Chen-Hua Yeow

List of Publications by Year
in descending order

123 papers	4,104 citations	172457 29 h-index	149698 56 g-index
129 all docs	129 docs citations	129 times ranked	4065 citing authors

#	Article	IF	Citations
1	Sensorized Reconfigurable Soft Robotic Gripper System for Automated Food Handling. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3232-3243.	5.8	26
2	Static Modeling of the Fiber-Reinforced Soft Pneumatic Actuators Including Inner Compression: Bending in Free Space, Block Force, and Deflection upon Block Force. Soft Robotics, 2022, 9, 451-472.	8.0	12
3	Simulation Data Driven Design Optimization for Reconfigurable Soft Gripper System. IEEE Robotics and Automation Letters, 2022, 7, 5803-5810.	5.1	9
4	Freeform Liquid 3D Printing of Soft Functional Components for Soft Robotics. ACS Applied Materials & Interfaces, 2022, 14, 2301-2315.	8.0	17
5	A Wearable Soft Robotic Exoskeleton for Hip Flexion Rehabilitation. Frontiers in Robotics and AI, 2022, 9, 835237.	3.2	16
6	A Learning-Based Approach to Sensorize Soft Robots. Soft Robotics, 2022, 9, 1144-1153.	8.0	9
7	GSG: A Granary-Shaped Soft Gripper With Mechanical Sensing via Snap-Through Structure. IEEE Robotics and Automation Letters, 2022, 7, 9421-9428.	5.1	6
8	A 2-DOF Shoulder Exosuit Driven by Modular, Pneumatic, Fabric Actuators. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 166-178.	3.2	12
9	3D printed Soft Extension Actuator. , 2021, , .		4
10	Multilayer Extending Actuator for Soft Robotic Applications. , 2021, , .		1
11	Artificial Intelligence of Things (AIoT) Enabled Virtual Shop Applications Using Selfâ€Powered Sensor Enhanced Soft Robotic Manipulator. Advanced Science, 2021, 8, e2100230.	11.2	138
12	Effect of proprioceptive stimulation using a soft robotic glove on motor activation and brain connectivity in stroke survivors. Journal of Neural Engineering, 2021, 18, 066049.	3.5	7
13	Soft Robotic Pad Maturing for Practical Applications. Soft Robotics, 2020, 7, 30-43.	8.0	23
14	Fiber pattern optimization for soft robotic pad. Extreme Mechanics Letters, 2020, 41, 101055.	4.1	7
15	Application of Novel Graphite Flex Sensors in Closed-Loop Angle Feedback on a Soft Robotic Glove for Stroke Rehabilitation. Journal of Prosthetics and Orthotics, 2020, 32, 272-285.	0.4	2
16	Wireless Ti₃C₂T_{<i>x</i>} MXene Strain Sensor with Ultrahigh Sensitivity and Designated Working Windows for Soft Exoskeletons. ACS Nano, 2020, 14, 11860-11875.	14.6	99
17	Design and Modeling of a High Force Soft Actuator for Assisted Elbow Flexion. IEEE Robotics and Automation Letters, 2020, 5, 3731-3736.	5.1	24
18	Brain-Computer Interface-Based Soft Robotic Glove Rehabilitation for Stroke. IEEE Transactions on Biomedical Engineering, 2020, 67, 3339-3351.	4.2	74

