

Murat Cenk Cavusoglu

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/8522032/murat-cenk-cavusoglu-publications-by-year.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81
papers

1,667
citations

20
h-index

39
g-index

89
ext. papers

1,908
ext. citations

2.8
avg. IF

4.83
L-index

#	Paper	IF	Citations
81	State of the Art and Future Opportunities in MRI-Guided Robot-Assisted Surgery and Interventions. <i>Proceedings of the IEEE</i> , 2022 , 1-25	14.3	3
80	A Probabilistic Approach for Contact Stability and Contact Safety Analysis of Robotic Intracardiac Catheter. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2021 , 143, 094502	1.6	
79	Contact Stability and Contact Safety of a Magnetic Resonance Imaging-Guided Robotic Catheter Under Heart Surface Motion. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2021 , 143, 071010	1.6	2
78	Localization of Point-of-Interest Positions on Cardiac Surface for Robotic-Assisted Beating Heart Surgery. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2021 , 2021, 4566-4569	0.9	0
77	Camera-Robot Calibration for the da Vinci [®] Robotic Surgery System. <i>IEEE Transactions on Automation Science and Engineering</i> , 2020 , 17, 2154-2161	4.9	12
76	Analysis of Contact Stability and Contact Safety of a Robotic Intravascular Cardiac Catheter under Blood Flow Disturbances. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2020 , 2020, 3216-3223	0.6	1
75	Differential Image Based Robot to MRI Scanner Registration with Active Fiducial Markers for an MRI-Guided Robotic Catheter System. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2020 , 2020, 2958-2964	0.6	
74	Analysis of Contact Stability and Contact Safety of a Robotic Intravascular Cardiac Catheter under Blood Flow Disturbances 2020 , 2020, 3216-3223		1
73	Differential Image Based Robot to MRI Scanner Registration with Active Fiducial Markers for an MRI-Guided Robotic Catheter System 2020 , 2020, 2958-2964		1
72	Contact Stability Analysis of Magnetically-Actuated Robotic Catheter Under Surface Motion. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2020 , 2020, 4455-4462	2.2	1
71	Task-Oriented Active Sensing via Action Entropy Minimization. <i>IEEE Access</i> , 2019 , 7, 135413-135426	3.5	1
70	Jacobian-Based Task-Space Motion Planning for MRI-Actuated Continuum Robots. <i>IEEE Robotics and Automation Letters</i> , 2019 , 4, 145-152	4.2	15
69	Analysis of Dynamic Response of an MRI-Guided Magnetically-Actuated Steerable Catheter System. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2018 , 2018, 4927-4934	0.6	2
68	Active Localization and Tracking of Needle and Target in Robotic Image-Guided Intervention Systems. <i>Autonomous Robots</i> , 2018 , 42, 83-97	3	4
67	Real-Time Visual Tracking of Dynamic Surgical Suture Threads. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 1078-1090	4.9	19
66	Vision-Based Surgical Tool Pose Estimation for the da Vinci Robotic Surgical System. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2018 , 2018, 1298-1305	0.6	14
65	State Estimation for MRI-Actuated Catheters via Catadioptric Stereo Camera. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2018 , 2018, 1795-1800	0.6	

