

Elena De Momi

List of Publications by Year in descending order

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200
papers

5,051
citations

94433

37
h-index

133252

59
g-index

202
all docs

202
docs citations

202
times ranked

4839
citing authors

#	ARTICLE	IF	CITATIONS
1	Blood vessel segmentation algorithms – Review of methods, datasets and evaluation metrics. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 158, 71-91.	4.7	369
2	Improved Human–Robot Collaborative Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. <i>IEEE Robotics and Automation Letters</i> , 2019, 4, 1447-1453.	5.1	169
3	Haptics in Robot-Assisted Surgery: Challenges and Benefits. <i>IEEE Reviews in Biomedical Engineering</i> , 2016, 9, 49-65.	18.0	167
4	Improved recurrent neural network-based manipulator control with remote center of motion constraints: Experimental results. <i>Neural Networks</i> , 2020, 131, 291-299.	5.9	166
5	Validation of FreeSurfer-Estimated Brain Cortical Thickness: Comparison with Histologic Measurements. <i>Neuroinformatics</i> , 2014, 12, 535-542.	2.8	137
6	Deep Neural Network Approach in Robot Tool Dynamics Identification for Bilateral Teleoperation. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 2943-2949.	5.1	124
7	Toward Teaching by Demonstration for Robot-Assisted Minimally Invasive Surgery. <i>IEEE Transactions on Automation Science and Engineering</i> , 2021, 18, 484-494.	5.2	116
8	Enhanced real-time pose estimation for closed-loop robotic manipulation of magnetically actuated capsule endoscopes. <i>International Journal of Robotics Research</i> , 2018, 37, 890-911.	8.5	94
9	An Incremental Learning Framework for Human-Like Redundancy Optimization of Anthropomorphic Manipulators. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 1864-1872.	11.3	90
10	Does computer-assisted surgery benefit leg length restoration in total hip replacement? Navigation versus conventional freehand. <i>International Orthopaedics</i> , 2011, 35, 19-24.	1.9	86
11	Deep Learning Based Robotic Tool Detection and Articulation Estimation With Spatio-Temporal Layers. <i>IEEE Robotics and Automation Letters</i> , 2019, 4, 2714-2721.	5.1	81
12	A Fast and Robust Deep Convolutional Neural Networks for Complex Human Activity Recognition Using Smartphone. <i>Sensors</i> , 2019, 19, 3731.	3.8	79
13	Autonomy in Surgical Robotics. <i>Annual Review of Control, Robotics, and Autonomous Systems</i> , 2021, 4, 651-679.	11.8	79
14	Artificial intelligence for brain diseases: A systematic review. <i>APL Bioengineering</i> , 2020, 4, 041503.	6.2	76
15	Review of Robotic Technology for Stereotactic Neurosurgery. <i>IEEE Reviews in Biomedical Engineering</i> , 2015, 8, 125-137.	18.0	75
16	Finger Kinematic Modeling and Real-Time Hand Motion Estimation. <i>Annals of Biomedical Engineering</i> , 2007, 35, 1989-2002.	2.5	71
17	A new tool for touch-free patient registration for robot-assisted intracranial surgery: application accuracy from a phantom study and a retrospective surgical series. <i>Neurosurgical Focus</i> , 2017, 42, E8.	2.3	67
18	Automatic extraction of the mid-facial plane for cranio-maxillofacial surgery planning. <i>International Journal of Oral and Maxillofacial Surgery</i> , 2006, 35, 636-642.	1.5	64

