Sarthak Misra

List of Publications by Year in descending order

198 papers	5,926 citations	94433 37 h-index	110387 64 g-index
207 all docs	207 docs citations	207 times ranked	4118 citing authors

#	Article	IF	Citations
1	Myoelectric forearm prostheses: State of the art from a user-centered perspective. Journal of Rehabilitation Research and Development, 2011, 48, 719.	1.6	378
2	Mechanics of Flexible Needles Robotically Steered through Soft Tissue. International Journal of Robotics Research, 2010, 29, 1640-1660.	8.5	251
3	Bilateral Telemanipulation With Time Delays: A Two-Layer Approach Combining Passivity and Transparency. IEEE Transactions on Robotics, 2011, 27, 741-756.	10.3	223
4	Three-Dimensional Needle Shape Reconstruction Using an Array of Fiber Bragg Grating Sensors. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1115-1126.	5.8	205
5	Modeling of Tool-Tissue Interactions for Computer-Based Surgical Simulation: A Literature Review. Presence: Teleoperators and Virtual Environments, 2008, 17, 463-491.	0.6	168
6	MagnetoSperm: A microrobot that navigates using weak magnetic fields. Applied Physics Letters, 2014, 104, .	3.3	145
7	IRONSperm: Sperm-templated soft magnetic microrobots. Science Advances, 2020, 6, eaba5855.	10.3	137
8	Multi-Core Optical Fibers With Bragg Gratings as Shape Sensor for Flexible Medical Instruments. IEEE Sensors Journal, 2019, 19, 5878-5884.	4.7	136
9	Magnetic Actuation Methods in Bio/Soft Robotics. Advanced Functional Materials, 2021, 31, 2005137.	14.9	126
10	Needle path planning and steering in a three-dimensional non-static environment using two-dimensional ultrasound images. International Journal of Robotics Research, 2014, 33, 1361-1374.	8.5	107
11	Steering of Multisegment Continuum Manipulators Using Rigid-Link Modeling and FBG-Based Shape Sensing. IEEE Transactions on Robotics, 2016, 32, 372-382.	10.3	103
12	Integrating Deflection Models and Image Feedback for Real-Time Flexible Needle Steering. IEEE Transactions on Robotics, 2013, 29, 542-553.	10.3	100
13	Stimuli-Responsive Soft Untethered Grippers for Drug Delivery and Robotic Surgery. Frontiers in Mechanical Engineering, 2017, 3, .	1.8	97
14	3D flexible needle steering in soft-tissue phantoms using Fiber Bragg Grating sensors. , 2013, , .		80
15	Design of an Electromagnetic Setup for Independent Three-Dimensional Control of Pairs of Identical and Nonidentical Microrobots. IEEE Transactions on Robotics, 2019, 35, 174-183.	10.3	75
16	Needle-tissue interaction forces for bevel-tip steerable needles. , 2008, , 224-231.		74
17	Robotic Needle Steering: Design, Modeling, Planning, and Image Guidance. , 2011, , 557-582.		74
18	Flexible Instruments for Endovascular Interventions: Improved Magnetic Steering, Actuation, and Image-Guided Surgical Instruments. IEEE Robotics and Automation Magazine, 2018, 25, 71-82.	2.0	72

