

Hongyao Shen

List of Publications by Year in descending order

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52
papers

996
citations

394421

19
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477307

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53
all docs

53
docs citations

53
times ranked

718
citing authors

#	ARTICLE	IF	CITATIONS
1	Approaches for improvement of the X-ray image defect detection of automobile casting aluminum parts based on deep learning. <i>NDT and E International</i> , 2019, 107, 102144.	3.7	98
2	Online quality monitoring in material extrusion additive manufacturing processes based on laser scanning technology. <i>Precision Engineering</i> , 2019, 60, 76-84.	3.4	66
3	Product-of-exponential formulas for precision enhancement of five-axis machine tools via geometric error modeling and compensation. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 81, 289-305.	3.0	51
4	Microstructure and mechanical properties of selective laser melted Mg-9wt%Al powder mixture. <i>Materials Letters</i> , 2018, 221, 4-7.	2.6	51
5	Single-layer temperature-adjusting transition method to improve the bond strength of 3D-printed PCL/PLA parts. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 115, 22-30.	7.6	50
6	Research on large-scale additive manufacturing based on multi-robot collaboration technology. <i>Additive Manufacturing</i> , 2019, 30, 100906.	3.0	36
7	A generic uniform scallop tool path generation method for five-axis machining of freeform surface. <i>CAD Computer Aided Design</i> , 2014, 56, 120-132.	2.7	35
8	Corrosion behaviour of laser powder bed fused bulk pure magnesium in Hank's solution. <i>Corrosion Science</i> , 2019, 157, 284-294.	6.6	33
9	Effective control of microstructure evolution in AZ91D magnesium alloy by SiC nanoparticles in laser powder-bed fusion. <i>Materials and Design</i> , 2021, 206, 109787.	7.0	33
10	Non-singular tool path planning by translating tool orientations in C-space. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 71, 1835-1848.	3.0	32
11	Self-Sensing of Position-Related Loads in Continuous Carbon Fibers-Embedded 3D-Printed Polymer Structures Using Electrical Resistance Measurement. <i>Sensors</i> , 2018, 18, 994.	3.8	32
12	Automated detection of defects with low semantic information in X-ray images based on deep learning. <i>Journal of Intelligent Manufacturing</i> , 2021, 32, 141-156.	7.3	32
13	Multi-view online vision detection based on robot fused deposit modeling 3D printing technology. <i>Rapid Prototyping Journal</i> , 2019, 25, 343-355.	3.2	31
14	Tool path generation for multi-axis freeform surface finishing with the LKH TSP solver. <i>CAD Computer Aided Design</i> , 2015, 69, 51-61.	2.7	30
15	Thermal field prediction for welding paths in multi-layer gas metal arc welding-based additive manufacturing: A machine learning approach. <i>Journal of Manufacturing Processes</i> , 2021, 64, 960-971.	5.9	29
16	On the workpiece setup optimization for five-axis machining with RTCP function. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 74, 187-197.	3.0	23
17	Smooth contour-parallel tool path generation for high-speed machining through a dual offset procedure. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 81, 1233-1245.	3.0	23
18	Effect of induction heat treatment on residual stress distribution of components fabricated by wire arc additive manufacturing. <i>Journal of Manufacturing Processes</i> , 2022, 75, 331-345.	5.9	23

