

Shinichi Hirai

List of Publications by Year in descending order

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240
papers

2,889
citations

331538

21
h-index

302012

39
g-index

253
all docs

253
docs citations

253
times ranked

1711
citing authors

#	ARTICLE	IF	CITATIONS
1	A Prestressed Soft Gripper: Design, Modeling, Fabrication, and Tests for Food Handling. IEEE Robotics and Automation Letters, 2017, 2, 1909-1916.	3.3	205
2	A dual-mode soft gripper for food packaging. Robotics and Autonomous Systems, 2020, 125, 103427.	3.0	114
3	Kinematics and Statics of Manipulation Using the Theory of Polyhedral Convex Cones. International Journal of Robotics Research, 1993, 12, 434-447.	5.8	97
4	Soft Gripper Dynamics Using a Line-Segment Model With an Optimization-Based Parameter Identification Method. IEEE Robotics and Automation Letters, 2017, 2, 624-631.	3.3	86
5	Elastic Model of Deformable Fingertip for Soft-Fingered Manipulation. , 2006, 22, 1273-1279.		80
6	Rolling tensegrity driven by pneumatic soft actuators. , 2012, , .		72
7	3D printed soft gripper for automatic lunch box packing. , 2016, , .		66
8	Crawling by body deformation of tensegrity structure robots. , 2009, , .		63
9	Development and Analysis of a Sliding Tactile Soft Fingertip Embedded With a Microforce/Moment Sensor. IEEE Transactions on Robotics, 2011, 27, 411-424.	7.3	56
10	Indirect simultaneous positioning of deformable objects with multi-pinching fingers based on an uncertain model. Robotica, 2000, 18, 3-11.	1.3	52
11	Circular Shell Gripper for Handling Food Products. Soft Robotics, 2021, 8, 542-554.	4.6	51
12	Realtime FPGA-Based Vision System. Journal of Robotics and Mechatronics, 2005, 17, 401-409.	0.5	39
13	Design and Analysis of a Soft-Fingered Hand With Contact Feedback. IEEE Robotics and Automation Letters, 2017, 2, 491-498.	3.3	38
14	Embedded electro-conductive yarn for shape sensing of soft robotic manipulators. , 2015, 2015, 8026-9.		37
15	Challenges and Opportunities in Robotic Food Handling: A Review. Frontiers in Robotics and AI, 2021, 8, 789107.	2.0	36
16	A 3D printed soft gripper integrated with curvature sensor for studying soft grasping. , 2016, , .		33
17	Micro fabricated tunable bending stiffness devices. Sensors and Actuators A: Physical, 2001, 89, 119-123.	2.0	32
18	A Wrapping Gripper for Packaging Chopped and Granular Food Materials. , 2019, , .		32

#	ARTICLE	IF	CITATIONS
19	Magnetic and Mechanical Modeling of a Soft Three-Axis Force Sensor. IEEE Sensors Journal, 2016, 16, 5298-5307.	2.4	31
20	Microparts Feeding by a Saw-Tooth Surface. IEEE/ASME Transactions on Mechatronics, 2006, 11, 671-681.	3.7	30
21	What can be inferred from a tactile arrayed sensor in autonomous in-hand manipulation?. , 2012, , .		30
22	Flexible Fabric Sensor Toward a Humanoid Robot's Skin: Fabrication, Characterization, and Perceptions. IEEE Sensors Journal, 2013, 13, 4065-4080.	2.4	29
23	Comparison of different soft grippers for lunch box packaging. Robotics and Biomimetics, 2017, 4, 10.	1.7	27
24	Handling of hemmed fabrics by a single-armed robot. , 2008, , .		25
25	Modeling and estimation of rheological properties of food products for manufacturing simulations. Journal of Food Engineering, 2011, 102, 136-144.	2.7	25
26	Force Analytic Method for Rolling Gaits of Tensegrity Robots. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2249-2259.	3.7	25
27	A Scooping-Binding Robotic Gripper for Handling Various Food Products. Frontiers in Robotics and AI, 2021, 8, 640805.	2.0	23
28	A 3-D Nonhomogeneous FE Model of Human Fingertip Based on MRI Measurements. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 3147-3157.	2.4	22
29	Analysis of Circular Robot Jumping by Body Deformation. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	21
30	Wrinâ€™TM Tac: Tactile Sensing System With Wrinkle's Morphological Change. IEEE Transactions on Industrial Informatics, 2017, 13, 2496-2506.	7.2	21
31	Chamber dimension optimization of a bellow-type soft actuator for food material handling. , 2018, , .		21
32	A novel model for assessing sliding mechanics and tactile sensation of human-like fingertips during slip action. Robotics and Autonomous Systems, 2015, 63, 253-267.	3.0	20
33	Miniaturization Design of Piezoelectric Vibration-Driven Pneumatic Unconstrained Valves. Journal of Robotics and Mechatronics, 2010, 22, 91-99.	0.5	20
34	A biomimetic soft fingertip applicable to haptic feedback systems for texture identification. , 2013, , .		19
35	Binding of food materials with a tension-sensitive elastic thread. , 2015, , .		19
36	Wiping motion for deformable object handling. , 2009, , .		18