#	Article	IF	Citations
19	Bio-Inspired Terrestrial Motion of Magnetic Soft Millirobots. IEEE Robotics and Automation Letters, 2019, 4, 1753-1759.	5.1	71
20	Vision-Based 3-D Control of Magnetically Actuated Catheter Using BigMagâ€"An Array of Mobile Electromagnetic Coils. IEEE/ASME Transactions on Mechatronics, 2019, 24, 505-516.	5.8	65
21	The importance of organ geometry and boundary constraints for planning of medical interventions. Medical Engineering and Physics, 2009, 31, 195-206.	1.7	62
22	Closed-loop control of magnetotactic bacteria. International Journal of Robotics Research, 2013, 32, 637-649.	8.5	62
23	The Control of Self-Propelled Microjets Inside a Microchannel With Time-Varying Flow Rates. IEEE Transactions on Robotics, 2014, 30, 49-58.	10.3	61
24	Autonomous planning and control of soft untethered grippers in unstructured environments. Journal of Micro-Bio Robotics, 2017, 12, 45-52.	2.1	61
25	Evaluation of a robotic technique for transrectal MRI-guided prostate biopsies. European Radiology, 2012, 22, 476-483.	4.5	60
26	Experimental evaluation of ultrasound-guided 3D needle steering in biological tissue. International Journal of Computer Assisted Radiology and Surgery, 2014, 9, 931-939.	2.8	58
27	Shape and contact force estimation of continuum manipulators using pseudo rigid body models. Mechanism and Machine Theory, 2019, 139, 34-45.	4.5	58
28	Steering and Control of Miniaturized Untethered Soft Magnetic Grippers With Haptic Assistance. IEEE Transactions on Automation Science and Engineering, 2018, 15, 290-306.	5.2	57
29	Mechanics of needle-tissue interaction. , 2011, , .		55
30	Modelling of non-linear elastic tissues for surgical simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 811-818.	1.6	52
31	Three-dimensional closed-loop control of self-propelled microjets. Applied Physics Letters, 2013, 103, .	3.3	52
32	Contactless acoustic micro/nano manipulation: a paradigm for next generation applications in life sciences. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200621.	2.1	51
33	On the Validation of SPDM Task Verification Facility. Journal of Field Robotics, 2004, 21, 219-235.	0.7	50
34	On using an array of fiber Bragg grating sensors for closed-loop control of flexible minimally invasive surgical instruments. , 2013, , .		50
35	Real-time three-dimensional flexible needle tracking using two-dimensional ultrasound. , 2013, , .		49
36	Magnetic localization and control of helical robots for clearing superficial blood clots. APL Bioengineering, 2019, 3, 026104.	6.2	49

#	Article	IF	Citations
37	The ARMM System - Autonomous Steering of Magnetically-Actuated Catheters: Towards Endovascular Applications. IEEE Robotics and Automation Letters, 2020, 5, 705-712.	5.1	47
38	Introducing BigMag â€" A novel system for 3D magnetic actuation of flexible surgical manipulators. , 2017, , .		46
39	The ARMM System: An Optimized Mobile Electromagnetic Coil for Non-Linear Actuation of Flexible Surgical Instruments. IEEE Transactions on Magnetics, 2019, 55, 1-9.	2.1	46
40	Teleoperation of Steerable Flexible Needles by Combining Kinesthetic and Vibratory Feedback. IEEE Transactions on Haptics, 2014, 7, 551-556.	2.7	45
41	Pose Measurement of Flexible Medical Instruments Using Fiber Bragg Gratings in Multi-Core Fiber. IEEE Sensors Journal, 2020, 20, 10955-10962.	4.7	44
42	Observations and models for needle-tissue interactions. , 2009, , .		41
43	Magnetic-based closed-loop control of paramagnetic microparticles using ultrasound feedback. , 2014, , .		41
44	Biomechanics-Based Curvature Estimation for Ultrasound-guided Flexible Needle Steering in Biological Tissues. Annals of Biomedical Engineering, 2015, 43, 1716-1726.	2.5	40
45	Ultrasound-guided three-dimensional needle steering in biological tissue with curved surfaces. Medical Engineering and Physics, 2015, 37, 145-150.	1.7	40
46	The MIRIAM Robot: A Novel Robotic System for MR-Guided Needle Insertion in the Prostate. Journal of Medical Robotics Research, 2017, 02, 1750006.	1.2	39
47	Magnetic-Based Motion Control of Paramagnetic Microparticles With Disturbance Compensation. IEEE Transactions on Magnetics, 2014, 50, 1-10.	2.1	37
48	Force sensing in continuum manipulators using fiber Bragg grating sensors. , 2017, , .		37
49	Macroscopic and microscopic observations of needle insertion into gels. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 441-449.	1.8	36
50	Magnetic control of self-propelled microjets under ultrasound image guidance. , 2014, , .		35
51	Mechanics-based model for predicting in-plane needle deflection with multiple bends. , 2012, , .		34
52	Biocompatible, accurate, and fully autonomous: a sperm-driven micro-bio-robot. Journal of Micro-Bio Robotics, 2014, 9, 79-86.	2.1	34
53	Haptic Feedback for Microrobotics Applications: A Review. Frontiers in Robotics and AI, 2016, 3, .	3.2	31
54	Tandem actuation of legged locomotion and grasping manipulation in soft robots using magnetic fields. Extreme Mechanics Letters, 2020, 41, 101023.	4.1	31

