Ning Fang

List of Publications by Year
in descending order

49 papers	1,213 citations	623574 14 h-index	414303 32 g-index
50 all docs	50 docs citations	50 times ranked	954 citing authors

#	Article	IF	Citations
1	Predicting student academic performance in an engineering dynamics course: A comparison of four types of predictive mathematical models. Computers and Education, 2013, 61, 133-145.	5.1	250
2	Slip-line modeling of machining with a rounded-edge toolâ€"Part I: new model and theory. Journal of the Mechanics and Physics of Solids, 2003, 51, 715-742.	2.3	164
3	A comparative study of the cutting forces in high speed machining of Tiâ€"6Alâ€"4V and Inconel 718 with a round cutting edge tool. Journal of Materials Processing Technology, 2009, 209, 4385-4389.	3.1	112
4	A universal slip-line model with non-unique solutions for machining with curled chip formation and a restricted contact tool. International Journal of Mechanical Sciences, 2001, 43, 557-580.	3.6	100
5	The effects of chamfered and honed tool edge geometry in machining of three aluminum alloys. International Journal of Machine Tools and Manufacture, 2005, 45, 1178-1187.	6.2	83
6	Effect of tool edge wear on the cutting forces and vibrations in high-speed finish machining of Inconel 718: an experimental study and wavelet transform analysis. International Journal of Advanced Manufacturing Technology, 2011, 52, 65-77.	1.5	58
7	Slip-line modeling of built-up edge formation in machining. International Journal of Mechanical Sciences, 2005, 47, 1079-1098.	3.6	55
8	A New Quantitative Sensitivity Analysis of the Flow Stress of 18 Engineering Materials in Machining. Journal of Engineering Materials and Technology, Transactions of the ASME, 2005, 127, 192-196.	0.8	55
9	The effect of built-up edge on the cutting vibrations in machining 2024-T351 aluminum alloy. International Journal of Advanced Manufacturing Technology, 2010, 49, 63-71.	1.5	33
10	Improvement of algorithm and prediction precision of an extended Oxleyâ€™s theoretical model. International Journal of Advanced Manufacturing Technology, 2015, 77, 1-13.	1.5	28
11	Analytical Prediction of the Chip Back-Flow Angle in Machining With Restricted Contact Grooved Tools. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2003, 125, 210-219.	1.3	21
12	Interactive computer simulation and animation for improving student learning of particle kinetics. Journal of Computer Assisted Learning, 2016, 32, 443-455.	3.3	19
13	Minimum-time swing-up of a rotary inverted pendulum by iterative impulsive control. , 2004, , .		17
14	Spatial Ability in Learning Engineering Mechanics: Critical Review. Journal of Professional Issues in Engineering Education and Practice, 2016, 142, .	0.9	17
15	An Improved Immune-Genetic Algorithm for the Traveling Salesman Problem. , 2007, , .		16
16	A comparative study of high-speed machining of Tiâ€"6Alâ€"4V and Inconel 718 - part I: effect of dynamic tool edge wear on cutting forces. International Journal of Advanced Manufacturing Technology, 2013, 68, 1839-1849.	1.5	15
17	A general boundary approach to the construction of Michell truss structures. Structural and Multidisciplinary Optimization, 2009, 39, 373-384.	1.7	13
18	Development of interactive 3D tangible models as teaching aids to improve students' spatial ability in STEM education. , 2013, , .		12