#	ARTICLE	IF	CITATIONS
19	Unscented Kalman Filter Based Sensor Fusion for Robust Optical and Electromagnetic Tracking in Surgical Navigation. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2013, 62, 2067-2081.	4.7	63
20	Multi-trajectories automatic planner for StereoElectroEncephaloGraphy (SEEG). <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 1087-1097.	2.8	63
21	Bi-uncompartmental versus total knee arthroplasty: a matched paired study with early clinical results. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2009, 129, 1157-1163.	2.4	57
22	A Quaternion-Based Unscented Kalman Filter for Robust Optical/Inertial Motion Tracking in Computer-Assisted Surgery. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2015, 64, 2291-2301.	4.7	57
23	Deep Neural Network Approach in Human-Like Redundancy Optimization for Anthropomorphic Manipulators. <i>IEEE Access</i> , 2019, 7, 124207-124216.	4.2	55
24	Automatic classification of epilepsy types using ontology-based and genetics-based machine learning. <i>Artificial Intelligence in Medicine</i> , 2014, 61, 79-88.	6.5	53
25	Safety-enhanced Collaborative Framework for Tele-operated Minimally Invasive Surgery Using a 7-DoF Torque-controlled Robot. <i>International Journal of Control, Automation and Systems</i> , 2018, 16, 2915-2923.	2.7	53
26	Robotic and artificial intelligence for keyhole neurosurgery: The ROBOCAST project, a multi-modal autonomous path planner. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2010, 224, 715-727.	1.8	52
27	Automatic Trajectory Planner for StereoElectroEncephaloGraphy Procedures: A Retrospective Study. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 986-993.	4.2	51
28	Confident texture-based laryngeal tissue classification for early stage diagnosis support. <i>Journal of Medical Imaging</i> , 2017, 4, 1.	1.5	51
29	Depth vision guided hand gesture recognition using electromyographic signals. <i>Advanced Robotics</i> , 2020, 34, 985-997.	1.8	49
30	Deep-Onto network for surgical workflow and context recognition. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2019, 14, 685-696.	2.8	44
31	Coaxial Needle Insertion Assistant With Enhanced Force Feedback. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 379-389.	4.2	43
32	Relationship between cutting errors and learning curve in computer-assisted total knee replacement. <i>International Orthopaedics</i> , 2010, 34, 655-662.	1.9	42
33	Glioma biopsies Classification Using Raman Spectroscopy and Machine Learning Models on Fresh Tissue Samples. <i>Cancers</i> , 2021, 13, 1073.	3.7	42
34	A Neural Network-Based Approach for Trajectory Planning in Robot-Human Handover Tasks. <i>Frontiers in Robotics and AI</i> , 2016, 3, .	3.2	40
35	Hunt-Crossley model based force control for minimally invasive robotic surgery. <i>Biomedical Signal Processing and Control</i> , 2016, 29, 31-43.	5.7	40
36	Online human-like redundancy optimization for tele-operated anthropomorphic manipulators. <i>International Journal of Advanced Robotic Systems</i> , 2018, 15, 172988141881469.	2.1	40