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55	Modeling and steering of a novel actuated-tip needle through a soft-tissue simulant using Fiber Bragg Grating sensors. , 2015, , .		30
56	Independent and Leaderâ€"Follower Control for Two Magnetic Micro-Agents. IEEE Robotics and Automation Letters, 2018, 3, 218-225.	5.1	30
57	Impact of Segmented Magnetization on the Flagellar Propulsion of Spermâ€Templated Microrobots. Advanced Science, 2021, 8, 2004037.	11.2	29
58	Evaluation of flexible endoscope steering using haptic guidance. International Journal of Medical Robotics and Computer Assisted Surgery, 2011, 7, 178-186.	2.3	28
59	Predicting Target Displacements Using Ultrasound Elastography and Finite Element Modeling. IEEE Transactions on Biomedical Engineering, 2011, 58, 3143-3155.	4.2	27
60	Wireless Magnetic-Based Closed-Loop Control of Self-Propelled Microjets. PLoS ONE, 2014, 9, e83053.	2.5	27
61	Image-based flexible endoscope steering. , 2010, , .		26
62	Wireless magnetic-based control of paramagnetic microparticles. , 2012, , .		26
63	Precise Localization and Control of Catalytic Janus Micromotors Using Weak Magnetic Fields. International Journal of Advanced Robotic Systems, 2015, 12, 2.	2.1	26
64	Endoscopic camera control by head movements for thoracic surgery. , 2010, , .		25
65	A framework for predicting three-dimensional prostate deformation in real time. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, e52-e60.	2.3	25
66	Experimental evaluation of co-manipulated ultrasound-guided flexible needle steering. International Journal of Medical Robotics and Computer Assisted Surgery, 2016, 12, 219-230.	2.3	25
67	Curvature, twist and pose measurements using fiber Bragg gratings in multi-core fiber: A comparative study between helical and straight core fibers. Sensors and Actuators A: Physical, 2021, 317, 112442.	4.1	25
68	Acoustically-actuated bubble-powered rotational micro-propellers. Sensors and Actuators B: Chemical, 2021, 347, 130589.	7.8	25
69	Image-based magnetic control of paramagnetic microparticles in water. , 2011, , .		24
70	3D position estimation of flexible instruments: marker-less and marker-based methods. International Journal of Computer Assisted Radiology and Surgery, 2013, 8, 407-417.	2.8	24
71	Closed-loop asymmetric-tip needle steering under continuous intraoperative MRI guidance. , 2015, 2015, 4869-74.		24
72	Magnetic motion control and planning of untethered soft grippers using ultrasound image feedback. , 2017, 2017, 6156-6161.		24