64	Personal Inertial Navigation System Assisted by MEMS Ground Reaction Sensor Array and Interface ASIC for GPS-Denied Environment. <i>IEEE Journal of Solid-State Circuits</i> , 2018 , 53, 3039-3049	5.5	10
63	Three-Dimensional Surgical Needle Localization and Tracking Using Stereo Endoscopic Image Streams. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2018 , 2018, 6617-6624 ³		
62	Iterative Jacobian-Based Inverse Kinematics and Open-Loop Control of an MRI-Guided Magnetically Actuated Steerable Catheter System. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017 , 22, 1765-1776	5.5	23
61	Design of a Magnetic Resonance Imaging Guided Magnetically Actuated Steerable Catheter. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2017 , 11, 0210041-2100411	1.3	10
60	Experimental Validation of the Pseudo-Rigid-Body Model of the MRI-Actuated Catheter. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2017 , 2017, 3600-3605	2.2	13
59	Needle Grasp and Entry Port Selection for Automatic Execution of Suturing Tasks in Robotic Minimally Invasive Surgery. <i>IEEE Transactions on Automation Science and Engineering</i> , 2016 , 13, 552-563	4.9	16
58	Modeling and Validation of the Three-Dimensional Deflection of an MRI-Compatible Magnetically Actuated Steerable Catheter. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 2142-54	5	31
57	Catadioptric Stereo Tracking for Three Dimensional Shape Measurement of MRI Guided Catheters. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2016 , 2016, 4422-4428	2.2	6
56	Parameter Optimization of Pseudo-Rigid-Body Models of MRI-Actuated Catheters. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2016 , 2016, 5112-5115	0.9	4
55	Needle-Tissue Interaction Force State Estimation for Robotic Surgical Suturing. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2016 , 2016, 3659-3664	0.6	10
54	Active Sensing for Continuous State and Action Spaces via Task-Action Entropy Minimization. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2016 , 2016, 4678-4684	0.6	1
53	Automatic Initialization and Dynamic Tracking of Surgical Suture Threads. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2015 , 2015, 4710-4716	2.2	9
52	Pseudo-Rigid-Body Model and Kinematic Analysis of MRI-Actuated Catheters. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2015 , 2015, 2263-2243	2.2	19
51	Calibration of 2D Ultrasound in 3D space for Robotic biopsies 2015 ,		2
50	Optimal Needle Grasp Selection for Automatic Execution of Suturing Tasks in Robotic Minimally Invasive Surgery. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2015 , 2015, 2894-2900	2.2	9
49	Fault Localization in Embedded Control System Software 2015 ,		1
48	Identification and Active Exploration of Deformable Object Boundary Constraints through Robotic Manipulation. <i>International Journal of Robotics Research</i> , 2014 , 33, 1446-1461	5.7	9
47	Three Dimensional Modeling of an MRI Actuated Steerable Catheter System. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2014 , 2014, 4393-4398	2.2	24

46	Task-Space Motion Planning of MRI-Actuated Catheters for Catheter Ablation of Atrial Fibrillation. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2014 , 2014, 3476-3482	0.6	16
45	Towards active tracking of beating heart motion in the presence of arrhythmia for robotic assisted beating heart surgery. <i>PLoS ONE</i> , 2014 , 9, e102877	3.7	12
44	Virtual reality simulation: basic concepts and use in endoscopic neurosurgery training. <i>Childs Nervous System</i> , 2013 , 29, 1235-44	1.7	44
43	Estimation of Soft Tissue Mechanical Parameters from Robotic Manipulation Data. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 1602-1611	5.5	45
42	Needle Path Planning for Autonomous Robotic Surgical Suturing. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2013 , 2013, 1669-1675	2.2	45
41	Design of a Parallel Robot for Needle-Based Interventions on Small Animals. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 62-73	5.5	31
40	Heart Motion Prediction Based on Adaptive Estimation Algorithms for Robotic Assisted Beating Heart Surgery. <i>IEEE Transactions on Robotics</i> , 2013 , 29, 261-276	6.5	39
39	Particle Filter Based Active Localization of Target and Needle in Robotic Image-Guided Intervention Systems 2013 , 2013, 448-454		7
38	Human-arm-and-hand-dynamic model with variability analyses for a stylus-based haptic interface. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , 2012 , 42, 1633-44		27
37	Design of a framework for modeling, integration and simulation of physiological models. <i>Computer Methods and Programs in Biomedicine</i> , 2012 , 107, 524-37	6.9	7
36	Effect of Visuo-Motor Co-location on 3D FittsRTask Performance in Physical and Virtual Environments. <i>Presence: Teleoperators and Virtual Environments</i> , 2012 , 21, 305-320	2.9	5
35	Estimation of Soft Tissue Mechanical Parameters from Robotic Manipulation Data. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2012 , 2012, 4667-4674	2.2	11
34	Heart motion measurement with three dimensional sonomicrometry and acceleration sensing. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2012 , 2012, 4143-4149	0.6	6
33	Modeling of Needle-Tissue Interaction Forces During Surgical Suturing. <i>IEEE International Conference on Robotics and Automation: ICRA: [proceedings]</i> , 2012 , 2012, 4675-4680	2.2	19
32	Effect of Visuo-Haptic Co-location on 3D FittsRTask Performance. <i>IEEE International Conference on Intelligent Robots and Systems</i> , 2011 , 2011, 3460-3467	0.6	7
31	Towards the Development of a Robotic System for Beating Heart Surgery 2011 , 525-556		
30	High Fidelity Haptic Rendering of Frictional Contact with Deformable Objects in Virtual Environments using Multi-rate Simulation. <i>International Journal of Robotics Research</i> , 2010 , 29, 1778-1792	5.7	6
29	Design of a framework for modeling, integration and simulation of physiological models. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2010 , 2010, 1485-9	0.9	1

