

Navneet Khanna

List of Publications by Year in descending order

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Version: 2024-02-01

84
papers

2,892
citations

159573

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197805

49
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84
all docs

84
docs citations

84
times ranked

1148
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite Element Analysis of Machining Heat Treated Titanium Alloy Ti54M. , 2022, , 415-427.		0
2	Effect of mixing method and particle size on hardness and compressive strength of aluminium based metal matrix composite prepared through powder metallurgy route. Journal of Materials Research and Technology, 2022, 18, 282-292.	5.8	46
3	Analysis of vegetable oil-based nano-lubricant technique for improving machinability of Inconel 690. Journal of Manufacturing Processes, 2022, 77, 708-721.	5.9	30
4	Experimental investigation on the effect of dry and multi-jet cryogenic cooling on the machinability and hole accuracy of CFRP composites. Journal of Materials Research and Technology, 2022, 18, 1772-1783.	5.8	17
5	Sustainable cooling strategies to reduce tool wear, power consumption and surface roughness during ultrasonic assisted turning of Ti-6Al-4V. Tribology International, 2022, 169, 107494.	5.9	67
6	An insight into the effect surface morphology, processing, and lubricating conditions on tribological properties of Ti6Al4V and UHMWPE pairs. Tribology International, 2022, 170, 107504.	5.9	9
7	Life cycle assessment of environmentally friendly initiatives for sustainable machining: A short review of current knowledge and a case study. Sustainable Materials and Technologies, 2022, 32, e00413.	3.3	12
8	Energy consumption and ecological analysis of sustainable and conventional cutting fluid strategies in machining 15â€“5 PHSS. Sustainable Materials and Technologies, 2022, 32, e00416.	3.3	12
9	Energy consumption and economic modelling of performance measures in machining of wire arc additively manufactured Inconel-625. Sustainable Materials and Technologies, 2022, , e00434.	3.3	3
10	A critical review on liquid superlubricative technology for attaining ultra-low friction. Renewable and Sustainable Energy Reviews, 2022, 165, 112626.	16.4	20
11	Surface integrity in ultrasonic-assisted turning of Ti6Al4V using sustainable cutting fluid. Procedia CIRP, 2022, 108, 55-60.	1.9	4
12	Application of measurement systems in tool condition monitoring of Milling: A review of measurement science approach. Measurement: Journal of the International Measurement Confederation, 2022, 199, 111503.	5.0	44
13	Carbon emissions, techno-economic and machinability assessments to achieve sustainability in drilling Ti6Al4V ELI for medical industry applications. Sustainable Materials and Technologies, 2022, 33, e00458.	3.3	4
14	Novel sustainable cryo-lubrication strategies for reducing tool wear during ultrasonic-assisted turning of Inconel 718. Tribology International, 2022, 174, 107728.	5.9	34
15	Resource saving by optimization and machining environments for sustainable manufacturing: A review and future prospects. Renewable and Sustainable Energy Reviews, 2022, 166, 112660.	16.4	68
16	Comparison of LN2 and LCO2 based on machining performance indicators for drilling Inconel 718. Journal of Manufacturing Processes, 2022, 81, 444-466.	5.9	2
17	Comprehensive analysis of tool wear, tool life, surface roughness, costing and carbon emissions in turning Tiâ€“6Alâ€“4V titanium alloy: Cryogenic versus wet machining. Tribology International, 2021, 153, 106597.	5.9	104
18	Experimental characterisation of the performance of hybrid cryo-lubrication assisted turning of Tiâ€“6Alâ€“4V alloy. Tribology International, 2021, 153, 106582.	5.9	102

