

# Ana Luisa Trejos

## List of Publications by Year in descending order

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109  
papers

1,415  
citations

448610

19  
h-index

488211

31  
g-index

109  
all docs

109  
docs citations

109  
times ranked

1426  
citing authors

#	ARTICLE	IF	CITATIONS
1	Implementing Machine Learning Algorithms to Classify Postures and Forecast Motions When Using a Dynamic Chair. <i>Sensors</i> , 2022, 22, 400.	2.1	5
2	User-Independent Hand Gesture Recognition Classification Models Using Sensor Fusion. <i>Sensors</i> , 2022, 22, 1321.	2.1	22
3	Survey-based identification of design requirements and constraints for a wearable tremor suppression device. <i>Journal of Rehabilitation and Assistive Technologies Engineering</i> , 2022, 9, 205566832210944.	0.6	1
4	Real-Time Voluntary Motion Prediction and Parkinson's Tremor Reduction Using Deep Neural Networks. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 1413-1423.	2.7	10
5	Classification of Task Weight During Dynamic Motion Using EEG-EMG Fusion. <i>IEEE Sensors Journal</i> , 2021, 21, 5012-5021.	2.4	11
6	Characterisation and Control of a Woven Biomimetic Actuator for Wearable Neurorehabilitative Devices. <i>Actuators</i> , 2021, 10, 37.	1.2	3
7	Analysis of the Effect of Common Disturbances on the Safety of a Wearable Tremor Suppression Device. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 2846-2853.	3.3	5
8	Thermal Modeling and Characterization of Twisted Coiled Actuators for Upper Limb Wearable Devices. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021, 26, 966-977.	3.7	7
9	Design and Preliminary Performance Assessment of a Wearable Tremor Suppression Glove. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 2846-2857.	2.5	12
10	Evaluating Convolutional Neural Networks as a Method of EEG-EMG Fusion. <i>Frontiers in Neurorobotics</i> , 2021, 15, 692183.	1.6	7
11	Kinematic Modeling and Characterization of a Wearable Tremor Suppression Device for Pathological Tremor Reduction. , 2020, , .		6
12	Frequency Response Analysis of Actively Cooled Nylon Twisted Coiled Actuators for Use in Wrist Rehabilitation Devices. , 2020, , .		2
13	The Design of a Parkinson's Tremor Predictor and Estimator Using a Hybrid Convolutional-Multilayer Perceptron Neural Network. , 2020, 2020, 5996-6000.		10
14	Rehabilitative and assistive wearable mechatronic upper-limb devices: A review. <i>Journal of Rehabilitation and Assistive Technologies Engineering</i> , 2020, 7, 205566832091787.	0.6	25
15	A Control Software Framework for Wearable Mechatronic Devices. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2020, 99, 757-771.	2.0	2
16	Parkinson's Tremor Onset Detection and Active Tremor Classification Using a Multilayer Perceptron. , 2020, , .		3
17	Performance Evaluation of EEG/EMG Fusion Methods for Motion Classification. , 2019, 2019, 971-976.		17
18	Design of an Active Cooling System for Thermally Activated Soft Actuators. , 2019, 2019, 368-373.		5