#	ARTICLE	IF	CITATIONS
37	The effect of anisotropic friction on vibratory velocity fields. , 2012, , .		18
38	Aerial manipulation for the workspace above the airframe. , 2015, , .		18
39	A Soft Needle Gripper Capable of Grasping and Piercing for Handling Food Materials. Journal of Robotics and Mechatronics, 2021, 33, 935-943.	0.5	18
40	Investigation of a biomimetic fingertip's ability to discriminate fabrics based on surface textures. , 2013, , .		17
41	A Bond Graph Approach to the Analysis of Prosthesis for a Partially Impaired Hand. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2007, 129, 105-113.	0.9	15
42	Modeling and Analysis of a Frictional Sliding Soft Fingertip, and Experimental Validations. Advanced Robotics, 2011, 25, 291-311.	1.1	15
43	Active shaping of a tensegrity robot via pre-pressure. , 2013, , .		15
44	Kinematic Analysis of Contact State Transitions in Assembly Operations and Automatic Generation of Transition Network. Transactions of the Society of Instrument and Control Engineers, 1988, 24, 406-413.	0.1	15
45	Dynamic simulation of six-strut tensegrity robot rolling. , 2012, , .		14
46	Disposable soft 3 axis force sensor for biomedical applications. , 2015, 2015, 5521-4.		14
47	Adaptive Update of Reference Capacitances in Conductive Fabric Based Robotic Skin. IEEE Robotics and Automation Letters, 2019, 4, 2212-2219.	3.3	14
48	A Pneumatic Needle Gripper for Handling Shredded Food Products. , 2020, , .		14
49	Modeling and parameter identification of rheological object based on FE method and nonlinear optimization. , 2009, , .		13
50	Robust real time material classification algorithm using soft three axis tactile sensor: Evaluation of the algorithm. , 2015, , .		13
51	Fabric interface with proximity and tactile sensation for human-robot interaction. , 2016, , .		13
52	Geometry and Material Optimization of a Soft Pneumatic Gripper for Handling Deformable Object. , 2018, , .		13
53	Feeding of Submillimeter-sized Microparts along a Saw-tooth Surface Using Only Horizontal Vibration: Analysis of Convexities on the Surface of Microparts. , 2007, , .		12
54	ROLLING LOCOMOTION OF A DEFORMABLE SOFT ROBOT WITH BUILT-IN POWER SOURCE. , 2008, , .		12