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73	An Observer-Based Fusion Method Using Multicore Optical Shape Sensors and Ultrasound Images for Magnetically-Actuated Catheters. , 2018, , .		24
74	Image-based hysteresis reduction for the control of flexible endoscopic instruments. Mechatronics, 2013, 23, 652-658.	3.3	23
75	Flexible Needle Steering in Moving Biological Tissue With Motion Compensation Using Ultrasound and Force Feedback. IEEE Robotics and Automation Letters, 2018, 3, 2338-2345.	5.1	23
76	Computed tomography (CT)-compatible remote center of motion needle steering robot: Fusing CT images and electromagnetic sensor data. Medical Engineering and Physics, 2017, 45, 71-77.	1.7	22
77	CeFlowBot: A Biomimetic Flowâ€Driven Microrobot that Navigates under Magnetoâ€Acoustic Fields. Small, 2022, 18, e2105829.	10.0	22
78	Design and evaluation of a computed tomography (CT)-compatible needle insertion device using an electromagnetic tracking system and CT images. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1845-1852.	2.8	21
79	Model predictive control of a robotically actuated delivery sheath for beating heart compensation. International Journal of Robotics Research, 2017, 36, 193-209.	8.5	21
80	A Snake-Inspired Multi-Segmented Magnetic Soft Robot Towards Medical Applications. IEEE Robotics and Automation Letters, 2022, 7, 5795-5802.	5.1	21
81	Closed-loop control of a magnetically-actuated catheter using two-dimensional ultrasound images. , 2016, , .		20
82	Design, characterization and control of thermally-responsive and magnetically-actuated micro-grippers at the air-water interface. PLoS ONE, 2017, 12, e0187441.	2.5	20
83	Resemblance between motile and magnetically actuated sperm cells. Applied Physics Letters, 2020, 116, .	3.3	20
84	Haptic Teleoperation of Flexible Needles Combining 3D Ultrasound Guidance and Needle Tip Force Feedback. IEEE Robotics and Automation Letters, 2021, 6, 4859-4866.	5.1	20
85	Propulsion and steering of helical magnetic microrobots using two synchronized rotating dipole fields in three-dimensional space. , 2015, , .		19
86	RobUStâ€"An Autonomous Robotic Ultrasound System for Medical Imaging. IEEE Access, 2021, 9, 67456-67465.	4.2	19
87	Multi-Point Orientation Control of Discretely-Magnetized Continuum Manipulators. IEEE Robotics and Automation Letters, 2021, 6, 3607-3614.	5.1	19
88	Modeling Realistic Tool-Tissue Interactions with Haptic Feedback: A Learning-based Method. , 2008, , .		18
89	Magnetic control of potential microrobotic drug delivery systems: Nanoparticles, magnetotactic bacteria and self-propelled microjets. , 2013, 2013, 5299-302.		18
90	UT hand I: A lock-based underactuated hand prosthesis. Mechanism and Machine Theory, 2014, 78, 307-323.	4.5	18

