

Shinichi Hirai

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/514843/publications.pdf>

Version: 2024-02-01

240
papers

2,889
citations

377584

21
h-index

340414

39
g-index

253
all docs

253
docs citations

253
times ranked

1937
citing authors

#	ARTICLE	IF	CITATIONS
1	Soft Resistive Tactile Sensor Based on CNT-PDMS-Gel to Estimate Contact Force. , 2022, 6, 1-4.		8
2	Analysis of Soft Contact in Force Sensing and Elastic Jumping. Journal of Robotics and Mechatronics, 2022, 34, 285-287.	0.5	1
3	Analytical Modeling of a Soft Pneu-Net Actuator Subjected to Planar Tip Contact. IEEE Transactions on Robotics, 2022, 38, 2720-2733.	7.3	11
4	Grasping State and Object Estimation of a Flat Shell Gripper by Strain and Proximity Measurement using a Single Capacitance-Based Sensor. , 2022, , .		0
5	Analytical Modeling of a Membrane-Based Pneumatic Soft Gripper. IEEE Robotics and Automation Letters, 2022, 7, 10359-10366.	3.3	3
6	Circular Shell Gripper for Handling Food Products. Soft Robotics, 2021, 8, 542-554.	4.6	51
7	A Scooping-Binding Robotic Gripper for Handling Various Food Products. Frontiers in Robotics and AI, 2021, 8, 640805.	2.0	23
8	Deformed Shape Analysis of Elastic Shell of Circular Soft Robot. Transactions of Japan Society of Spring Engineers, 2021, 2021, 67-73.	0.1	0
9	Measurement algorithm for oral care simulator using a single force sensor. Advanced Robotics, 2021, 35, 723-732.	1.1	0
10	Comparative Study of Robotics Curricula. IEEE Transactions on Education, 2021, 64, 283-291.	2.0	5
11	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
12	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
13	Analytical Modeling of a Soft Pneu-net Actuator Based on Finite Strain Beam Theory. , 2021, , .		1
14	Challenges and Opportunities in Robotic Food Handling: A Review. Frontiers in Robotics and AI, 2021, 8, 789107.	2.0	36
15	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
16	3D Printing an Assembled Biomimetic Robotic Finger. , 2020, , .		4
17	Failure State Estimation Using Soft Tactile Fingertip in Insertion Tasks. , 2020, , .		0
18	Optimization of the Initial Deformed Shape of a Circular Elastic Jumping Robot. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
19	A dual-mode soft gripper for food packaging. <i>Robotics and Autonomous Systems</i> , 2020, 125, 103427.	3.0	114
20	A Pneumatic Needle Gripper for Handling Shredded Food Products. , 2020, , .		14
21	Easily Fabricatable Shell Gripper for Packaging Multiple Cucumbers Simultaneously. , 2020, , .		10
22	Deformed Shape Estimation of an Asymmetric Conductive Pattern Printed Plate without using Resistance Model. , 2020, , .		1
23	Novel Quick Return Mechanism and Dish Shape Deformable Body Structure for Circular Jumping Robot. , 2020, , .		1
24	A Wrapping Gripper for Packaging Chopped and Granular Food Materials. , 2019, , .		32
25	Numerical Analysis of Contact Area Influence in a Capacitive Soft Force Sensor. , 2019, , .		2
26	Gripping Force Modeling of a Binding Hand. , 2019, , .		3
27	Geometry Optimisation of a Hall-Effect-Based Soft Fingertip for Estimating Orientation of Thin Rectangular Objects. <i>Sensors</i> , 2019, 19, 4056.	2.1	11
28	Adaptive Update of Reference Capacitances in Conductive Fabric Based Robotic Skin. <i>IEEE Robotics and Automation Letters</i> , 2019, 4, 2212-2219.	3.3	14
29	Wrinkled Soft Sensor With Variable Afferent Morphology. <i>IEEE Robotics and Automation Letters</i> , 2019, 4, 1908-1915.	3.3	6
30	Sensor Technology for Soft Robotics. <i>Journal of the Robotics Society of Japan</i> , 2019, 37, 22-25.	0.0	0
31	A Plug-In for Automating the Finite Element Modeling of Flatfoot. <i>Smart Innovation, Systems and Technologies</i> , 2019, , 248-259.	0.5	0
32	Soft Robotic Hands for Food Material Handling. <i>Journal of the Robotics Society of Japan</i> , 2019, 37, 489-494.	0.0	0
33	Morphological Design of Soft Capacitive Force Sensor. , 2019, , .		1
34	Special issue on "Morphological computation in soft robotics". <i>Advanced Robotics</i> , 2018, 32, 339-339.	1.1	1
35	Towards patient-specific medializing calcaneal osteotomy for adult flatfoot: a finite element study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2018, 21, 332-343.	0.9	8
36	Geometry and Material Optimization of a Soft Pneumatic Gripper for Handling Deformable Object. , 2018, , .		13