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55	Deformation path planning for manipulation of flexible circuit boards. , 2010, , .		12
56	A Study on the Motion of Micro-Parts on a Saw-Tooth Surface by the PTV Method. Journal of System Design and Dynamics, 2012, 6, 73-80.	0.3	12
57	A soft three axis force sensor useful for robot grippers. , 2016, , .		12
58	Aerial pruning mechanism, initial real environment test. Robotics and Biomimetics, 2017, 4, 15.	1.7	12
59	Identification of contact states based on a geometric model for manipulative operations. Advanced Robotics, 1993, 8, 139-155.	1.1	11
60	Dynamic Stable Manipulation via Soft-fingered Hand. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	11
61	Physical parameter identification of rheological object based on measurement of deformation and force. , 2009, , .		11
62	Geometry Optimisation of a Hall-Effect-Based Soft Fingertip for Estimating Orientation of Thin Rectangular Objects. Sensors, 2019, 19, 4056.	2.1	11
63	Analytical Modeling of a Soft Pneu-Net Actuator Subjected to Planar Tip Contact. IEEE Transactions on Robotics, 2022, 38, 2720-2733.	7.3	11
64	Robotic joint design by agonist and antagonist arrangement with twisting small-diameter round-belts. , 2015, , .		10
65	A Soft Gripper with Adjustable Stiffness and Variable Working Length for Handling Food Material. , 2018, , .		10
66	Easily Fabricatable Shell Gripper for Packaging Multiple Cucumbers Simultaneously. , 2020, , .		10
67	Dynamic Modeling of Linear Object Deformation Considering Contact with Obstacles. , 2006, , .		9
68	Parallel-distributed model in three-dimensional soft-fingered grasping and manipulation. , 2009, , .		9
69	Miniaturized Unconstrained onâ€“ off Pneumatic Poppet Valveâ€”Experiment and Simulation. IEEE/ASME Transactions on Mechatronics, 2009, 14, 626-635.	3.7	9
70	Experimental investigation of surface identification ability of a low-profile fabric tactile sensor. , 2012, , .		9
71	A bio-mimetic fingertip that detects force and vibration modalities and its application to surface identification. , 2012, , .		9
72	Finite Element Modeling and Physical Property Estimation of Rheological Food Objects. Journal of Food Research, 2012, 1, 48.	0.1	9

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73	Dynamic simulation for 6-strut tensegrity robots. , 2014, , .		9
74	Design and fabrication of a soft-bodied gripper with integrated curvature sensors. , 2017, , .		9
75	Grasping state estimation of printable soft gripper using electro-conductive yarn. Robotics and Biomimetics, 2017, 4, 13.	1.7	9
76	Deformable Object Manipulation.. Journal of the Robotics Society of Japan, 1998, 16, 136-139.	0.0	9
77	Modeling of shape bifurcation phenomena in manipulations of deformable string objects. Advanced Robotics, 2001, 15, 833-846.	1.1	8
78	Towards patient-specific medializing calcaneal osteotomy for adult flatfoot: a finite element study. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 332-343.	0.9	8
79	Soft Tactile Fingertip to Estimate Orientation and the Contact State of Thin Rectangular Objects. IEEE Robotics and Automation Letters, 2020, 5, 159-166.	3.3	8
80	Robotic Unfolding of Hemmed Fabric using Pinching Slip Motion. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2010, 2010.5, 392-397.	0.0	8
81	Soft Resistive Tactile Sensor Based on CNT-PDMS-Gel to Estimate Contact Force. , 2022, 6, 1-4.		8
82	Prototyping Pneumatic Group Actuators Composed of Multiple Single-motion Elastic Tubes.. Journal of the Robotics Society of Japan, 2002, 20, 299-306.	0.0	7
83	Implementing Planar Motion Tracking Algorithms on CMOS+FPGA Vision System. , 2006, , .		7
84	Detection of planar motion objects using Radon transform and one-dimensional phase-only matched filtering. Systems and Computers in Japan, 2006, 37, 56-66.	0.2	7
85	Local Deformation Measurement of Biological Tissues Based on Feature Tracking of 3D MR Volumetric Images. , 2007, , .		7
86	Performance evaluation of a miniaturized unconstrained digital on-off switching valve. , 2008, , .		7
87	Analysis of contact between feeder surface and microparts based on measurements for microparts feeder using an asymmetric surface. , 2008, , .		7
88	Evaluation of asymmetric microfabricated surfaces using femtosecond laser process for microparts feeding. , 2009, , .		7
89	Pressure control valve for McKibben artificial muscle actuators with miniaturized unconstrained pneumatic on/off valves. , 2009, , .		7
90	Force control on antagonistic Twist-drive Actuator robot. , 2016, , .		7

