hand. <i>Journal of Micromechanics and Microengineering</i> , 2018, 28, 034001.	2.6	82
9	Soft Bioelectronic Stickers: Selection and Evaluation of Skin-Interfacing Electrodes. <i>Advanced Healthcare Materials</i> , 2019, 8, e1900234.	7.6	77
10	Bi-Phasic Ag-In-Ga-Embedded Elastomer Inks for Digitally Printed, Ultra-Stretchable, Multi-layer Electronics. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 14552-14561.	8.0	76
11	Reliable interfaces for EGaIn multi-layer stretchable circuits and microelectronics. <i>Lab on A Chip</i> , 2019, 19, 897-906.	6.0	72
12	Fully Untethered Battery-free Biomonitoring Electronic Tattoo with Wireless Energy Harvesting. <i>Scientific Reports</i> , 2020, 10, 5539.	3.3	64
13	The hybrid OmniClimber robot: Wheel based climbing, arm based plane transition, and switchable magnet adhesion. <i>Mechatronics</i> , 2016, 36, 136-146.	3.3	60
14	Reversible polymer-gel transition for ultra-stretchable chip-integrated circuits through self-soldering and self-coating and self-healing. <i>Nature Communications</i> , 2021, 12, 4666.	12.8	59
15	Autonomous Selection of Closing Posture of a Robotic Hand Through Embodied Soft Matter Capacitive Sensors. <i>IEEE Sensors Journal</i> , 2017, 17, 5669-5677.	4.7	55
16	3DCLIMBER: A climbing robot for inspection of 3D human made structures. , 2008, , .		52
17	Adaptive under-actuated anthropomorphic hand: ISR-SoftHand. , 2014, , .		50
18	3DCLIMBER: Climbing and manipulation over 3D structures. <i>Mechatronics</i> , 2011, 21, 48-62.	3.3	49

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19	Wearable and Comfortable e-Textile Headband for Long-Term Acquisition of Forehead EEG Signals. IEEE Sensors Journal, 2020, 20, 15107-15116.	4.7	49
20	Untethered Disposable Health Monitoring Electronic Patches with an Integrated Ag ₂ O@Zn Battery, a AgInGa Current Collector, and Hydrogel Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 3407-3414.	8.0	43
21	Development of an industrial pipeline inspection robot. Industrial Robot, 2010, 37, 309-322.	2.1	42
22	High Resolution Soft and Stretchable Circuits with PVA/Liquid@Metal Mediated Printing. Advanced Materials Technologies, 2020, 5, 2000343.	5.8	42
23	Analysis and application of dual-row omnidirectional wheels for climbing robots. Mechatronics, 2014, 24, 436-448.	3.3	35
24	Design of compact switchable magnetic grippers for the HyReCRo structure-climbing robot. Mechatronics, 2019, 59, 199-212.	3.3	35
25	A compact two-phase twisted string actuation system: Modeling and validation. Mechanism and Machine Theory, 2016, 101, 23-35.	4.5	34
26	Biphasic Liquid Metal Composites for Sinter@Free Printed Stretchable Electronics. Advanced Materials Interfaces, 2022, 9, .	3.7	34
27	Underactuated anthropomorphic hands: Actuation strategies for a better functionality. Robotics and Autonomous Systems, 2015, 74, 267-282.	5.1	33
28	3R Electronics: Scalable Fabrication of Resilient, Repairable, and Recyclable Soft@Matter Electronics. Advanced Materials, 2022, 34, .	21.0	33
29	Carbon doped PDMS: conductance stability over time and implications for additive manufacturing of stretchable electronics. Journal of Micromechanics and Microengineering, 2017, 27, 035010.	2.6	32
30	Liquid metal polymer composites: from printed stretchable circuits to soft actuators. Flexible and Printed Electronics, 2022, 7, 013002.	2.7	32
31	3D Printed Stretchable Liquid Gallium Battery. Advanced Functional Materials, 2022, 32, .	14.9	28
32	Foot Gesture Recognition Through Dual Channel Wearable EMG System. IEEE Sensors Journal, 2019, 19, 10187-10197.	4.7	26
33	Domiciliary Hospitalization through Wearable Biomonitoring Patches: Recent Advances, Technical Challenges, and the Relation to Covid-19. Sensors, 2020, 20, 6835.	3.8	25
34	A Comparative Study of Silver Microflakes in Digitally Printable Liquid Metal Embedded Elastomer Inks for Stretchable Electronics. Advanced Materials Technologies, 2022, 7, .	5.8	24
35	Performance analysis and design of parallel kinematic machines using interval analysis. Mechanism and Machine Theory, 2017, 115, 218-236.	4.5	23
36	Nondrying, Sticky Hydrogels for the Next Generation of High-Resolution Conformable Bioelectronics. ACS Applied Electronic Materials, 2020, 2, 3390-3401.	4.3	23