#	Article	IF	Citations
19	Utilizing Sacrificial Molding for Embedding Motion Controlling Endostructures in Soft Pneumatic Actuators. , 2020, , .		1
20	Simplifying Soft Robots Through Adhesive-backed Fabrics. , 2019, , .		1
21	Texture Discrimination using a Soft Biomimetic Finger for Prosthetic Applications. , 2019, 2019, 380-385.		9
22	Functional connectivity of brain associated with passive range of motion exercise: Proprioceptive input promoting motor activation?. NeuroImage, 2019, 202, 116023.	4.2	15
23	A Hybrid Soft Robotic Surgical Gripper System for Delicate Nerve Manipulation in Digital Nerve Repair Surgery. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1440-1451.	5.8	23
24	STAS: An Antagonistic Soft Pneumatic Actuator Assembly for High Torque Output. , 2019, , .		7
25	Design and Characterization of a 3D Printed Soft Robotic Wrist Sleeve with 2 DoF for Stroke Rehabilitation. , 2019, , .		16
26	Tubular Jamming: A Variable Stiffening Method Toward High-Force Applications with Soft Robotic Components. Soft Robotics, 2019, 6, 468-482.	8.0	19
27	Shape Programming Using Triangular and Rectangular Soft Robot Primitives. Micromachines, 2019, 10, 236.	2.9	2
28	Erratum to â€œDesign, Characterization, and Implementation of a Two-DOF Fabric-Based Soft Robotic Armâ€. IEEE Robotics and Automation Letters, 2019, 4, 2250-2250.	5.1	1
29	Effect of a Soft Robotic Sock Device on Lower Extremity Rehabilitation Following Stroke: A Preliminary Clinical Study With Focus on Deep Vein Thrombosis Prevention. IEEE Journal of Translational Engineering in Health and Medicine, 2019, 7, 1-6.	3.7	7
30	A Versatile Soft Crawling Robot with Rapid Locomotion. Soft Robotics, 2019, 6, 455-467.	8.0	97
31	A Fabric-Based Wearable Soft Robotic Limb. Journal of Mechanisms and Robotics, 2019, 11, .	2.2	20
32	Design and Evaluation of a Novel Hybrid Soft Surgical Gripper for Safe Digital Nerve Manipulation. Micromachines, 2019, 10, 190.	2.9	2
33	Carpie: A soft, mechanically-reconfigurable worm robot. , 2019, , .		0
34	Soft Fabric-Based Pneumatic Sensor for Bending Angles and Contact Force Detection. IEEE Sensors Journal, 2019, 19, 1269-1279.	4.7	16
35	Improved Fabrication of Soft Robotic Pad for Wearable Assistive Devices. Biosystems and Biorobotics, 2019, , 401-405.	0.3	0
36	Design and Characterization of a Soft Robotic Therapeutic Glove for Rheumatoid Arthritis. Assistive Technology, 2019, 31, 44-52.	2.0	12

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37	The Exosleeve: A Soft Robotic Exoskeleton for Assisting in Activities of Daily Living. Biosystems and Biorobotics, 2019, , 406-409.	0.3	7
38	The Biomechanics of Character Types in Javanese Dance. Journal of Dance Medicine and Science, 2019, 23, 104-111.	0.7	3
39	Design, characterisation and evaluation of a soft robotic sock device on healthy subjects for assisted ankle rehabilitation. Journal of Medical Engineering and Technology, 2018, 42, 26-34.	1.4	6
40	Design, Characterization, and Implementation of a Two-DOF Fabric-Based Soft Robotic Arm. IEEE Robotics and Automation Letters, 2018, 3, 2702-2709.	5.1	51
41	A Novel Foldâ€Based Design Approach toward Printable Soft Robotics Using Flexible 3D Printing Materials. Advanced Materials Technologies, 2018, 3, 1700172.	5.8	56
42	Geometry-Based Customization of Bending Modalities for 3D-Printed Soft Pneumatic Actuators. IEEE Robotics and Automation Letters, 2018, 3, 3489-3496.	5.1	26
43	A Reconfigurable Pneumatic Bending Actuator with Replaceable Inflation Modules. Soft Robotics, 2018, 5, 304-317.	8.0	39
44	Effects of Mattress Material on Body Pressure Profiles in Different Sleeping Postures. Journal of Chiropractic Medicine, 2017, 16, 1-9.	0.7	26
45	A Fully Fabric-Based Bidirectional Soft Robotic Glove for Assistance and Rehabilitation of Hand Impaired Patients. IEEE Robotics and Automation Letters, 2017, 2, 1383-1390.	5.1	178
46	Hybrid Tele-Manipulation System Using a Sensorized 3-D-Printed Soft Robotic Gripper and a Soft Fabric-Based Haptic Glove. IEEE Robotics and Automation Letters, 2017, 2, 880-887.	5.1	80
47	Force Measurement Toward the Instability Theory of Soft Pneumatic Actuators. IEEE Robotics and Automation Letters, 2017, 2, 985-992.	5.1	36
48	Stiffness Customization and Patterning for Property Modulation of Silicone-Based Soft Pneumatic Actuators. Soft Robotics, 2017, 4, 251-260.	8.0	74
49	A wearable, EEG-based massage headband for anxiety alleviation. , 2017, 2017, 3557-3560.		6
50	Antagonist muscle co-contraction during a double-leg landing maneuver at two heights. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 1382-1393.	1.6	8
51	A hybrid plastic-fabric soft bending actuator with reconfigurable bending profiles. , 2017, , .		29
52	The effect of leg dominance and landing height on ACL loading among female athletes. Journal of Biomechanics, 2017, 60, 181-187.	2.1	31
53	Proton NMR characterization of intact primary and metastatic melanoma cells in 2D & 3D cultures. Biological Research, 2017, 50, 12.	3.4	7
54	Soft Printable Pneumatics for Wrist Rehabilitation. Biosystems and Biorobotics, 2017, , 545-550.	0.3	2