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91	Development of a Novel Slip Haptic Display Device Based on the Localized Displacement Phenomenon. IEEE Robotics and Automation Letters, 2016, 1, 585-592.	3.3	7
92	Fabrication and performance comparison of different soft pneumatic actuators for lunch box packaging. , 2017, , .		7
93	Kinematic Analysis of a Novel Skew-gripper for Aerial Pruning Tasks. , 2017, , .		7
94	Understanding Slip Perception of Soft Fingertips by Modeling and Simulating Stick-Slip Phenomenon. , 0, , .		7
95	Antagonistically Twisted Round Belt Actuator System for Robotic Joints. Journal of Robotics and Mechatronics, 2016, 28, 842-853.	0.5	7
96	Validation of FE Deformation Models using Ultrasonic and MR Images. , 2006, , .		6
97	Deformation modeling of belt object with angles. , 2009, , .		6
98	Feeding Submillimeter Microparts Using an Asymmetric Fabricated Surface with Symmetric Vibrations: Effects of Feeder Surface Materials on Feeding. Key Engineering Materials, 2011, 467-469, 1297-1302.	0.4	6
99	Mechanics of Localized Slippage in Tactile Sensing. Springer Tracts in Advanced Robotics, 2014, , .	0.3	6
100	Pruning tree-branches close to electrical power lines using a skew-gripper and a multirotor helicopter. , 2017, , .		6
101	Wrinkled Soft Sensor With Variable Afferent Morphology. IEEE Robotics and Automation Letters, 2019, 4, 1908-1915.	3.3	6
102	Transferring Human Motion to Mechanical Manipulator in Insertion of Deformable Tubes. Journal of Robotics and Mechatronics, 1998, 10, 209-213.	0.5	6
103	Kinematics and Statics of Manipulation Using the Theory of Polyhedral Convex Cones and Their Application to the Planning of Manipulative Operations.. Journal of the Robotics Society of Japan, 1999, 17, 68-83.	0.0	6
104	Static Analysis of Deforming Operations in Manipulation of Flexible Thin Objects. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 1997, 63, 1102-1109.	0.2	5
105	Two-phased controller for a pair of 2-DOF soft fingertips based on the qualitative relationship between joint angles and object location. , 2010, , .		5
106	Development of a low-profile sensor using electro-conductive yarns in recognition of slippage. , 2011, , .		5
107	Fabric manipulation utilizing contacts with the environment. , 2012, , .		5
108	Soft Fingertip with Tactile Sensation for Detecting Grasping Orientation of Thin Object. , 2018, , .		5

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109	Comparative Study of Robotics Curricula. IEEE Transactions on Education, 2021, 64, 283-291.	2.0	5
110	Soft Robots for Crawling and Jumping via Deformation. Journal of the Robotics Society of Japan, 2006, 24, 378-387.	0.0	5
111	Linear Object Manipulation Including Knotting/Unknotting. Journal of the Robotics Society of Japan, 2005, 23, 344-351.	0.0	5
112	Tactile Perception using Micro Force/Moment Sensor Embedded in Soft Fingertip. , 2006, , .		4
113	A two-phased object orientation controller on soft finger operations. , 2007, , .		4
114	Experimental Investigation of Mechanics in Soft-fingered Grasping and Manipulation. Journal of the Robotics Society of Japan, 2007, 25, 951-959.	0.0	4
115	Simulation of soft fingertip deformation under contact and rolling constraints using FEM and CSM. , 2009, , .		4
116	Contact modeling and parameter switching for simultaneous reproduction of rheological force and deformation. , 2010, , .		4
117	Three-dimensional modeling and simulation of the sliding motion of a soft fingertip with friction, focusing on stick-slip transition. , 2011, , .		4
118	Effect of geometry parameters of saw-tooth surface on the feeding velocity of microparts. IEEJ Transactions on Electrical and Electronic Engineering, 2013, 8, S102-S105.	0.8	4
119	Multimodal flexible sensor for healthcare systems. , 2014, 2014, 5976-9.		4
120	Morphological computation in tactile sensing: The role of wrinkle. , 2017, , .		4
121	Deformation estimation of a plate spring using asymmetric and symmetric conductive patterns. , 2017, , .		4
122	3D Printing an Assembled Biomimetic Robotic Finger. , 2020, , .		4
123	Topological Manipulation Planning for Knotting and Tightening of Deformable Linear Objects Based on Knot Theory. Journal of the Robotics Society of Japan, 2006, 24, 523-532.	0.0	4
124	Quasi-Static Manipulation Using Hemispherical Soft Fingertips by means of Minimum D.O.F. Two-fingered Robotic Hand. Journal of the Robotics Society of Japan, 2006, 24, 945-953.	0.0	4
125	Human-demonstration Based Approach to the Object Motion Design and the Recognition of Process State Transitions in Insertion of Deformable Tubes.. Journal of the Robotics Society of Japan, 1997, 15, 1172-1179.	0.0	4
126	A Model-based Generation Of Damping Control Law For Part-mat Ing. , 0, , .		3