#	ARTICLE	IF	CITATIONS
37	Soft Fingertip with Tactile Sensation for Detecting Grasping Orientation of Thin Object. , 2018, , .		5
38	A Soft Gripper with Adjustable Stiffness and Variable Working Length for Handling Food Material. , 2018, , .		10
39	Mechanical and Perceptual Characterizations of the Localized Shearing using a Novel Haptic Display. , 2018, , .		0
40	Chamber dimension optimization of a bellow-type soft actuator for food material handling. , 2018, , .		21
41	Estimating deformation of a thin flexible plate using a minimum number of angular measurement. , 2018, , .		1
42	An Indentation-Type Instrument for Measuring Soft Tissue Elasticity. Smart Innovation, Systems and Technologies, 2018, , 121-129.	0.5	1
43	Vibration Analysis of Food Material for Non-contact Viscoelasticity Measurement. International Journal of Electrical Energy, 2018, , 283-287.	0.4	1
44	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
45	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
46	A Prestressed Soft Gripper: Design, Modeling, Fabrication, and Tests for Food Handling. IEEE Robotics and Automation Letters, 2017, 2, 1909-1916.	3.3	205
47	Design and Analysis of a Soft-Fingered Hand With Contact Feedback. IEEE Robotics and Automation Letters, 2017, 2, 491-498.	3.3	38
48	Morphological computation in tactile sensing: The role of wrinkle. , 2017, , .		4
49	Dynamic landing gear for balancing a multirotor helicopter. , 2017, , .		1
50	Wrinâ€™™Tac: Tactile Sensing System With Wrinkle's Morphological Change. IEEE Transactions on Industrial Informatics, 2017, 13, 2496-2506.	7.2	21
51	Pruning tree-branches close to electrical power lines using a skew-gripper and a multirotor helicopter. , 2017, , .		6
52	Fabrication and performance comparison of different soft pneumatic actuators for lunch box packaging. , 2017, , .		7
53	Real-time curvature estimation of printable soft gripper using electro-conductive yarn. , 2017, , .		1
54	Design and fabrication of a soft-bodied gripper with integrated curvature sensors. , 2017, , .		9

#	ARTICLE	IF	CITATIONS
55	Deformation estimation of a plate spring using asymmetric and symmetric conductive patterns. , 2017, , .		4
56	Grasping state estimation of printable soft gripper using electro-conductive yarn. Robotics and Biomimetics, 2017, 4, 13.	1.7	9
57	Comparison of different soft grippers for lunch box packaging. Robotics and Biomimetics, 2017, 4, 10.	1.7	27
58	Aerial pruning mechanism, initial real environment test. Robotics and Biomimetics, 2017, 4, 15.	1.7	12
59	Aerial pruning mechanism, initial real environment test. , 2017, , .		1
60	Kinematic Analysis of a Novel Skew-gripper for Aerial Pruning Tasks. , 2017, , .		7
61	A Pinching Strategy for Fabrics Using Wiping Deformation. Robotics, 2016, 5, 10.	2.1	0
62	Static and dynamic performances of a round-belt Twist Actuator mechanism. , 2016, , .		1
63	3D printed soft gripper for automatic lunch box packing. , 2016, , .		66
64	A 3D printed soft gripper integrated with curvature sensor for studying soft grasping. , 2016, , .		33
65	Function-selectable tactile sensing system with morphological change. , 2016, , .		2
66	Fabric interface with proximity and tactile sensation for human-robot interaction. , 2016, , .		13
67	Force control on antagonistic Twist-drive Actuator robot. , 2016, , .		7
68	A soft three axis force sensor useful for robot grippers. , 2016, , .		12
69	Magnetic and Mechanical Modeling of a Soft Three-Axis Force Sensor. IEEE Sensors Journal, 2016, 16, 5298-5307.	2.4	31
70	Force Analytic Method for Rolling Gaits of Tensegrity Robots. IEEE/ASME Transactions on Mechatronics, 2016, 21, 2249-2259.	3.7	25
71	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
72	Study of Surgical Simulation of Flatfoot Using a Finite Element Model. Smart Innovation, Systems and Technologies, 2016, , 353-363.	0.5	3