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55	A Magnetic Resonance Compatible Soft Wearable Robotic Glove for Hand Rehabilitation and Brain Imaging. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 782-793.	4.9	72
56	Design and characterization of low-cost fabric-based flat pneumatic actuators for soft assistive glove application. , 2017, 2017, 1465-1470.		27
57	Design and fabrication of a shape-morphing soft pneumatic actuator: Soft robotic pad. , 2017, , .		14
58	Print-it-Yourself (PIY) glove: A fully 3D printed soft robotic hand rehabilitative and assistive exoskeleton for stroke patients. , 2017, , .		33
59	Design and fabrication of a pneumatic soft robotic gripper for delicate surgical manipulation. , 2017, , .		14
60	Design and characterization of a novel fabric-based robotic arm for future wearable robot application. , 2017, , .		16
61	A bidirectional soft pneumatic fabric-based actuator for grasping applications. , 2017, , .		25
62	Fabric-based actuator modules for building soft pneumatic structures with high payload-to-weight ratio. , 2017, , .		17
63	Development of flexible fabric based tactile sensor for closed loop control of soft robotic actuator. , 2017, , .		10
64	Propulsion-Based Soft Robotic Actuation. Robotics, 2017, 6, 34.	3.5	6
65	Design and Preliminary Feasibility Study of a Soft Robotic Glove for Hand Function Assistance in Stroke Survivors. Frontiers in Neuroscience, 2017, 11, 547.	2.8	107
66	Design of a Soft Robotic Elbow Sleeve with Passive and Intent-Controlled Actuation. Frontiers in Neuroscience, 2017, 11, 597.	2.8	46
67	Identification of Gastric Cancer Biomarkers Using 1H Nuclear Magnetic Resonance Spectrometry. PLoS ONE, 2016, 11, e0162222.	2.5	6
68	Soft Robotics: Flexible and Stretchable Strain Sensing Actuator for Wearable Soft Robotic Applications (Adv. Mater. Technol. 3/2016). Advanced Materials Technologies, 2016, 1, .	5.8	2
69	Flexible and Stretchable Strain Sensing Actuator for Wearable Soft Robotic Applications. Advanced Materials Technologies, 2016, 1, 1600018.	5.8	188
70	A Low-Profile Soft Robotic Sixth-Finger for Grasp Compensation in Hand-Impaired Patients1. Journal of Medical Devices, Transactions of the ASME, 2016, 10, .	0.7	2
71	Design of a Soft Robotic Glove for Hand Rehabilitation of Stroke Patients With Clenched Fist Deformity Using Inflatable Plastic Actuators. Journal of Medical Devices, Transactions of the ASME, 2016, 10, .	0.7	54
72	A soft robotic sock device for ankle rehabilitation and prevention of deep vein thrombosis. , 2016, , .		6