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127	Loosely Coupled Joint Driven by SMA Coil Actuators. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	3
128	Realtime and Robust Motion Tracking by Matched Filter on CMOS+FPGA Vision System. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	3
129	Unconstrained pneumatic on-off poppet valve driven by piezoelectric actuator. , 2007, , .		3
130	Modeling of Flexible Belt Objects toward Their Manipulation. , 2007, , .		3
131	Virtual rope theory for fabric manipulation. , 2009, , .		3
132	Analysis of sliding of a soft fingertip embedded with a novel micro force/moment sensor: Simulation, experiment, and application. , 2009, , .		3
133	Robotic manipulation with large time delay on visual feedback systems. , 2010, , .		3
134	Development of a high efficiency and high reliable glass cleaning robot with a dirt detect sensor. , 2011, , .		3
135	A 3D FE dynamic model of human fingertip based on MRI data. , 2011, , .		3
136	Green strain based FE modeling of rheological objects for handling large deformation and rotation. , 2011, , .		3
137	An anthropomorphic tactile sensor system with its applications in dexterous manipulations. , 2015, , .		3
138	Measuring McKibben actuator shrinkage using fiber sensor. , 2015, , .		3
139	Gripping Force Modeling of a Binding Hand. , 2019, , .		3
140	Study of Surgical Simulation of Flatfoot Using a Finite Element Model. Smart Innovation, Systems and Technologies, 2016, , 353-363.	0.5	3
141	Submillimeter Micropart Feeding Along an Asymmetric Femtosecond-Laser-Microfabricated Surface. International Journal of Automation Technology, 2009, 3, 151-156.	0.5	3
142	Deformation Modeling of Rheological Objects for Their Shape Control.. Journal of the Robotics Society of Japan, 2000, 18, 1141-1148.	0.0	3
143	Elastic Force Models of Hemispherical Soft Fingertip with Geometric and Material Nonlinearities for Fine Soft-fingered Manipulation. Journal of the Robotics Society of Japan, 2007, 25, 221-230.	0.0	3
144	Analytical Modeling of a Membrane-Based Pneumatic Soft Gripper. IEEE Robotics and Automation Letters, 2022, 7, 10359-10366.	3.3	3

