

Kanako Harada

List of Publications by Year in descending order

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85
papers

1,031
citations

535685

17
h-index

563245

28
g-index

85
all docs

85
docs citations

85
times ranked

1127
citing authors

#	ARTICLE	IF	CITATIONS
1	Autonomous Coordinated Control of the Light Guide for Positioning in Vitreoretinal Surgery. IEEE Transactions on Medical Robotics and Bionics, 2022, 4, 156-171.	2.1	6
2	Bionic eye system mimicking microfluidic structure and intraocular pressure for glaucoma surgery training. PLoS ONE, 2022, 17, e0271171.	1.1	0
3	A force measurement platform for a vitreoretinal surgical simulator using an artificial eye module integrated with a quartz crystal resonator. Microsystems and Nanoengineering, 2022, 8, .	3.4	0
4	SmartArm: Suturing Feasibility of a Surgical Robotic System on a Neonatal Chest Model. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 253-256.	2.1	6
5	Development of Integrated 3-Dimensional Computer Graphics Human Head Model. Operative Neurosurgery, 2021, 20, 565-574.	0.4	8
6	Motion analysis of the JHU-ISI Gesture and Skill Assessment Working Set II: learning curve analysis. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 589-595.	1.7	2
7	Mlcro-surgical anastomose workflow recognition challenge report. Computer Methods and Programs in Biomedicine, 2021, 212, 106452.	2.6	14
8	MBAPose: Mask and Bounding-Box Aware Pose Estimation of Surgical Instruments with Photorealistic Domain Randomization. , 2021, , .		2
9	Real-time surgical needle detection using region-based convolutional neural networks. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 41-47.	1.7	9
10	SmartArm: Integration and validation of a versatile surgical robotic system for constrained workspaces. International Journal of Medical Robotics and Computer Assisted Surgery, 2020, 16, e2053.	1.2	23
11	Single-Shot Pose Estimation of Surgical Robot Instrumentsâ€™ Shafts from Monocular Endoscopic Images. , 2020, , .		9
12	Motion analysis of the JHU-ISI Gesture and Skill Assessment Working Set using Robotics Video and Motion Assessment Software. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 2017-2025.	1.7	16
13	Virtual Fixture Assistance for Suturing in Robot-Aided Pediatric Endoscopic Surgery. IEEE Robotics and Automation Letters, 2020, 5, 524-531.	3.3	18
14	Bionic Sensor for Evaluating Applied Force in a Retinal Surgical Simulator. , 2020, , .		1
15	The effects of different levels of realism on the training of CNNs with only synthetic images for the semantic segmentation of robotic instruments in a head phantom. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 1257-1265.	1.7	5
16	The effect of simulator fidelity on procedure skill training: a literature review. International Journal of Medical Education, 2020, 11, 97-106.	0.6	35
17	Cerebrovascular Model Equipped with Microsensors. IEJ Transactions on Sensors and Micromachines, 2020, 140, 354-362.	0.0	1
18	Virtual reality simulation of robotic transsphenoidal brain tumor resection: Evaluating dynamic motion scaling in a master-slave system. International Journal of Medical Robotics and Computer Assisted Surgery, 2019, 15, e1953.	1.2	28

#	ARTICLE	IF	CITATIONS
19	Compliant four degree-of-freedom manipulator with locally deformable elastic elements for minimally invasive surgery. , 2019, , .		20
20	Modular Optic Force Sensor for a Surgical Device Using a Fabryâ€“Perot Interferometer. Applied Sciences (Switzerland), 2019, 9, 3454.	1.3	4
21	A Unified Framework for the Teleoperation of Surgical Robots in Constrained Workspaces. , 2019, , .		22
22	Dynamic Active Constraints for Surgical Robots Using Vector-Field Inequalities. IEEE Transactions on Robotics, 2019, 35, 1166-1185.	7.3	56
23	Automatic annotation of surgical activities using virtual reality environments. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1663-1671.	1.7	10
24	IJCARSâ€“IPCAI 2019 special issue: conference information processing for computer-assisted interventions, 10th international conference 2019â€“part 1. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 911-912.	1.7	0
25	Development of a Spherical Model with a 3D Microchannel: An Application to Glaucoma Surgery. Micromachines, 2019, 10, 297.	1.4	4
26	Organ/Patient Models. Journal of Japan Society of Computer Aided Surgery, 2019, 21, 147-149.	0.1	0
27	Laparoscopic ultrasound manipulator with a spring-based elastic mechanism. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 1063-1072.	1.7	0
28	Evaluation of Surgical Devices Using an Artificial Pediatric Thoracic Model: A Comparison Between Robot-Assisted Thoracoscopic Suturing Versus Conventional Video-Assisted Thoracoscopic Suturing. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2018, 28, 622-627.	0.5	11
29	Autonomous Positioning of Eye Surgical Robot Using the Tool Shadow and Kalman Filtering. , 2018, 2018, 1723-1726.		10
30	Active Constraints Using Vector Field Inequalities for Surgical Robots. , 2018, , .		17
31	Sequential surgical signatures in micro-suturing task. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 1419-1428.	1.7	7
32	Regulatory Science on AI-based Medical Devices and Systems. Advanced Biomedical Engineering, 2018, 7, 118-123.	0.4	32
33	A surgical simulator for peeling the inner limiting membrane during wet conditions. PLoS ONE, 2018, 13, e0196131.	1.1	16
34	Development of a Skill Evaluation System for the Camera Assistant Using an Infant-Sized Laparoscopic Box Trainer. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2018, 28, 906-911.	0.5	6
35	Towards robust needle segmentation and tracking in pediatric endoscopic surgery. , 2018, , .		3
36	Eye Surgery Simulator for Evaluation of Surgical Technique. , 2018, , .		1