#	Article	IF	Citations
19	A comparative study of sharp and round-edge tools in machining with built-up edge formation: cutting forces, cutting vibrations, and neural network modeling. International Journal of Advanced Manufacturing Technology, 2011, 53, 899-910.	1.5	11
20	Kinematic Characterization of Chip Lateral-Curlâ€"The Third Pattern of Chip Curl in Machining. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 667-675.	1.3	10
21	Using Computer Simulation and Animation to Improve Student Learning of Engineering Dynamics. Procedia, Social and Behavioral Sciences, 2012, 56, 504-512.	0.5	10
22	A comparative study of high-speed machining of Ti-6Al-4V and Inconel 718â€"part II: Effect of dynamic tool edge wear on cutting vibrations. International Journal of Advanced Manufacturing Technology, 2013, 68, 1417-1428.	1.5	10
23	Prediction of built-up edge formation in machining with round edge and sharp tools using a neural network approach. International Journal of Computer Integrated Manufacturing, 2010, 23, 1002-1014.	2.9	9
24	Work in progress — Prediction of students' academic performance in an introductory engineering course. , 2011, , .		9
25	Work in progress: Early prediction of students' academic performance in an introductory engineering course through different mathematical modeling techniques. , 2012, , .		9
26	Work in progress - a decision tree approach to predicting student performance in a high-enrollment, high-impact, and core engineering course. , 2009, , .		8
27	A method of using Hoelder exponents to monitor tool-edge wear in high-speed finish machining. International Journal of Advanced Manufacturing Technology, 2014, 72, 1593-1601.	1.5	8
28	The effects of computer simulation and animation (CSA) on students' cognitive processes: A comparative case study in an undergraduate engineering course. Journal of Computer Assisted Learning, 2018, 34, 71-83.	3.3	8
29	Improving studentsâ€™ freehand sketching skills in mechanical engineering curriculum. International Journal of Mechanical Engineering Education, 2018, 46, 274-286.	0.6	8
30	A comparative study of learning style preferences between American and Chinese undergraduate engineering students. , 2013, , .		6
31	Work in Progress: An Innovative Interdisciplinary Lean Manufacturing Course. , 2006, , .		5
32	Work in progress - An innovative instructional model for improving manufacturing engineering education. Proceedings - Frontiers in Education Conference, FIE, 2007, , .	0.0	5
33	Studentsâ€™ Perceptions of Dynamics Concept Pairs and Correlation with Their Problem-Solving Performance. Journal of Science Education and Technology, 2012, 21, 571-580.	2.4	5
34	Student Misconceptions of General Plane Motion in Rigid-Body Kinematics. Journal of Professional Issues in Engineering Education and Practice, 2018, 144, 03118001.	0.9	4
35	Effects of interactive computer simulation and animation (CSA) on student learning: A case study involving energy, impulse, and momentum in rigidâ€body engineering dynamics. Computer Applications in Engineering Education, 2018, 26, 1804-1812.	2.2	4
36	The effects of enhanced hands-on experimentation on correcting student misconceptions about work and energy in engineering mechanics. Research in Science and Technological Education, 2023, 41, 462-481.	1.4	4

#	ARTICLE	IF	CITATIONS
37	Characteristic Variations of Chip Morphology and Cutting Forces in Face Milling with Flat-Faced and Grooved Tool Inserts. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2003, 46, 230-236.	0.4	2
38	A web-based interactive intelligent tutoring system for undergraduate engineering dynamics. , 2013, , .		2
39	Multidimensional signal processing and modeling with neural networks in metal machining: Cutting forces, vibrations, and surface roughness. , 2016, , .		2
40	Work in progress - An improved teaching strategy for lean manufacturing education. Proceedings - Frontiers in Education Conference, FIE, 2007, , .	0.0	1
41	Constructing the Model of Propylene Distillation Based on Neural Networks. , 2007, , .		1
42	Research Experiences for Undergraduates (REU) on self-regulated learning in engineering education. , 2016, , .		1
43	Student Experiences With Collaborative Problem-Based Learning (CPBL) in a Second-Year Undergraduate Engineering Course. , 2018, , .		1
44	A Quantitative Sensitivity Analysis of Cutting Performances in Orthogonal Machining with Restricted Contact and Flat-Faced Tools. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 408-411.	1.3	1
45	Evaluation and Modeling of the Effect of Tool Edge Radius on Machined Surface Roughness in Turning UNS A92024-T351 Aluminum Alloy. Journal of Testing and Evaluation, 2020, 48, 1108-1121.	0.4	1
46	IMPULSIVE CHIP BREAKING IN METAL MACHINING: A PROOF-OF-CONCEPT STUDY. Machining Science and Technology, 2006, 10, 251-262.	1.4	0
47	Work in progress — Integrating mathematical modeling with computer visualization to improve students' problem solving in an introductory engineering course. , 2011, , .		0
48	Work in progress: An Intelligent Tutoring System for improving student learning in a sophomore engineering dynamics course. , 2012, , .		0
49	Improving Student Learning of Impulse and Momentum in Particle Dynamics Through Computer Simulation and Animation. Journal of Educational Computing Research, 0, , 073563312210969.	3.6	0