#	ARTICLE	IF	CITATIONS
19	Application of Environmentally-friendly Cooling/Lubrication Strategies for Turning Magnesium/SiC MMCs. Silicon, 2021, 13, 2445-2459.	3.3	19
20	Comparison of machining performance under MQL and ultra-high voltage EMQL conditions based on tribological properties. Tribology International, 2021, 153, 106595.	5.9	38
21	Tribological behavior of textured tools in sustainable turning of nickel based super alloy. Tribology International, 2021, 155, 106775.	5.9	44
22	Environment and economic burden of sustainable cooling/lubrication methods in machining of Inconel-800. Journal of Cleaner Production, 2021, 287, 125074.	9.3	77
23	Life cycle assessment of drilling Inconel 718 using cryogenic cutting fluids while considering sustainability parameters. Sustainable Energy Technologies and Assessments, 2021, 43, 100950.	2.7	18
24	Energy Consumption and Lifecycle Assessment Comparison of Cutting Fluids for Drilling Titanium Alloy. Procedia CIRP, 2021, 98, 175-180.	1.9	29
25	Sensors selection for tool failure detection during machining processes: A simple accurate classification model. CIRP Journal of Manufacturing Science and Technology, 2021, 32, 108-119.	4.5	24
26	Influence of Feed Rate Response (FRR) on Chip Formation in Micro and Macro Machining of Al Alloy. Metals, 2021, 11, 159.	2.3	13
27	Cooling techniques to improve the machinability and sustainability of light-weight alloys: A state-of-the-art review. Journal of Manufacturing Processes, 2021, 62, 179-201.	5.9	98
28	Machinability analysis of nickel-based superalloy Nimonic 90: a comparison between wet and LCO ₂ as a cryogenic coolant. International Journal of Advanced Manufacturing Technology, 2021, 113, 3613.	3.0	10
29	Selective laser melting of Ti6Al4V alloy: Process parameters, defects and post-treatments. Journal of Manufacturing Processes, 2021, 64, 161-187.	5.9	151
30	Determination of Warm Deep Drawing Behavior of DP590 Steel Using Numerical Modeling and Experimental Process Window. Arabian Journal for Science and Engineering, 2021, 46, 12537-12548.	3.0	3
31	Recent advancements in nano-lubrication strategies for machining processes considering their health and environmental impacts. Journal of Manufacturing Processes, 2021, 68, 481-511.	5.9	23
32	Prediction of fracture limits of Ni-Cr based alloy under warm forming condition using ductile damage models and numerical method. Transactions of Nonferrous Metals Society of China, 2021, 31, 2372-2387.	4.2	5
33	Review on design and development of cryogenic machining setups for heat resistant alloys and composites. Journal of Manufacturing Processes, 2021, 68, 398-422.	5.9	119
34	Tool Wear Analysis during Ultrasonic Assisted Turning of Nimonic-90 under Dry and Wet Conditions. Metals, 2021, 11, 1253.	2.3	20
35	In pursuit of sustainable cutting fluid strategy for machining Ti-6Al-4V using life cycle analysis. Sustainable Materials and Technologies, 2021, 29, e00301.	3.3	20
36	Review on machining of additively manufactured nickel and titanium alloys. Journal of Materials Research and Technology, 2021, 15, 3192-3221.	5.8	67

