

# Kumar Shanmugam

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/4017326/kumar-shanmugam-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91  
papers

2,556  
citations

28  
h-index

47  
g-index

97  
ext. papers

3,366  
ext. citations

5  
avg, IF

6.24  
L-index

#	Paper	IF	Citations
91	Synthesis and Characterization of Carbon Nanotube-Doped Thermoplastic Nanocomposites for the Additive Manufacturing of Self-Sensing Piezoresistive Materials.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2022</b> ,	9.5	3
90	Dynamic crushing of tailored honeycombs realized via additive manufacturing. <i>International Journal of Mechanical Sciences</i> , <b>2022</b> , 219, 107126	5.5	2
89	In-plane energy absorption characteristics of a modified re-entrant auxetic structure fabricated via 3D printing. <i>Composites Part B: Engineering</i> , <b>2022</b> , 228, 109437	10	15
88	High performance, microarchitected, compact heat exchanger enabled by 3D printing. <i>Applied Thermal Engineering</i> , <b>2022</b> , 210, 118339	5.8	0
87	Mechanical response of a novel hybrid tube composed of an auxetic outer layer. <i>Thin-Walled Structures</i> , <b>2021</b> , 108649	4.7	1
86	Electromagnetic interference shielding performance of carbon nanostructure reinforced, 3D printed polymer composites. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 11769-11788	4.3	5
85	Impact behavior of nanoengineered, 3D printed plate-lattices. <i>Materials and Design</i> , <b>2021</b> , 202, 109516	8.1	19
84	Architected poly(lactic acid)/poly(E-caprolactone)/halloysite nanotube composite scaffolds enabled by 3D printing for biomedical applications. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 14070-14083	4.3	8
83	Additive manufacturing enabled, microarchitected, hierarchically porous polylactic-acid/lithium iron phosphate/carbon nanotube nanocomposite electrodes for high performance Li-Ion batteries. <i>Journal of Power Sources</i> , <b>2021</b> , 494, 229625	8.9	12
82	Energy absorption characteristics of additively manufactured plate-lattices under low- velocity impact loading. <i>International Journal of Impact Engineering</i> , <b>2021</b> , 149, 103768	4	24
81	Numerical evaluation of additively manufactured lattice architectures for heat sink applications. <i>International Journal of Thermal Sciences</i> , <b>2021</b> , 159, 106607	4.1	8
80	Thermo-resistive and thermo-piezoresistive sensitivity of carbon nanostructure engineered thermoplastic composites processed via additive manufacturing. <i>Polymer Testing</i> , <b>2021</b> , 93, 106961	4.5	5
79	Essential work of fracture assessment of acrylonitrile butadiene styrene (ABS) processed via fused filament fabrication additive manufacturing. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2021</b> , 113, 771-784	3.2	2
78	Energy absorption and self-sensing performance of 3D printed CF/PEEK cellular composites. <i>Materials and Design</i> , <b>2021</b> , 208, 109863	8.1	16
77	Bioinspired Compliance Grading Motif of Mortar in Nacreous Materials. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 33256-33266	9.5	6
76	Graphene Foam (GF)/Manganese Oxide (MnO <sub>2</sub> ) Nanocomposites for High Performance Supercapacitors. <i>Journal of Energy Storage</i> , <b>2020</b> , 30, 101575	7.8	10
75	Micromechanics of engineered interphases in nacre-like composite structures. <i>Mechanics of Advanced Materials and Structures</i> , <b>2020</b> , 1-16	1.8	6

