

# Naresh V Datla

## List of Publications by Year in descending order

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29  
papers

354  
citations

933264

10  
h-index

887953

17  
g-index

29  
all docs

29  
docs citations

29  
times ranked

237  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hygrothermal Properties of Highly Toughened Epoxy Adhesives. Journal of Adhesion, 2010, 86, 698-725.	1.8	60
2	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
3	Polyacrylamide phantom for self-actuating needle-tissue interaction studies. Medical Engineering and Physics, 2014, 36, 140-145.	0.8	36
4	Predicting environmental degradation of adhesive joints using a cohesive zone finite element model based on accelerated fracture tests. International Journal of Adhesion and Adhesives, 2017, 76, 54-60.	1.4	25
5	Electrical conductivity of random and aligned nanocomposites: Theoretical models and experimental validation. Composites Part A: Applied Science and Manufacturing, 2021, 149, 106543.	3.8	23
6	The influence of fiber alignment, structure and concentration on mechanical behavior of carbon nanofiber/epoxy composites: Experimental and numerical study. Polymer Composites, 2021, 42, 1155-1173.	2.3	17
7	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
8	Tribological studies of epoxy-carbon nanofiber composites – Effect of nanofiber alignment using AC electric field. Tribology International, 2019, 138, 450-462.	3.0	16
9	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
10	Towards a Nitinol Actuator for an Active Surgical Needle. , 2012, , .		13
11	Flexure-Based Active Needle for Enhanced Steering Within Soft Tissue. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	11
12	A flexible active needle for steering in soft tissues. , 2014, , .		10
13	Water diffusion simulation in photovoltaic module based on the characterization of encapsulant material using in-situ gravimetric technique. Solar Energy Materials and Solar Cells, 2019, 201, 110063.	3.0	8
14	Effect of aging time and loading rate on fracture behavior of Cu/Sn-0.7Cu solder joints. Microelectronics Reliability, 2021, 127, 114381.	0.9	8
15	Mode I fracture R-curve and cohesive law of CFRP composite adhesive joints. International Journal of Adhesion and Adhesives, 2022, 114, 103102.	1.4	8
16	Size Effect on the Critical Stress of Nitinol Wires. , 2013, , .		7
17	Peeling of heterogeneous thin films: Effect of bending stiffness, adhesion energy, and level of heterogeneity. Journal of Adhesion, 2019, 95, 169-186.	1.8	7
18	Analysis Driven Design Optimization of SMA-Based Steerable Active Needle. , 2014, , .		6

#	ARTICLE	IF	CITATIONS
19	Studies With SMA Actuated Needle for Steering Within Tissue. , 2014, , .		6
20	Mixed-Mode Cohesive Law Estimation of Composite Joints Made of Toughened Epoxy Adhesive. Procedia Structural Integrity, 2019, 14, 354-361.	0.3	4
21	A Poly-vinyl Alcohol (PVA)-based phantom and training tool for use in simulated Transrectal Ultrasound (TRUS) guided prostate needle biopsy procedures. Medical Engineering and Physics, 2021, 96, 46-52.	0.8	4
22	Path planning for robot-assisted active flexible needle using improved Rapidly-Exploring Random trees. , 2014, 2014, 380-3.		3
23	Dynamic estimation of an active surgical needle deflection for brachytherapy procedures. , 2014, , .		3
24	Multilayer Backsheet Characterization Using Diffusion Experiments and Optimization Method for Water Diffusion Simulation Inside the Photovoltaic Module. IEEE Journal of Photovoltaics, 2020, 10, 306-314.	1.5	3
25	Effect of bond-line thickness and mode-mixity on the fracture behavior and traction separation law of Sn-0.7Cu solder joints. Engineering Failure Analysis, 2022, 131, 105855.	1.8	3
26	Mechanical characterization of Polyacrylamide for Prostate Tissue-Mimicking Phantoms. Journal of Medical Devices, Transactions of the ASME, 2012, 6, .	0.4	1
27	Electro Thermomechanical Behavior of a Smart Actuator for an Active Surgical Needle. Journal of Medical Devices, Transactions of the ASME, 2012, 6, .	0.4	1
28	Preface to the special issue on mechanics of materials. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2021, 13, 1-2.	0.7	0
29	Energy Based Model to Predict the Tissue-Needle Interaction Mechanics of Active Surgical Needles. , 2013, , .		0