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73	GEAR: A Mobile Game-Assisted Rehabilitation System. , 2016, , .		6
74	Characterisation and evaluation of soft elastomeric actuators for hand assistive and rehabilitation applications. Journal of Medical Engineering and Technology, 2016, 40, 199-209.	1.4	54
75	Development of a Soft Pneumatic Sock for Robot-Assisted Ankle Exercise. Journal of Medical Devices, Transactions of the ASME, 2016, 10, .	0.7	22
76	Design and evaluation of Rheumatoid Arthritis rehabilitative Device (RARD) for laterally bent fingers. , 2016, , .		4
77	Development of a soft robotic shoulder assistive device for shoulder abduction. , 2016, , .		29
78	Comparison of mean frequency and median frequency in evaluating muscle fiber type selection in varying gait speed across healthy young adult individuals. , 2016, 2016, 1725-1728.		7
79	High-Force Soft Printable Pneumatics for Soft Robotic Applications. Soft Robotics, 2016, 3, 144-158.	8.0	427
80	FPGA implementation of a FA-1 mechanoreceptor model for efficient representation of tactile features. , 2016, , .		0
81	Soft haptics using soft actuator and soft sensor. , 2016, , .		11
82	A compliant modular robotic hand with fabric force sensor for multiple versatile grasping modes. , 2016, , .		14
83	Soft robotic Sit-to-Stand trainer seat. , 2016, , .		2
84	Delicate manipulations with compliant mechanism and electrostatic adhesion. , 2016, , .		5
85	Design of a wearable FMG sensing system for user intent detection during hand rehabilitation with a soft robotic glove. , 2016, , .		22
86	Rod-based Fabrication of Customizable Soft Robotic Pneumatic Gripper Devices for Delicate Tissue Manipulation. Journal of Visualized Experiments, 2016, , .	0.3	6
87	Effects of visual feedback on motion mimicry ability during video-based rehabilitation. Cogent Medicine, 2016, 3, 1215284.	0.7	3
88	A fabric-regulated soft robotic glove with user intent detection using EMG and RFID for hand assistive application. , 2016, , .		79
89	A Portable Soft Hand Exerciser With Variable Elastic Resistance for Rehabilitation and Strengthening of Finger, Wrist, and Hand1. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.7	1
90	MRC-glove: A fMRI compatible soft robotic glove for hand rehabilitation application. , 2015, , .		35

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91	Development of a Wearable Electroencephalographic Device for Anxiety Monitoring1. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.7	4
92	Restrained tibial rotation may prevent ACL injury during landing at different flexion angles. Knee, 2015, 22, 24-29.	1.6	9
93	A pressure-redistributing insole using soft sensors and actuators. , 2015, , .		14
94	Study on the use of soft ankle-foot exoskeleton for alternative mechanical prophylaxis of deep vein thrombosis. , 2015, , .		9
95	Customizable soft pneumatic finger actuators for hand orthotic and prosthetic applications. , 2015, , .		28
96	A soft exoskeleton for hand assistive and rehabilitation application using pneumatic actuators with variable stiffness. , 2015, , .		175
97	Design and Characterization of Soft Actuator for Hand Rehabilitation Application. IFMBE Proceedings, 2015, , 367-370.	0.3	48
98	Customizable Soft Pneumatic Chamberâ€"Gripper Devices for Delicate Surgical Manipulation. Journal of Medical Devices, Transactions of the ASME, 2014, 8, .	0.7	22
99	Contrasting Effects of Vasculogenic Induction Upon Biaxial Bioreactor Stimulation of Mesenchymal Stem Cells and Endothelial Progenitor Cells Cocultures in Three-Dimensional Scaffolds Under <i>In Vitro</i> and <i>In Vivo</i> Paradigms for Vascularized Bone Tissue Engineering. Tissue Engineering - Part A, 2013, 19, 893-904.	3.1	71
100	Hamstrings and quadriceps muscle contributions to energy generation and dissipation at the knee joint during stance, swing and flight phases of level running. Knee, 2013, 20, 100-105.	1.6	14
101	Contributions of the Soleus and Gastrocnemius muscles to the anterior cruciate ligament loading during single-leg landing. Journal of Biomechanics, 2013, 46, 1913-1920.	2.1	102
102	The Biomechanics of ACL Injury: Progresses toward Prophylactic Strategies. Critical Reviews in Biomedical Engineering, 2013, 41, 309-321.	0.9	2
103	Temporal Activation of Î²-Catenin Signaling in the Chondrogenic Process of Mesenchymal Stem Cells Affects the Phenotype of the Cartilage Generated. Stem Cells and Development, 2012, 21, 1966-1976.	2.1	36
104	Differential Spring Stiffness Design for Finger Therapy Exercise Device: Bio-inspired from Stiff Pathological Finger Joints. Journal of Medical Devices, Transactions of the ASME, 2012, 6, .	0.7	1
105	Non-linear flexion relationships of the knee with the hip and ankle, and their relative postures during landing. Knee, 2011, 18, 323-328.	1.6	16
106	Shod landing provides enhanced energy dissipation at the knee joint relative to barefoot landing from different heights. Knee, 2011, 18, 407-411.	1.6	22
107	An investigation of lower extremity energy dissipation strategies during single-leg and double-leg landing based on sagittal and frontal plane biomechanics. Human Movement Science, 2011, 30, 624-635.	1.4	109
108	Correlation of axial impact forces with knee joint forces and kinematics during simulated ski-landing. Journal of Sports Sciences, 2011, 29, 1143-1151.	2.0	8