74	Synthesis and performance evaluation of hydrocracking catalysts: A review. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2020</b> , 89, 83-103	6.3	22
73	Additively Manufactured Polyetheretherketone (PEEK) with Carbon Nanostructure Reinforcement for Biomedical Structural Applications. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2000483	3.5	16
72	Multiscale characterization and constitutive parameters identification of polyamide (PA12) processed via selective laser sintering. <i>Polymer Testing</i> , <b>2020</b> , 86, 106357	4.5	16
71	3D printed polylactic acid nanocomposite scaffolds for tissue engineering applications. <i>Polymer Testing</i> , <b>2020</b> , 81, 106203	4.5	28
70	Multiscale modeling of strength and failure behavior of carbon nanostructure reinforced epoxy composite adhesives in bonded systems. <i>European Journal of Mechanics, A/Solids</i> , <b>2020</b> , 80, 103932	3.7	6
69	Electrical conductivity of CNT/polymer composites: 3D printing, measurements and modeling. <i>Composites Part B: Engineering</i> , <b>2020</b> , 183, 107600	10	68
68	Microarchitected 3D printed polylactic acid (PLA) nanocomposite scaffolds for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 103, 103576	4.1	40
67	Multifunctional performance of carbon nanotubes and graphene nanoplatelets reinforced PEEK composites enabled via FFF additive manufacturing. <i>Composites Part B: Engineering</i> , <b>2020</b> , 184, 107625	10	64
66	Strong, stretchable and ultrasensitive MWCNT/TPU nanocomposites for piezoresistive strain sensing. <i>Composites Part B: Engineering</i> , <b>2019</b> , 177, 107285	10	44
65	Tunable Energy Absorption Characteristics of Architected Honeycombs Enabled via Additive Manufacturing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 42549-42560	9.5	34
64	Effectiveness of Solvent Vapor Annealing over Thermal Annealing on the Photovoltaic Performance of Non-Fullerene Acceptor Based BHJ Solar Cells. <i>Scientific Reports</i> , <b>2019</b> , 9, 8529	4.9	23
63	Quantification of Adhesion Force of Bacteria on the Surface of Biomaterials: Techniques and Assays. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 2093-2110	5.5	20
62	Electrical, mechanical and thermal properties of graphene nanoplatelets reinforced UHMWPE nanocomposites. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2019</b> , 241, 82-91	3.1	38
61	Piezoresistive and Mechanical Characteristics of Graphene Foam Nanocomposites. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 1402-1411	5.6	18
60	Impact performance enhancement of honeycombs through additive manufacturing-enabled geometrical tailoring. <i>International Journal of Impact Engineering</i> , <b>2019</b> , 134, 103360	4	28
59	Dual-functional cathode buffer layer for power conversion efficiency enhancement of bulk-heterojunction solar cells. <i>Synthetic Metals</i> , <b>2019</b> , 255, 116112	3.6	4
58	MnO <sub>2</sub> /SWCNT buckypaper for high performance supercapacitors. <i>Journal of Energy Storage</i> , <b>2019</b> , 26, 100960	7.8	6
57	The energy-absorbing characteristics of carbon fiber-reinforced epoxy honeycomb structures. <i>Journal of Composite Materials</i> , <b>2019</b> , 53, 1145-1157	2.7	18