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19	A Commercially Available Capacitive Stretch-Sensitive Sensor for Measurement of Rotational Neck Movement in Healthy People: Proof of Concept. , 2019, 2019, 163-168.		2
20	A Wearable Mechatronic Glove for Resistive Hand Therapy Exercises. , 2019, 2019, 1097-1102.		6
21	Development of an EMG-Based Muscle Health Model for Elbow Trauma Patients. Sensors, 2019, 19, 3309.	2.1	10
22	Design of User-Independent Hand Gesture Recognition Using Multilayer Perceptron Networks and Sensor Fusion Techniques. , 2019, 2019, 1103-1108.		14
23	Enhancing the Therapistâ€“Device Relationship: Software Requirements for Digital Collection and Analysis of Patient Data. , 2019, 2019, 1091-1096.		1
24	Low-cost and scalable fabrication of wearable soft sensor for neck mobility measurement. , 2019, , .		0
25	Impact of suppressed tremor: Is suppression of proximal joints sufficient?. , 2018, , .		6
26	Development of a 2-DOF Sensorized Surgical Grasper for Grasping and Axial Force Measurements. IEEE Sensors Journal, 2018, 18, 2816-2826.	2.4	46
27	Analysis of Energy-Based Metrics for Laparoscopic Skills Assessment. IEEE Transactions on Biomedical Engineering, 2018, 65, 1532-1542.	2.5	20
28	Development of a physical shoulder simulator for the training of basic arthroscopic skills. International Journal of Medical Robotics and Computer Assisted Surgery, 2018, 14, e1868.	1.2	6
29	Development of the circumduction metric for identification of cervical motion impairment. Journal of Rehabilitation and Assistive Technologies Engineering, 2018, 5, 205566831877798.	0.6	8
30	Development and Evaluation of Dielectric Elastomer Actuators for Assistive Wearable Devices. , 2018, , .		2
31	Computational Fluid Dynamics Study of a Soft Actuator for Use in Wearable Mechatronic Devices. , 2018, , .		1
32	Development and Validation of a Finger Tremor Simulator. , 2018, , .		4
33	Development of a Wearable Tremor Suppression Glove. , 2018, , .		31
34	Evaluating Muscle Activation Models for Elbow Motion Estimation. Sensors, 2018, 18, 1004.	2.1	21
35	Characterization of Parkinsonian Hand Tremor and Validation of a High-Order Tremor Estimator. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1823-1834.	2.7	26
36	TRAINING AND SKILL ASSESSMENT FOR ROBOTIC-ASSISTED MINIMALLY INVASIVE SURGERY â€” PART 1: HISTORICAL PERSPECTIVE AND CHALLENGES. , 2018, , 375-390.		0

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37	Design and validation of a novel mechatronic transmission system for a wearable tremor suppression device. <i>Robotics and Autonomous Systems</i> , 2017, 91, 38-48.	3.0	31
38	Mastery Learning “ does the method of learning make a difference in skills acquisition for robotic surgery?. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2017, 13, e1828.	1.2	2
39	Design and Evaluation of a Sterilizable Force Sensing Instrument for Minimally Invasive Surgery. <i>IEEE Sensors Journal</i> , 2017, 17, 3983-3993.	2.4	15
40	The role of visual and direct force feedback in robotics-assisted mitral valve annuloplasty. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2017, 13, e1787.	1.2	17
41	Development of an optical fiber-based sensor for grasping and axial force sensing. , 2017, , .		19
42	A sensorized glove for therapist skill performance assessment during neck manipulation. , 2017, , .		1
43	Development and evaluation of a sensorized shoulder simulator. , 2017, , .		0
44	The Role of Direct and Visual Force Feedback in Suturing Using a 7-DOF Dual-Arm Teleoperated System. <i>IEEE Transactions on Haptics</i> , 2017, 10, 276-287.	1.8	55
45	Stiffness control of a nylon twisted coiled actuator for use in mechatronic rehabilitation devices. , 2017, 2017, 1419-1424.		11
46	Postoperative healing patterns in elbow using electromyography: Towards the development of a wearable mechatronic elbow brace. , 2017, 2017, 1395-1400.		3
47	Energy-Based Metrics for Arthroscopic Skills Assessment. <i>Sensors</i> , 2017, 17, 1808.	2.1	7
48	Energy-based metrics for laparoscopic skills assessment. , 2016, 2016, 2648-2651.		2
49	Design and validation of a high-order weighted-frequency fourier linear combiner-based Kalman filter for parkinsonian tremor estimation. , 2016, 2016, 5893-5896.		9
50	Development of an EMG-driven control system for a wearable mechatronic elbow brace. , 2016, , .		2
51	The measurement and analysis of Parkinsonian hand tremor. , 2016, , .		23
52	Extension of the WearME framework for EMG-driven control of a wearable assistive exoskeleton. , 2016, , .		2
53	Versatile smart hip implant technology using 3D metal printing. , 2016, , .		4
54	Randomized control trial for evaluation of a hands-free pointer for surgical instruction during laparoscopic cholecystectomy. <i>Surgical Endoscopy and Other Interventional Techniques</i> , 2015, 29, 3655-3665.	1.3	6