#	ARTICLE	IF	CITATIONS
73	Antagonistically Twisted Round Belt Actuator System for Robotic Joints. Journal of Robotics and Mechatronics, 2016, 28, 842-853.	0.5	7
74	Robust real time material classification algorithm using soft three axis tactile sensor: Evaluation of the algorithm. , 2015, , .		13
75	An anthropomorphic tactile sensor system with its applications in dexterous manipulations. , 2015, , .		3
76	Binding of food materials with a tension-sensitive elastic thread. , 2015, , .		19
77	Study on the human perception of incipient and overall slippages using a 2D FE fingertip model. , 2015, 2015, 5764-7.		1
78	Micro pneumatic valves for wearable robotic systems. , 2015, , .		1
79	Robotic joint design by agonist and antagonist arrangement with twisting small-diameter round-belts. , 2015, , .		10
80	Measuring McKibben actuator shrinkage using fiber sensor. , 2015, , .		3
81	Aerial manipulation for the workspace above the airframe. , 2015, , .		18
82	Disposable soft 3 axis force sensor for biomedical applications. , 2015, 2015, 5521-4.		14
83	Origami structure toward floating aerial robot. , 2015, , .		1
84	Embedded electro-conductive yarn for shape sensing of soft robotic manipulators. , 2015, 2015, 8026-9.		37
85	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
86	Fictitious Target-Trajectory Forming Control for Redundant Manipulator and Active Regulation of Impulsive Forces. Journal of Robotics and Mechatronics, 2015, 27, 552-562.	0.5	0
87	Multimodal flexible sensor for healthcare systems. , 2014, 2014, 5976-9.		4
88	Challenges in developing soft tactile sensors for robots that detect incipient slip. , 2014, , .		1
89	A finite element model of flatfoot (Pes Planus) for improving surgical plan. , 2014, 2014, 844-7.		2
90	Dynamic simulation for 6-strut tensegrity robots. , 2014, , .		9

#	ARTICLE	IF	CITATIONS
91	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
92	Mechanics of Localized Slippage in Tactile Sensing. Springer Tracts in Advanced Robotics, 2014, , .	0.3	6
93	The TSSC Method Applied in Matching of Feature Points of Nonrigid Deformable Tissues from MR Images. Journal of Computational and Theoretical Nanoscience, 2014, 11, 1987-1998.	0.4	0
94	Feed and align microparts on symmetrically vibrating saw-tooth surface. , 2014, , .		2
95	Three-Dimensional Beam Bundle Model of a Sliding Soft Fingertip. Springer Tracts in Advanced Robotics, 2014, , 29-51.	0.3	1
96	Why Humans can Manipulate Objects Despite a Time Delay in the Nervous System. Springer Tracts in Advanced Robotics, 2014, , 289-313.	0.3	2
97	A biomimetic soft fingertip applicable to haptic feedback systems for texture identification. , 2013, , .		19
98	Active shaping of a tensegrity robot via pre-pressure. , 2013, , .		15
99	Flexible Fabric Sensor Toward a Humanoid Robot's Skin: Fabrication, Characterization, and Perceptions. IEEE Sensors Journal, 2013, 13, 4065-4080.	2.4	29
100	Experiment of Micro-Parts Feeding on Saw-Tooth with the Effect of the Surface Geometry Parameters. Advanced Materials Research, 2013, 740, 99-104.	0.3	0
101	Improvement of sawtooth shape generated by anisotropic etching process of single-crystal silicon for microparts feeding using horizontal and symmetric vibrations. , 2013, , .		0
102	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
103	Viscoelastic interaction between intraocular microrobots and vitreous humor: A finite element approach. , 2013, 2013, 4937-40.		2
104	Investigation of a biomimetic fingertip's ability to discriminate fabrics based on surface textures. , 2013, , .		17
105	Beam bundle model of human-like fingertip for investigation of tactile mechanism. , 2013, , .		0
106	Dynamic self-tuning PD control for tracking of robot manipulators. , 2012, , .		2
107	Modeling and simulation of friction forces during needle insertion using Local Constraint Method. , 2012, , .		1
108	Rolling tensegrity driven by pneumatic soft actuators. , 2012, , .		72

