

Weidong Zhu

List of Publications by Year in descending order

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44
papers

628
citations

687363

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44
all docs

44
docs citations

44
times ranked

442
citing authors

#	ARTICLE	IF	CITATIONS
1	An off-line programming system for robotic drilling in aerospace manufacturing. International Journal of Advanced Manufacturing Technology, 2013, 68, 2535-2545.	3.0	93
2	Theoretical and experimental investigation on the influences of misalignment on the lubrication performances and lubrication regimes transition of water lubricated bearing. Mechanical Systems and Signal Processing, 2021, 149, 107211.	8.0	76
3	Enhancing wind energy harvesting performance of vertical axis wind turbines with a new hybrid design: A fluid-structure interaction study. Renewable Energy, 2019, 140, 912-927.	8.9	60
4	Vibration analysis of a fluid-conveying curved pipe with an arbitrary undeformed configuration. Applied Mathematical Modelling, 2018, 64, 624-642.	4.2	46
5	Kinematic modeling and parameter identification of a new circumferential drilling machine for aircraft assembly. International Journal of Advanced Manufacturing Technology, 2014, 72, 1143-1158.	3.0	35
6	Design optimization of molds for autoclave process of composite manufacturing. Journal of Reinforced Plastics and Composites, 2017, 36, 1564-1576.	3.1	34
7	Robot base frame calibration with a 2D vision system for mobile robotic drilling. International Journal of Advanced Manufacturing Technology, 2015, 80, 1903-1917.	3.0	28
8	Optimization of cure profile for thick composite parts based on finite element analysis and genetic algorithm. Journal of Composite Materials, 2018, 52, 3885-3894.	2.4	25
9	Variation modeling and analysis with interval approach for the assembly of compliant aeronautical structures. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2019, 233, 948-959.	2.4	20
10	An Elastic Transmission Error Compensation Method for Rotary Vector Speed Reducers Based on Error Sensitivity Analysis. Applied Sciences (Switzerland), 2020, 10, 481.	2.5	19
11	A new elliptic contour extraction method for reference hole detection in robotic drilling. Pattern Analysis and Applications, 2015, 18, 695-712.	4.6	15
12	A heat-balance method for autoclave process of composite manufacturing. Journal of Composite Materials, 2019, 53, 641-652.	2.4	14
13	Sensor-Based Control Using an Image Point and Distance Features for Rivet-in-Hole Insertion. IEEE Transactions on Industrial Electronics, 2020, 67, 4692-4699.	7.9	14
14	Surface interactions between two of the main periodontal pathogens: <i>Porphyromonas gingivalis</i> and <i>Tannerella forsythia</i> . Journal of Periodontal and Implant Science, 2016, 46, 2.	2.0	12
15	A dynamic adaptive particle swarm optimization and genetic algorithm for different constrained engineering design optimization problems. Advances in Mechanical Engineering, 2019, 11, 168781401882493.	1.6	12
16	A semi-supervised deep learning approach for circular hole detection on composite parts. Visual Computer, 2021, 37, 433-445.	3.5	11
17	Structural topology optimization using a level set method with finite difference updating scheme. Structural and Multidisciplinary Optimization, 2021, 63, 1839-1852.	3.5	10
18	Performance Analysis and Optimization of a Vertical-Axis Wind Turbine with a High Tip-Speed Ratio. Energies, 2021, 14, 996.	3.1	10

