

Ahmad Barari

List of Publications by Year in descending order

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106
papers

1,078
citations

331670

21
h-index

501196

28
g-index

106
all docs

106
docs citations

106
times ranked

566
citing authors

#	ARTICLE	IF	CITATIONS
1	Post processing for Fused Deposition Modeling Parts with Acetone Vapour Bath. IFAC-PapersOnLine, 2016, 49, 42-48.	0.9	53
2	Surface roughness of FDM parts after post-processing with acetone vapor bath smoothing process. International Journal of Advanced Manufacturing Technology, 2018, 95, 1505-1520.	3.0	53
3	Customization of Automotive Structural Components using Additive Manufacturing and Topology Optimization. IFAC-PapersOnLine, 2019, 52, 212-217.	0.9	50
4	Integrated Inspection and Machining for Maximum Conformance to Design Tolerances. CIRP Annals - Manufacturing Technology, 2004, 53, 411-416.	3.6	48
5	Evaluation of the Surface Roughness of Additive Manufacturing Parts Based on the Modelling of Cusp Geometry. IFAC-PapersOnLine, 2015, 48, 658-663.	0.9	46
6	NURBS representation of estimated surfaces resulting from machining errors. International Journal of Computer Integrated Manufacturing, 2009, 22, 395-410.	4.6	42
7	Editorial: intelligent manufacturing systems towards industry 4.0 era. Journal of Intelligent Manufacturing, 2021, 32, 1793-1796.	7.3	35
8	Surface Topography of Additive Manufacturing Parts Using a Finite Difference Approach. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	2.2	32
9	A more accurate analytical formulation of surface roughness in layer-based additive manufacturing to enhance the product's precision. International Journal of Advanced Manufacturing Technology, 2018, 96, 3793-3804.	3.0	32
10	A quick deviation zone fitting in coordinate metrology of NURBS surfaces using principle component analysis. Measurement: Journal of the International Measurement Confederation, 2016, 92, 352-364.	5.0	30
11	Adaptive data reduction with neighbourhood search approach in coordinate measurement of planar surfaces. Journal of Manufacturing Systems, 2017, 45, 28-47.	13.9	29
12	Developing Topology Optimization with Additive Manufacturing Constraints in ANSYS®. IFAC-PapersOnLine, 2018, 51, 1359-1364.	0.9	29
13	A Digital Twin for Integrated Inspection System in Digital Manufacturing. IFAC-PapersOnLine, 2019, 52, 182-187.	0.9	28
14	Handling and safety enhancement of race cars using active aerodynamic systems. Vehicle System Dynamics, 2014, 52, 1171-1190.	3.7	27
15	Inspection of the machined surfaces using manufacturing data. Journal of Manufacturing Systems, 2013, 32, 107-113.	13.9	26
16	An efficient methodology for slicing NURBS surfaces using multi-step methods. International Journal of Advanced Manufacturing Technology, 2018, 95, 3111-3125.	3.0	26
17	Reducing rigidity by implementing closed-loop engineering in adaptable design and manufacturing systems. Journal of Manufacturing Systems, 2009, 28, 47-54.	13.9	25
18	Developing skin model in coordinate metrology using a finite element method. Measurement: Journal of the International Measurement Confederation, 2017, 109, 149-159.	5.0	25

