

Stephen T Newman

List of Publications by Year in Descending Order

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

138
papers

8,264
citations

37
h-index

90
g-index

152
ext. papers

9,620
ext. citations

5.1
avg, IF

6.58
L-index

#	Paper	IF	Citations
138	ConvLSTM deep learning signal prediction for forecasting bending moment for tool condition monitoring. <i>Procedia CIRP</i> , 2022 , 107, 1071-1076	1.8	0
137	State-of-The-Art Cooling and Lubrication for Machining Inconel 718. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2021 , 143,	3.3	5
136	A review of multiple degrees of freedom for additive manufacturing machines. <i>International Journal of Computer Integrated Manufacturing</i> , 2021 , 34, 195-211	4.3	31
135	High-speed milling Inconel 718 using Electrostatic Minimum Quantity Lubrication (EMQL). <i>Procedia CIRP</i> , 2021 , 101, 354-357	1.8	1
134	Future research directions in the machining of Inconel 718. <i>Journal of Materials Processing Technology</i> , 2021 , 297, 117260	5.3	15
133	Initial investigation on Surface Integrity when Machining Inconel 718 with Conventional and Electrostatic Lubrication. <i>Procedia CIRP</i> , 2020 , 87, 65-70	1.8	3
132	. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2020 , 1-10	7.3	2
131	Assessment of interoperability in cloud manufacturing. <i>Robotics and Computer-Integrated Manufacturing</i> , 2020 , 61, 101832	9.2	22
130	Hybrid cryogenic MQL for improving tool life in machining of Ti-6Al-4V titanium alloy. <i>Journal of Manufacturing Processes</i> , 2019 , 43, 229-243	5	85
129	A New Cutting Tool Design for Cryogenic Machining of Ti-6Al-4V Titanium Alloy. <i>Materials</i> , 2019 , 12,	3.5	14
128	Next Generation Safety Footwear. <i>Procedia Manufacturing</i> , 2019 , 38, 1668-1677	1.5	3
127	Computational and experimental investigation of cutting tool geometry in machining titanium Ti-6Al-4V. <i>Procedia CIRP</i> , 2019 , 86, 139-144	1.8	1
126	On-machine error compensation for right first time manufacture. <i>Procedia Manufacturing</i> , 2019 , 38, 1362-1371	5	15
125	Application of multivariate statistical analysis for CNC milling of large Ti-6Al-4V components. <i>Procedia Manufacturing</i> , 2019 , 38, 800-807	1.5	2
124	Cryogenic drilling of carbon fibre reinforced plastic with tool consideration. <i>Procedia CIRP</i> , 2019 , 85, 55-60	1.8	9
123	A new methodology for identifying location errors in 5-axis machine tools using a single ballbar set-up. <i>International Journal of Advanced Manufacturing Technology</i> , 2018 , 99, 53-71	3.2	5
122	Energy conscious cryogenic machining of Ti-6Al-4V titanium alloy. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2018 , 232, 1690-1706	2.4	46

121	Realisation of a multi-sensor framework for process monitoring of the wire arc additive manufacturing in producing Ti-6Al-4V parts. <i>International Journal of Computer Integrated Manufacturing</i> , 2018 , 31, 785-798	4.3	30
120	A mechanistic model of energy consumption in milling. <i>International Journal of Production Research</i> , 2018 , 56, 642-659	7.8	18
119	Hybrid cooling and lubricating technology for CNC milling of Inconel 718 nickel alloy. <i>Procedia CIRP</i> , 2018 , 77, 215-218	1.8	8
118	Through Life Machine Tool Capability Modelling. <i>Procedia Manufacturing</i> , 2018 , 16, 171-178	1.5	3
117	Invited review article: Strategies and processes for high quality wire arc additive manufacturing. <i>Additive Manufacturing</i> , 2018 , 22, 672-686	6.1	220
116	A novel decision-making logic for hybrid manufacture of prismatic components based on existing parts. <i>Journal of Intelligent Manufacturing</i> , 2017 , 28, 131-148	6.7	24
115	Strategies to realize decentralized manufacture through hybrid manufacturing platforms. <i>Robotics and Computer-Integrated Manufacturing</i> , 2017 , 43, 68-78	9.2	15
114	Hybrid Cooling and Lubricating Technology for CNC Milling of Inconel 718 Nickel Alloy. <i>Procedia Manufacturing</i> , 2017 , 11, 625-632	1.5	31
113	Cost Modelling and Sensitivity Analysis of Wire and Arc Additive Manufacturing. <i>Procedia Manufacturing</i> , 2017 , 11, 650-657	1.5	54
112	Intelligent Manufacturing in the Context of Industry 4.0: A Review. <i>Engineering</i> , 2017 , 3, 616-630	9.7	1017
111	Investigation of part distortions as a result of hybrid manufacturing. <i>Robotics and Computer-Integrated Manufacturing</i> , 2016 , 37, 23-32	9.2	33
110	Cryogenic High Speed Machining of Cobalt Chromium Alloy. <i>Procedia CIRP</i> , 2016 , 46, 404-407	1.8	14
109	Big Data for supply chain management in the service and manufacturing sectors: Challenges, opportunities, and future perspectives. <i>Computers and Industrial Engineering</i> , 2016 , 101, 572-591	6.4	297
108	Comparative investigation on using cryogenic machining in CNC milling of Ti-6Al-4V titanium alloy. <i>Machining Science and Technology</i> , 2016 , 20, 475-494	2	39
107	Improving Error Models of Machine Tools with Metrology Data. <i>Procedia CIRP</i> , 2016 , 52, 204-209	1.8	1
106	Optimal cutting conditions towards sustainable machining when slot milling aluminium alloy. <i>Advances in Materials and Processing Technologies</i> , 2016 , 2, 480-489	0.8	2
105	A new algorithm for build time estimation for fused filament fabrication technologies. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2016 , 230, 2214-2228	2.4	14
104	Investigation of the effects of cryogenic machining on surface integrity in CNC end milling of Ti6Al4V titanium alloy. <i>Journal of Manufacturing Processes</i> , 2016 , 21, 172-179	5	172