#	ARTICLE	IF	CITATIONS
109	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
110	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
111	The effect of anisotropic friction on vibratory velocity fields. , 2012, , .		18
112	Experiment and simulation of micro-part dynamics with roughness effect. IEEJ Transactions on Electrical and Electronic Engineering, 2012, 7, S173.	0.8	1
113	Path planning for belt object manipulation. , 2012, , .		1
114	Improving physical human-robot interaction through viscoelastic soft fingertips. , 2012, , .		1
115	Dynamic simulation of six-strut tensegrity robot rolling. , 2012, , .		14
116	Fabric manipulation utilizing contacts with the environment. , 2012, , .		5
117	What can be inferred from a tactile arrayed sensor in autonomous in-hand manipulation?. , 2012, , .		30
118	Experimental investigation of surface identification ability of a low-profile fabric tactile sensor. , 2012, , .		9
119	A bio-mimetic fingertip that detects force and vibration modalities and its application to surface identification. , 2012, , .		9
120	Property identification of a deformable belt object from its static images toward its manipulation. , 2012, , .		1
121	Finite Element Modeling and Physical Property Estimation of Rheological Food Objects. Journal of Food Research, 2012, 1, 48.	0.1	9
122	Miniaturized unconstrained valves with pressure control for driving a robot finger. , 2011, , .		2
123	TPS-SURF-SAC matching approach of feature point applied to deformation measurement of nonrigid tissues from MR images. , 2011, , .		0
124	A local constraint method for needle insertion modeling and simulation. , 2011, , .		2
125	Evaluation of feeder surface materials for microparts feeding using an asymmetric fabricated surface with symmetric vibrations. , 2011, , .		1
126	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