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37	Learning-based classification of informative laryngoscopic frames. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 158, 21-30.	4.7	39
38	Force feedback in a piezoelectric linear actuator for neurosurgery. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2011, 7, 268-275.	2.3	37
39	Uncertainty-Aware Organ Classification for Surgical Data Science Applications in Laparoscopy. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 2649-2659.	4.2	37
40	Neural Network Enhanced Robot Tool Identification and Calibration for Bilateral Teleoperation. <i>IEEE Access</i> , 2019, 7, 122041-122051.	4.2	37
41	Deep Learning for Automatic Segmentation of Oral and Oropharyngeal Cancer Using Narrow Band Imaging: Preliminary Experience in a Clinical Perspective. <i>Frontiers in Oncology</i> , 2021, 11, 626602.	2.8	37
42	Safety-Enhanced Human-Robot Interaction Control of Redundant Robot for Teleoperated Minimally Invasive Surgery. , 2018, , .		35
43	Deep Neural Network Approach in EMG-Based Force Estimation for Human-Robot Interaction. <i>IEEE Transactions on Artificial Intelligence</i> , 2021, 2, 404-412.	4.7	35
44	Nonlinear Model Predictive Control for Mobile Medical Robot Using Neural Optimization. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 12636-12645.	7.9	33
45	Towards Model-Free Tool Dynamic Identification and Calibration Using Multi-Layer Neural Network. <i>Sensors</i> , 2019, 19, 3636.	3.8	32
46	Internet of Things (IoT)-based Collaborative Control of a Redundant Manipulator for Teleoperated Minimally Invasive Surgeries. , 2020, , .		32
47	In Vivo Validation of a Realistic Kinematic Model for the Trapezio-Metacarpal Joint Using an Optoelectronic System. <i>Annals of Biomedical Engineering</i> , 2008, 36, 1268-1280.	2.5	31
48	Dense soft tissue 3D reconstruction refined with super-pixel segmentation for robotic abdominal surgery. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 197-206.	2.8	31
49	Manipulability Optimization Control of a Serial Redundant Robot for Robot-assisted Minimally Invasive Surgery. , 2019, , .		31
50	A New Overloading Fatigue Model for Ergonomic Risk Assessment with Application to Human-Robot Collaboration. , 2019, , .		30
51	Computer-assisted liver graft steatosis assessment via learning-based texture analysis. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2018, 13, 1357-1367.	2.8	29
52	Toward Improving Safety in Neurosurgery with an Active Handheld Instrument. <i>Annals of Biomedical Engineering</i> , 2018, 46, 1450-1464.	2.5	29
53	A Review on Advances in Intra-operative Imaging for Surgery and Therapy: Imagining the Operating Room of the Future. <i>Annals of Biomedical Engineering</i> , 2020, 48, 2171-2191.	2.5	29
54	Validation of a stereo camera system to quantify brain deformation due to breathing and pulsatility. <i>Medical Physics</i> , 2014, 41, 113502.	3.0	27

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55	Robotic Assistance-as-Needed for Enhanced Visuomotor Learning in Surgical Robotics Training: An Experimental Study. , 2018, , .		27
56	Transfer learning for informative-frame selection in laryngoscopic videos through learned features. Medical and Biological Engineering and Computing, 2020, 58, 1225-1238.	2.8	27
57	A novel autonomous learning framework to enhance sEMG-based hand gesture recognition using depth information. Biomedical Signal Processing and Control, 2021, 66, 102444.	5.7	27
58	Laparoscopic Tissue Retractor Based on Local Magnetic Actuation. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.7	26
59	Retrospective evaluation and SEEG trajectory analysis for interactive multi-trajectory planner assistant. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1727-1738.	2.8	25
60	Development of an intelligent surgical training system for Thoracentesis. Artificial Intelligence in Medicine, 2018, 84, 50-63.	6.5	25
61	In-vitro experimental assessment of a new robust algorithm for hip joint centre estimation. Journal of Biomechanics, 2009, 42, 989-995.	2.1	23
62	Raman Spectroscopy and Machine Learning for IDH Genotyping of Unprocessed Glioma Biopsies. Cancers, 2021, 13, 4196.	3.7	23
63	EMG-driven control in lower limb prostheses: a topic-based systematic review. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 43.	4.6	23
64	Adaptive Hands-On Control for Reaching and Targeting Tasks in Surgery. International Journal of Advanced Robotic Systems, 2015, 12, 50.	2.1	22
65	Skill-based human-robot cooperation in tele-operated path tracking. Autonomous Robots, 2018, 42, 997-1009.	4.8	22
66	Towards realistic laparoscopic image generation using image-domain translation. Computer Methods and Programs in Biomedicine, 2021, 200, 105834.	4.7	22
67	A computational fluid dynamics approach to determine white matter permeability. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1111-1122.	2.8	21
68	An Open-Source COVID-19 CT Dataset with Automatic Lung Tissue Classification for Radiomics. Bioengineering, 2021, 8, 26.	3.5	21
69	Error mapping controller: a closed loop neuroprosthesis controlled by artificial neural networks. Journal of NeuroEngineering and Rehabilitation, 2006, 3, 25.	4.6	20
70	EndoAbS dataset: Endoscopic abdominal stereo image dataset for benchmarking 3D stereo reconstruction algorithms. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1926.	2.3	20
71	Design and Integration of Electrical Bio-impedance Sensing in Surgical Robotic Tools for Tissue Identification and Display. Frontiers in Robotics and AI, 2019, 6, 55.	3.2	20
72	Weakly Supervised Recognition of Surgical Gestures. , 2019, , .		20