28	Personal navigation via shoe mounted inertial measurement units 2010 ,		16
27	Three-dimensional human arm and hand dynamics and variability model for a stylus-based haptic interface 2010 ,		7
26	Personal Navigation via High-Resolution Gait-Corrected Inertial Measurement Units. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2010 , 59, 3018-3027	5.2	109
25	Determination of elasticity parameters in lumped element (mass-spring) models of deformable objects. <i>Graphical Models</i> , 2010 , 72, 61-73	0.9	22
24	Kinematic calibration of a parallel robot for small animal biopsies 2009 ,		6
23	Description of Instantaneous Restriction Space for Multi-DOFs Bilateral Teleoperation Systems Using Position Sensors in Unstructured Environments. <i>IEEE Transactions on Robotics</i> , 2009 , 25, 1150-1158	6.5	4
22	Prediction of heartbeat motion with a generalized adaptive filter 2008 ,		14
21	Whisker-Like Position Sensor for Measuring Physiological Motion. <i>IEEE/ASME Transactions on Mechatronics</i> , 2008 , 13, 538-547	5.5	19
20	Design of a small animal biopsy robot. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2008 , 2008, 5601-4	0.9	6
19	High Fidelity Haptic Rendering of Stick-Slip Frictional Contact With Deformable Objects in Virtual Environments Using Multi-Rate Simulation. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007 ,		2
18	Intelligent control algorithms for robotic-assisted beating heart surgery. <i>IEEE Transactions on Robotics</i> , 2007 , 23, 468-480	6.5	115
17	Improved prediction of heart motion using an adaptive filter for robot assisted beating heart surgery 2007 ,		20
16	Design and Characterization of a Novel Hybrid Actuator Using Shape Memory Alloy and DC Micromotor for Minimally Invasive Surgery Applications. <i>IEEE/ASME Transactions on Mechatronics</i> , 2007 , 12, 455-464	5.5	54
15	A Framework for Quantitative Comparison of Bilateral Teleoperation Systems Using μ -Synthesis 2007 ,		2
14	Whisker Sensor Design for Three Dimensional Position Measurement in Robotic Assisted Beating Heart Surgery. <i>Proceedings - IEEE International Conference on Robotics and Automation</i> , 2007 ,		14
13	Quantitative Comparison of Bilateral Teleoperation Systems Using μ -Synthesis 2007 , 23, 776-789		18
12	GiPSi:a framework for open source/open architecture software development for organ-level surgical simulation. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2006 , 10, 312-22		31
11	A detection scheme for frontalis and temporalis muscle EMG contamination of EEG data. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006 , 2006, 4514-8		10

10	Model based control algorithms for robotic assisted beating heart surgery. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006 , 2006, 823-8		7
9	Virtual environment-based training simulator for endoscopic third ventriculostomy. <i>Studies in Health Technology and Informatics</i> , 2006 , 119, 73-5	0.5	12
8	In touch with robotics: neurosurgery for the future. <i>Neurosurgery</i> , 2005 , 56, 421-33; discussion 421-33	3.2	147
7	GiPSi: An Open Source/Open Architecture Software Development Framework for Surgical Simulation. <i>Lecture Notes in Computer Science</i> , 2004 , 240-248	0.9	6
6	Robotics for telesurgery: second generation Berkeley/UCSF laparoscopic telesurgical workstation and looking towards the future applications. <i>Industrial Robot</i> , 2003 , 30, 22-29	1.4	79
5	A Critical Study of the Mechanical and Electrical Properties of the PHANToM Haptic Interface and Improvements for Highperformance Control. <i>Presence: Teleoperators and Virtual Environments</i> , 2002 , 11, 555-568	2.9	147
4	A Virtual Environment Testbed for Training Laparoscopic Surgical Skills. <i>Presence: Teleoperators and Virtual Environments</i> , 2000 , 9, 236-255	2.9	103
3	A laparoscopic telesurgical workstation. <i>IEEE Transactions on Automation Science and Engineering</i> , 1999 , 15, 728-739		88
2	Model Based Control Algorithms for Robotic Assisted Beating Heart Surgery		1
1	A Detection Scheme for Frontalis and Temporalis Muscle EMG Contamination of EEG Data		2