#	ARTICLE	IF	CITATIONS
127	Development of a high efficiency and high reliable glass cleaning robot with a dirt detect sensor. , 2011, , .		3
128	Modeling and estimation of rheological properties of food products for manufacturing simulations. Journal of Food Engineering, 2011, 102, 136-144.	2.7	25
129	Development of a low-profile sensor using electro-conductive yarns in recognition of slippage. , 2011, , .		5
130	A 3D FE dynamic model of human fingertip based on MRI data. , 2011, , .		3
131	Green strain based FE modeling of rheological objects for handling large deformation and rotation. , 2011, , .		3
132	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
133	Modeling and Analysis of a Frictional Sliding Soft Fingertip, and Experimental Validations. Advanced Robotics, 2011, 25, 291-311.	1.1	15
134	Three-dimensional modeling and simulation of the sliding motion of a soft fingertip with friction, focusing on stick-slip transition. , 2011, , .		4
135	Dynamic Insertion of Bendable Flat Cables with Variation Based on Shape Returning Points. Lecture Notes in Computer Science, 2011, , 496-508.	1.0	2
136	Development of a low-profile sensor using electro-conductive yarns in recognition of slippage. , 2011, , .		0
137	Modelless and grasping-forceless control by robotic fingers capable of mechanically coupled movement. , 2010, , .		1
138	Robotic manipulation with large time delay on visual feedback systems. , 2010, , .		3
139	Two-phased controller for a pair of 2-DOF soft fingertips based on the qualitative relationship between joint angles and object location. , 2010, , .		5
140	SURF and Spatial Association Correspondence applied in extraction and matching of feature points from MR images of deformed tissues. , 2010, , .		2
141	Design of a small-scale tactile sensor with three sensing points for using in robotic fingertips. , 2010, , .		1
142	Modeling and property estimation of japanese sweets for their manufacturing simulation. , 2010, , .		2
143	Contact modeling and parameter switching for simultaneous reproduction of rheological force and deformation. , 2010, , .		4
144	Two-dimensional dynamic modeling of a sliding motion of a soft fingertip focusing on stick-to-slip transition. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
145	Deformation path planning for manipulation of flexible circuit boards. , 2010, , .		12
146	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
147	Miniaturization Design of Piezoelectric Vibration-Driven Pneumatic Unconstrained Valves. Journal of Robotics and Mechatronics, 2010, 22, 91-99.	0.5	20
148	Opposed-form Robotic Manipulation with Visual Transmission Delay. Transactions of the Society of Instrument and Control Engineers, 2009, 45, 678-687.	0.1	0
149	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
150	Wiping motion for deformable object handling. , 2009, , .		18
151	Modeling and parameter identification of rheological object based on FE method and nonlinear optimization. , 2009, , .		13
152	Deformation modeling of belt object with angles. , 2009, , .		6
153	Physical parameter identification of rheological object based on measurement of deformation and force. , 2009, , .		11
154	Virtual rope theory for fabric manipulation. , 2009, , .		3
155	Parallel-distributed model in three-dimensional soft-fingered grasping and manipulation. , 2009, , .		9
156	Evaluation of asymmetric microfabricated surfaces using femtosecond laser process for microparts feeding. , 2009, , .		7
157	Pressure control valve for McKibben artificial muscle actuators with miniaturized unconstrained pneumatic on/off valves. , 2009, , .		7
158	Crawling by body deformation of tensegrity structure robots. , 2009, , .		63
159	Stochastic static analysis of link driven by actuator bundles. , 2009, , .		1
160	Simulation of soft fingertip deformation under contact and rolling constraints using FEM and CSM. , 2009, , .		4
161	Analysis of sliding of a soft fingertip embedded with a novel micro force/moment sensor: Simulation, experiment, and application. , 2009, , .		3
162	Two-phased force and coordinates controller for a pair of 2-DOF soft fingers. , 2009, , .		0

#	ARTICLE	IF	CITATIONS
163	Miniaturized Unconstrained on-off Pneumatic Poppet Valve Experiment and Simulation. IEEE/ASME Transactions on Mechatronics, 2009, 14, 626-635.	3.7	9
164	Posture Control of a Grasped Object by Soft Fingers(Mechanical Systems). Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2009, 75, 2537-2546.	0.2	0
165	Feeding of Submillimeter Microparts along an Asymmetric Surface Fabricated by Double-Pulsed Femtosecond Laser Process(Mechanical Systems). Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2009, 75, 3267-3275.	0.2	0
166	Submillimeter Micropart Feeding Along an Asymmetric Femtosecond-Laser-Microfabricated Surface. International Journal of Automation Technology, 2009, 3, 151-156.	0.5	3
167	Performance evaluation of a miniaturized unconstrained digital on-off switching valve. , 2008, , .		7
168	Force/moment sensing during sliding motion using a micro sensor embedded in a soft fingertip. , 2008, , .		0
169	Application of asymmetric surface fabricated by femtosecond laser process for microparts feeding. , 2008, , .		0
170	Feeding of submillimeter-sized microparts along an asymmetric surface using only horizontal vibration: Evaluation of micro-fabricated surface using femtosecond laser process. , 2008, , .		0
171	Analysis of contact between feeder surface and microparts based on measurements for microparts feeder using an asymmetric surface. , 2008, , .		7
172	Handling of hemmed fabrics by a single-armed robot. , 2008, , .		25
173	ROLLING LOCOMOTION OF A DEFORMABLE SOFT ROBOT WITH BUILT-IN POWER SOURCE. , 2008, , .		12
174	Mechanics of Jumping via Body Deformation. Journal of the Robotics Society of Japan, 2008, 26, 833-840.	0.0	2
175	On the problem of determination of spring stiffness parameters for spring-mesh models. Studies in Health Technology and Informatics, 2008, 132, 180-2.	0.2	0
176	Loosely Coupled Joint Driven by SMA Coil Actuators. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	3
177	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
178	Dynamic Stable Manipulation via Soft-fingered Hand. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	11
179	A two-phased object orientation controller on soft finger operations. , 2007, , .		4
180	Analysis of Circular Robot Jumping by Body Deformation. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	21