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145	Design of Passive Compliance for Assembly Operations.. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 1998, 64, 1464-1471.	0.2	2
146	Constant magnification focusing using a varifocal mirror and its application to 3-D imaging. , 2002, 4902, 238.		2
147	Two-stage control via virtual desired values in soft-fingered manipulation with time delay. , 2007, , .		2
148	Passive crawling of a soft robot. , 2007, , .		2
149	SURF and Spatial Association Correspondence applied in extraction and matching of feature points from MR images of deformed tissues. , 2010, , .		2
150	Modeling and property estimation of japanese sweets for their manufacturing simulation. , 2010, , .		2
151	Miniaturized unconstrained valves with pressure control for driving a robot finger. , 2011, , .		2
152	A local constraint method for needle insertion modeling and simulation. , 2011, , .		2
153	Dynamic self-tuning PD control for tracking of robot manipulators. , 2012, , .		2
154	Viscoelastic interaction between intraocular microrobots and vitreous humor: A finite element approach. , 2013, 2013, 4937-40.		2
155	A finite element model of flatfoot (Pes Planus) for improving surgical plan. , 2014, 2014, 844-7.		2
156	Feed and align microparts on symmetrically vibrating saw-tooth surface. , 2014, , .		2
157	Function-selectable tactile sensing system with morphological change. , 2016, , .		2
158	Numerical Analysis of Contact Area Influence in a Capacitive Soft Force Sensor. , 2019, , .		2
159	Mechanics of Jumping via Body Deformation. Journal of the Robotics Society of Japan, 2008, 26, 833-840.	0.0	2
160	Reducing the Influence of the Contact Area on a Soft Capacitive Force Sensor. IEEE Robotics and Automation Letters, 2021, 6, 5824-5831.	3.3	2
161	Analysis and Planning of Indirect Simultaneous Positioning Operation of Deformable Objects.. Journal of the Robotics Society of Japan, 2000, 18, 675-682.	0.0	2
162	Dynamic Insertion of Bendable Flat Cables with Variation Based on Shape Returning Points. Lecture Notes in Computer Science, 2011, , 496-508.	1.0	2

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163	Why Humans can Manipulate Objects Despite a Time Delay in the Nervous System. Springer Tracts in Advanced Robotics, 2014, , 289-313.	0.3	2
164	Teaching and Programming for Robots. Indirect Simultaneous Positioning Operations of Multiple Points on Extensionally Deformable Objects.. Journal of the Robotics Society of Japan, 1999, 17, 282-290.	0.0	2
165	Feeding of submillimeter-sized microparts along a saw-tooth surface using only horizontal vibration: Effects of saw-tooth pitch, vibration frequency, and humidity. , 2007, , .		1
166	Stable manipulation mechanisms on soft fingers. , 2007, , .		1
167	Feeding of Submillimeter-Sized Microparts Along a Sawtooth Surface Using Only Horizontal Vibration : Analysis of Contact Model between Sawtooth Surface and Microparts Based on Measurements and Analysis of Adhesion(Mechanical Systems). Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C. 2009. 75. 942-949.	0.2	1
168	Stochastic static analysis of link driven by actuator bundles. , 2009, , .		1
169	Modelless and grasping-forceless control by robotic fingers capable of mechanically coupled movement. , 2010, , .		1
170	Design of a small-scale tactile sensor with three sensing points for using in robotic fingertips. , 2010, , .		1
171	Two-dimensional dynamic modeling of a sliding motion of a soft fingertip focusing on stick-to-slip transition. , 2010, , .		1
172	Evaluation of feeder surface materials for microparts feeding using an asymmetric fabricated surface with symmetric vibrations. , 2011, , .		1
173	Modeling and simulation of friction forces during needle insertion using Local Constraint Method. , 2012, , .		1
174	Experiment and simulation of microâ€part dynamics with roughness effect. IEEJ Transactions on Electrical and Electronic Engineering, 2012, 7, S173.	0.8	1
175	Path planning for belt object manipulation. , 2012, , .		1
176	Improving physical human-robot interaction through viscoelastic soft fingertips. , 2012, , .		1
177	Property identification of a deformable belt object from its static images toward its manipulation. , 2012, , .		1
178	Challenges in developing soft tactile sensors for robots that detect incipient slip. , 2014, , .		1
179	Matching of Feature Points Based on TSSC Method from MR Images of Nonrigid Deformed Tissues. Bio-Medical Materials and Engineering, 2014, 24, 1227-1237.	0.4	1
180	Study on the human perception of incipient and overall slippages using a 2D FE fingertip model. , 2015, 2015, 5764-7.		1