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19	Automatic Defect Segmentation in X-Ray Images Based on Deep Learning. IEEE Transactions on Industrial Electronics, 2021, 68, 12912-12920.	7.9	20
20	Machining error inspection of T-spline surface by on-machine measurement. International Journal of Precision Engineering and Manufacturing, 2015, 16, 433-439.	2.2	19
21	An accurate surface error optimization for five-axis machining of freeform surfaces. International Journal of Advanced Manufacturing Technology, 2014, 71, 1175-1185.	3.0	18
22	Thermo-Fluid-Dynamic Modeling of the Melt Pool during Selective Laser Melting for AZ91D Magnesium Alloy. Materials, 2020, 13, 4157.	2.9	18
23	Generation of offset surface for tool path in NC machining through level set methods. International Journal of Advanced Manufacturing Technology, 2010, 46, 1043-1047.	3.0	16
24	NC codes optimization for geometric error compensation of five-axis machine tools with one novel mathematical model. International Journal of Advanced Manufacturing Technology, 2015, 80, 1879-1894.	3.0	16
25	A new adaptive interpolation scheme of NURBS based on axis dynamics. International Journal of Advanced Manufacturing Technology, 2011, 56, 215-221.	3.0	15
26	Global uncut regions removal for efficient contour-parallel milling. International Journal of Advanced Manufacturing Technology, 2013, 68, 1241-1252.	3.0	14
27	Visual Detection of Surface Defects Based on Self-Feature Comparison in Robot 3-D Printing. Applied Sciences (Switzerland), 2020, 10, 235.	2.5	13
28	Five-axis trajectory generation based on kinematic constraints and optimisation. International Journal of Computer Integrated Manufacturing, 2015, 28, 266-277.	4.6	12
29	Research on support-free WAAM based on surface/interior separation and surface segmentation. Journal of Materials Processing Technology, 2021, 297, 117240.	6.3	12
30	A Novel Method of Efficient Machining Error Compensation Based on NURBS Surface Control Points Reconstruction. Machining Science and Technology, 2015, 19, 499-513.	2.5	10
31	Numerical solution of simultaneous equations based geometric error compensation for CNC machine tools with workpiece model reconstruction. International Journal of Advanced Manufacturing Technology, 2016, 86, 2265-2278.	3.0	10
32	Building Orientation Determination Based on Multi-Objective Optimization for Additive Manufacturing. 3D Printing and Additive Manufacturing, 2020, 7, 186-197.	2.9	10
33	Measurement and evaluation of laser-scanned 3D profiles in wire arc hybrid manufacturing processes. Measurement: Journal of the International Measurement Confederation, 2021, 176, 109089.	5.0	10
34	Residual thermal stress prediction for continuous tool-paths in wire-arc additive manufacturing: a three-level data-driven method. Virtual and Physical Prototyping, 2022, 17, 105-124.	10.4	9
35	A polygons Boolean operations-based adaptive slicing with sliced data for additive manufacturing. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2017, 231, 2783-2799.	2.1	8
36	Effect of carbon nanotube on thermal, tribological and mechanical properties of 3D printing polyphenylene sulfide. Additive Manufacturing, 2021, 47, 102247.	3.0	8

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37	Efficient cutting area detection in roughing process for meshed surfaces. International Journal of Advanced Manufacturing Technology, 2013, 69, 525-530.	3.0	7
38	Effect of aluminium content and processing parameters on the microstructure and mechanical properties of laser powder-bed fused magnesium-aluminium (0, 3, 6, 9wt%) powder mixture. Rapid Prototyping Journal, 2019, 25, 744-751.	3.2	7
39	Generating HSM-adapted pocketing tool path by region subdivision. International Journal of Computer Integrated Manufacturing, 2016, 29, 581-590.	4.6	6
40	Research on inverse evaluation mechanism in toolpath generation based on global interpolation simulation. International Journal of Advanced Manufacturing Technology, 2015, 79, 1265-1283.	3.0	5
41	The tool following function-based identification approach for all geometric errors of rotary axes using ballbar. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3509-3527.	2.1	4
42	Study of the Mechanism of a Stable Deposited Height During GMAW-Based Additive Manufacturing. Applied Sciences (Switzerland), 2020, 10, 4322.	2.5	4
43	Research on a planning method for switching moments in hybrid manufacturing processes. Journal of Manufacturing Processes, 2020, 56, 786-795.	5.9	3
44	A New Phenomenon of Ni-Ti Alloys and Its Application for Fabricating Thermally Responsive Microrobots. Advanced Engineering Materials, 2021, 23, 2001367.	3.5	3
45	Colourful fused filament fabrication method based on transitioning waste infilling technology with a colour surface model. Rapid Prototyping Journal, 2021, 27, 145-154.	3.2	3
46	Study on cracks and process improvement for case hardened gear shaft straightening. Journal of Mechanical Science and Technology, 0, , .	1.5	3
47	Five-Axis Freeform Surface Color Printing Technology Based on Offset Curve Path Planning Method. Applied Sciences (Switzerland), 2020, 10, 1716.	2.5	2
48	Free-form surface-oriented five-axis single-point color printing technology. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2019, 233, 1159-1171.	1.0	1
49	Fabrication of multi-functional Ni-Ti alloys by laser powder bed fusion. International Journal of Advanced Manufacturing Technology, 0, , 1.	3.0	1
50	A new toolpath generation method with feed sensitive zones inspection based on inverse evaluation mechanism. International Journal of Computer Integrated Manufacturing, 2017, 30, 926-942.	4.6	0
51	Five-Axis Tool Path Generation of Injection Mold Represented by T-Spline Surface. Advances in Polymer Technology, 2020, 2020, 1-11.	1.7	0
52	Research and Optimization of the Three-Dimensional Printing Unloading Process for the Flexible Support Platform. 3D Printing and Additive Manufacturing, 2021, 8, 136-147.	2.9	0