#	ARTICLE	IF	CITATIONS
181	Feeding of Submillimeter-sized Microparts along a Saw-tooth Surface Using Only Horizontal Vibration: Analysis of Convexities on the Surface of Microparts. , 2007, , .		12
182	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
183	Two-stage control via virtual desired values in soft-fingered manipulation with time delay. , 2007, , .		2
184	Angle control of a loosely coupled mechanism in 3D space using length sensors. , 2007, , .		0
185	Local Deformation Measurement of Biological Tissues Based on Feature Tracking of 3D MR Volumetric Images. , 2007, , .		7
186	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
187	Unconstrained pneumatic on-off poppet valve driven by piezoelectric actuator. , 2007, , .		3
188	Passive crawling of a soft robot. , 2007, , .		2
189	Stable manipulation mechanisms on soft fingers. , 2007, , .		1
190	Modeling of Flexible Belt Objects toward Their Manipulation. , 2007, , .		3
191	Experimental Investigation of Mechanics in Soft-fingered Grasping and Manipulation. Journal of the Robotics Society of Japan, 2007, 25, 951-959.	0.0	4
192	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
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	INDIRECT SIMULTANEOUS POSITIONING OF DEFORMABLE OBJECTS WITHOUT PHYSICAL PARAMETERS OR TIME-DERIVATIVES. , 2007, , 81-86.		0
195	PLANNING OF KNOTTING MANIPULATION. , 2007, , 87-92.		0
196	Dynamic Modeling of Linear Object Deformation Considering Contact with Obstacles. , 2006, , .		9
197	Tactile Perception using Micro Force/Moment Sensor Embedded in Soft Fingertip. , 2006, , .		4
198	Elastic Model of Deformable Fingertip for Soft-Fingered Manipulation. , 2006, 22, 1273-1279.		80

#	ARTICLE	IF	CITATIONS
199	Microparts Feeding by a Saw-Tooth Surface. IEEE/ASME Transactions on Mechatronics, 2006, 11, 671-681.	3.7	30
200	Implementing Planar Motion Tracking Algorithms on CMOS+FPGA Vision System. , 2006, , .		7
201	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
202	Unraveling of Deformable Linear Objects Based on 2D Information about Their Crossing States. , 2006, , .		0
203	Validation of FE Deformation Models using Ultrasonic and MR Images. , 2006, , .		6
204	Soft Robots for Crawling and Jumping via Deformation. Journal of the Robotics Society of Japan, 2006, 24, 378-387.	0.0	5
205	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
206	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
207	Stability Analysis Based on Continuous-discrete Time System of Dynamic Object Manipulation through A Soft Interface. Journal of the Robotics Society of Japan, 2006, 24, 349-355.	0.0	0
208	Simultaneous Control of Position and Deformation of Viscoelastic Object-Positionability of a One-dimensional Viscoelastic Object-. Journal of the Robotics Society of Japan, 2006, 24, 873-880.	0.0	0
209	Realtime FPGA-Based Vision System. Journal of Robotics and Mechatronics, 2005, 17, 401-409.	0.5	39
210	Linear Object Manipulation Including Knotting/Unknotting. Journal of the Robotics Society of Japan, 2005, 23, 344-351.	0.0	5
211	FPGA-based Realtime Vision. Journal of the Robotics Society of Japan, 2004, 22, 873-880.	0.0	1
212	Planar Motion Detection using One-sided Radon Transform. Journal of the Robotics Society of Japan, 2004, 22, 207-214.	0.0	0
213	Constant magnification focusing using a varifocal mirror and its application to 3-D imaging. , 2002, 4902, 238.		2
214	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
215	Forming Control of Rheological Objects Using Forming Process Model.. Journal of the Robotics Society of Japan, 2002, 20, 717-724.	0.0	0
216	Micro fabricated tunable bending stiffness devices. Sensors and Actuators A: Physical, 2001, 89, 119-123.	2.0	32