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91	Control of untethered soft grippers for pick-and-place tasks. , 2016, 2016, 299-304.		18
92	Gastric Cancer Screening in Low-Income Countries: System Design, Fabrication, and Analysis for an Ultralow-Cost Endoscopy Procedure. IEEE Robotics and Automation Magazine, 2017, 24, 73-81.	2.0	18
93	Microassembly using a cluster of paramagnetic microparticles. , 2013, , .		17
94	Control of magnetotactic bacterium in a micro-fabricated maze. , 2013, , .		17
95	Magnetic-based motion control of sperm-shaped microrobots using weak oscillating magnetic fields. , 2014, , .		17
96	Needle steering in biological tissue using ultrasound-based online curvature estimation. , 2014, 2014, 4368-4373.		17
97	Robust and Optimal Control of Magnetic Microparticles inside Fluidic Channels with Time-Varying Flow Rates. International Journal of Advanced Robotic Systems, 2016, 13, 123.	2.1	17
98	A Contactless and Biocompatible Approach for 3D Active Microrobotic Targeted Drug Delivery. Micromachines, 2019, 10, 504.	2.9	17
99	A Recurrent Neural-Network-Based Real-Time Dynamic Model for Soft Continuum Manipulators. Frontiers in Robotics and AI, 2021, 8, 631303.	3.2	17
100	Intuitive control of self-propelled microjets with haptic feedback. Journal of Micro-Bio Robotics, 2015, 10, 37-53.	2.1	16
101	Towards MRI-guided flexible needle steering using fiber Bragg grating-based tip tracking. , 2017, , .		16
102	Bi-directional transportation of micro-agents induced by symmetry-broken acoustic streaming. AIP Advances, 2019, 9, .	1.3	16
103	Pose reconstruction of flexible instruments from endoscopic images using markers. , 2012, , .		15
104	Controlled Noncontact Manipulation of Nonmagnetic Untethered Microbeads Orbiting Two-Tailed Soft Microrobot. IEEE Transactions on Robotics, 2020, 36, 1320-1332.	10.3	15
105	Collaborative Surgical Robots: Optical Tracking During Endovascular Operations. IEEE Robotics and Automation Magazine, 2020, 27, 29-44.	2.0	15
106	Interaction force estimation during manipulation of microparticles. , 2012, , .		14
107	Magnetic-based motion control of a helical robot using two synchronized rotating dipole fields. , 2014, , .		14
108	Non-Contact manipulation of microbeads via pushing and pulling using magnetically controlled clusters of paramagnetic microparticles. , 2015, , .		14

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109	Steering an actuated-tip needle in biological tissue: Fusing FBG-sensor data and ultrasound images. , 2016, , .		14
110	Characterization and Control of Biological Microrobots. Springer Tracts in Advanced Robotics, 2013, , 617-631.	0.4	14
111	MRI of the prostate: potential role of robots. Imaging in Medicine, 2010, 2, 583-592.	0.0	14
112	Force Feedback is Noticeably Different for Linear versus Nonlinear Elastic Tissue Models. , 2007, , .		13
113	Magnetic Localization for an Electromagnetic-Based Haptic Interface. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	13
114	A Monolithic Compliant Continuum Manipulator: A Proof-of-Concept Study. Journal of Mechanisms and Robotics, 2020, 12, .	2.2	13
115	Observations of needle-tissue interactions. , 2009, 2009, 262-5.		12
116	Three-dimensional pose reconstruction of flexible instruments from endoscopic images. , 2011, , .		12
117	Observations of three-dimensional needle deflection during insertion into soft tissue. , 2012, , .		12
118	FINITE-ELEMENT MODELING OF A BEVEL-TIPPED NEEDLE INTERACTING WITH GEL. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550079.	0.7	12
119	MILiMAC: Flexible Catheter With Miniaturized Electromagnets as a Small-Footprint System for Microrobotic Tasks. IEEE Robotics and Automation Letters, 2020, 5, 5260-5267.	5.1	12
120	Design of a user interface for intuitive colonoscope control. , 2011, , .		11
121	Evaluation of an electromagnetic system with haptic feedback for control of untethered, soft grippers affected by disturbances. , 2016, , .		11
122	Introducing PneuAct: Parametrically-Designed MRI-Compatible Pneumatic Stepper Actuator. , 2018, , .		11
123	Dual-Arm Control for Enhanced Magnetic Manipulation. , 2020, , .		11
124	On the importance of modelling organ geometry and boundary conditions for predicting three-dimensional prostate deformation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 497-506.	1.6	10
125	A Multi-Rate State Observer for Visual Tracking of Magnetic Micro-Agents Using 2D Slow Medical Imaging Modalities. , 2018, , .		10
126	Bidirectional Propulsion of Arcâ€Shaped Microswimmers Driven by Precessing Magnetic Fields. Advanced Intelligent Systems, 2020, 2, 2000064.	6.1	10

