

Yigit Menguc

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

3,802
citations

279701

23
h-index

276775

41
g-index

67
all docs

67
docs citations

67
times ranked

5290
citing authors

#	ARTICLE	IF	CITATIONS
1	Embedded 3D Printing of Strain Sensors within Highly Stretchable Elastomers. <i>Advanced Materials</i> , 2014, 26, 6307-6312.	11.1	1,314
2	Capacitive Soft Strain Sensors via Multicore“Shell Fiber Printing. <i>Advanced Materials</i> , 2015, 27, 2440-2446.	11.1	372
3	Wearable soft sensing suit for human gait measurement. <i>International Journal of Robotics Research</i> , 2014, 33, 1748-1764.	5.8	325
4	Pneumatic Energy Sources for Autonomous and Wearable Soft Robotics. <i>Soft Robotics</i> , 2014, 1, 263-274.	4.6	215
5	Waalbot II: Adhesion Recovery and Improved Performance of a Climbing Robot using Fibrillar Adhesives. <i>International Journal of Robotics Research</i> , 2011, 30, 118-133.	5.8	194
6	Rheological Modification of Liquid Metal for Additive Manufacturing of Stretchable Electronics. <i>Advanced Materials Technologies</i> , 2018, 3, 1700351.	3.0	149
7	Gecko“inspired Controllable Adhesive Structures Applied to Micromanipulation. <i>Advanced Functional Materials</i> , 2012, 22, 1246-1254.	7.8	145
8	Soft wearable motion sensing suit for lower limb biomechanics measurements. , 2013, , .		87
9	Staying sticky: contact self-cleaning of gecko-inspired adhesives. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20131205.	1.5	78
10	3D printable tough silicone double networks. <i>Nature Communications</i> , 2020, 11, 4000.	5.8	74
11	Fully Soft 3D-Printed Electroactive Fluidic Valve for Soft Hydraulic Robots. <i>Soft Robotics</i> , 2018, 5, 258-271.	4.6	68
12	Direct 3D printing of silicone elastomer soft robots and their performance comparison with molded counterparts. , 2018, , .		68
13	3D-Printed Liquid Metal Interconnects for Stretchable Electronics. <i>IEEE Sensors Journal</i> , 2019, 19, 3832-3840.	2.4	57
14	Directly Fabricating Soft Robotic Actuators With an Open-Source 3-D Printer. <i>IEEE Robotics and Automation Letters</i> , 2017, 2, 277-281.	3.3	54
15	Machine learning generative models for automatic design of multi-material 3D printed composite solids. <i>Extreme Mechanics Letters</i> , 2020, 41, 100992.	2.0	43
16	Mechanical and electrical numerical analysis of soft liquid-embedded deformation sensors analysis. <i>Extreme Mechanics Letters</i> , 2014, 1, 42-46.	2.0	38
17	Soft snake robots: Mechanical design and geometric gait implementation. , 2017, , .		36
18	Snake-Inspired Kirigami Skin for Lateral Undulation of a Soft Snake Robot. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 1728-1733.	3.3	34

#	ARTICLE	IF	CITATIONS
19	3D Printing of Viscoelastic Suspensions via Digital Light Synthesis for Tough Nanoparticle-Elastomer Composites. <i>Advanced Materials</i> , 2020, 32, e2001646.	11.1	31
20	A data-driven computational scheme for the nonlinear mechanical properties of cellular mechanical metamaterials under large deformation. <i>Soft Matter</i> , 2020, 16, 7524-7534.	1.2	30
21	Zero-Support 3D Printing of Thermoset Silicone Via Simultaneous Control of Both Reaction Kinetics and Transient Rheology. <i>3D Printing and Additive Manufacturing</i> , 2019, 6, 139-147.	1.4	29
22	Multi-material direct ink writing of photocurable elastomeric foams. <i>Communications Materials</i> , 2021, 2, .	2.9	28
23	Evaluation of 3D Printed Soft Robots in Radiation Environments and Comparison With Molded Counterparts. <i>Frontiers in Robotics and AI</i> , 2019, 6, 40.	2.0	27
24	Enhanced fabrication and characterization of gecko-inspired mushroom-tipped microfiber adhesives. <i>Journal of Adhesion Science and Technology</i> , 2013, 27, 1921-1932.	1.4	26
25	Design of Deployable Soft Robots Through Plastic Deformation of Kirigami Structures. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 2272-2279.	3.3	26
26	Development of the Polipo Pressure Sensing System for Dynamic Space-Suited Motion. <i>IEEE Sensors Journal</i> , 2015, 15, 6229-6237.	2.4	24
27	Using an environmentally benign and degradable elastomer in soft robotics. <i>International Journal of Intelligent Robotics and Applications</i> , 2017, 1, 124-142.	1.6	24
28	An Euler-Bernoulli beam model for soft robot arms bent through self-stress and external loads. <i>International Journal of Solids and Structures</i> , 2020, 207, 113-131.	1.3	20
29	Will robots be bodies with brains or brains with bodies?. <i>Science Robotics</i> , 2017, 2, .	9.9	19
30	Soft Snake Robots: Investigating the Effects of Gait Parameters on Locomotion in Complex Terrains. , 2018, , .		16
31	Highly-Stretchable Biomechanical Strain Sensor using Printed Liquid Metal Paste. , 2018, , .		16
32	Acoustophoretic Liquefaction for 3D Printing Ultrahigh-Viscosity Nanoparticle Suspensions. <i>Advanced Materials</i> , 2022, 34, e2106183.	11.1	14
33	A generalizable equilibrium model for bending soft arms with longitudinal actuators. <i>International Journal of Robotics Research</i> , 2021, 40, 148-177.	5.8	12
34	Lumped-Parameter Response Time Models for Pneumatic Circuit Dynamics. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2021, 143, .	0.9	12
35	What Is the Path Ahead for Soft Robotics?. <i>Soft Robotics</i> , 2016, 3, 159-160.	4.6	9
36	Predicting interfacial layer adhesion strength in 3D printable silicone. <i>Additive Manufacturing</i> , 2021, 47, 102320.	1.7	9

