Sankhya Mohanty

List of Publications by Year
in descending order

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34	622	840776 11	610901 24
papers	citations	h-index	g-index

34	34	34	558
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Keyhole-induced porosities in Laser-based Powder Bed Fusion (L-PBF) of Ti6Al4V: High-fidelity modelling and experimental validation. Additive Manufacturing, 2019, 30, 100835.	3.0	144
2	Multiphysics modelling of lack-of-fusion voids formation and evolution in IN718 made by multi-track/multi-layer L-PBF. International Journal of Heat and Mass Transfer, 2019, 139, 95-114.	4.8	135
3	A systematic investigation of the effects of process parameters on heat and fluid flow and metallurgical conditions during laser-based powder bed fusion of Ti6Al4V alloy. International Journal of Heat and Mass Transfer, 2019, 139, 213-230.	4.8	64
4	Numerical Model based Reliability Estimation of Selective Laser Melting Process. Physics Procedia, 2014, 56, 379-389.	1.2	29
5	Multiphysics modelling of manufacturing processes: A review. Advances in Mechanical Engineering, 2018, 10, 168781401876618.	1.6	25
6	Cellular Scanning Strategy for Selective Laser Melting: Capturing Thermal Trends with a Low-Fidelity, Pseudo-Analytical Model. Mathematical Problems in Engineering, 2014, 2014, 1-14.	1.1	24
7	An Industry 4.0 framework for tooling production using metal additive manufacturing-based first-time-right smart manufacturing system. Procedia CIRP, 2020, 93, 32-37.	1.9	21
8	Thermo-fluid-metallurgical modelling of the selective laser melting process chain. Procedia CIRP, 2018, 74, 87-91.	1.9	20
9	Benchmarking of Laser Powder Bed Fusion Machines. Journal of Manufacturing and Materials Processing, 2019, 3, 85.	2.2	20
10	Part-scale thermo-mechanical modelling of distortions in Laser Powder Bed Fusion â€“ Analysis of the sequential flash heating method with experimental validation. Additive Manufacturing, 2020, 36, 101508.	3.0	20
11	Multi-metal additive manufacturing process chain for optical quality mold generation. Journal of Materials Processing Technology, 2020, 277, 116451.	6.3	13
12	Cellular scanning strategy for selective laser melting: evolution of optimal grid-based scanning path and parametric approach to thermal homogeneity. Proceedings of SPIE, 2013, , .	0.8	11
13	Thermo-mechanical modelling of stress relief heat treatments after laser-based powder bed fusion. Additive Manufacturing, 2021, 38, 101818.	3.0	11
14	A New Model for Keyhole Mode Laser Welding Using FLUENT. Transactions of the Indian Institute of Metals, 2012, 65, 459-466.	1.5	10
15	Laser polishing of additively manufactured Ti-6Al-4V: Microstructure evolution and material properties. Journal of Laser Applications, 2020, 32, .	1.7	10
16	Estimation of Average Spot Diameter and Bead Penetration Using Process Model During Electron Beam Welding of AISI 304 Stainless Steel. Transactions of the Indian Institute of Metals, 2015, 68, 935-941.	1.5	9
17	Investigation of the roughness variation along the length of LPBF manufactured straight channels. Nondestructive Testing and Evaluation, 2020, 35, 304-314.	2.1	9
18	On the drying process of molded pulp products: Experiments and numerical modelling. Drying Technology, 2020, 38, 1644-1662.	3.1	7

#	Article	IF	Citations
19	Laser additive manufacturing of multimaterial tool inserts: a simulation-based optimization study. Proceedings of SPIE, 2017, , .	0.8	6
20	Numerical Investigation into the Effect of Different Parameters on the Geometrical Precision in the Laser-Based Powder Bed Fusion Process Chain. Applied Sciences (Switzerland), 2020, 10, 3414.	2.5	5
21	Multi-objective optimization of cellular scanning strategy in selective laser melting. , 2017, , .		4
22	Realistic design of laser powder bed fusion channels. Rapid Prototyping Journal, 2020, 26, 1827-1836.	3.2	4
23	Cellular scanning strategy for selective laser melting: Generating reliable, optimized scanning paths and processing parameters. Proceedings of SPIE, 2015, , .	0.8	3
24	Analysis of moisture transport between connected enclosures under a forced thermal gradient. , 2016, , .		3
25	Semi-empirical prediction of moisture build-up in an electronic enclosure using analysis of variance (ANOVA). , 2016, , .		3
26	Reducing residual stresses and deformations in selective laser melting through multi-level multi-scale optimization of cellular scanning strategy. Proceedings of SPIE, 2016, , .	0.8	3
27	Mathematical modelling of moisture transport into an electronic enclosure under non-isothermal conditions. Microelectronics Reliability, 2017, 79, 526-532.	1.7	3
28	Characterization of Geometry and Surface Texture of AlSi10Mg Laser Powder Bed Fusion Channels Using X-ray Computed Tomography. Applied Sciences (Switzerland), 2021, 11, 4304.	2.5	3
29	Improving accuracy of overhanging structures for selective laser melting through reliability characterization of single track formation on thick powder beds. , 2016, , .		2
30	Microstructural modelling of above Î²-transus heat treatment of additively manufactured Ti-6Al-4V using cellular automata. Materials Today Communications, 2020, 24, 101031.	1.9	1
31	Effect of uncertainty in processing parameters on the microstructure of single melt tracks formed by selective laser melting. , 2014, , .		0
32	Optimization of electronic enclosure design for thermal and moisture management using calibrated models of progressive complexity. , 2016, , .		0
33	Increasing the productivity of selective laser sintering workflow by integrating cooling channels in the printing powder matrix. CIRP Annals - Manufacturing Technology, 2022, , .	3.6	0
34	Numerical Modelling of Humidity Behaviour in the Electronics Housing. , 2022, , .		0