56	Stress transfer through the interphase in curved-fiber pullout tests of nanocomposites. <i>Composites Part B: Engineering</i> , <b>2019</b> , 165, 417-434	10	13
55	Self-sensing and mechanical performance of CNT/GNP/UHMWPE biocompatible nanocomposites. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 7939-7952	4.3	30
54	Performance enhancement of tubular multilayers via compliance-tailoring: 3D printing, testing and modeling. <i>International Journal of Mechanical Sciences</i> , <b>2018</b> , 140, 93-108	5.5	21
53	Performance of biocompatible PEEK processed by fused deposition additive manufacturing. <i>Materials and Design</i> , <b>2018</b> , 146, 249-259	8.1	112
52	Interfacial stresses in single-side composite patch-repairs with material tailored bondline. <i>Mechanics of Advanced Materials and Structures</i> , <b>2018</b> , 25, 304-318	1.8	10
51	Strain and damage-sensing performance of biocompatible smart CNT/UHMWPE nanocomposites. <i>Materials Science and Engineering C</i> , <b>2018</b> , 92, 957-968	8.3	38
50	Strong linear-piezoresistive-response of carbon nanostructures reinforced hyperelastic polymer nanocomposites. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2018</b> , 113, 141-149	8.4	48
49	Mechanical, thermal and electrical properties of LiFePO <sub>4</sub> /MWCNTs composite electrodes. <i>Materials Letters</i> , <b>2018</b> , 230, 57-60	3.3	11
48	Mechanical Properties of Isolated Carbon Nanotube <b>2018</b> , 173-199		3
47	Material-tailored adhesively bonded multilayers: A theoretical analysis. <i>International Journal of Mechanical Sciences</i> , <b>2018</b> , 148, 246-262	5.5	9
46	A wet-filtration-zipping approach for fabricating highly electroconductive and auxetic graphene/carbon nanotube hybrid buckypaper. <i>Scientific Reports</i> , <b>2018</b> , 8, 12188	4.9	14
45	Fabrication of Carbon Nanotube/Polymer Nanocomposites <b>2018</b> , 61-81		10
44	Additively manufactured cylindrical systems with stiffness-tailored interface: Modeling and experiments. <i>International Journal of Solids and Structures</i> , <b>2018</b> , 152-153, 71-84	3.1	16
43	Self-sensing performance of MWCNT-low density polyethylene nanocomposites. <i>Materials Research Express</i> , <b>2018</b> , 5, 015703	1.7	18
42	Stress Reduction of 3D Printed Compliance-Tailored Multilayers. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1700883	3.5	24
41	Additive manufacturing-enabled shape transformations via FFF 4D printing. <i>Journal of Materials Research</i> , <b>2018</b> , 33, 4362-4376	2.5	36
40	Turning date palm fronds into biocompatible mesoporous fluorescent carbon dots. <i>Scientific Reports</i> , <b>2018</b> , 8, 16269	4.9	32
39	Strength and Performance Enhancement of Multilayers by Spatial Tailoring of Adherend Compliance and Morphology via Multimaterial Jetting Additive Manufacturing. <i>Scientific Reports</i> , <b>2018</b> , 8, 13592	4.9	23

38	Polyvinyl alcohol incorporated buckypaper composites for improved multifunctional performance. <i>Composites Science and Technology</i> , <b>2018</b> , 168, 429-436	8.6	15
37	Enhanced Bonding via Additive Manufacturing-Enabled Surface Tailoring of 3D Printed Continuous-Fiber Composites. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1800691	3.5	34
36	High performance overhead power lines with carbon nanostructures for transmission and distribution of electricity from renewable sources. <i>Journal of Cleaner Production</i> , <b>2017</b> , 145, 180-187	10.3	18
35	Spatially-degraded adhesive anchors under material uncertainty. <i>International Journal of Adhesion and Adhesives</i> , <b>2017</b> , 76, 61-69	3.4	5
34	Special Issue on Functionally Graded Adhesively Bonded Systems. <i>International Journal of Adhesion and Adhesives</i> , <b>2017</b> , 76, 1-2	3.4	14
33	Strength and Performance Enhancement of Bonded Joints by Spatial Tailoring of Adhesive Compliance via 3D Printing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 884-891	9.5	42
32	Multiscale modeling of effective electrical conductivity of short carbon fiber-carbon nanotube-polymer matrix hybrid composites. <i>Materials and Design</i> , <b>2016</b> , 89, 129-136	8.1	70
31	Soft optical composites for tunable transmittance. <i>Extreme Mechanics Letters</i> , <b>2016</b> , 9, 297-303	3.9	5
30	Tailored interface resulting in improvement in mechanical properties of epoxy composites containing poly (ether ether ketone) grafted multiwall carbon nanotubes. <i>Polymer</i> , <b>2016</b> , 102, 43-53	3.9	26
29	Tunable morphology and its influence on electrical, thermal and mechanical properties of carbon nanostructure-buckypaper. <i>Materials and Design</i> , <b>2016</b> , 101, 236-244	8.1	41
28	Modeling of carbon nanotubes and carbon nanotube-polymer composites. <i>Progress in Aerospace Sciences</i> , <b>2016</b> , 80, 33-58	8.8	59
27	Modeling of single-lap composite adhesive joints under mechanical and thermal loads. <i>Journal of Adhesion Science and Technology</i> , <b>2016</b> , 30, 759-783	2	4
26	Gas barrier performance of graphene/polymer nanocomposites. <i>Carbon</i> , <b>2016</b> , 98, 313-333	10.4	387
25	An elastic solution for adhesive stresses in multi-material cylindrical joints. <i>International Journal of Adhesion and Adhesives</i> , <b>2016</b> , 64, 142-152	3.4	19
24	Through Process Modeling Approach: Effect of Microstructure on Mechanical Properties of Fiber Reinforced Composites. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 421-430	0.3	1
23	Soft Color Composites with Tunable Optical Transmittance. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 620-626	6.1	24
22	High-Capacity Overhead Power Lines With Carbon Nanostructure-Epoxy Composites. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2016</b> , 138,	1.8	9
21	Hyperelastic strain measurements and constitutive parameters identification of 3D printed soft polymers by image processing. <i>Additive Manufacturing</i> , <b>2016</b> , 11, 40-48	6.1	24