#	ARTICLE	IF	CITATIONS
19	Search-Guided Sampling to Reduce Uncertainty of Minimum Deviation Zone Estimation. Journal of Computing and Information Science in Engineering, 2007, 7, 360-371.	2.7	24
20	Topologically Optimized Diesel Engine Support Manufactured with Additive Manufacturing. IFAC-PapersOnLine, 2015, 48, 2333-2338.	0.9	24
21	A unified approach for nonlinear vibration analysis of curved structures using non-uniform rational B-spline representation. Journal of Sound and Vibration, 2015, 353, 292-307.	3.9	24
22	Effect of Adaptive Slicing on Surface Integrity in Additive Manufacturing. , 2014, , .		17
23	Methods to Determine Torsion Stiffness in an Automotive Chassis. Computer-Aided Design and Applications, 2011, 8, 67-75.	0.6	17
24	Cyber-Physical System Utilizing Work-Piece Memory in Digital Manufacturing. IFAC-PapersOnLine, 2019, 52, 201-206.	0.9	16
25	Adaptive variable layer thickness and perimetral offset planning for layer-based additive manufacturing processes. International Journal of Computer Integrated Manufacturing, 2021, 34, 964-974.	4.6	16
26	Design and development of a novel 4-DOF parallel kinematic coordinate measuring machine (CMM). International Journal of Computer Integrated Manufacturing, 2019, 32, 750-760.	4.6	15
27	Smart Topology Optimization Using Adaptive Neighborhood Simulated Annealing. Applied Sciences (Switzerland), 2021, 11, 5257.	2.5	15
28	Study of detailed deviation zone considering coordinate metrology uncertainty. Measurement: Journal of the International Measurement Confederation, 2018, 126, 433-457.	5.0	14
29	The Importance of Personal Protective Equipment Design and Donning and Doffing Technique in Mitigating Infectious Disease Spread: A Technical Report. Cureus, 2020, 12, e12084.	0.5	13
30	Automotive body inspection uncertainty associated with computational processes. International Journal of Vehicle Design, 2011, 57, 230.	0.3	12
31	LIVE Digital Twin for Smart Maintenance in Structural Systems. IFAC-PapersOnLine, 2021, 54, 1047-1052.	0.9	12
32	Design for Manufacturing of Sculptured Surfaces: A Computational Platform. Journal of Computing and Information Science in Engineering, 2009, 9, .	2.7	11
33	Intelligent Process Planning for Additive Manufacturing. IFAC-PapersOnLine, 2019, 52, 218-223.	0.9	11
34	Development of a DSM-Based Methodology in an Academic Setting. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	2.9	9
35	Algorithmic iterative sampling in coordinate metrology plan for coordinate metrology using dynamic uncertainty analysis. , 2014, , .		8
36	Convergence of a finite difference approach for detailed deviation zone estimation in coordinate metrology. Acta IMEKO (2012), 2015, 4, 20.	0.7	8

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37	Employing LIVE Digital Twin in Prognostic and Health Management: Identifying Location of the Sensors. IFAC-PapersOnLine, 2022, 55, 138-143.	0.9	8
38	Computer integrated work-space quality improvement of the C4 parallel robot CMM based on kinematic error model for using in intelligent measuring. International Journal of Computer Integrated Manufacturing, 2022, 35, 444-461.	4.6	7
39	Transition towards Smart Factories. International Journal of Computer Integrated Manufacturing, 2022, 35, 341-344.	4.6	7
40	Profile Tolerance Allocation for Rapid Prototyping of Sculptured Surfaces in a Direct Slicing Process. , 2012, , .		6
41	Optimization of Vehicle Structure Considering Torsion Stiffness Using Simple Structural Beam Frame-Approach. Computer-Aided Design and Applications, 2013, 10, 413-426.	0.6	6
42	Study of the Effect of Coating Parameters and Substrates on 3D Surface Roughness in Diamond-Like-Carbon Coating Process. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 1861-1866.	0.4	6
43	Closed-Loop Coordinate Metrology for Hybrid Manufacturing System. IFAC-PapersOnLine, 2018, 51, 752-757.	0.9	6
44	Intelligent Design Tolerance Allocation for Optimum Adaptability to Manufacturing Using a Monte Carlo Approach. IFAC-PapersOnLine, 2019, 52, 165-170.	0.9	6
45	Fighting COVID: An Autonomous Indoor Cleaning Robot (AICR) Supported by Artificial Intelligence and Vision for Dynamic Air Disinfection. , 2021, , .		6
46	Multi-objective Topology Optimization Using Simulated Annealing Method. Advances in Intelligent Systems and Computing, 2021, , 343-353.	0.6	6
47	Post-Processing of non gradient-based Topology Optimization with Simulated Annealing. IFAC-PapersOnLine, 2021, 54, 755-760.	0.9	6
48	Cross-sensitivity control in a novel four-component milling dynamometer for simultaneous measurement of tri-axial forces and torque. Measurement: Journal of the International Measurement Confederation, 2022, 191, 110788.	5.0	6
49	An Intelligent Self-Calibrating 4-DOF Parallel Robot for Precise Geometric Data Collection in Digital Manufacturing. IFAC-PapersOnLine, 2019, 52, 323-327.	0.9	5
50	Introducing Design Rigidity to Model Unexpected Disturbances in a DSM-Based Design Process. , 2010, , .		4
51	Integrated Digital Design and Manufacturing for 3D Printing Technologies. IFAC-PapersOnLine, 2019, 52, 248-253.	0.9	4
52	Tolerance analysis based on Monte Carlo simulation: a case of an automotive water pump design optimization. Journal of Intelligent Manufacturing, 2021, 32, 1883-1897.	7.3	4
53	Heavy Vehicles Brake Drums " An Accurate Evaluation on Thermal Loads in Severe Service Conditions. International Journal of Automotive Technology, 2021, 22, 371-382.	1.4	4
54	Improving 3D Printing Geometric Accuracy Using Design of Experiments on Process Parameters in Fused Filament Fabrication (FFF). , 2021, , .		4