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73	Inter-foetus Membrane Segmentation for TTTS Using Adversarial Networks. <i>Annals of Biomedical Engineering</i> , 2020, 48, 848-859.	2.5	20
74	Bilateral Teleoperation Control of a Redundant Manipulator with an RCM Kinematic Constraint. , 2020, , .		20
75	A novel muscle-computer interface for hand gesture recognition using depth vision. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2020, 11, 5569-5580.	4.9	20
76	Novel Adaptive Sensor Fusion Methodology for Hand Pose Estimation With Multileap Motion. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-8.	4.7	20
77	Method for the estimation of a double hinge kinematic model for the trapeziometacarpal joint using MR imaging. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2010, 13, 387-396.	1.6	19
78	Component based design of a drug delivery capsule robot. <i>Sensors and Actuators A: Physical</i> , 2016, 245, 180-188.	4.1	19
79	Automated Steerable Path Planning for Deep Brain Stimulation Safeguarding Fiber Tracts and Deep Gray Matter Nuclei. <i>Frontiers in Robotics and AI</i> , 2019, 6, 70.	3.2	19
80	Infusion Mechanisms in Brain White Matter and Their Dependence on Microstructure: An Experimental Study of Hydraulic Permeability. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 1229-1237.	4.2	19
81	Skill-Oriented and Performance-Driven Adaptive Curricula for Training in Robot-Assisted Surgery Using Simulators: A Feasibility Study. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 685-694.	4.2	19
82	Accurate multi-robot targeting for keyhole neurosurgery based on external sensor monitoring. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2012, 226, 347-359.	1.8	18
83	Gastric Cancer Screening in Low-Income Countries: System Design, Fabrication, and Analysis for an Ultralow-Cost Endoscopy Procedure. <i>IEEE Robotics and Automation Magazine</i> , 2017, 24, 73-81.	2.0	18
84	An Uncontrolled Manifold Analysis of Arm Joint Variability in Virtual Planar Position and Orientation Telemanipulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 391-402.	4.2	18
85	Learned and handcrafted features for early-stage laryngeal SCC diagnosis. <i>Medical and Biological Engineering and Computing</i> , 2019, 57, 2683-2692.	2.8	18
86	Pick the Right Co-Worker: Online Assessment of Cognitive Ergonomics in Human-Robot Collaborative Assembly. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2023, 15, 1928-1937.	3.8	18
87	Hip joint anatomy virtual and stereolithographic reconstruction for preoperative planning of total hip replacement. <i>International Congress Series</i> , 2005, 1281, 708-712.	0.2	17
88	Gaussian mixture models based 2D-3D registration of bone shapes for orthopedic surgery planning. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1727-1740.	2.8	17
89	Novel Design and Lateral Stability Tracking Control of a Four-Wheeled Rollator. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2327.	2.5	17
90	An Experimental Comparison Towards Autonomous Camera Navigation to Optimize Training in Robot Assisted Surgery. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 1461-1467.	5.1	17