20	A shear-lag model for functionally graded adhesive anchors. <i>International Journal of Adhesion and Adhesives</i> , <b>2016</b> , 68, 317-325	3-4	20
19	Multiscale modeling of stress transfer in continuous microscale fiber reinforced composites with nano-engineered interphase. <i>Mechanics of Materials</i> , <b>2016</b> , 102, 117-131	3-3	53
18	Gas barrier properties of polymer/clay nanocomposites. <i>RSC Advances</i> , <b>2015</b> , 5, 63669-63690	3-7	162
17	Micromechanics of stress transfer through the interphase in fiber-reinforced composites. <i>Mechanics of Materials</i> , <b>2015</b> , 89, 190-201	3-3	36
16	Pull-out capacity of adhesive anchors: An analytical solution. <i>International Journal of Adhesion and Adhesives</i> , <b>2015</b> , 60, 54-62	3-4	35
15	Modeling of Geometrically Graded Multi-material Single-Lap Joints <b>2015</b> ,		2
14	Modeling of Stresses in an Axisymmetric Composite Patch-Repair System <b>2015</b> ,		1
13	Pull-Out Performance of 3D Printed Composites with Embedded Fins on the Fiber. <i>Materials Research Society Symposia Proceedings</i> , <b>2015</b> , 1800, 1		4
12	Coupling of injection molding process to mechanical properties of short fiber composites: A through process modeling approach. <i>Journal of Reinforced Plastics and Composites</i> , <b>2015</b> , 34, 1963-1978	2-9	6
11	Modeling of Cylindrical Joints with a Functionally Graded Adhesive Interlayer <b>2013</b> , 47-91		9
10	On axisymmetric adhesive joints with graded interface stiffness. <i>International Journal of Adhesion and Adhesives</i> , <b>2013</b> , 41, 57-72	3-4	39
9	Computational modelling of constrained sintering in EB-PVD thermal barrier coatings. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2013</b> , 21, 065008	2	4
8	Sintering and mud cracking in EB-PVD thermal barrier coatings. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2012</b> , 60, 723-749	5	28
7	Fatigue life prediction of adhesively bonded single lap joints. <i>International Journal of Adhesion and Adhesives</i> , <b>2011</b> , 31, 43-47	3-4	31
6	Behaviour of Bi-adhesive Joints. <i>Journal of Adhesion Science and Technology</i> , <b>2010</b> , 24, 1251-1281	2	58
5	Stress Analysis of Shaft-Tube Bonded Joints Using a Variational Method <b>2010</b> , 86, 369-394		38
4	Adhesively-bonded Patch Repair with Composites. <i>Defence Science Journal</i> , <b>2010</b> , 60, 320-329	1-4	16
3	Analysis of tubular adhesive joints with a functionally modulus graded bondline subjected to axial loads. <i>International Journal of Adhesion and Adhesives</i> , <b>2009</b> , 29, 785-795	3-4	88

2 NiO powder synthesized through nickel metal complex degradation for water treatment 155, 216-224 22

1 Multifunctionality of Nanoengineered Self-Sensing Lattices Enabled by Additive Manufacturing. *Advanced Engineering Materials*, 2200194 35 0