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127	Magnetic-based minimum input motion control of paramagnetic microparticles in three-dimensional space. , 2013, , .		9
128	Evaluation of robotically controlled advanced endoscopic instruments. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, 240-246.	2.3	9
129	Reconstructing Endovascular Catheter Interaction Forces in 3D using Multicore Optical Shape Sensors. , 2019, , .		9
130	Design and Evaluation of a Magnetic Rotablation Catheter for Arterial Stenosis. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1761-1772.	5.8	9
131	Real-Time Multi-Modal Sensing and Feedback for Catheterization in Porcine Tissue. Sensors, 2021, 21, 273.	3.8	9
132	Modeling of Unidirectional-Overloaded Transition in Catalytic Tubular Microjets. Journal of Physical Chemistry C, 2017, 121, 14854-14863.	3.1	9
133	A biomechanical model for the development of myoelectric hand prosthesis control systems. , 2010, 2010, 519-23.		8
134	Bilateral telemanipulation: Improving the complementarity of the frequency- and time-domain passivity approaches. , 2011, , .		8
135	Target motion predictions for pre-operative planning during needle-based interventions. , 2011, 2011, 5380-5.		8
136	Effect of skin thickness on target motion during needle insertion into soft-tissue phantoms. , 2012, , .		8
137	Paramagnetic microparticles sliding on a surface: Characterization and closed-loop motion control. , 2015, , .		8
138	Segmentation and threeâ€dimensional reconstruction of lesions using the automated breast volume scanner (ABVS). International Journal of Medical Robotics and Computer Assisted Surgery, 2017, 13, e1767.	2.3	8
139	Modeling of Spermbots in a Viscous Colloidal Suspension. Advanced Theory and Simulations, 2019, 2, 1900072.	2.8	8
140	Dynamic modeling of soft continuum manipulators using lie group variational integration. PLoS ONE, 2020, 15, e0236121.	2.5	8
141	Mechanics of needle-tissue interaction. , 2011, , .		8
142	A Flexible Catheter System for Ultrasound-Guided Magnetic Projectile Delivery. IEEE Transactions on Robotics, 2022, 38, 1959-1972.	10.3	8
143	Development of Underactuated Prosthetic Fingers with Joint Locking and Electromyographic Control. Mechanical Engineering Research, 2013, 3, 130.	0.2	7
144	Control Characteristics of Magnetotactic Bacteria: <italic>Magnetospirillum Magnetotacticum</italic> Strain MS-1 and <italic>Magnetospirillum Magneticum</italic> Strain AMB-1. IEEE Transactions on Magnetics, 2014, 50, 1-11.	2.1	7

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147	Serial imaging of micro-agents and cancer cell spheroids in a microfluidic channel using multicolor fluorescence microscopy. PLoS ONE, 2021, 16, e0253222.	2.5	7
148	Evaluation of pneumatic cylinder actuators for hand prostheses. , 2012, , .		6
149	Combining ultrasound-based elasticity estimation and FE models to predict 3D target displacement. Medical Engineering and Physics, 2013, 35, 549-554.	1.7	6
150	Modelling Prostate Deformation: SOFA versus Experiments. Mechanical Engineering Research, 2013, 3, .	0.2	6
151	Steering of flexible needles combining kinesthetic and vibratory force feedback. , 2014, , .		6
152	An experimental comparison of path planning techniques applied to micro-sized magnetic agents. , 2016, , .		6
153	A GPU-accelerated model-based tracker for untethered submillimeter grippers. Robotics and Autonomous Systems, 2018, 103, 111-121.	5.1	6
154	Tele-Operated MRI-Guided Needle Insertion for Prostate Interventions. Journal of Medical Robotics Research, 2019, 04, 1842003.	1.2	6
155	Stability of position-based bilateral telemanipulation systems by damping injection. , 2012, , .		5
156	Hybrid control algorithm for flexible needle steering: Demonstration in phantom and human cadaver. PLoS ONE, 2018, 13, e0210052.	2.5	5
157	Force characterization and analysis of thin film actuators for untethered microdevices. AIP Advances, 2019, 9, .	1.3	5
158	PneuAct-II: Hybrid Manufactured Electromagnetically Stealth Pneumatic Stepper Actuator. IEEE Robotics and Automation Letters, 2020, 5, 3588-3593.	5.1	5
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160	Quantifying perception of nonlinear elastic tissue models using multidimensional scaling. , 2009, , .		4
161	Motion planning for paramagnetic microparticles under motion and sensing uncertainty. , 2014, , .		4
162	Three-Dimensional Needle Steering Using Automated Breast Volume Scanner (ABVS). Journal of Medical Robotics Research, 2016, 01, 1640005.	1.2	4