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19	Modeling and validation of dynamic performances of timing belt driving systems. <i>Mechanical Systems and Signal Processing</i> , 2020, 144, 106910.	8.0	9
20	An accurate thermoelastic model and thermal output error analysis of a hemispherical resonator gyroscope under varying temperatures. <i>Mechanical Systems and Signal Processing</i> , 2022, 170, 108760.	8.0	9
21	Application of scaled boundary finite element method for vibration-based structural health monitoring of breathing cracks. <i>JVC/Journal of Vibration and Control</i> , 2021, 27, 2870-2886.	2.6	8
22	Inverse kinematics solution of a new circumferential drilling machine for aircraft assembly. <i>Robotica</i> , 2016, 34, 98-117.	1.9	7
23	Experimental Investigation on Control of an Infinitely Variable Transmission System for Tidal Current Energy Converters. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021, 26, 1960-1967.	5.8	7
24	Numerical investigation of the effect of thermal gradients on curing performance of autoclaved laminates. <i>Journal of Composite Materials</i> , 2020, 54, 127-138.	2.4	6
25	Study on the influence of lateral and local rail deformation on the train-track interaction dynamics. <i>Vehicle System Dynamics</i> , 2022, 60, 670-698.	3.7	5
26	Wind Resource Assessment and Economic Viability of Conventional and Unconventional Small Wind Turbines: A Case Study of Maryland. <i>Energies</i> , 2020, 13, 5874.	3.1	5
27	Steady-state periodic solutions of the nonlinear wave propagation problem of a one-dimensional lattice using a new methodology with an incremental harmonic balance method that handles time delays. <i>Nonlinear Dynamics</i> , 2020, 100, 1457-1467.	5.2	5
28	A Computer Vision-Based Navigation and Localization Method for Station-Moving Aircraft Transport Platform with Dual Cameras. <i>Sensors</i> , 2020, 20, 279.	3.8	5
29	A stabilized parametric level-set XFEM topology optimization method for thermal-fluid problem. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 924-952.	2.8	5
30	A Deep Learning Based Dislocation Detection Method for Cylindrical Crystal Growth Process. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7799.	2.5	4
31	A Comparative Study on Structural Damage Detection Using Derivatives of Laser-Measured Flexural and Longitudinal Vibration Shapes. <i>Journal of Nondestructive Evaluation</i> , 2020, 39, 1.	2.4	4
32	Enhanced Pose Adjustment System for Wing-Box Assembly in Large Aircraft Manufacturing. <i>Journal of Computing and Information Science in Engineering</i> , 2022, 22, .	2.7	3
33	Laser-based Thickness Control in a Double-Side Polishing System for Silicon Wafers. <i>Sensors</i> , 2020, 20, 1603.	3.8	2
34	Temperature Field in Bone During Robotic Dental Implant Drilling: Theoretical Models and In Vitro Experiments. <i>Journal of Medical and Biological Engineering</i> , 0, , 1.	1.8	2
35	A Novel Approach to Perform the Identification of Cross-Section Deformation Modes for Thin-Walled Structures in the Framework of a Higher Order Beam Theory. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 5186.	2.5	1
36	Application of Pattern Recognition to the Identification of Cross-Section Deformation Modes of Thin-Walled Structures. <i>IEEE Access</i> , 2019, 7, 169586-169598.	4.2	1

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37	Vibration and the cancellation phenomenon of a nanobeam under a moving load via the strain gradient theory. <i>Mathematical Methods in the Applied Sciences</i> , 2020, , .	2.3	1
38	Experimental Study of the Performance of a Novel Vertical-Axis Wind Turbine. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2902.	2.5	1
39	Steady-state and start-up transient responses of a belt-driven starter generator system for micro-hybrid electric vehicles. <i>JVC/Journal of Vibration and Control</i> , 2022, 28, 2844-2860.	2.6	1
40	A distance regularization scheme for topology optimization with parametric level sets using cut elements. <i>Structural and Multidisciplinary Optimization</i> , 2022, 65, 1.	3.5	1
41	HD Camera-Equipped UAV Trajectory Planning for Gantry Crane Inspection. <i>Remote Sensing</i> , 2022, 14, 1658.	4.0	1
42	A Non-Destructive Health Evaluation Method for Wooden Utility Poles with Frequency-Modulated Empirical Mode Decomposition and Laplace Wavelet Correlation Filtering. <i>Sensors</i> , 2022, 22, 4007.	3.8	1
43	Vortex Ring Theory—An Alternative to the Existing Actuator Disk and Rotating Annular Stream Tube Theories. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6576.	2.5	0
44	Free and Forced Vibration Analysis of H-type and Hybrid Vertical-Axis Wind Turbines. <i>Energies</i> , 2020, 13, 6747.	3.1	0