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91	A shape-constraint adversarial framework with instance-normalized spatio-temporal features for inter-fetal membrane segmentation. <i>Medical Image Analysis</i> , 2021, 70, 102008.	11.6	17
92	An Evolutionary-Optimized Surgical Path Planner for a Programmable Bevel-Tip Needle. <i>IEEE Transactions on Robotics</i> , 2021, 37, 1039-1050.	10.3	17
93	Optically tracked multi-robot system for keyhole neurosurgery. , 2011, , .		16
94	Risk-based path planning for a steerable flexible probe for neurosurgical intervention. , 2012, , .		16
95	Automatic Optimized 3D Path Planner for Steerable Catheters with Heuristic Search and Uncertainty Tolerance. , 2018, , .		16
96	A Synergistic Approach to the Real-Time Estimation of the Feet Ground Reaction Forces and Centers of Pressure in Humans With Application to Human-Robot Collaboration. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 3654-3661.	5.1	16
97	SCAN: System for Camera Autonomous Navigation in Robotic-Assisted Surgery. , 2020, , .		16
98	Multi kinect people detection for intuitive and safe human robot cooperation in the operating room. , 2013, , .		15
99	Long Term Safety Area Tracking (LT-SAT) with online failure detection and recovery for robotic minimally invasive surgery. <i>Medical Image Analysis</i> , 2018, 45, 13-23.	11.6	15
100	Model-Based Robust Pose Estimation for a Multi-Segment, Programmable Bevel-Tip Steerable Needle. <i>IEEE Robotics and Automation Letters</i> , 2020, 5, 6780-6787.	5.1	15
101	An Evaluation of Inanimate and Virtual Reality Training for Psychomotor Skill Development in Robot-Assisted Minimally Invasive Surgery. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2020, 2, 118-129.	3.2	15
102	A Kinematic Bottleneck Approach for Pose Regression of Flexible Surgical Instruments Directly From Images. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 2938-2945.	5.1	14
103	Evaluation of an acceleration-based assistive strategy to control a back-support exoskeleton for manual material handling. <i>Wearable Technologies</i> , 2020, 1, .	3.1	14
104	Intraoperative forces and moments analysis on patient head clamp during awake brain surgery. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 331-341.	2.8	13
105	EnViSoRS: Enhanced Vision System for Robotic Surgery. A User-Defined Safety Volume Tracking to Minimize the Risk of Intraoperative Bleeding. <i>Frontiers in Robotics and AI</i> , 2017, 4, .	3.2	13
106	Hybrid Machine Learning-Neuromusculoskeletal Modeling for Control of Lower Limb Prosthetics. , 2020, , .		13
107	GA3C Reinforcement Learning for Surgical Steerable Catheter Path Planning. , 2020, , .		13
108	On the microstructural origin of brain white matter hydraulic permeability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	13

