

# Haneesh Kesari

## List of Publications by Year in descending order

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Version: 2024-02-01

25  
papers

546  
citations

759233

12  
h-index

642732

23  
g-index

26  
all docs

26  
docs citations

26  
times ranked

529  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analytical solutions for the stiffness and damping coefficients of squeeze films in MEMS devices with perforated back plates. <i>Journal of Micromechanics and Microengineering</i> , 2005, 15, 2083-2092.	2.6	66
2	Role of surface roughness in hysteresis during adhesive elastic contact. <i>Philosophical Magazine Letters</i> , 2010, 90, 891-902.	1.2	63
3	Mean deformation metrics for quantifying 3D cell-matrix interactions without requiring information about matrix material properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2898-2903.	7.1	60
4	Effective macroscopic adhesive contact behavior induced by small surface roughness. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 2488-2510.	4.8	57
5	New functional insights into the internal architecture of the laminated anchor spicules of <i>Euplectella aspergillum</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 4976-4981.	7.1	50
6	Lamellar architectures in stiff biomaterials may not always be templates for enhancing toughness in composites. <i>Nature Communications</i> , 2020, 11, 373.	12.8	38
7	Depth-dependent hysteresis in adhesive elastic contacts at large surface roughness. <i>Scientific Reports</i> , 2019, 9, 1639.	3.3	34
8	A quantitative relationship between rotational head kinematics and brain tissue strain from a 2-D parametric finite element analysis. <i>Brain Multiphysics</i> , 2021, 2, 100024.	2.3	26
9	A new software tool (VA-BATTS) to calculate bending, axial, torsional and transverse shear stresses within bone cross sections having inhomogeneous material properties. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2008, 11, 463-476.	1.6	24
10	Significance of Nucleation Kinetics in Sn Whisker Formation. <i>Journal of Electronic Materials</i> , 2014, 43, 4435-4441.	2.2	20
11	Adhesive Frictionless Contact Between an Elastic Isotropic Half-Space and a Rigid Axi-Symmetric Punch. <i>Journal of Elasticity</i> , 2012, 106, 203-224.	1.9	16
12	Enhanced bending failure strain in biological glass fibers due to internal lamellar architecture. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 76, 69-75.	3.1	15
13	A new structure-property connection in the skeletal elements of the marine sponge <i>Tethya aurantia</i> that guards against buckling instability. <i>Scientific Reports</i> , 2017, 7, 39547.	3.3	13
14	Effect of machine stiffness on interpreting contact force-indentation depth curves in adhesive elastic contact experiments. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 131, 404-423.	4.8	10
15	Angle-independent optimal adhesion in plane peeling of thin elastic films at large surface roughnesses. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 148, 104270.	4.8	10
16	Transverse and torsional shear stresses in prismatic bodies having inhomogeneous material properties using a new 2D stress function. <i>Journal of Mechanics of Materials and Structures</i> , 2009, 4, 659-674.	0.6	9
17	Molecular statics study of depth-dependent hysteresis in nano-scale adhesive elastic contacts. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2017, 25, 055002.	2.0	9
18	An accelerometer-only algorithm for determining the acceleration field of a rigid body, with application in studying the mechanics of mild traumatic brain injury. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 143, 104014.	4.8	7

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19	Force sensors for measuring microenvironmental forces during mesenchymal condensation. <i>Biomaterials</i> , 2021, 270, 120684.	11.4	7
20	Sawtooth patterns in flexural force curves of structural biological materials are not signatures of toughness enhancement: Part I. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 119, 104362.	3.1	5
21	Determining rigid body motion from accelerometer data through the square-root of a negative semi-definite tensor, with applications in mild traumatic brain injury. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 390, 114271.	6.6	3
22	A Millimeter Scale Flexural Testing System for Measuring the Mechanical Properties of Marine Sponge Spicules. <i>Journal of Visualized Experiments</i> , 2017, , .	0.3	2
23	Time integrators based on approximate discontinuous Hamiltonians. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 89, 71-104.	2.8	1
24	Sawtooth patterns in flexural force curves of structural biological materials are not signatures of toughness enhancement: Part II. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 124, 104787.	3.1	1
25	Effects of geometric nonlinearity in an adhered microbeam for measuring the work of adhesion. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20170594.	2.1	0