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37	Soft Robotics as an Emerging Academic Field. <i>Soft Robotics</i> , 2015, 2, 131-134.	4.6	7
38	Adhesion recovery and passive peeling in a wall climbing robot using adhesives. , 2010, , .		5
39	Developing a UV-Curable, Environmentally Benign and Degradable Elastomer for Soft Robotics. <i>MRS Advances</i> , 2018, 3, 1551-1556.	0.5	5
40	Experimentally Identified Models of McKibben Soft Actuators as Primary Movers and Passive Structures. <i>Journal of Mechanisms and Robotics</i> , 2022, 14, .	1.5	5
41	Hybrid soft sensor with embedded IMUs to measure motion. , 2016, , .		4
42	Characterization of a Class of Soft Bending Arms. , 2019, , .		4
43	Stenciled Liquid Metal Paste for Robust Stretchable Electrical Interconnects. , 2021, , .		4
44	Curvilinear Kirigami Skins Let Soft Bending Actuators Slither Faster. <i>Frontiers in Robotics and AI</i> , 2022, 9, 872007.	2.0	4
45	A Soft, Wearable, Quantitative Ankle Diagnostic Device ¹ . <i>Journal of Medical Devices, Transactions of the ASME</i> , 2015, 9, .	0.4	3
46	Self-sensing Elastomeric Membrane for Haptic Bubble Array. , 2020, , .		3
47	Indentation and bifurcation of inflated membranes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021, 477, 20200930.	1.0	3
48	3D Printed Motor-Sensory Module Prototype for Facial Rehabilitation. <i>Soft Robotics</i> , 2022, 9, 354-363.	4.6	3
49	Smart and Squishy Robots. <i>American Scientist</i> , 2017, 105, 143.	0.1	3
50	Contextual Collision. , 2018, , .		2
51	Measurement of tissue stiffness using soft eGa-in sensors and pressure application. , 2018, , .		2
52	Learning to Control Reconfigurable Staged Soft Arms. , 2020, , .		2
53	Skin in the Game: A Tunable Interface-Quality Sensor for Human-Coupled Accessories. , 2020, 4, 1-4.		2
54	Analyzing the Effect of Soft Arm Design on Obstacle Navigation through Collision. , 2020, , .		2

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55	Bioinspired Materials: Gecko-Inspired Controllable Adhesive Structures Applied to Micromanipulation (Adv. Funct. Mater. 6/2012). Advanced Functional Materials, 2012, 22, 1245-1245.	7.8	1
56	Incorporate Oblique Muscle Contractions to Strengthen Soft Robots. , 2018, , .		1
57	Helically wound soft actuators for torsion control. , 2018, , .		1
58	Electrical Characterization of Stretchable Printed Liquid Metal Interconnects under Repeated Cyclic Loading. , 2019, , .		1
59	Evaluation of a Circumferential Extending Antagonist Actuator in a Soft Arm. , 2020, , .		1
60	Redundancy and overactuation in cephalopod-inspired soft robot arms. Bioinspiration and Biomimetics, 2022, 17, 036004.	1.5	1
61	Self-Sensing, Stretchable, Active Circuit Arrays: Liquid Metal Paste as a Combination Interconnect and Strain Sensor. , 2022, , .		1
62	Compact Modeling of Stretchable Printed Liquid Metal Electrical Interconnects. , 2019, , .		0
63	Auger-Based 3D Printing of Stretchable Liquid Metal Paste Interconnects: A Brief Tutorial. , 2021, , .		0
64	A tuned mass amplifier for enhanced haptic feedback. Mechanics of Materials, 2021, 160, 103979.	1.7	0
65	Smart and Squishy Robots. American Scientist, 2017, 105, 143.	0.1	0
66	Redundancy and overactuation in cephalopod-inspired soft robot arms. Bioinspiration and Biomimetics, 2022, , .	1.5	0