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109	Experimental evaluation of a coaxial needle insertion assistant with enhanced force feedback. , 2011, 2011, 3447-50.		12
110	On the Value of Estimating Human Arm Stiffness during Virtual Teleoperation with Robotic Manipulators. Frontiers in Neuroscience, 2017, 11, 528.	2.8	12
111	Surgical planning assistance in keyhole and percutaneous surgery: A systematic review. Medical Image Analysis, 2021, 67, 101820.	11.6	12
112	Accurate calibration method for 3D freehand ultrasound probe using virtual plane. Medical Physics, 2011, 38, 6710-6720.	3.0	11
113	Time-of-flight-assisted Kinect camera-based people detection for intuitive human robot cooperation in the surgical operating room. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1329-1345.	2.8	11
114	Hand-tissue interaction forces in neurosurgery for haptic rendering. Medical and Biological Engineering and Computing, 2016, 54, 1229-1241.	2.8	11
115	Position-Based Dynamics Simulator of Brain Deformations for Path Planning and Intra-Operative Control in Keyhole Neurosurgery. IEEE Robotics and Automation Letters, 2021, 6, 6061-6067.	5.1	11
116	Automating Endoscope Motion in Robotic Surgery: A Usability Study on da Vinci-Assisted Ex Vivo Neobladder Reconstruction. Frontiers in Robotics and AI, 2021, 8, 707704.	3.2	11
117	Reinforcement Learning Based Manipulation Skill Transferring for Robot-assisted Minimally Invasive Surgery. , 2020, , .		10
118	Data Augmentation of 3D Brain Environment Using Deep Convolutional Refined Auto-Encoding Alpha GAN. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 269-272.	3.2	10
119	Path planning for endovascular catheterization under curvature constraints via two-phase searching approach. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 619-627.	2.8	10
120	Inverse Reinforcement Learning Intra-Operative Path Planning for Steerable Needle. IEEE Transactions on Biomedical Engineering, 2022, 69, 1995-2005.	4.2	10
121	Multi-Sensory Guidance and Feedback for Simulation-Based Training in Robot Assisted Surgery: A Preliminary Comparison of Visual, Haptic, and Visuo-Haptic. IEEE Robotics and Automation Letters, 2021, 6, 3801-3808.	5.1	9
122	Functional electrical stimulation controlled by artificial neural networks: pilot experiments with simple movements are promising for rehabilitation applications. Functional Neurology, 2004, 19, 243-52.	1.3	9
123	Robotic alignment of femoral cutting mask during total knee arthroplasty. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 413-419.	2.8	8
124	Medical Robotics. IEEE Pulse, 2011, 2, 55-61.	0.3	8
125	Automatic workflow for narrow-band laryngeal video stitching. , 2016, 2016, 1188-1191.		8
126	Analysis of Joint and Hand Impedance During Teleoperation and Free-Hand Task Execution. IEEE Robotics and Automation Letters, 2017, 2, 1733-1739.	5.1	8

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127	Sizing the aortic annulus with a robotised, commercially available soft balloon catheter: in vitro study on idealised phantoms. , 2019, , .		8
128	A Real-time Tool for Human Ergonomics Assessment based on Joint Compressive Forces. , 2020, , .		8
129	Data reduction and data visualization for automatic diagnosis using gene expression and clinical data. Artificial Intelligence in Medicine, 2020, 107, 101884.	6.5	8
130	Integrating Diffusion Tensor Imaging and Neurite Orientation Dispersion and Density Imaging to Improve the Predictive Capabilities of CED Models. Annals of Biomedical Engineering, 2021, 49, 689-702.	2.5	8
131	A Comparative Study of Spatio-Temporal U-Nets for Tissue Segmentation in Surgical Robotics. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 53-63.	3.2	8
132	An Integrated Dynamic Method for Allocating Roles and Planning Tasks for Mixed Human-Robot Teams. , 2021, , .		8
133	Quantitative Physical Ergonomics Assessment of Teleoperation Interfaces. IEEE Transactions on Human-Machine Systems, 2022, 52, 169-180.	3.5	8
134	Teleoperation Control of an Underactuated Bionic Hand: Comparison between Wearable and Vision-Tracking-Based Methods. Robotics, 2022, 11, 61.	3.5	8
135	3D surgical planning and navigation for CMF surgery. , 2004, , .		7
136	Miniaturized rigid probe driver with haptic loop control for neurosurgical interventions. , 2010, , .		7
137	Experimental validation of manipulability optimization control of a 7â€DoF serial manipulator for robotâ€assisted surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, 1-11.	2.3	7
138	Psychomotor skills development for Veress needle placement using a virtual reality and haptics-based simulator. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 639-647.	2.8	7
139	Using spatial-temporal ensembles of convolutional neural networks for lumen segmentation in ureteroscopy. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 915-922.	2.8	7
140	A Reconfigurable Interface for Ergonomic and Dynamic Tele-Locomanipulation. , 2021, , .		7
141	A Neural Network Based Method for Optical Patient Set-up Registration in Breast Radiotherapy. Annals of Biomedical Engineering, 2006, 34, 677-686.	2.5	6
142	Fluoroscopy-based tracking of femoral kinematics with statistical shape models. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 757-765.	2.8	6
143	Gesteme-free context-aware adaptation of robot behavior in humanâ€robot cooperation. Artificial Intelligence in Medicine, 2016, 74, 32-43.	6.5	6
144	Toward a Knowledge-Driven Context-Aware System for Surgical Assistance. Journal of Medical Robotics Research, 2017, 02, 1740007.	1.2	6