103	Hybrid additive and subtractive machine tools [Research and industrial developments. <i>International Journal of Machine Tools and Manufacture</i> , 2016 , 101, 79-101	9.4	225
102	Modelling and Verification of Energy Consumption in CNC Milling. <i>Smart Innovation, Systems and Technologies</i> , 2016 , 123-133	0.5	3
101	Cryogenic manufacturing processes. <i>CIRP Annals - Manufacturing Technology</i> , 2016 , 65, 713-736	4.9	225
100	Optimal supplier selection and order allocation for multi-product manufacturing featuring customer flexibility. <i>International Journal of Computer Integrated Manufacturing</i> , 2015 , 28, 729-744	4.3	6
99	Process planning for additive and subtractive manufacturing technologies. <i>CIRP Annals - Manufacturing Technology</i> , 2015 , 64, 467-470	4.9	126
98	Influence of cutting environments on surface integrity and power consumption of austenitic stainless steel. <i>Robotics and Computer-Integrated Manufacturing</i> , 2015 , 36, 60-69	9.2	24
97	Machine tool capability profiles for representing machine tool health. <i>Robotics and Computer-Integrated Manufacturing</i> , 2015 , 34, 70-78	9.2	12
96	A meta-model of computer numerical controlled part programming languages. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2015 , 229, 1243-1257	2.4	6
95	Development of a data model and a prototype information sharing platform for DEMAT machine tools. <i>International Journal of Computer Integrated Manufacturing</i> , 2015 , 28, 364-378	4.3	4
94	Feature recognition from CNC part programs for milling operations. <i>International Journal of Advanced Manufacturing Technology</i> , 2014 , 70, 397-412	3.2	41
93	Application of a hybrid process for high precision manufacture of difficult to machine prismatic parts. <i>International Journal of Advanced Manufacturing Technology</i> , 2014 , 74, 1115-1132	3.2	41
92	Determination of Machinability Considering Degradation of Accuracy Over Machine Tool Life Cycle. <i>Procedia CIRP</i> , 2014 , 17, 760-765	1.8	3
91	A STEP-compliant Method for Manufacturing Knowledge Capture. <i>Procedia CIRP</i> , 2014 , 20, 103-108	1.8	3
90	A Novel Product Representation to Highlight Cross-assembly Dependencies and Product Robustness. <i>Procedia CIRP</i> , 2014 , 25, 46-52	1.8	1
89	Formal Modelling of Process Planning in Combined Additive and Subtractive Manufacturing 2014 , 171-176		2
88	A techno-health study of the use of cutting fluids and future alternatives 2014 ,		6
87	The development of a novel process planning algorithm for an unconstrained hybrid manufacturing process. <i>Journal of Manufacturing Processes</i> , 2013 , 15, 404-413	5	36
86	A review of hybrid manufacturing processes [State of the art and future perspectives. <i>International Journal of Computer Integrated Manufacturing</i> , 2013 , 26, 596-615	4.3	153

