

Alok Sutradhar

List of Publications by Year in descending order

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25
papers

1,065
citations

511338

15
h-index

538518

25
g-index

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all docs

26
docs citations

26
times ranked

1025
citing authors

#	ARTICLE	IF	CITATIONS
1	Transient heat conduction in homogeneous and non-homogeneous materials by the Laplace transform Galerkin boundary element method. <i>Engineering Analysis With Boundary Elements</i> , 2002, 26, 119-132.	3.7	181
2	The simple boundary element method for transient heat conduction in functionally graded materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 4511-4539.	6.7	153
3	Designing patient-specific 3D printed craniofacial implants using a novel topology optimization method. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1123-1135.	2.9	85
4	Topological optimization for designing patient-specific large craniofacial segmental bone replacements. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13222-13227.	7.5	83
5	A multi-resolution method for 3D multi-material topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 285, 571-586.	6.7	83
6	Experimental validation of 3D printed patient-specific implants using digital image correlation and finite element analysis. <i>Computers in Biology and Medicine</i> , 2014, 52, 8-17.	7.2	72
7	Multi-physics topology optimization of functionally graded controllable porous structures: Application to heat dissipating problems. <i>Materials and Design</i> , 2020, 193, 108775.	7.1	62
8	Design of complex bone internal structure using topology optimization with perimeter control. <i>Computers in Biology and Medicine</i> , 2018, 94, 74-84.	7.2	49
9	Symmetric Galerkin boundary element computation of T-stress and stress intensity factors for mixed-mode cracks by the interaction integral method. <i>Engineering Analysis With Boundary Elements</i> , 2004, 28, 1335-1350.	3.7	41
10	<i>In vivo</i> measurement of breast skin elasticity and breast skin thickness. <i>Skin Research and Technology</i> , 2013, 19, e191-9.	1.6	41
11	A simple boundary element method for problems of potential in non-homogeneous media. <i>International Journal for Numerical Methods in Engineering</i> , 2004, 60, 2203-2230.	2.8	40
12	Large Animal Models of an <i>In Vivo</i> Bioreactor for Engineering Vascularized Bone. <i>Tissue Engineering - Part B: Reviews</i> , 2018, 24, 317-325.	5.1	23
13	On hypersingular surface integrals in the symmetric Galerkin boundary element method: application to heat conduction in exponentially graded materials. <i>International Journal for Numerical Methods in Engineering</i> , 2005, 62, 122-157.	2.8	22
14	Modeling oxygen transport in surgical tissue transfer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 12091-12096.	7.5	20
15	An energy-based method for interface connectivity of incompatible microstructures through parametric modeling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 370, 113278.	6.7	18
16	Topology optimization of fixed complete denture framework. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2019, 35, e3193.	2.2	16
17	Conceptual design of efficient heat conductors using multi-material topology optimization. <i>Engineering Optimization</i> , 2019, 51, 796-814.	2.6	15
18	Design of Hierarchical Architected Lattices for Enhanced Energy Absorption. <i>Materials</i> , 2021, 14, 5384.	3.0	15

#	ARTICLE	IF	CITATIONS
19	The simple boundary element method for multiple cracks in functionally graded media governed by potential theory: a three-dimensional Galerkin approach. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 65, 2007-2034.	2.8	12
20	A Two-Scale Multi-Resolution Topologically Optimized Multi-Material Design of 3D Printed Craniofacial Bone Implants. <i>Micromachines</i> , 2021, 12, 101.	2.9	12
21	Modeling the effect of tumor compression on airflow dynamics in trachea using contact simulation and CFD analysis. <i>Computers in Biology and Medicine</i> , 2021, 135, 104574.	7.2	7
22	Automated cross-sectional shape recovery of 3D branching structures from point cloud. <i>Journal of Computational Design and Engineering</i> , 2018, 5, 368-378.	3.0	6
23	Maximum thickness control in topology optimization using an inflection-point-based geometric constraint. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2023, 414, 116171.	6.7	4
24	Dependence of crack tip singularity on loading functions. <i>Mechanics Research Communications</i> , 2010, 37, 191-197.	1.9	2
25	A Simple Galerkin Boundary Element Method for Three-Dimensional Crack Problems in Functionally Graded Materials. <i>Materials Science Forum</i> , 2005, 492-493, 367-372.	0.2	0