

# Tianliang Hu

## List of Publications by Year in descending order

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45  
papers

1,789  
citations

516710

16  
h-index

315739

38  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1042  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enabling technologies and tools for digital twin. Journal of Manufacturing Systems, 2021, 58, 3-21.	13.9	611
2	A hybrid predictive maintenance approach for CNC machine tool driven by Digital Twin. Robotics and Computer-Integrated Manufacturing, 2020, 65, 101974.	9.9	251
3	Digital twin for CNC machine tool: modeling and using strategy. Journal of Ambient Intelligence and Humanized Computing, 2019, 10, 1129-1140.	4.9	212
4	Data Construction Method for the Applications of Workshop Digital Twin System. Journal of Manufacturing Systems, 2021, 58, 323-328.	13.9	84
5	Consistency retention method for CNC machine tool digital twin model. Journal of Manufacturing Systems, 2021, 58, 313-322.	13.9	47
6	Design and development of a CNC machining process knowledge base using cloud technology. International Journal of Advanced Manufacturing Technology, 2018, 94, 3413-3425.	3.0	46
7	Secure sharing of big digital twin data for smart manufacturing based on blockchain. Journal of Manufacturing Systems, 2021, 61, 338-350.	13.9	40
8	Digital twin modeling method for CNC machine tool. , 2018, , .		35
9	Feedrate Scheduling of NURBS Interpolation Based on a Novel Jerk-Continuous ACC/DEC Algorithm. IEEE Access, 2018, 6, 66403-66417.	4.2	32
10	A welding task data model for intelligent process planning of robotic welding. Robotics and Computer-Integrated Manufacturing, 2020, 64, 101934.	9.9	28
11	A Bidirectional Adaptive Feedrate Scheduling Method of NURBS Interpolation Based on S-Shaped ACC/DEC Algorithm. IEEE Access, 2018, 6, 63794-63812.	4.2	25
12	A vision-based fusion method for defect detection of milling cutter spiral cutting edge. Measurement: Journal of the International Measurement Confederation, 2021, 177, 109248.	5.0	25
13	A knowledge based intelligent process planning method for controller of computer numerical control machine tools. Journal of Intelligent Manufacturing, 2020, 31, 1751-1767.	7.3	24
14	Posture optimization in robotic machining based on comprehensive deformation index considering spindle weight and cutting force. Robotics and Computer-Integrated Manufacturing, 2022, 74, 102290.	9.9	23
15	Design and application of a real-time industrial Ethernet protocol under Linux using RTAI. International Journal of Computer Integrated Manufacturing, 2013, 26, 429-439.	4.6	22
16	Implementation strategy of physical entity for manufacturing system digital twin. Robotics and Computer-Integrated Manufacturing, 2022, 73, 102259.	9.9	19
17	Finite-time tracking control for uncertain robotic manipulators using backstepping method and novel extended state observer. International Journal of Advanced Robotic Systems, 2019, 16, 172988141984465.	2.1	17
18	A STEP-based machining data model for autonomous process generation of intelligent CNC controller. International Journal of Advanced Manufacturing Technology, 2018, 96, 271-285.	3.0	15

#	ARTICLE	IF	CITATIONS
19	A hybrid approach to energy-efficient machining for milled components via STEP-NC. International Journal of Computer Integrated Manufacturing, 2018, 31, 442-456.	4.6	15
20	Trajectory planning method of robot sorting system based on S-shaped acceleration/deceleration algorithm. International Journal of Advanced Robotic Systems, 2018, 15, 172988141881380.	2.1	15
21	An optimized feedrate scheduling method for CNC machining with round-off error compensation. International Journal of Advanced Manufacturing Technology, 2018, 97, 2369-2381.	3.0	15
22	A dynamic parameter identification method of industrial robots considering joint elasticity. International Journal of Advanced Robotic Systems, 2019, 16, 172988141882521.	2.1	15
23	A knowledge generation mechanism of machining process planning using cloud technology. Journal of Ambient Intelligence and Humanized Computing, 2019, 10, 1081-1092.	4.9	15
24	An online visual measurement method for workpiece dimension based on deep learning. Measurement: Journal of the International Measurement Confederation, 2021, 185, 110032.	5.0	15
25	A NURBS curve interpolator with small feedrate fluctuation based on arc length prediction and correction. International Journal of Advanced Manufacturing Technology, 2020, 111, 2095-2104.	3.0	14
26	A novel time-rounding-up-based feedrate scheduling method based on S-shaped ACC/DEC algorithm. International Journal of Advanced Manufacturing Technology, 2019, 104, 2073-2088.	3.0	13
27	An intelligent CNC controller using cloud knowledge base. International Journal of Advanced Manufacturing Technology, 2019, 102, 213-223.	3.0	12
28	STEP-NC Compliant Intelligent Process Planning Module: Architecture and Knowledge Base. Procedia Engineering, 2011, 15, 834-839.	1.2	11
29	A Unified Communication Framework for Intelligent Integrated CNC on the Shop Floor. Procedia Engineering, 2011, 15, 840-847.	1.2	11
30	Model-assisted extended state observer-based computed torque control for trajectory tracking of uncertain robotic manipulator systems. International Journal of Advanced Robotic Systems, 2018, 15, 172988141880173.	2.1	9
31	A parametric interpolation method based on prediction and iterative compensation. International Journal of Advanced Robotic Systems, 2019, 16, 172988141982818.	2.1	9
32	Online chatter detection in robotic machining based on adaptive variational mode decomposition. International Journal of Advanced Manufacturing Technology, 2021, 117, 555-577.	3.0	9
33	Precision Assembly Simulation of Skin Model Shapes Accounting for Contact Deformation and Geometric Deviations for Statistical Tolerance Analysis Method. International Journal of Precision Engineering and Manufacturing, 2021, 22, 975-989.	2.2	8
34	A new real-time Ethernet for numeric control. , 2010, , .		7
35	A parametric hardware fine acceleration/deceleration algorithm and its implementation. International Journal of Advanced Manufacturing Technology, 2012, 63, 1109-1115.	3.0	7
36	Study on the construction theory of digital twin mechanism model for mechatronics equipment. International Journal of Advanced Manufacturing Technology, 0, , 1.	3.0	7

#	ARTICLE	IF	CITATIONS
37	A robotic grasp detection method based on auto-annotated dataset in disordered manufacturing scenarios. <i>Robotics and Computer-Integrated Manufacturing</i> , 2022, 76, 102329.	9.9	7
38	Design and Implementation of Engraving Machine Controller. , 2010, , .		6
39	Design and implementation of an open CNC core at the shop floor level. <i>International Journal of Advanced Manufacturing Technology</i> , 2009, 40, 541-552.	3.0	4
40	Research and development of industrial real-time Ethernet performance testing system used for CNC system. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 83, 1199-1207.	3.0	3
41	A Hardware Independent Real-time Ethernet for Motion Control Systems. <i>International Journal of Computers, Communications and Control</i> , 2015, 11, 39.	1.8	3
42	Engine Based Embedded Control System Design and Implementation. , 2008, , .		2
43	Simulation analysis of cutting coolant flow field in fixed and free abrasive combined wire sawing polysilicon. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 7711.	3.0	1
44	Digital twin based computerized numerical control machine tool virtual prototype design. , 2020, , 237-263.		0
45	Measurement of master node delay in networked control systems. <i>Measurement and Control</i> , 0, , 002029402210980.	1.8	0