85	State-of-the-art cryogenic machining and processing. <i>International Journal of Computer Integrated Manufacturing</i> , 2013 , 26, 616-648	4.3	123
84	A novel methodology for cross-technology interoperability in CNC machining. <i>Robotics and Computer-Integrated Manufacturing</i> , 2013 , 29, 79-87	9.2	22
83	Process comprehension for shopfloor manufacturing knowledge reuse. <i>International Journal of Production Research</i> , 2013 , 51, 7405-7419	7.8	29
82	A Methodology for the Estimation of Build Time for Operation Sequencing in Process Planning for a Hybrid Process. <i>Lecture Notes in Mechanical Engineering</i> , 2013 , 159-171	0.4	3
81	A Surface Roughness and Power Consumption Analysis When Slot Milling Austenitic Stainless Steel in a Dry Cutting Environment. <i>Lecture Notes in Mechanical Engineering</i> , 2013 , 637-649	0.4	1
80	Energy efficient process planning for CNC machining. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2012 , 5, 127-136	3.4	193
79	Environmentally conscious machining of difficult-to-machine materials with regard to cutting fluids. <i>International Journal of Machine Tools and Manufacture</i> , 2012 , 57, 83-101	9.4	487
78	An Initial Study of the Effect of Using Liquid Nitrogen Coolant on the Surface Roughness of Inconel 718 Nickel-Based Alloy in CNC Milling. <i>Procedia CIRP</i> , 2012 , 3, 121-125	1.8	66
77	Modeling of machine tools using smart interlocking software blocks. <i>CIRP Annals - Manufacturing Technology</i> , 2012 , 61, 435-438	4.9	3
76	A novel process planning approach for hybrid manufacturing consisting of additive, subtractive and inspection processes 2012 ,		7
75	Computer-aided process planning – A critical review of recent developments and future trends. <i>International Journal of Computer Integrated Manufacturing</i> , 2011 , 24, 1-31	4.3	243
74	Coordinating pricing and inventory decisions in a multi-level supply chain: A game-theoretic approach. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2011 , 47, 115-129	9	52
73	A STEP-compliant process planning system for CNC turning operations. <i>Robotics and Computer-Integrated Manufacturing</i> , 2011 , 27, 349-356	9.2	25
72	A process control system for cryogenic CNC elastomer machining. <i>Robotics and Computer-Integrated Manufacturing</i> , 2011 , 27, 779-784	9.2	10
71	Adiabatic shear band formation as a result of cryogenic CNC machining of elastomers. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2011 , 225, 1482-1494	9.4	14
70	Unified representation of fixtures: clamping, locating and supporting elements in CNC manufacture. <i>International Journal of Production Research</i> , 2011 , 49, 5017-5032	7.8	7
69	A Statistic Review of Computer-Aided Process Planning Research 2010 ,		1
68	The Formation of Adiabatic Shear Bands as a result of Cryogenic CNC Machining of Elastomers 2010 , 235-238		

67	A methodology for the determination of foamed polymer contraction rates as a result of cryogenic CNC machining. <i>Robotics and Computer-Integrated Manufacturing</i> , 2010 , 26, 665-670	9.2	11
66	A STEP compliant knowledge based schema to support shop-floor adaptive automation in dynamic manufacturing environments. <i>CIRP Annals - Manufacturing Technology</i> , 2010 , 59, 441-444	4.9	20
65	SPECIES Co-evolution of products, processes and production systems. <i>CIRP Annals - Manufacturing Technology</i> , 2010 , 59, 672-693	4.9	185
64	A STEP Compliant Knowledge Based Schema for the Manufacture of Composites in the Aerospace Industry. <i>Advances in Intelligent and Soft Computing</i> , 2010 , 1509-1525		1
63	An Information Model for Process Control on Machine Tools. <i>Advances in Intelligent and Soft Computing</i> , 2010 , 1565-1582		6
62	Manufacturing process analysis with support of workflow modelling and simulation. <i>International Journal of Production Research</i> , 2009 , 47, 1773-1790	7.8	17
61	Wireless manufacturing: a literature review, recent developments, and case studies. <i>International Journal of Computer Integrated Manufacturing</i> , 2009 , 22, 579-594	4.3	77
60	Extending analytical target cascading for optimal supply chain network configuration of a product family. <i>International Journal of Computer Integrated Manufacturing</i> , 2009 , 22, 1012-1023	4.3	21
59	A unified manufacturing resource model for representation of computerized numerically controlled machine tools. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2009 , 223, 463-483	2.4	20
58	Standardised Process Control System for CNC Manufacturing. <i>Springer Series in Advanced Manufacturing</i> , 2009 , 233-259	0.9	
57	A Unified Manufacturing Resource Model for representing CNC machining systems. <i>Robotics and Computer-Integrated Manufacturing</i> , 2009 , 25, 999-1007	9.2	69
56	Manufacturing methodology for personalised symptom-specific sports insoles. <i>Robotics and Computer-Integrated Manufacturing</i> , 2009 , 25, 972-979	9.2	37
55	Machine tool capability profile for intelligent process planning. <i>CIRP Annals - Manufacturing Technology</i> , 2009 , 58, 421-424	4.9	36
54	A Novel Information Modelling Approach for Representing Parallel Kinematic Machine Tools. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 1796-1801		
53	Surface roughness prediction model for CNC machining of polypropylene. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2008 , 222, 137-157	2.4	33
52	Toward interoperable CNC manufacturing. <i>International Journal of Computer Integrated Manufacturing</i> , 2008 , 21, 222-230	4.3	26
51	An intelligent approach for the prediction of surface roughness in ball-end machining of polypropylene. <i>Robotics and Computer-Integrated Manufacturing</i> , 2008 , 24, 835-842	9.2	33
50	RFID-enabled real-time wireless manufacturing for adaptive assembly planning and control. <i>Journal of Intelligent Manufacturing</i> , 2008 , 19, 701-713	6.7	115