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37	Tool wear, hole quality, power consumption and chip morphology analysis for drilling Ti-6Al-4V using LN2 and LCO2. Tribology International, 2021, 163, 107190.	5.9	21
38	A state-of-the-art review on tool wear and surface integrity characteristics in machining of superalloys. CIRP Journal of Manufacturing Science and Technology, 2021, 35, 624-658.	4.5	111
39	Life cycle assessment to establish sustainable cutting fluid strategy for drilling Ti-6Al-4V. Sustainable Materials and Technologies, 2021, 30, e00337.	3.3	4
40	Prediction of Tool Shape in Electrical Discharge Machining of EN31 Steel Using Machine Learning Techniques. Metals, 2021, 11, 1668.	2.3	16
41	Titanium Machining Using Indigenously Developed Sustainable Cryogenic Machining Facility. Materials Forming, Machining and Tribology, 2020, , 183-205.	1.1	7
42	Tool wear and hole quality evaluation in cryogenic Drilling of Inconel 718 superalloy. Tribology International, 2020, 143, 106084.	5.9	80
43	Friction stir welding of dissimilar aluminium alloys AA 6061-T6 and AA 8011-h14: a novel study. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	23
44	Orthogonal machining of Heat Treated Ti-10-2-3: FE and Experimental. Materials and Manufacturing Processes, 2020, 35, 1822-1831.	4.7	7
45	Tool wear progression and its effects on energy consumption and surface roughness in cryogenic assisted turning of Ti-6Al-4V. International Journal of Advanced Manufacturing Technology, 2020, 111, 1319-1331.	3.0	21
46	Sustainability assessment of in-house developed environment-friendly hybrid techniques for turning Ti-6Al-4V. Sustainable Materials and Technologies, 2020, 26, e00220.	3.3	10
47	Autogenous welding of copper pipe using orbital TIG welding technique for application as high vacuum boundary parts of nuclear fusion devices. International Journal of Pressure Vessels and Piping, 2020, 188, 104225.	2.6	4
48	Impact of layer rotation on micro-structure, grain size, surface integrity and mechanical behaviour of SLM Al-Si-10Mg alloy. Journal of Materials Research and Technology, 2020, 9, 9506-9522.	5.8	48
49	Comprehensive experimental analysis and sustainability assessment of machining Nimonic 90 using ultrasonic-assisted turning facility. International Journal of Advanced Manufacturing Technology, 2020, 109, 1447-1462.	3.0	26
50	Sustainability Assessment, Investigations, and Modelling of Slot Milling Characteristics in Eco-Benign Machining of Hardened Steel. Metals, 2020, 10, 1650.	2.3	22
51	Development of a Sustainability Assessment Algorithm and Its Validation Using Case Studies on Cryogenic Machining. Journal of Manufacturing and Materials Processing, 2020, 4, 42.	2.2	10
52	Cryogenic turning of in-house cast magnesium based MMCs: A comprehensive investigation. Journal of Materials Research and Technology, 2020, 9, 7628-7643.	5.8	21
53	In-house development of eco-friendly lubrication techniques (EMQL, Nanoparticles+EMQL and EL) for improving machining performance of 15â€“5 PHSS. Tribology International, 2020, 151, 106476.	5.9	55
54	Experimental investigation and sustainability assessment to evaluate environmentally clean machining of 15-5 PH stainless steel. Journal of Manufacturing Processes, 2020, 56, 1027-1038.	5.9	35

