

# Bardia Konh

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

316  
citations

1039880

9  
h-index

996849

15  
g-index

38  
all docs

38  
docs citations

38  
times ranked

147  
citing authors

#	ARTICLE	IF	CITATIONS
1	A model to predict deflection of bevel-tipped active needle advancing in soft tissue. Medical Engineering and Physics, 2014, 36, 285-293.	0.8	40
2	Polyacrylamide phantom for self-actuating needle-tissue interaction studies. Medical Engineering and Physics, 2014, 36, 140-145.	0.8	36
3	Simulation and experimental studies in needle-tissue interactions. Journal of Clinical Monitoring and Computing, 2017, 31, 861-872.	0.7	23
4	Design optimization study of a shape memory alloy active needle for biomedical applications. Medical Engineering and Physics, 2015, 37, 469-477.	0.8	17
5	Study of Unrecovered Strain and Critical Stresses in One-Way Shape Memory Nitinol. Journal of Materials Engineering and Performance, 2014, 23, 2885-2893.	1.2	16
6	Feasibility of Shape Memory Alloy Wire Actuation for an Active Steerable Cannula. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	15
7	Self-sensing feedback control of multiple interacting shape memory alloy actuators in a 3D steerable active needle. Journal of Intelligent Material Systems and Structures, 2020, 31, 1524-1540.	1.4	14
8	3D Manipulation of an Active Steerable Needle via Actuation of Multiple SMA Wires. Robotica, 2020, 38, 410-426.	1.3	13
9	Towards a Nitinol Actuator for an Active Surgical Needle. , 2012, , .		13
10	Application of SMA Wire for an Active Steerable Cannula. , 2013, , .		10
11	A flexible active needle for steering in soft tissues. , 2014, , .		10
12	Integrating robot-assisted ultrasound tracking and 3D needle shape prediction for real-time tracking of the needle tip in needle steering procedures. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, e2272.	1.2	10
13	Design, Fabrication, and Testing of a Flexible Three-Dimensional Printed Percutaneous Needle With Embedded Actuators. Journal of Medical Devices, Transactions of the ASME, 2021, 15, .	0.4	8
14	Shape Memory Alloy Actuators in an Active Needle Modeling, Precise Assembly, and Performance Evaluation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2021, 143, .	1.3	8
15	Size Effect on the Critical Stress of Nitinol Wires. , 2013, , .		7
16	Needle Tip Manipulation and Control of a 3D Steerable SMA-Activated Flexible Needle. , 2020, , .		7
17	Compact 3D-Printed Active Flexible Needle for Percutaneous Procedures. Surgical Innovation, 2020, 27, 402-405.	0.4	7
18	Design and Performance Study of a Novel Minimally Invasive Active Surgical Needle. Journal of Medical Devices, Transactions of the ASME, 2019, 13, .	0.4	7

#	ARTICLE	IF	CITATIONS
19	3D Steerable Active Surgical Needle. , 2019, , .		7
20	Analysis Driven Design Optimization of SMA-Based Steerable Active Needle. , 2014, , .		6
21	Studies With SMA Actuated Needle for Steering Within Tissue. , 2014, , .		6
22	X-ray Diffraction Investigations of Shape Memory NiTi Wire. Journal of Materials Engineering and Performance, 2015, 24, 3038-3048.	1.2	5
23	3D Steerable Biopsy Needle with a Motorized Manipulation System and Ultrasound Tracking to Navigate inside Tissue. Journal of Medical Robotics Research, 2020, 05, 2150003.	1.0	5
24	Cable-Driven 3D Steerable Surgical Needle for Needle-Based Procedures. , 2020, , .		4
25	Finite Element Simulation of an Active Surgical Needle for Prostate Brachytherapy. , 2013, , .		3
26	Finite Element Studies of Needle-Tissue Interactions for Percutaneous Procedures1. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	3
27	Steering a Tendon-Driven Needle in High-Dose-Rate Prostate Brachytherapy for Patients with Pubic Arch Interference. , 2021, , .		3
28	Modeling and Operator Control of a Robotic Tool for Bidirectional Manipulation in Targeted Prostate Biopsy. , 2022, , .		3
29	Kinematics modelling and dynamics analysis of an SMA-actuated active flexible needle for feedback-controlled manipulation in phantom. Medical Engineering and Physics, 2022, 107, 103846.	0.8	3
30	Numerical Simulation of Roughness in Microchannels by Using the Second-Order Slip Boundary Condition. Nanoscale and Microscale Thermophysical Engineering, 2014, 18, 97-112.	1.4	2
31	Simulation and experimental studies of the SMA-activated needle behavior inside the tissue. Proceedings of SPIE, 2015, , .	0.8	1
32	Investigation of crystal structures of one-way shape memory Nitinol wire actuators for active steerable needle. Proceedings of SPIE, 2015, , .	0.8	1
33	Evaluating the performance of an advanced smart needle prototype inside tissue. , 2017, , .		1
34	Ultrasound Needle Tracking Inside a Soft Phantom and Methods to Improve the Needle Tip Visualization. , 2019, , .		1
35	3D Shape Estimation of an Active Needle Inside Tissue Using 2D Ultrasound Images. , 2021, , .		1
36	Computational design optimization of a SMA-based active steerable needle. Proceedings of SPIE, 2015, , .	0.8	0

#	ARTICLE	IF	CITATIONS
37	A portable integrated system to control an active needle. Proceedings of SPIE, 2017, , .	0.8	0