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37	Motion control of an omnidirectional climbing robot based on dead reckoning method. <i>Mechatronics</i> , 2015, 30, 94-106.	3.3	22
38	Anthropomorphic finger for grasping applications: 3D printed endoskeleton in a soft skin. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 2607-2620.	3.0	22
39	Cooperative multi-agent mapping of three-dimensional structures for pipeline inspection applications. <i>International Journal of Robotics Research</i> , 2012, 31, 1489-1503.	8.5	20
40	Soft-matter sensor for proximity, tactile and pressure detection. , 2017, , .		20
41	OmniClimber: An omnidirectional light weight climbing robot with flexibility to adapt to non-flat surfaces. , 2012, , .		19
42	A low-cost approach for self-calibration of climbing robots. <i>Robotica</i> , 2011, 29, 23-34.	1.9	16
43	Flexirigid, a novel two phase flexible gripper. , 2013, , .		16
44	A novel grid-based reconfigurable spatial parallel mechanism with large workspace. <i>Mechanism and Machine Theory</i> , 2017, 115, 149-167.	4.5	16
45	Chicken feather fiber-based bio-piezoelectric energy harvester: an efficient green energy source for flexible electronics. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1857-1866.	4.9	15
46	Wearable Pressure Mapping Through Piezoresistive C-PU Foam and Tailor-Made Stretchable e-Textile. <i>IEEE Sensors Journal</i> , 2021, 21, 27374-27384.	4.7	14
47	Dielectric Elastomer Actuators with Biphasic Agâ€“EGaIn Electrodes. <i>Advanced Engineering Materials</i> , 2022, 24, 2100953.	3.5	12
48	Magnetic omnidirectional wheels for climbing robots. , 2013, , .		10
49	InchwormClimber: A light-weight biped climbing robot with a switchable magnet adhesion unit. , 2015, , .		9
50	SCALAâ€“A Scalable Rail-based Multirobot System for Large Space Automation: Design and Development. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017, 22, 2208-2217.	5.8	9
51	Actuation Configurations of Bionic Hands for a Better Anthropomorphism Index. <i>Journal of Mechanisms and Robotics</i> , 2016, 8, .	2.2	8
52	A comparison study on Pneumatic Muscles and electrical motors. , 2009, , .		7
53	OmniClimber-II: An omnidirectional climbing robot with high maneuverability and flexibility to adapt to non-flat surfaces. , 2013, , .		7
54	Soft Bionics Hands with a Sense of Touch Through an Electronic Skin. <i>Biosystems and Biorobotics</i> , 2017, , 5-10.	0.3	7

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55	Tailor-made smart glove for robot teleoperation, using printed stretchable sensors. , 2022, , .		7
56	Self calibration of step-by-step based climbing robots. , 2009, , .		6
57	Switchable magnets for robotics applications. , 2015, , .		6
58	3D printed endoskeleton with a soft skin for upper-limb body actuated prosthesis. , 2017, , .		6
59	Laser Writing of Eutectic Gallium–Indium Alloy Graphene–Oxide Electrodes and Semitransparent Conductors. <i>Advanced Materials Technologies</i> , 2022, 7, 2101238.	5.8	6
60	Laser-Assisted Rapid Fabrication of Large-Scale Graphene Oxide Transparent Conductors. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	6
61	Propose of a Benchmark for Pole Climbing Robots. <i>Springer Tracts in Advanced Robotics</i> , 2008, , 215-222.	0.4	5
62	Optimization of a Three Degrees of Freedom DELTA Manipulator for Well-Conditioned Workspace with a Floating Point Genetic Algorithm. <i>International Journal of Natural Computing Research</i> , 2014, 4, 1-14.	0.5	5
63	Autonomous mapping for inspection of 3D structures. , 2011, , .		4
64	Actuation strategies for underactuated anthropomorphic hands. , 2014, , .		4
65	Dynamic hand gesture recognition using a stretchable multi-layer capacitive array, proximity sensing, and a SVM classifier. , 2021, , .		4
66	A single DOF arm for transition of climbing robots between perpendicular planes. , 2014, , .		3
67	Stretchable Electronics: EGaIn-Assisted Room-Temperature Sintering of Silver Nanoparticles for Stretchable, Inkjet-Printed, Thin-Film Electronics (<i>Adv. Mater.</i> 29/2018). <i>Advanced Materials</i> , 2018, 30, 1870215.	21.0	2
68	Hydrogel-silicone conjunction as epidermal and dermal layers of bio-inspired soft finger skin. , 2017, , .		1
69	PATH PLANNING FOR THE "3DCLIMBER". , 2007, , .		0
70	State estimation and path following on curved and flat vertical surfaces with Omniclimber robots: Kinematics and control. , 2015, , .		0
71	A STEP TOWARD AUTONOMOUS POLE CLIMBING ROBOTS. , 2008, , .		0
72	A COMPARISON STUDY ON PNEUMATIC MUSCLES AND ELECTRICAL MOTORS USING THE 3DCLIMBER AS A CASE STUDY. , 2008, , .		0

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73	Dexterity Optimization of a Three Degrees of Freedom DELTA Parallel Manipulator. <i>Advances in Intelligent Systems and Computing</i> , 2014, , 719-726.	0.6	0
74	Water Based Magnification of Capacitive Proximity Sensors: Water Containers as Passive Human Detectors. , 2020, , .		0
75	Autonomous mapping for inspection of 3D structures. , 2011, , .		0
76	Laser Writing of Eutectic Gallium–Indium Alloy Graphene–Oxide Electrodes and Semitransparent Conductors (<i>Adv. Mater. Technol.</i> 5/2022). <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	0