49	A cooperative coevolutionary algorithm for design of platform-based mass customized products. <i>Journal of Intelligent Manufacturing</i> , 2008 , 19, 507-519	6.7	10
48	Strategic advantages of interoperability for global manufacturing using CNC technology. <i>Robotics and Computer-Integrated Manufacturing</i> , 2008 , 24, 699-708	9.2	125
47	Systematic modeling and reusing of process knowledge for rapid process configuration. <i>Robotics and Computer-Integrated Manufacturing</i> , 2008 , 24, 763-772	9.2	32
46	Universal Manufacturing Platform for CNC Machining. <i>CIRP Annals - Manufacturing Technology</i> , 2007 , 56, 459-462	4.9	40
45	Interweaving genetic programming and genetic algorithm for structural and parametric optimization in adaptive platform product customization. <i>Robotics and Computer-Integrated Manufacturing</i> , 2007 , 23, 650-658	9.2	20
44	Development of design for remanufacturing guidelines to support sustainable manufacturing. <i>Robotics and Computer-Integrated Manufacturing</i> , 2007 , 23, 712-719	9.2	236
43	Deadlock-free scheduling of an automated manufacturing system using an enhanced colored time resource Petri-net model-based evolutionary endosymbiotic learning automata approach. <i>Flexible Services and Manufacturing Journal</i> , 2007 , 19, 486-515		15
42	Process control in CNC manufacturing for discrete components: A STEP-NC compliant framework. <i>Robotics and Computer-Integrated Manufacturing</i> , 2007 , 23, 667-676	9.2	39
41	A new software platform to support feature-based process planning for interoperable STEP-NC manufacture. <i>International Journal of Computer Integrated Manufacturing</i> , 2007 , 20, 669-683	4.3	33
40	Development of robust design-for-remanufacturing guidelines to further the aims of sustainable development. <i>International Journal of Production Research</i> , 2007 , 45, 4513-4536	7.8	146
39	The application of multi-agent systems for STEP-NC computer aided process planning of prismatic components. <i>International Journal of Machine Tools and Manufacture</i> , 2006 , 46, 559-574	9.4	61
38	Application of mobile agents in interoperable STEP-NC compliant manufacturing. <i>International Journal of Production Research</i> , 2006 , 44, 4159-4174	7.8	16
37	Integrating the CAx process chain for STEP-compliant NC manufacturing of asymmetric parts. <i>International Journal of Computer Integrated Manufacturing</i> , 2006 , 19, 533-545	4.3	18
36	A framework and data processing for interfacing CNC with AP238. <i>International Journal of Computer Integrated Manufacturing</i> , 2006 , 19, 516-522	4.3	11
35	FEATURE-BASED PROCESS PLANNING FOR INTEROPERABLE STEP-NC MANUFACTURE. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 825-830		2
34	A NEW SOFTWARE PLATFORM FOR STEP-NC MANUFACTURING APPLICATION DEVELOPMENT. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 831-836		1
33	Making CNC machine tools more open, interoperable and intelligent – a review of the technologies. <i>Computers in Industry</i> , 2006 , 57, 141-152	11.6	203
32	STEP-NC compliant process planning as an enabler for adaptive global manufacturing. <i>Robotics and Computer-Integrated Manufacturing</i> , 2006 , 22, 456-467	9.2	26