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55	Producing High Precision Additive Manufacturing Parts by Direct Printing of NURBS Surfaces. , 2020, , .		4
56	Constrained Topology Optimization For Additive Manufacturing Of Structural Components In Ansys®. , 2018, , .		4
57	Numerical Versus Analytical Direct Kinematics in a Novel 4-DOF Parallel Robot Designed for Digital Metrology. IFAC-PapersOnLine, 2021, 54, 181-186.	0.9	4
58	Data Analytics for Noise Reduction in Optical Metrology of Reflective Planar Surfaces. Machines, 2022, 10, 25.	2.2	4
59	Tolerance allocation Based on the Minimum Deformation Zone of Finite Element Structural Frame Analysis. Computer-Aided Design and Applications, 2013, 10, 629-641.	0.6	3
60	Versatility of Simulated Annealing with Crystallization Heuristic: Its Application to a Great Assortment of Problems. , 0, , .		3
61	Topology Optimization and Microfabrication Constraints. , 2021, , .		3
62	Detection of Defected Zone Using 3D Scanning Data to Repair Worn Turbine Blades. IFAC-PapersOnLine, 2020, 53, 10531-10535.	0.9	3
63	ESTIMATION OF DETAILED DEVIATION ZONE OF INSPECTED SURFACES. Series on Advances in Mathematics for Applied Sciences, 2012, , 18-26.	0.1	3
64	Topological Optimization and Simulated Annealing. IFAC-PapersOnLine, 2021, 54, 205-210.	0.9	3
65	3D Printable Pneumatic Valves for Rapidly Manufacturable Mechanical Ventilator Amid Covid-19 Outbreak. , 2020, , .		3
66	Learning phase in a LIVE Digital Twin for predictive maintenance. Autonomous Intelligent Systems, 2022, 2, .	3.1	3
67	Down Force Control of the Low Velocity Racing Car Using Active Aerodynamic Inverse Wings. , 2011, , .		2
68	Analysis and Optimization of Automotive Structure's Bending Stiffness Using Beam Elements. , 2012, , .		2
69	Analysis of nonlinear oscillation of circular curved carbon nanotube. , 2013, , .		2
70	Experimental and analytical evaluation of tool path error using computer integrated nonlinear kinematical modeling for a 4DOF parallel milling machine. International Journal of Computer Integrated Manufacturing, 2022, 35, 527-555.	4.6	2
71	Finding optimal correspondence sets for large digital metrology point clouds using anisotropic diffusion analogy. International Journal of Computer Integrated Manufacturing, 0, , 1-21.	4.6	2
72	Autonomous Snowblower Utilizing Internet of Things for Minimal Power Consumption. , 2021, , .		2