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55	A multi-sensory mechatronic device for localizing tumors in minimally invasive interventions. , 2015, , .		8
56	Performance Evaluation of a Sensorized Arthroscopic Grasper. , 2015, , .		0
57	Anatomy-Based Eligibility Measure for Robotic-Assisted Bypass Surgery. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2014, 9, 349-353.	0.4	14
58	Development of force-based metrics for skills assessment in minimally invasive surgery. Surgical Endoscopy and Other Interventional Techniques, 2014, 28, 2106-2119.	1.3	52
59	A sterilizable force-sensing instrument for laparoscopic surgery. , 2014, , .		8
60	Low-cost force-sensing arthroscopic tool using threaded fiber Bragg grating sensors. , 2014, , .		10
61	A wearable mechatronic brace for arm rehabilitation. , 2014, , .		7
62	A Dual-Arm 7-Degrees-of-Freedom Haptics-Enabled Teleoperation Test Bed for Minimally Invasive Surgery. Journal of Medical Devices, Transactions of the ASME, 2014, 8, .	0.4	15
63	Anatomy-Based Eligibility Measure for Robotic-Assisted Bypass Surgery. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2014, 9, 349-353.	0.4	3
64	Evaluating the Effect of Three-Dimensional Visualization on Force Application and Performance Time during Robotics-Assisted Mitral Valve Repair. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2013, 8, 199-205.	0.4	5
65	The application of force sensing to skills assessment in Minimally Invasive Surgery. , 2013, , .		4
66	A knee arthroscopy simulator: Design and validation. , 2013, 2013, 5715-8.		4
67	Evaluating the Effect of Three-Dimensional Visualization on Force Application and Performance Time during Robotics-Assisted Mitral Valve Repair. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2013, 8, 199-205.	0.4	0
68	Effect of force feedback on performance of robotics-assisted suturing. , 2012, , .		23
69	Development of a hands-free pointer for instruction during minimally invasive surgery. , 2012, , .		0
70	The role of three-dimensional visualization in robotics-assisted cardiac surgery. , 2012, , .		0
71	Design of a Minimally Invasive Lung Tumor Localization Device. , 2012, , .		1
72	The WHaSP: A Wireless Hands-Free Surgical Pointer for Minimally Invasive Surgery. IEEE/ASME Transactions on Mechatronics, 2012, 17, 434-442.	3.7	5

#	ARTICLE	IF	CITATIONS
73	Robotic Techniques for Minimally Invasive Tumor Localization. , 2011, , 469-496.		1
74	608 Measurement of forces applied by the davinci robot during ex vivo robotics-assisted porcine mitral valve annuloplasty. Canadian Journal of Cardiology, 2011, 27, S283.	0.8	0
75	Force sensing in natural orifice transluminal endoscopic surgery. Surgical Endoscopy and Other Interventional Techniques, 2011, 25, 186-192.	1.3	19
76	Toward construct validity for a novel sensorized instrument-based minimally invasive surgery simulation system. Surgical Endoscopy and Other Interventional Techniques, 2011, 25, 1439-1445.	1.3	9
77	Lung Cancer Brachytherapy: Robotics-Assisted Minimally Invasive Approach. Current Respiratory Medicine Reviews, 2011, 7, 340-353.	0.1	5
78	Preoperative Evaluation of Patient Anatomy to Increase Success of Robotics-Assisted Bypass Surgery. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2010, 5, 335-340.	0.4	15
79	Initial Evaluation of a Tactile/Kinesthetic Force Feedback System for Minimally Invasive Tumor Localization. IEEE/ASME Transactions on Mechatronics, 2010, , .	3.7	20
80	New tactile sensing system for minimally invasive surgical tumour localization. International Journal of Medical Robotics and Computer Assisted Surgery, 2010, 6, 211-220.	1.2	17
81	Suitability of Three Saws for Minimally Invasive Bone Cutting. Surgical Innovation, 2010, 17, 5-10.	0.4	1
82	Integration of trans-esophageal echocardiography with magnetic tracking technology for cardiac interventions. , 2010, , .		8
83	Force/position-based modular system for minimally invasive surgery. , 2010, , .		6
84	Force sensing and its application in minimally invasive surgery and therapy: A survey. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2010, 224, 1435-1454.	1.1	147
85	Preoperative planning of robotics-assisted minimally invasive coronary artery bypass grafting. , 2010, , .		7
86	A 7-DOF haptics-enabled teleoperated robotic system: Kinematic modeling and experimental verification. , 2010, , .		6
87	Palpation system for minimally invasive localization of occult tumors. , 2010, , .		3
88	Preoperative Evaluation of Patient Anatomy to Increase Success of Robotics-Assisted Bypass Surgery. Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery, 2010, 5, 335-340.	0.4	6
89	Novel Hands-Free Pointer Improves Instruction Efficiency in Laparoscopic Surgery. Surgical Innovation, 2009, 16, 73-77.	0.4	17
90	Robot-assisted Tactile Sensing for Minimally Invasive Tumor Localization. International Journal of Robotics Research, 2009, 28, 1118-1133.	5.8	89