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145	FCNN-based axon segmentation for convection-enhanced delivery optimization. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 493-499.	2.8	6
146	A Hybrid Learning and Optimization Framework to Achieve Physically Interactive Tasks With Mobile Manipulators. IEEE Robotics and Automation Letters, 2022, 7, 8036-8043.	5.1	6
147	Hip joint centre localisation with an unscented Kalman filter. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 1319-1329.	1.6	5
148	Performance metrics for guidance active constraints in surgical robotics. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1873.	2.3	5
149	Approaches for Action Sequence Representation in Robotics: A Review. , 2018, , .		5
150	An Online Method to Detect and Locate an External Load on the Human Body with Applications in Ergonomics Assessment. Sensors, 2020, 20, 4471.	3.8	5
151	Hierarchical optimization Control of Redundant Manipulator for Robot-assisted Minimally Invasive Surgery. , 2020, , .		5
152	Design, Computational Modelling and Experimental Characterization of Bistable Hybrid Soft Actuators for a Controllable-Compliance Joint of an Exoskeleton Rehabilitation Robot. Actuators, 2022, 11, 32.	2.3	5
153	Modular multiple sensors information management for computerâ€integrated surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2012, 8, 253-260.	2.3	4
154	Convergence Analysis of an Iterative Targeting Method for Keyhole Robotic Surgery. International Journal of Advanced Robotic Systems, 2014, 11, 60.	2.1	4
155	Nonlinear Force Feedback Enhancement for Cooperative Robotic Neurosurgery Enforces Virtual Boundaries on Cortex Surface. Journal of Medical Robotics Research, 2016, 01, 1650001.	1.2	4
156	NephCNN: A deep-learning framework for vessel segmentation in nephrectomy laparoscopic videos. , 2021, , .		4
157	Improving Motion Planning for Surgical Robot with Active Constraints. , 2020, , .		4
158	Autonomous robotic surgery makes light work of anastomosis. Science Robotics, 2022, 7, eabn6522.	17.6	4
159	Real-time vessel segmentation and reconstruction for virtual fixtures for an active handheld microneurosurgical instrument. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 1069-1077.	2.8	4
160	A Physical Simulator Integrated with Soft Sensors for Mastering Tissue Manipulation in Robotic Surgery. , 2022, , .		4
161	Robot assisted stapedotomy ex vivo with an active handheld instrument. , 2015, 2015, 4879-82.		3
162	Inductive Learning of the Surgical Workflow Model through Video Annotations. , 2017, , .		3

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163	Automatic multi-trajectory planning solution for steerable catheters. , 2018, , .		3
164	Enhanced Vision to Improve Safety in Robotic Surgery. , 2020, , 223-237.		3
165	A Lumen Segmentation Method in Ureteroscopy Images based on a Deep Residual U-Net architecture. , 2021, , .		3
166	Multimodal data fusion framework enhanced robot-assisted minimally invasive surgery. Transactions of the Institute of Measurement and Control, 0, , 014233122098435.	1.7	3
167	Whole-body Spatial Teleoperation Control of a Hexapod Robot in Unstructured Environment. , 2021, , .		3
168	Incorporating model predictive control with fuzzy approximation for robot manipulation under remote center of motion constraint. Complex & Intelligent Systems, 0, , 1.	6.5	3
169	Learning intraoperative organ manipulation with context-based reinforcement learning. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 1419-1427.	2.8	3
170	Sensors management in robotic neurosurgery: The ROBOCAST project. , 2011, 2011, 2119-22.		2
171	Hip joint centre position estimation using a dual unscented Kalman filter for computer-assisted orthopaedic surgery. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 971-982.	1.8	2
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