

John D Kechagias

List of Publications by Year in descending order

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73
papers

1,738
citations

201674

27
h-index

315739

38
g-index

76
all docs

76
docs citations

76
times ranked

858
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of Taguchi design for quality characterization of abrasive water jet machining of TRIP sheet steels. <i>International Journal of Advanced Manufacturing Technology</i> , 2012, 62, 635-643.	3.0	120
2	Key parameters controlling surface quality and dimensional accuracy: a critical review of FFF process. <i>Materials and Manufacturing Processes</i> , 2022, 37, 963-984.	4.7	83
3	A comparative investigation of Taguchi and full factorial design for machinability prediction in turning of a titanium alloy. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 151, 107213.	5.0	82
4	Sustainable Additive Manufacturing: Mechanical Response of Acrylonitrile-Butadiene-Styrene over Multiple Recycling Processes. <i>Sustainability</i> , 2020, 12, 3568.	3.2	74
5	Sustainability Assessment for Manufacturing Operations. <i>Energies</i> , 2020, 13, 2730.	3.1	64
6	Sustainable Additive Manufacturing: Mechanical Response of Polyamide 12 over Multiple Recycling Processes. <i>Materials</i> , 2021, 14, 466.	2.9	64
7	A multi-parametric process evaluation of the mechanical response of PLA in FFF 3D printing. <i>Materials and Manufacturing Processes</i> , 2023, 38, 941-953.	4.7	55
8	An investigation of PLA/W parts quality fabricated by FFF. <i>Materials and Manufacturing Processes</i> , 2022, 37, 582-590.	4.7	52
9	The Mechanical and Physical Properties of 3D-Printed Materials Composed of ABS-ZnO Nanocomposites and ABS-ZnO Microcomposites. <i>Micromachines</i> , 2020, 11, 615.	2.9	46
10	An investigation of surface quality characteristics of 3D printed PLA plates cut by CO2 laser using experimental design. <i>Materials and Manufacturing Processes</i> , 2021, 36, 1544-1553.	4.7	45
11	Quality Performance Evaluation of Thin Walled PLA 3D Printed Parts Using the Taguchi Method and Grey Relational Analysis. <i>Journal of Manufacturing and Materials Processing</i> , 2020, 4, 47.	2.2	44
12	On the application of grey Taguchi method for benchmarking the dimensional accuracy of the PLA fused filament fabrication process. <i>SN Applied Sciences</i> , 2020, 2, 1.	2.9	44
13	Parameter effects and process modelling of Polyamide 12 3D-printed parts strength and toughness. <i>Materials and Manufacturing Processes</i> , 2022, 37, 1358-1369.	4.7	41
14	An experimental investigation of the surface roughness of parts produced by LOM process. <i>Rapid Prototyping Journal</i> , 2007, 13, 17-22.	3.2	40
15	Prediction of surface roughness magnitude in computer numerical controlled end milling processes using neural networks, by considering a set of influence parameters: An aluminium alloy 5083 case study. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2014, 228, 233-244.	2.4	39
16	Parameter effects and process modeling of FFF-TPU mechanical response. <i>Materials and Manufacturing Processes</i> , 2023, 38, 341-351.	4.7	39
17	EDM electrode manufacture using rapid tooling: a review. <i>Journal of Materials Science</i> , 2008, 43, 2522-2535.	3.7	38
18	The impact of temperature changing on surface roughness of FFF process. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 161, 012033.	0.6	38