#	ARTICLE	IF	CITATIONS
217	Modeling of shape bifurcation phenomena in manipulations of deformable string objects. <i>Advanced Robotics</i> , 2001, 15, 833-846.	1.1	8
218	Deformation Transition Graphs of Rheological Objects for Their Shape Control.. <i>Journal of the Robotics Society of Japan</i> , 2001, 19, 387-394.	0.0	0
219	Indirect simultaneous positioning of deformable objects with multi-pinching fingers based on an uncertain model. <i>Robotica</i> , 2000, 18, 3-11.	1.3	52
220	Analysis and Planning of Indirect Simultaneous Positioning Operation of Deformable Objects.. <i>Journal of the Robotics Society of Japan</i> , 2000, 18, 675-682.	0.0	2
221	Deformation Modeling of Rheological Objects for Their Shape Control.. <i>Journal of the Robotics Society of Japan</i> , 2000, 18, 1141-1148.	0.0	3
222	An Analytical Approach to the Design of Compliant Hand for Assembly Operations.. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 1999, 65, 409-415.	0.2	0
223	Teaching and Programing for Robots. Indirect Simultaneous Positioning Operations of Multiple Points on Extensionally Deformable Objects.. <i>Journal of the Robotics Society of Japan</i> , 1999, 17, 282-290.	0.0	2
224	Kinematics and Statics of Manipulation Using the Theory of Polyhedral Convex Cones and Their Application to the Plannning of Manipulative Operations.. <i>Journal of the Robotics Society of Japan</i> , 1999, 17, 68-83.	0.0	6
225	Reconfigurable mechanisms: an approach to the rapid prototyping of multi-link mechanisms. <i>Advanced Robotics</i> , 1998, 13, 255-256.	1.1	0
226	Design of Passive Compliance for Assembly Operations.. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 1998, 64, 1464-1471.	0.2	2
227	Static Analysis of Deformable Object Grasping Based on Bounded Force Closure.. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 1998, 64, 508-515.	0.2	0
228	Transferring Human Motion to Mechanical Manipulator in Insertion of Deformable Tubes. <i>Journal of Robotics and Mechatronics</i> , 1998, 10, 209-213.	0.5	6
229	Deformable Object Manipulation.. <i>Journal of the Robotics Society of Japan</i> , 1998, 16, 136-139.	0.0	9
230	Modeling of Knitted Fabrics for Their Deformation Control.. <i>Journal of the Robotics Society of Japan</i> , 1998, 16, 553-560.	0.0	1
231	Static Analysis of Deforming Operations in Manipulation of Flexible Thin Objects. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 1997, 63, 1102-1109.	0.2	5
232	Human-demonstration Based Approach to the Object Motion Design and the Recognition of Process State Transitions in Insertion of Deformable Tubes.. <i>Journal of the Robotics Society of Japan</i> , 1997, 15, 1172-1179.	0.0	4
233	Model-Based Generation of Fixture Layout Candidates for Workpiece Holding.. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , 1996, 62, 4114-4121.	0.2	0
234	Design of Admittance Matrix Parameters Considering Modifiability Conditions.. <i>Journal of the Robotics Society of Japan</i> , 1995, 13, 433-440.	0.0	0

#	ARTICLE	IF	CITATIONS
235	Identification of contact states based on a geometric model for manipulative operations. <i>Advanced Robotics</i> , 1993, 8, 139-155.	1.1	11
236	Kinematics and Statics of Manipulation Using the Theory of Polyhedral Convex Cones. <i>International Journal of Robotics Research</i> , 1993, 12, 434-447.	5.8	97
237	A Model-Based Approach to the Interpretation of Force and Position Sensor Signals for the Process Monitoring of Assembly Operations. <i>Transactions of the Society of Instrument and Control Engineers</i> , 1990, 26, 225-232.	0.1	1
238	Kinematic Analysis of Contact State Transitions in Assembly Operations and Automatic Generation of Transition Network. <i>Transactions of the Society of Instrument and Control Engineers</i> , 1988, 24, 406-413.	0.1	15
239	A Model-based Generation Of Damping Control Law For Part-mat Ing. , 0, , .		3
240	Understanding Slip Perception of Soft Fingertips by Modeling and Simulating Stick-Slip Phenomenon. , 0, , .		7