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181	Micro pneumatic valves for wearable robotic systems. , 2015, , .		1
182	Origami structure toward floating aerial robot. , 2015, , .		1
183	Static and dynamic performances of a round-belt Twist Actuator mechanism. , 2016, , .		1
184	Dynamic landing gear for balancing a multirotor helicopter. , 2017, , .		1
185	Real-time curvature estimation of printable soft gripper using electro-conductive yarn. , 2017, , .		1
186	Aerial pruning mechanism, initial real environment test. , 2017, , .		1
187	Special issue on "Morphological computation in soft robotics"™. Advanced Robotics, 2018, 32, 339-339.	1.1	1
188	Estimating deformation of a thin flexible plate using a minimum number of angular measurement. , 2018, , .		1
189	Optimization of the Initial Deformed Shape of a Circular Elastic Jumping Robot. , 2020, , .		1
190	Three-Dimensional Beam Bundle Model of a Sliding Soft Fingertip. Springer Tracts in Advanced Robotics, 2014, , 29-51.	0.3	1
191	A Model-Based Approach to the Interpretation of Force and Position Sensor Signals for the Process Monitoring of Assembly Operations. Transactions of the Society of Instrument and Control Engineers, 1990, 26, 225-232.	0.1	1
192	FPGA-based Realtime Vision. Journal of the Robotics Society of Japan, 2004, 22, 873-880.	0.0	1
193	Secure Grasping Effect of Soft-fingered Manipulating Motions with Minimum D. O. F. Robotic Hand. Transactions of the Society of Instrument and Control Engineers, 2007, 43, 135-144.	0.1	1
194	Modeling of Knitted Fabrics for Their Deformation Control.. Journal of the Robotics Society of Japan, 1998, 16, 553-560.	0.0	1
195	An Indentation-Type Instrument for Measuring Soft Tissue Elasticity. Smart Innovation, Systems and Technologies, 2018, , 121-129.	0.5	1
196	Vibration Analysis of Food Material for Non-contact Viscoelasticity Measurement. International Journal of Electrical Energy, 2018, , 283-287.	0.4	1
197	Modeling Method of a Fabric Including Lateral Strain for Selection of Fabric Exterior Material. Journal of Textile Engineering, 2018, 64, 169-174.	0.5	1
198	Morphological Design of Soft Capacitive Force Sensor. , 2019, , .		1

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199	Deformed Shape Estimation of an Asymmetric Conductive Pattern Printed Plate without using Resistance Model. , 2020, , .		1
200	Novel Quick Return Mechanism and Dish Shape Deformable Body Structure for Circular Jumping Robot. , 2020, , .		1
201	Analytical Modeling of a Soft Pneu-net Actuator Based on Finite Strain Beam Theory. , 2021, , .		1
202	Analysis of Soft Contact in Force Sensing and Elastic Jumping. Journal of Robotics and Mechatronics, 2022, 34, 285-287.	0.5	1
203	Model-Based Generation of Fixture Layout Candidates for Workpiece Holding.. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 1996, 62, 4114-4121.	0.2	0
204	Reconfigurable mechanisms: an approach to the rapid prototyping of multi-link mechanisms. Advanced Robotics, 1998, 13, 255-256.	1.1	0
205	Static Analysis of Deformable Object Grasping Based on Bounded Force Closure.. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 1998, 64, 508-515.	0.2	0
206	An Analytical Approach to the Design of Compliant Hand for Assembly Operations.. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 1999, 65, 409-415.	0.2	0
207	Unraveling of Deformable Linear Objects Based on 2D Information about Their Crossing States. , 2006, , .		0
208	Angle control of a loosely coupled mechanism in 3D space using length sensors. , 2007, , .		0
209	Force/moment sensing during sliding motion using a micro sensor embedded in a soft fingertip. , 2008, , .		0
210	Application of asymmetric surface fabricated by femtosecond laser process for microparts feeding. , 2008, , .		0
211	Feeding of submillimeter-sized microparts along an asymmetric surface using only horizontal vibration: Evaluation of micro-fabricated surface using femtosecond laser process. , 2008, , .		0
212	Opposed-form Robotic Manipulation with Visual Transmission Delay. Transactions of the Society of Instrument and Control Engineers, 2009, 45, 678-687.	0.1	0
213	Two-phased force and coordinates controller for a pair of 2-DOF soft fingers. , 2009, , .		0
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