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163	Friction compensation in energy-based bilateral telemanipulation. , 2010, , .		3
164	An energy-based state observer for dynamical subsystems with inaccessible state variables. , 2012, , .		3
165	Development of prosthesis grasp control systems on a robotic testbed. , 2012, , .		3
166	A preliminary evaluation of a flexible needle steering algorithm using magnetic resonance images as feedback. , 2014, , .		3
167	Three-dimensional needle steering towards a localized target in a prostate phantom. , 2014, , .		3
168	Control of magnetotactic bacteria. , 2017, , 61-79.		3
169	Development of a Coil Driver for Magnetic Manipulation Systems. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	3
170	Characterization of Helical Propulsion Inside In Vitro and Ex Vivo Models of a Rabbit Aorta. , 2019, 2019, 5283-8286.		3
171	A Magnetically-Steerable Stenting Catheter for Minimally Invasive Cardiovascular Interventions. , 2021, , .		3
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173	Physically valid surgical simulators: linear versus nonlinear tissue models. Studies in Health Technology and Informatics, 2008, 132, 293-5.	0.3	3
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176	Magnetotactic bacteria and microjets: A comparative study. , 2013, , .		2
177	Towards physiological motion compensation for flexible needle interventions. , 2015, , .		2
178	Feeling paramagnetic micro-particles trapped inside gas bubbles: A tele-manipulation study. , 2016, , .		2
179	Disturbance observer-based motion control of paramagnetic microparticles against time-varying flow rates. , 2016, , .		2
180	Near Surface Effects on the Flagellar Propulsion of Soft Robotic Sperms. , 2018, , .		2

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181	Towards Gradient-Based Actuation of Magnetic Soft Robots Using a Six-Coil Electromagnetic System. , 2020, , .		2
182	A Magnetically-Actuated Flexible Capsule Robot for Untethered Cardiovascular Interventions. , 2022, , .		2
183	Image-based pose estimation of an endoscopic instrument. , 2012, , .		1
184	Ultrasound-guided stabilization of a robotically-actuated delivery sheath (RADS) for beating heart mitral valve motions. , 2016, , .		1
185	Open-loop control of soft microrobots. , 2021, , 163-177.		1
186	Localization of soft microrobots. , 2021, , 151-161.		1
187	Three-dimensional pose reconstruction of flexible instruments from endoscopic images. , 2011, , .		1
188	Open-Loop Magnetic Actuation of Helical Robots using Position-Constrained Rotating Dipole Field. , 2021, , .		1
189	Multi-dimensional passive sampled Port-Hamiltonian systems. , 2010, , .		0
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192	Closed-loop control of soft microrobots. , 2021, , 179-195.		0
193	Fluid mechanics and resistive-force theory. , 2021, , 61-77.		0
194	Principles of propulsion by magnetically actuated soft bodies. , 2021, , 125-136.		0
195	10.1063/1.4880035.1. , 2014, , .		0
196	BIOLOGICALLY INSPIRED MICROROBOTICS. , 2018, , 65-85.		0
197	Identification of mobile entities based on trajectory and shape information. , 2011, , .		0
198	Mechanical design of a tree gripper for miniature tree-climbing robots. , 2011, , .		0