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73	Geometric Complexity Estimation of Continuous Surfaces for Fitting Processes. , 2019, , .		2
74	Effect of Direct Slicing on Precision Additive Manufacturing. IFAC-PapersOnLine, 2020, 53, 11982-11987.	0.9	2
75	Properties of Metal Extrusion Additive Manufacturing and Its Application in Digital Supply Chain Management. IFAC-PapersOnLine, 2021, 54, 199-204.	0.9	2
76	Reducing Noises in Digital Surface Inspection Using a Data Clustering Approach. IFAC-PapersOnLine, 2021, 54, 193-198.	0.9	2
77	Preliminary Design and Development of a Mechanical Ventilator Using Industrial Automation Components for Rapid Deployment During the COVID-19 Pandemic. Cureus, 2021, 13, e20386.	0.5	2
78	Using Feedback Strategies in Simulated Annealing with Crystallization Heuristic and Applications. Applied Sciences (Switzerland), 2021, 11, 11814.	2.5	2
79	Manufacturing-driven Design of Sculptured Surfaces. , 2006, , 523-534.		1
80	Nonlinear Vibration Analysis of a Micro Beam Exposed to an External Flow. , 2011, , .		1
81	Active Aerodynamic System to Improve the Safety and Handling of Race Cars in Lane Change and Wet Road Maneuvers. , 2012, , .		1
82	Modelling and Analysis of the Effect of Angular Velocity and Acceleration on Brain Strain Field in Traumatic Brain Injury. , 2013, , .		1
83	Using the Simple Structural Beam (SSB) Model to Optimize and Analyze Automotive Structures for Bending Stiffness and Natural Frequency. , 2014, , .		1
84	Development of Optimized Preliminary Vehicle Structural Model Using Simple Structural Beams-Frames (SSB) and Sub-Structural Analysis. Computer-Aided Design and Applications, 2014, 11, 544-551.	0.6	1
85	A Genetic Programming Approach to Model Detailed Surface Integrity of Additive Manufacturing Parts. IFAC-PapersOnLine, 2015, 48, 2339-2344.	0.9	1
86	Overhanging Feature Analysis for the Additive Manufacturing of Topology Optimized Structures. , 2018, , .		1
87	Neural Network Signal Processing in Spark Assisted Chemical Engraving (SACE) Micromachining. , 2021, , .		1
88	Tolerance Allocation for Structures Subject to Various Loading Events. , 2012, , .		1
89	Improving Geometric Tolerances in 3D Printable Pneumatic Valves Designed for Respiratory Mechanical Ventilators Amid Covid-19 Pandemic. IFAC-PapersOnLine, 2021, 54, 1053-1058.	0.9	1
90	Evaluation of Deviation Zone Based on Maximum Conformance to Tolerances. , 2011, , .		0

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91	Comparison of Numerical Methods for Determining Torsion Stiffness of Automotive Chassis. , 2011, , .		0
92	Analytical Approach to Vibration Analysis of a Pendulum Wrapping on a Cylinder. , 2011, , .		0
93	Deformation and Stress Analysis of the Fullerene by Super Element. , 2011, , .		0
94	System and Method for Analysis of Involving Factors in the Demisting Cyclone Efficiency. , 2013, , .		0
95	Characterization of Static Behavior of a Nonlinear Doubly Clamped Microbeam Under Electrostatic Actuation and Detection. , 2013, , .		0
96	Oscillatory Behavior of the Nonlinear Clamped-Free Beam Microgyroscopes Under Electrostatic Actuation and Detection. , 2013, , .		0
97	Static and Dynamic Analysis of a Clamp-Clamp Nano-Beam Under Electrostatic Actuation and Detection Considering Intermolecular Forces. , 2013, , .		0
98	An Approach to Estimate the Detailed Deviation Zone in Coordinate Metrology Using Harmonic Function Properties. , 2014, , .		0
99	Using Simple Structural Beam Model to Optimize for Bending Stiffness and Vibration in Automotive Structures. , 2014, , .		0
100	Nonlinear forced vibration analysis of free-form nanotube conveying fluid. , 2014, , .		0
101	Surface Tribology Study Resulting by Diamond-Like Carbon Coating. , 2014, , .		0
102	Effect of Diamond-Like-Carbon Coating on 3D Surface Roughness. , 2014, , .		0
103	Convergence Study of Genetic Programming Approach to Estimate Surface Integrity on Additive Manufacturing Parts. , 2015, , .		0
104	Modelling of Cusp Geometry in Additive Manufacturing Parts Using a Piece-Wise Polynomial. , 2015, , .		0
105	Nonlinear Free Vibration of Piezoelectric Functionally Graded Beams in Thermal Environment. , 2015, , .		0
106	A Finite Element Approach to Estimate the Detailed Deviation Zone in Coordinate Metrology. , 2015, , .		0