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19	Optimization of the Filler Concentration on Fused Filament Fabrication 3D Printed Polypropylene with Titanium Dioxide Nanocomposites. <i>Materials</i> , 2021, 14, 3076.	2.9	37
20	Investigation of LOM process quality using design of experiments approach. <i>Rapid Prototyping Journal</i> , 2007, 13, 316-323.	3.2	35
21	Process build-time estimator algorithm for laminated object manufacturing. <i>Rapid Prototyping Journal</i> , 2004, 10, 297-304.	3.2	33
22	Surface Roughness Investigation of Poly-Jet 3D Printing. <i>Mathematics</i> , 2020, 8, 1758.	2.2	33
23	Mechanical Performance of Fused Filament Fabricated and 3D-Printed Polycarbonate Polymer and Polycarbonate/Cellulose Nanofiber Nanocomposites. <i>Fibers</i> , 2021, 9, 74.	4.0	32
24	Multi-parameter optimization of PLA/Coconut wood compound for Fused Filament Fabrication using Robust Design. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 4317-4328.	3.0	32
25	A robust methodology for optimizing the topology and the learning parameters of an ANN for accurate predictions of laser-cut edges surface roughness. <i>Simulation Modelling Practice and Theory</i> , 2022, 114, 102414.	3.8	31
26	Multifunctional Material Extrusion 3D-Printed Antibacterial Polylactic Acid (PLA) with Binary Inclusions: The Effect of Cuprous Oxide and Cellulose Nanofibers. <i>Fibers</i> , 2022, 10, 52.	4.0	31
27	Surface characteristics investigation of 3D-printed PET-G plates during CO2 laser cutting. <i>Materials and Manufacturing Processes</i> , 2022, 37, 1347-1357.	4.7	30
28	Fracture toughness evaluation of a H.S.L.A. steel. <i>Engineering Fracture Mechanics</i> , 2004, 71, 1695-1704.	4.3	29
29	Laser cutting of 3D printed acrylonitrile butadiene styrene plates for dimensional and surface roughness optimization. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 2301-2315.	3.0	29
30	A comprehensive investigation of the 3D printing parameters' effects on the mechanical response of polycarbonate in fused filament fabrication. <i>Progress in Additive Manufacturing</i> , 2022, 7, 713-722.	4.8	27
31	Material extrusion 3D printing and friction stir welding: an insight into the weldability of polylactic acid plates based on a full factorial design. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 121, 3817-3839.	3.0	20
32	An investigation of surface texture parameters during turning of a reinforced polymer composite using design of experiments and analysis. <i>International Journal of Experimental Design and Process Optimisation</i> , 2009, 1, 164.	0.2	18
33	A Generalised Approach on Kerf Geometry Prediction during CO2 Laser cut of PMMA Thin Plates using Neural Networks. <i>Lasers in Manufacturing and Materials Processing</i> , 2021, 8, 372-393.	2.2	18
34	Parametric optimization of material extrusion 3D printing process: an assessment of Box-Behnken vs. full-factorial experimental approach. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 121, 3163-3172.	3.0	18
35	Friction Stir Welding Optimization of 3D-Printed Acrylonitrile Butadiene Styrene in Hybrid Additive Manufacturing. <i>Polymers</i> , 2022, 14, 2474.	4.5	18
36	Medical-Grade Polyamide 12 Nanocomposite Materials for Enhanced Mechanical and Antibacterial Performance in 3D Printing Applications. <i>Polymers</i> , 2022, 14, 440.	4.5	17

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37	Evaluation of Machinability in Turning of Engineering Alloys by Applying Artificial Neural Networks. Open Construction and Building Technology Journal, 2014, 8, 389-399.	0.7	16
38	Mechanical response assessment of antibacterial PA12/TiO2 3D printed parts: parameters optimization through artificial neural networks modeling. International Journal of Advanced Manufacturing Technology, 2022, 121, 785-803.	3.0	16
39	A neural network solution for LOM process performance. International Journal of Advanced Manufacturing Technology, 2009, 43, 1214-1222.	3.0	13
40	Prediction of Cutting Forces during Turning PA66 GF-30 Glass Fiber Reinforced Polyamide by Soft Computing Techniques. Materials Science Forum, 0, 766, 37-58.	0.3	13
41	Affordable Biocidal Ultraviolet Cured Cuprous Oxide Filled Vat Photopolymerization Resin Nanocomposites with Enhanced Mechanical Properties. Biomimetics, 2022, 7, 12.	3.3	12
42	Robust design application for optimizing ABS fused filament fabrication process: A case study. IOP Conference Series: Materials Science and Engineering, 2019, 564, 012021.	0.6	11
43	Surface Roughness Optimization of Poly-Jet 3D Printing Using Grey Taguchi Method. , 2019, , .		11
44	The Impact of Process Parameters on Surface Roughness and Dimensional Accuracy during CO2 Laser Cutting of PMMA Thin Sheets. Journal of Manufacturing and Materials Processing, 2021, 5, 74.	2.2	11
45	Tolerance Analysis of 3d-MJM parts according to IT grade. IOP Conference Series: Materials Science and Engineering, 2016, 161, 012024.	0.6	10
46	A Study of the dimensional accuracy obtained by low cost 3D printing for possible application in medicine. IOP Conference Series: Materials Science and Engineering, 2016, 161, 012025.	0.6	10
47	Single and multi-objective optimization of FDM-based additive manufacturing using metaheuristic algorithms. Procedia Manufacturing, 2020, 51, 740-747.	1.9	10
48	On the thermal and mechanical performance of Polycarbonate / Titanium Nitride nanocomposites in material extrusion additive manufacturing. Composites Part C: Open Access, 2022, 8, 100291.	3.2	10
49	Multi-response optimization of CuZn39Pb3 brass alloy turning by implementing Grey Wolf algorithm. Frattura Ed Integrita Strutturale, 2019, 13, 584-594.	0.9	9
50	Experimental investigation of machinability parameters in turning of CuZn39Pb3 brass alloy. Procedia Structural Integrity, 2018, 10, 333-341.	0.8	8
51	Optimizing ANN performance using DOE: application on turning of a titanium alloy. MATEC Web of Conferences, 2018, 178, 01017.	0.2	8
52	An experimental investigation of surface roughness in 3D-printed PLA items using design of experiments. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2022, 236, 1979-1984.	1.8	8
53	A parameter design of CNC plasma-arc cutting of carbon steel plates using robust design. International Journal of Experimental Design and Process Optimisation, 2010, 1, 315.	0.2	7
54	Plasma Arc Cutting Dimensional Accuracy Optimization employing the Parameter Design approach. ITM Web of Conferences, 2017, 9, 03004.	0.5	7