31	STEP-compliant NC research: the search for intelligent CAD/CAPP/CAM/CNC integration. <i>International Journal of Production Research</i> , 2005 , 43, 3703-3743	7.8	171
30	Design of experiments for the qualification of EVA expansion characteristics. <i>Robotics and Computer-Integrated Manufacturing</i> , 2005 , 21, 412-420	9.2	11
29	The application of STEP-NC using agent-based process planning. <i>International Journal of Production Research</i> , 2005 , 43, 655-670	7.8	39
28	Development of a STEP-compliant inspection framework for discrete components. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2005 , 219, 557-563	2.4	18
27	Bridging the gap between volume and variety oriented production systems for the automotive industry. <i>International Journal of Computer Integrated Manufacturing</i> , 2005 , 18, 408-417	4.3	2
26	STEP-NC compliant information modelling for wire electrical discharge machining component manufacture. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2005 , 219, 777-784	2.4	7
25	Distributed scheduling to support mass customization in the shoe industry. <i>International Journal of Computer Integrated Manufacturing</i> , 2004 , 17, 623-632	4.3	20
24	A web-based information system to support end-of-life product recovery. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2004 , 218, 1047-1057	2.4	12
23	The adoption of STEP-NC for the manufacture of asymmetric rotational components. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2004 , 218, 1639-1644	2.4	12
22	State of the art in wire electrical discharge machining (WEDM). <i>International Journal of Machine Tools and Manufacture</i> , 2004 , 44, 1247-1259	9.4	486
21	State of the art electrical discharge machining (EDM). <i>International Journal of Machine Tools and Manufacture</i> , 2003 , 43, 1287-1300	9.4	1019
20	CAD/CAM solutions for STEP-compliant CNC manufacture. <i>International Journal of Computer Integrated Manufacturing</i> , 2003 , 16, 590-597	4.3	74
19	Manufacturing data analysis of machine tool errors within a contemporary small manufacturing enterprise. <i>International Journal of Machine Tools and Manufacture</i> , 2002 , 42, 1065-1080	9.4	10
18	IT tools to improve the performance of metalworking SMEs. <i>International Journal of Production Research</i> , 2002 , 40, 3589-3604	7.8	4
17	The planning and control of manufacturing SMEs. <i>International Journal of Manufacturing Technology and Management</i> , 2001 , 3, 496	0.4	2
16	Structured approach to the design of a production data analysis facility. Part 1: Conceptual design and information requirements. <i>International Journal of Production Research</i> , 2001 , 39, 2121-2141	7.8	4
15	Structured approach to the design of a production data analysis facility Part 2: Implementation and evaluation. <i>International Journal of Production Research</i> , 2001 , 39, 2407-2429	7.8	2
14	Machine loading algorithms for the elimination of tardy jobs in flexible batch machining applications. <i>Journal of Materials Processing Technology</i> , 2000 , 107, 450-458	5.3	5

13	A reactive multi-flow approach to the planning and control of flexible machining facilities. <i>International Journal of Computer Integrated Manufacturing</i> , 2000 , 13, 311-323	4.3	6
12	A review of the modern approaches to multi-criteria cell design. <i>International Journal of Production Research</i> , 2000 , 38, 1201-1218	7.8	101
11	Distributed autonomous real-time planning and control of small to medium enterprises. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 1999 , 213, 475-489	2.4	5
10	Quality information feedback within a contemporary metalworking smaller manufacturing enterprise. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 1999 , 213, 533-538	2.4	
9	The application of information systems for the design and operation of flexible machining cells. <i>Journal of Intelligent Manufacturing</i> , 1999 , 10, 21-27	6.7	3
8	A multi-level modelling system for the design of flexible machining installations. <i>International Journal of Production Research</i> , 1998 , 36, 2355-2376	7.8	3
7	An information systems architecture for small metal-working companies. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 1998 , 212, 87-103	2.4	12
6	Simultaneous scheduling of workpieces, fixtures and cutting tools within flexible machining cells. <i>International Journal of Production Research</i> , 1997 , 35, 2379-2396	7.8	17
5	A methodology to develop EXPRESS data models. <i>International Journal of Computer Integrated Manufacturing</i> , 1996 , 9, 61-72	4.3	5
4	The future role of DNC in metalworking SMEs. <i>International Journal of Production Research</i> , 1996 , 34, 863-877	7.8	3
3	A Structured Approach to the Design of Shoe Lasts. <i>Journal of Engineering Design</i> , 1995 , 6, 149-166	1.8	14
2	Feature-based systems for the design and manufacture of sculptured products. <i>International Journal of Production Research</i> , 1993 , 31, 1441-1452	7.8	10
1	Design and Manufacture of Customised Orthotics for Sporting Applications (P62)309-317		1