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109	Early detection of biomolecular changes in disrupted porcine cartilage using polarized Raman spectroscopy. Journal of Biomedical Optics, 2011, 16, 017003.	2.6	73
110	Direct contribution of axial impact compressive load to anterior tibial load during simulated ski landing impact. Journal of Biomechanics, 2010, 43, 242-247.	2.1	9
111	Sagittal knee joint kinematics and energetics in response to different landing heights and techniques. Knee, 2010, 17, 127-131.	1.6	89
112	Extent and distribution of tibial osteochondral disruption during simulated landing impact with axial tibial rotation restraint. Journal of Biomechanics, 2010, 43, 2010-2016.	2.1	1
113	Cartilage repair using hyaluronan hydrogel-encapsulated human embryonic stem cell-derived chondrogenic cells. Biomaterials, 2010, 31, 6968-6980.	11.4	239
114	Tibial Cartilage Damage and Deformation at Peak Displacement Compression during Simulated Landing Impact. American Journal of Sports Medicine, 2010, 38, 816-823.	4.2	7
115	Effect of an anterior-sloped brace joint on anterior tibial translation and axial tibial rotation: A motion analysis study. Clinical Biomechanics, 2010, 25, 1025-1030.	1.2	6
116	Inhibition of Anterior Tibial Translation or Axial Tibial Rotation Prevents Anterior Cruciate Ligament Failure during Impact Compression. American Journal of Sports Medicine, 2009, 37, 813-821.	4.2	15
117	Regression relationships of landing height with ground reaction forces, knee flexion angles, angular velocities and joint powers during double-leg landing. Knee, 2009, 16, 381-386.	1.6	57
118	Damage and degenerative changes in menisciâ€covered and exposed tibial osteochondral regions after simulated landing impact compressionâ€"a porcine study. Journal of Orthopaedic Research, 2009, 27, 1100-1108.	2.3	16
119	Repeated application of incremental landing impact loads to intact knee joints induces anterior cruciate ligament failure and tibiofemoral cartilage deformation and damage: A preliminary cadaveric investigation. Journal of Biomechanics, 2009, 42, 972-981.	2.1	13
120	Effect of landing height on frontal plane kinematics, kinetics and energy dissipation at lower extremity joints. Journal of Biomechanics, 2009, 42, 1967-1973.	2.1	68
121	Anterior Cruciate Ligament Failure and Cartilage Damage during Knee Joint Compression. American Journal of Sports Medicine, 2008, 36, 934-942.	4.2	43
122	Pathomechanics of Post-traumatic Knee Injuries. IFMBE Proceedings, 2008, , 13-17.	0.3	0
123	Effects of Squatting Speed and Depth on Lower Extremity Kinematics, Kinetics and Energetics. Journal of Mechanics in Medicine and Biology, 0, , .	0.7	2