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37	Concept design of robotic modules for needlescopic surgery. Minimally Invasive Therapy and Allied Technologies, 2017, 26, 232-239.	0.6	1
38	Toward Autonomous Collision Avoidance for Robotic Neurosurgery in Deep and Narrow Spaces in the Brain. Procedia CIRP, 2017, 65, 110-114.	1.0	16
39	Image Processing for Autonomous Positioning of Eye Surgery Robot in Micro-Cannulation. Procedia CIRP, 2017, 65, 105-109.	1.0	7
40	Preliminary Study of Video-Based Pediatric Endoscopic Surgical Skill Assessment Using a Neonatal Esophageal Atresia/Tracheoesophageal Fistula Model. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2017, 27, 76-81.	0.5	15
41	On the use of general-purpose serial-link manipulators in eye surgery. , 2017, , .		4
42	Compact 4DOF robotic forceps with 3.5 mm in diameter for neurosurgery based on a synthetic elastic structure. , 2017, , .		3
43	Comparison of remote center-of-motion generation algorithms. , 2017, , .		9
44	Eye surgery simulator for training intracular operation of inner limiting membrane. , 2017, , .		3
45	Intelligent control of neurosurgical robot MM-3 using dynamic motion scaling. Neurosurgical Focus, 2017, 42, E5.	1.0	10
46	Synthetic Patient/Organ Models. Journal of Japan Society of Computer Aided Surgery, 2017, 19, 151-153.	0.1	0
47	Medical Engineering and Microneurosurgery: Application and Future. Neurologia Medico-Chirurgica, 2016, 56, 641-652.	1.0	3
48	Feedback methods for collision avoidance using virtual fixtures for robotic neurosurgery in deep and narrow spaces. , 2016, , .		10
49	Training system using Bionic-eye for internal limiting membrane peeling. , 2016, , .		12
50	Design and Prototyping of a Handheld 3-DOF Laparoscopic Ultrasound Manipulator for Liver Surgery. Procedia CIRP, 2016, 49, 121-124.	1.0	2
51	Pediatric Thoracoscopic Surgical Simulation Using a Rapid-Prototyped Chest Model and Motion Sensors Can Better Identify Skilled Surgeons Than a Conventional Box Trainer. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2016, 26, 740-747.	0.5	12
52	Development of a Neonatal Thoracic Cavity Model and Preliminary Study. Journal of Japan Society of Computer Aided Surgery, 2016, 18, 80-86.	0.1	2
53	A multi-degree-of-freedom needle driver with a short tip and small shaft for pediatric laparoscopic surgery: in vivo assessment of multi-directional suturing on the vertical plane of the liver in rabbits. Surgical Endoscopy and Other Interventional Techniques, 2016, 30, 3646-3653.	1.3	2
54	Autonomous 3-D positioning of surgical instrument concerning compatibility with the eye surgical procedure. The Proceedings of JSME Annual Conference on Robotics and Mechatronics (Robomec), 2016, 2016, 1A1-01b6.	0.0	1