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91	A Sensorized Instrument for Skills Assessment and Training in Minimally Invasive Surgery. Journal of Medical Devices, Transactions of the ASME, 2009, 3, .	0.4	44
92	Feasibility of locating tumours in lung via kinaesthetic feedback. International Journal of Medical Robotics and Computer Assisted Surgery, 2008, 4, 58-68.	1.2	43
93	Experimental evaluation of robot-assisted tactile sensing for minimally invasive surgery. , 2008, , .		13
94	Effect of velocity control on kinesthetic lung tumour localization. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	0
95	Design of a sensorized instrument for skills assessment and training in minimally invasive surgery. , 2008, , .		22
96	Robot-Assisted Minimally Invasive Brachytherapy for Lung Cancer. , 2008, , 33-52.		9
97	MIRA V: An integrated system for minimally invasive robot-assisted lung brachytherapy. , 2008, , .		8
98	Electromagnetic navigation improves minimally invasive robot-assisted lung brachytherapy. Computer Aided Surgery, 2008, 13, 114-123.	1.8	19
99	Computer integrated system for minimally invasive lung brachytherapy. Studies in Health Technology and Informatics, 2008, 132, 296-301.	0.2	1
100	Electromagnetic navigation improves minimally invasive robot-assisted lung brachytherapy. Computer Aided Surgery, 2008, 13, 114-123.	1.8	0
101	Robot-assisted thoracoscopic brachytherapy for lung cancer: Comparison of the ZEUS robot, VATS, and manual seed implantation. Computer Aided Surgery, 2007, 12, 270-277.	1.8	9
102	An experimental test-bed for robot-assisted image-guided minimally invasive lung brachytherapy. , 2007, , .		3
103	Evaluation of force feedback requirements for minimally invasive lung tumour localization. , 2007, , .		12
104	Robot-assisted minimally invasive lung brachytherapy. International Journal of Medical Robotics and Computer Assisted Surgery, 2007, 3, 41-51.	1.2	32
105	Optimizing port placement for robot-assisted minimally invasive cardiac surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2007, 3, 355-364.	1.2	38
106	Robot-assisted thoracoscopic brachytherapy for lung cancer: Comparison of the ZEUS robot, VATS, and manual seed implantation. Computer Aided Surgery, 2007, 12, 270-277.	1.8	1
107	On the Feasibility of a Moving Support for Surgery on the Beating Heart. Lecture Notes in Computer Science, 1999, , 1088-1097.	1.0	35
108	Port Placement for Endoscopic Cardiac Surgery Based on Robot Dexterity Optimization. , 0, , .		13

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109	A device for robot-assisted minimally-invasive lung brachytherapy. , 0, , .		12