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55	Comprehensive machining analysis to establish cryogenic LN2 and LCO2 as sustainable cooling and lubrication techniques. Tribology International, 2020, 148, 106314.	5.9	74
56	Measurement and evaluation of hole attributes for drilling CFRP composites using an indigenously developed cryogenic machining facility. Measurement: Journal of the International Measurement Confederation, 2020, 154, 107504.	5.0	68
57	Comparative analysis of dry, flood, MQL and cryogenic CO2 techniques during the machining of 15-5-PH SS alloy. Tribology International, 2020, 146, 106196.	5.9	107
58	Sustainability and machinability improvement of Nimonic-90 using indigenously developed green hybrid machining technology. Journal of Cleaner Production, 2020, 263, 121402.	9.3	43
59	Evaluation of tool wear, energy consumption, and surface roughness during turning of inconel 718 using sustainable machining technique. Journal of Materials Research and Technology, 2020, 9, 5794-5804.	5.8	67
60	Analysis of machining performance of AISI 420 stainless steel using conventional and ultrasonic assisted turning. Materials Today: Proceedings, 2020, 26, 2200-2207.	1.8	2
61	Evaluation of turning with different cooling-lubricating techniques in terms of surface integrity and tribological properties. Tribology International, 2020, 148, 106334.	5.9	92
62	Inconel 718 machining performance evaluation using indigenously developed hybrid machining facilities: experimental investigation and sustainability assessment. International Journal of Advanced Manufacturing Technology, 2020, 106, 4987-4999.	3.0	41
63	Energy Efficiency Analysis for Machining Magnesium Metal Matrix Composites Using In-House Developed Hybrid Machining Facilities. Sustainable Production, Life Cycle Engineering and Management, 2020, , 131-137.	0.3	1
64	Optimization of Power Consumption Associated with Surface Roughness in Ultrasonic Assisted Turning of Nimonic-90 Using Hybrid Particle Swarm-Simplex Method. Materials, 2019, 12, 3418.	2.9	34
65	Investigations on density and surface roughness characteristics during selective laser sintering of Invar-36 alloy. Materials Research Express, 2019, 6, 086541.	1.6	27
66	Effect of Hybrid Machining Techniques on Machining Performance of In-House Developed Mg-PMMC. Transactions of the Indian Institute of Metals, 2019, 72, 1799-1807.	1.5	28
67	Design-of-experiments application in the friction stir welding of aluminium alloy AA 8011-h14 for structural application. Multidiscipline Modeling in Materials and Structures, 2019, 16, 606-622.	1.3	3
68	CFRP Machining on Indigenously Developing Cryogenic Machining Facility: An Initial Study. Materials Today: Proceedings, 2019, 18, 4598-4604.	1.8	16
69	Experimental Comparison of TIC and Friction Stir Welding Process for AA6063-T6 Aluminum Alloy. Advances in Intelligent Systems and Computing, 2019, , 619-628.	0.6	6
70	Multi-objective optimization of surface parameters such as concavity, straightness and roughness in milling process. Materials Today: Proceedings, 2018, 5, 5296-5302.	1.8	2
71	An Experimental Study of Surface Roughness Variation in End Milling of Super Duplex 2507 Stainless Steel. Materials Today: Proceedings, 2018, 5, 3682-3689.	1.8	21
72	Study the effect of process parameters in plasma arc cutting on Quard-400 material using analysis of variance. Materials Today: Proceedings, 2018, 5, 6023-6029.	1.8	7

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73	Optimization and analysis of surface roughness for INVAR-36 in end milling operations. Materials Today: Proceedings, 2018, 5, 5281-5288.	1.8	14
74	Industry supported experimental studies on drilling of thick multi-directional GFRP composite material. Procedia CIRP, 2018, 77, 320-323.	1.9	7
75	Synthesis, Characterization, Corrosion Resistance and In-Vitro Bioactivity Behavior of Biodegradable Mg-Zn-Mn-(Si-HA) Composite for Orthopaedic Applications. Materials, 2018, 11, 1602.	2.9	73
76	FE simulation of machining of Ti-54M titanium alloy for industry relevant outcomes. Measurement: Journal of the International Measurement Confederation, 2018, 129, 268-276.	5.0	15
77	Experimental evaluation of the effect of workpiece heat treatments and cutting parameters on the machinability of Ti-10V-2Fe-3Al \hat{I}^2 titanium alloy using Taguchi's design of experiments. International Journal of Machining and Machinability of Materials, 2017, 19, 374.	0.1	4
78	Design of Experiments in Titanium Metal Cutting Research. Management and Industrial Engineering, 2016, , 165-182.	0.4	6
79	Design-of-experiments application in machining titanium alloys for aerospace structural components. Measurement: Journal of the International Measurement Confederation, 2015, 61, 280-290.	5.0	133
80	Machinability analysis of heat treated Ti64, Ti54M and Ti10.2.3 titanium alloys. International Journal of Precision Engineering and Manufacturing, 2013, 14, 719-724.	2.2	12
81	Interrupted machining analysis for Ti6Al4V and Ti5553 titanium alloys using physical vapor deposition (PVD)-coated carbide inserts. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 465-470.	2.4	25
82	Machinability study of \hat{I}^{\pm}/\hat{I}^2 and \hat{I}^2 titanium alloys in different heat treatment conditions. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 357-361.	2.4	33
83	Comparative machinability study on Ti54M titanium alloy in different heat treatment conditions. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 96-101.	2.4	22
84	Effect of heat Treatment Conditions on the Machinability of Ti64 and Ti54M Alloys. Procedia CIRP, 2012, 1, 477-482.	1.9	32