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55	Development of a miniature neurosurgical robotic system with multi-DOF forceps targeted for tasks in deep spaces. The Proceedings of JSME Annual Conference on Robotics and Mechatronics (Robomec), 2016, 2016, 1A1-03a1.	0.0	3
56	Quantitative assessment of manual and robotic microcannulation for eye surgery using new eye model. International Journal of Medical Robotics and Computer Assisted Surgery, 2015, 11, 210-217.	1.2	36
57	Assessing Microneurosurgical Skill with Medico-Engineering Technology. World Neurosurgery, 2015, 84, 964-971.	0.7	48
58	Video-Based Skill Assessment of Endoscopic Suturing in a Pediatric Chest Model and a Box Trainer. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2015, 25, 445-453.	0.5	18
59	Quantitative pediatric surgical skill assessment using a rapid-prototyped chest model. Minimally Invasive Therapy and Allied Technologies, 2015, 24, 226-232.	0.6	12
60	Detection of Longitudinal-Section View of Blood Vessels in Laparoscopic Ultrasound Image. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 265-266.	0.0	0
61	Control of a Surgical Intravascular Microrobot in a Pulsatile Flow Using Rotating Electromagnetic Coils. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 327-328.	0.0	0
62	Multi-Degrees of Freedom Robotic tool with Remote Center of Motion for Laparoscopic Ultrasound Scan : Mechanical Structure and its Evaluation. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 126-127.	0.0	0
63	Dynamic motion scaling for master-slave microsurgical robotic system and its preliminary evaluation. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 64-65.	0.0	1
64	Preliminary Study on Control of a Magnetically Propelled Intravascular Microrobot. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 25-26.	0.0	0
65	Uncalibrated Visual Servoing for Autonomous 2-D Positioning of Vitreoretinal Surgical Robot. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 259-260.	0.0	0
66	Design and development of miniature parallel robot for eye surgery. , 2014, 2014, 371-4.		7
67	Hand-held multi-DOF robotic forceps for neurosurgery designed for dexterous manipulation in deep and narrow space. , 2014, 2014, 6868-71.		4
68	Robust forceps tracking using online calibration of hand-eye coordination for microsurgical robotic system. , 2014, , .		1
69	Robust Visual Tracking of Robotic Forceps Under a Microscope Using Kinematic Data Fusion. IEEE/ASME Transactions on Mechatronics, 2014, 19, 278-288.	3.7	21
70	Mechanistic modeling of bone-drilling process with experimental validation. Journal of Materials Processing Technology, 2014, 214, 1018-1026.	3.1	62
71	Super-microsurgical Robotic Platforms and Investigation of Super-precise Manufacturing Technologies. Journal of the Japan Society for Precision Engineering, 2014, 80, 36-41.	0.0	0
72	Master-slave robotic platform and its feasibility study for micro-neurosurgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, 180-189.	1.2	59

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73	Biomanufacturing. CIRP Annals - Manufacturing Technology, 2013, 62, 585-606.	1.7	45
74	Design of a Robotic Module for Autonomous Exploration and Multimode Locomotion. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1757-1766.	3.7	28
75	Assessment of suturing in the vertical plane shows the efficacy of the multi-degree-of-freedom needle driver for neonatal laparoscopy. Pediatric Surgery International, 2013, 29, 1177-1182.	0.6	4
76	Perforation risk detector using demonstration-based learning for teleoperated robotic surgery. , 2013, , .		3
77	Development of a Needle Driver with Multiple Degrees of Freedom for Neonatal Laparoscopic Surgery. Journal of Laparoendoscopic and Advanced Surgical Techniques - Part A, 2013, 23, 644-648.	0.5	4
78	Preliminary study of needle tracking in a microsurgical robotic system for automated operations. , 2013, , .		10
79	FORCE ANALYSIS OF ORTHOGONAL CUTTING OF BOVINE CORTICAL BONE. Machining Science and Technology, 2013, 17, 637-649.	1.4	28
80	Evaluation of fetal tissue viscoelastic characteristics for robotic fetal surgery. International Journal of Computer Assisted Radiology and Surgery, 2011, 6, 797-802.	1.7	4
81	A reconfigurable modular robotic endoluminal surgical system: vision and preliminary results. Robotica, 2010, 28, 171-183.	1.3	66
82	Single and multiple robotic capsules for endoluminal diagnosis and surgery. , 2008, , .		13
83	Bending Laser Manipulator for Intrauterine Surgery and Viscoelastic Model of Fetal Rat Tissue. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	26
84	Evaluation of the Relationship Between the Viscoelastic Stress and Strain of Fetal Rat Skin as a Guide for Designing the Structure and Dynamic Performance of a Manipulator for Fetal Surgery. Surgery Today, 2006, 36, 701-706.	0.7	11
85	Modular Robotic Approach in Surgical Applications " Wireless Robotic Modules and a Reconfigurable Master Device for Endoluminal Surgery " , 0, , .		3