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55	An ANN Approach on the Optimization of the Cutting Parameters During CNC Plasma-Arc Cutting. , 2010, , .		6
56	Impact of process parameters on dimensional accuracy of PolyJet 3D printed parts using grey Taguchi method. MATEC Web of Conferences, 2020, 318, 01015.	0.2	5
57	Optimizing 5-Axis Sculptured Surface Finish Machining Through Design of Experiments and Neural Networks. , 2014, , .		4
58	An internal combustion engine visualization physical prototype applying digital manufacturing. IOP Conference Series: Materials Science and Engineering, 2019, 564, 012022.	0.6	4
59	Prediction of Surface Texture Characteristics in Turning of FRPs Using ANN. Communications in Computer and Information Science, 2013, , 144-153.	0.5	4
60	Experimental-analytical investigation to estimate an emission inventory from road transport sector. , 2014, , 151-160.		4
61	MODELING OF ABRASIVE WATER JET MACHINING USING TAGUCHI METHOD AND ARTIFICIAL NEURAL NETWORKS. , 2011, , .		4
62	Experimental investigation on flexural properties of FDM-processed PET-G specimen using response surface methodology. MATEC Web of Conferences, 2021, 349, 01008.	0.2	4
63	Experimental and statistical study on the effects of fused filament fabrication parameters on the tensile strength of hybrid PLA/Wood fabricated parts. Procedia Structural Integrity, 2022, 41, 638-645.	0.8	4
64	5. FEM Analysis and ANN Modeling for Optimizing Machinability Indicators during Dry Longitudinal Turning of TiAl4V ELI Alloy. , 2016, , 95-118.		3
65	Simulation of extrusion of high density polyethylene tubes. MATEC Web of Conferences, 2017, 112, 04004.	0.2	3
66	Medical Rapid Prototyping and Manufacturing: Status and Outlook. , 2010, , .		2
67	Artificial immune algorithm implementation for optimized multi-axis sculptured surface CNC machining. IOP Conference Series: Materials Science and Engineering, 2016, 161, 012026.	0.6	1
68	PREDICTION OF SURFACE ROUGHNESS IN TURNING USING ORTHOGONAL MATRIX EXPERIMENT AND NEURAL NETWORKS. , 2010, , .		1
69	SURFACE ROUGHNESS MODELLING AND OPTIMIZATION IN CNC END MILLING USING TAGUCHI DESIGN AND NEURAL NETWORKS. , 2011, , .		1
70	The Impact of FEM Modeling Parameters on the Computed Thermo-Mechanical Behavior of SLA Copper Shelled Electrodes. International Journal of Manufacturing, Materials, and Mechanical Engineering, 2011, 1, 21-30.	0.4	0
71	Optimization of neural network parameters using Taguchi Robust Design: Application in plasma arc cutting process. , 2017, , .		0
72	Finite elements analysis of cylindrical copper shelled SLA electrodes. , 2009, , .		0

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73	The Impact of FEM Modeling Parameters on the Computed Thermo-Mechanical Behavior of SLA Copper Shelled Electrodes. , 0, , 157-166.		0