Yigit Menguc

List of Publications by Year
in descending order

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66 papers	3,802 citations	279798 23 h-index	276875 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. Advanced Materials, 2014, 26, 6307-6312.	21.0	1,314
2	Capacitive Soft Strain Sensors via Multicoreâ€“Shell Fiber Printing. Advanced Materials, 2015, 27, 2440-2446.	21.0	372
3	Wearable soft sensing suit for human gait measurement. International Journal of Robotics Research, 2014, 33, 1748-1764.	8.5	325
4	Pneumatic Energy Sources for Autonomous and Wearable Soft Robotics. Soft Robotics, 2014, 1, 263-274.	8.0	215
5	Waalbot II: Adhesion Recovery and Improved Performance of a Climbing Robot using Fibrillar Adhesives. International Journal of Robotics Research, 2011, 30, 118-133.	8.5	194
6	Rheological Modification of Liquid Metal for Additive Manufacturing of Stretchable Electronics. Advanced Materials Technologies, 2018, 3, 1700351.	5.8	149
7	Geckoâ€Inspired Controllable Adhesive Structures Applied to Micromanipulation. Advanced Functional Materials, 2012, 22, 1246-1254.	14.9	145
8	Soft wearable motion sensing suit for lower limb biomechanics measurements. , 2013, , .		87
9	Staying sticky: contact self-cleaning of gecko-inspired adhesives. Journal of the Royal Society Interface, 2014, 11, 20131205.	3.4	78
10	3D printable tough silicone double networks. Nature Communications, 2020, 11, 4000.	12.8	74
11	Fully Soft 3D-Printed Electroactive Fluidic Valve for Soft Hydraulic Robots. Soft Robotics, 2018, 5, 258-271.	8.0	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. IEEE Sensors Journal, 2019, 19, 3832-3840.	4.7	57
14	Directly Fabricating Soft Robotic Actuators With an Open-Source 3-D Printer. IEEE Robotics and Automation Letters, 2017, 2, 277-281.	5.1	54
15	Machine learning generative models for automatic design of multi-material 3D printed composite solids. Extreme Mechanics Letters, 2020, 41, 100992.	4.1	43
16	Mechanical and electrical numerical analysis of soft liquid-embedded deformation sensors analysis. Extreme Mechanics Letters, 2014, 1, 42-46.	4.1	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. IEEE Robotics and Automation Letters, 2020, 5, 1728-1733.	5.1	34

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19	3D Printing of Viscoelastic Suspensions via Digital Light Synthesis for Tough Nanoparticleâ€“Elastomer Composites. Advanced Materials, 2020, 32, e2001646.	21.0	31
20	A data-driven computational scheme for the nonlinear mechanical properties of cellular mechanical metamaterials under large deformation. Soft Matter, 2020, 16, 7524-7534.	2.7	30
21	Zero-Support 3D Printing of Thermoset Silicone Via Simultaneous Control of Both Reaction Kinetics and Transient Rheology. 3D Printing and Additive Manufacturing, 2019, 6, 139-147.	2.9	29
22	Multi-material direct ink writing of photocurable elastomeric foams. Communications Materials, 2021, 2, .	6.9	28
23	Evaluation of 3D Printed Soft Robots in Radiation Environments and Comparison With Molded Counterparts. Frontiers in Robotics and AI, 2019, 6, 40.	3.2	27
24	Enhanced fabrication and characterization of gecko-inspired mushroom-tipped microfiber adhesives. Journal of Adhesion Science and Technology, 2013, 27, 1921-1932.	2.6	26
25	Design of Deployable Soft Robots Through Plastic Deformation of Kirigami Structures. IEEE Robotics and Automation Letters, 2020, 5, 2272-2279.	5.1	26
26	Development of the Polipo Pressure Sensing System for Dynamic Space-Suited Motion. IEEE Sensors Journal, 2015, 15, 6229-6237.	4.7	24
27	Using an environmentally benign and degradable elastomer in soft robotics. International Journal of Intelligent Robotics and Applications, 2017, 1, 124-142.	2.8	24
28	An Eulerâ€“Bernoulli beam model for soft robot arms bent through self-stress and external loads. International Journal of Solids and Structures, 2020, 207, 113-131.	2.7	20
29	Will robots be bodies with brains or brains with bodies?. Science Robotics, 2017, 2, .	17.6	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 Ultrahighâ€Viscosity Nanoparticle Suspensions. Advanced Materials, 2022, 34, e2106183.	21.0	14
33	A generalizable equilibrium model for bending soft arms with longitudinal actuators. International Journal of Robotics Research, 2021, 40, 148-177.	8.5	12
34	Lumped-Parameter Response Time Models for Pneumatic Circuit Dynamics. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	1.6	12
35	What Is the Path Ahead for Soft Robotics?. Soft Robotics, 2016, 3, 159-160.	8.0	9
36	Predicting interfacial layer adhesion strength in 3D printable silicone. Additive Manufacturing, 2021, 47, 102320.	3.0	9

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37	Soft Robotics as an Emerging Academic Field. Soft Robotics, 2015, 2, 131-134.	8.0	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. MRS Advances, 2018, 3, 1551-1556.	0.9	5
40	Experimentally Identified Models of McKibben Soft Actuators as Primary Movers and Passive Structures. Journal of Mechanisms and Robotics, 2022, 14, .	2.2	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. Frontiers in Robotics and AI, 2022, 9, 872007.	3.2	4
45	A Soft, Wearable, Quantitative Ankle Diagnostic Device1. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.7	3
46	Self-sensing Elastomeric Membrane for Haptic Bubble Arrray. , 2020, , .		3
47	Indentation and bifurcation of inflated membranes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200930.	2.1	3
48	3D Printed Motor-Sensory Module Prototype for Facial Rehabilitation. Soft Robotics, 2022, 9, 354-363.	8.0	3
49	Smart and Squishy Robots. American Scientist, 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.	14.9	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.	2.9	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.	3.2	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, , .	2.9	0