Amir Hooshiar

List of Publications by Year
in descending order

26 papers	479 citations	1162367 8 h-index	1281420 11 g-index
26 all docs	26 docs citations	26 times ranked	488 citing authors

#	Article	IF	Citations
1	Integral-Free Spatial Orientation Estimation Method and Wearable Rotation Measurement Device for Robot-Assisted Catheter Intervention. IEEE/ASME Transactions on Mechatronics, 2022, 27, 766-776.	3.7	12
2	Analytical Modeling and Experimental Validation of a Gelatin-based Shape Sensor for Soft Robots. , 2022, , .		5
3	Toward Task Autonomy in Robotic Cardiac Ablation: Learning-Based Kinematic Control of Soft Tendon-Driven Catheters. Soft Robotics, 2021, 8, 340-351.	4.6	35
4	Magnetostriction-based force feedback for robot-assisted cardiovascular surgery using smart magnetorheological elastomers. Mechanical Systems and Signal Processing, 2021, 161, 107918.	4.4	33
5	Toward Semi-Autonomous Stiffness Adaptation of Pneumatic Soft Robots: Modeling and Validation. , 2021, , .		5
6	Force Estimation on Steerable Catheters through Learning-from-Simulation with ex-vivo Validation. , 2021, , .		5
7	Haptic Telerobotic Cardiovascular Intervention: A Review of Approaches, Methods, and Future Perspectives. IEEE Reviews in Biomedical Engineering, 2020, 13, 32-50.	13.1	54
8	Development and assessment of a stiffness display system for minimally invasive surgery based on smart magneto-rheological elastomers. Materials Science and Engineering C, 2020, 108, 110409.	3.8	21
9	Sensor-free Force Control of Tendon-driven Ablation Catheters through Position Control and Contact Modeling. , 2020, 2020, 5248-5251.		18
10	Image-based Contact Detection and Static Force Estimation on Steerable RFA Catheters. , 2020, , .		5
11	Composite magnetorheological elastomers for tactile displays: Enhanced MR-effect through bi-layer composition. Composites Part B: Engineering, 2020, 190, 107888.	5.9	36
12	Accurate Estimation of Tip Force on Tendon-driven Catheters using Inverse Cosserat Rod Model. , 2020, , .		15
13	Impedance Matching Approach for Robust Force Feedback Rendering with Application in Robot-assisted Interventions. , 2020, , .		4
14	Modeling of Rate-dependent Force-Displacement Behavior of MREs using Neural Networks for Torque Feedback Applications[*]. , 2020, , .		0
15	Displacement-based Model for Estimation of Contact Force Between RFA Catheter and Atrial Tissue with ex-vivo Validation. , 2019, , .		15
16	Bending-based formulation of light intensity modulation for miniaturization of optical tactile sensors. , 2018, , .		6
17	Hybrid piezoresistive-optical tactile sensor for simultaneous measurement of tissue stiffness and detection of tissue discontinuity in robot-assisted minimally invasive surgery. Journal of Biomedical Optics, 2017, 22, 077002.	1.4	39
18	Sensing principle for real-time characterization of viscoelasticity in the beating myocardial tissue. , 2017, , .		15

#	Article	IF	Citations
19	Pretensioned Structures as Multi Axis Force Sensors. , 2017, , .		1
20	Optical Fiber Array Sensor for Lateral and Circumferential Force Measurement Suitable for Minimally Invasive Surgery: Design, Modeling and Analysis. , 2016, , .		11
21	Preparation and characterization of polyvinyl alcohol hydrogels crosslinked by biodegradable polyurethane for tissue engineering of cartilage. Materials Science and Engineering C, 2010, 30, 636-643.	3.8	111
22	Application of Albumin Protein and Indocyanine Green Chromophore for Tissue Soldering by Using an IR Diode Laser: Ex Vivo and In Vivo Studies. Photomedicine and Laser Surgery, 2010, 28, 723-733.	2.1	6
23	Simultaneous Presence of Growth and Remodeling in the Bone Adaptation Theory. American Journal of Applied Sciences, 2009, 6, 352-360.	0.1	0
24	Association of a synthetic bone graft and bone marrow cells as a composite biomaterial. Biotechnology and Bioprocess Engineering, 2009, 14, 1-5.	1.4	8
25	Comparison between Brain Tissue Gray and White Matters in Tension Including Necking Phenomenon. American Journal of Applied Sciences, 2008, 5, 1701-1706.	0.1	5
26	Image-based Estimation of Contact Forces on Catheters for Robot-assisted Cardiovascular Intervention. , 0, , .		14