Akshay Dvivedi

List of Publications by Year
in descending order

90	2,138	186209	265120
papers	citations	28 h-index	42 g-index

99	99	99	868
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Developments in electrochemical discharge machining: A review on electrochemical discharge machining, process variants and their hybrid methods. International Journal of Machine Tools and Manufacture, 2016, 105, 1-13.	6.2	150
2	Drilling Characteristics of Sisal Fiber-Reinforced Epoxy and Polypropylene Composites. Materials and Manufacturing Processes, 2014, 29, 1401-1409.	2.7	111
3	Effect of Pulse Duration on Quality Characteristics of Blind Hole Drilled in Glass by ECDM. Materials and Manufacturing Processes, 2016, 31, 1740-1748.	2.7	87
4	Surface quality evaluation in ultrasonic drilling through the Taguchi technique. International Journal of Advanced Manufacturing Technology, 2007, 34, 131-140.	1.5	84
5	On performance evaluation of textured tools during micro-channeling with ECDM. Journal of Manufacturing Processes, 2018, 32, 699-713.	2.8	79
6	Taguchi analysis of the residual tensile strength after drilling in glass fiber reinforced epoxy composites. Materials & Design, 2009, 30, 2186-2190.	5.1	67
7	On pressurized feeding approach for effective control on working gap in ECDM. Materials and Manufacturing Processes, 2018, 33, 462-473.	2.7	63
8	Effect of tool rotation in near-dry EDM process on machining characteristics of HSS. Materials and Manufacturing Processes, 2019, 34, 779-790.	2.7	60
9	Parametric Evaluation on Near-Dry Electric Discharge Machining. Materials and Manufacturing Processes, 2016, 31, 413-421.	2.7	58
10	Rotary mode ultrasonic drilling of glass fiber-reinforced epoxy laminates. Journal of Composite Materials, 2015, 49, 949-963.	1.2	57
11	An environment-friendly and sustainable machining method: near-dry EDM. Materials and Manufacturing Processes, 2019, 34, 1307-1315.	2.7	57
12	Investigations on quantification and replenishment of vaporized electrolyte during deep micro-holes drilling using pressurized flow-ECDM process. Journal of Materials Processing Technology, 2019, 266, 217-229.	3.1	48
13	Sonication of tool electrode for utilizing high discharge energy during ECDM. Materials and Manufacturing Processes, 2020, 35, 415-429.	2.7	46
14	Experimental investigation and optimisation in EDM of Al 6063 SiC<SUB align=right>p metal matrix composite. International Journal of Machining and Machinability of Materials, 2008, 3, 293.	0.1	45
15	Experimental investigations of energy channelization behavior in ultrasonic assisted electrochemical discharge machining. Journal of Materials Processing Technology, 2021, 293, 117084.	3.1	42
16	Experimental investigation on effects of dielectric mediums in near-dry electric discharge machining. Journal of Mechanical Science and Technology, 2016, 30, 2179-2185.	0.7	40
17	Performance enhancement of rotary tool near-dry EDM of HSS by supplying oxygen gas in the dielectric medium. Materials and Manufacturing Processes, 2019, 34, 1832-1846.	2.7	39
18	On near-dry wire ECDM of Al6063/SiC/10p MMC. Materials and Manufacturing Processes, 2021, 36, 122-134.	2.7	38

#	Article	IF	Citations
19	EDM of high aspect ratio micro-holes on Ti-6Al-4V alloy by synchronizing energy interactions. Materials and Manufacturing Processes, 2020, 35, 1188-1203.	2.7	37
20	On the analysis of force during secondary processing of natural fiberâ€reinforced composite laminates. Polymer Composites, 2017, 38, 164-174.	2.3	36
21	Multi objective optimization in drilling of Al6063/10% SiC metal matrix composite based on grey relational analysis. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 1767-1776.	1.5	35
22	On controlling of gas film shape in electrochemical discharge machining process for fabrication of elliptical holes. Materials and Manufacturing Processes, 2021, 36, 558-571.	2.7	35
23	Developments in abrasive flow machining: a review on experimental investigations using abrasive flow machining variants and media. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2012, 226, 1951-1962.	1.5	34
24	Developments on electrochemical discharge machining: A review of experimental investigations on tool electrode process parameters. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2015, 229, 910-920.	1.5	32
25	Fabrication of micro-slits using W-ECDM process with textured wire surface: An experimental investigation on kerf overcut reduction and straightness improvement. Precision Engineering, 2019, 59, 211-223.	1.8	32
26	Experimental investigations into triplex hybrid process of GA-RDECDM during subtractive processing of MMCâ€™s. Materials and Manufacturing Processes, 2019, 34, 243-255.	2.7	32
27	Experimental investigations into rotary mode electrochemical discharge drilling (RM-ECDD) of metal matrix composites. Machining Science and Technology, 2020, 24, 195-226.	1.4	32
28	On prolongation of discharge regime during ECDM by titrated flow of electrolyte. International Journal of Advanced Manufacturing Technology, 2020, 107, 1819-1834.	1.5	32
29	Decision-making on the selection of lean tools using fuzzy QFD and FMEA approach in the manufacturing industry. Expert Systems With Applications, 2022, 192, 116416.	4.4	32
30	On effect of tool rotation on performance of rotary tool micro-ultrasonic machining. Materials and Manufacturing Processes, 2019, 34, 475-486.	2.7	31
31	Tool wear studies in fabrication of microchannels in ultrasonic micromachining. Ultrasonics, 2015, 57, 57-64.	2.1	26
32	On machining of hard and brittle materials using rotary tool micro-ultrasonic drilling process. Materials and Manufacturing Processes, 2019, 34, 736-748.	2.7	26
33	A hybrid approach to multi-criteria optimization based on userâ€™s preference rating. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 1733-1742.	1.5	25
34	Fabrication of microchannels using rotary tool micro-USM: An experimental investigation on tool wear reduction and form accuracy improvement. Journal of Manufacturing Processes, 2018, 32, 802-815.	2.8	25
35	On performance enhancement of electrochemical discharge trepanning (ECDT) process by sonication of tool electrode. Precision Engineering, 2019, 56, 8-19.	1.8	25
36	Impact of gas film thickness on the performance of RM-ECDM process during machining of glass. Materials and Manufacturing Processes, 2022, 37, 652-663.	2.7	25

#	Article	IF	Citations
37	Fabrication of micro holes in Yttria-stabilized zirconia (Y-SZ) by hybrid process of electrochemical discharge machining (ECDM). Ceramics International, 2021, 47, 23677-23681.	2.3	21
38	Performance enhancement of rotary tool near-dry EDM process through tool modification. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	0.8	21
39	Tool wear and form accuracy in ultrasonically machined microchannels. Measurement: Journal of the International Measurement Confederation, 2016, 81, 85-94.	2.5	19
40	Design and development of novel cost effective casting route for production of metal matrix composites (MMCs). International Journal of Cast Metals Research, 2017, 30, 356-364.	0.5	18
41	Investigations on the fabrication of a patterned tool by chemical etching. Materials and Manufacturing Processes, 2021, 36, 1840-1852.	2.7	18
42	Experimental Investigation on Near-dry EDM using Glycerin-Air Mixture as Dielectric Medium. Materials Today: Proceedings, 2017, 4, 5344-5350.	0.9	16
43	Improvement in energy channelization behaviour during micro hole formation in Y-SZ ceramic with magnetic field assisted ECSM process. Measurement: Journal of the International Measurement Confederation, 2022, 194, 111079.	2.5	15
44	Optimization of the Process Parameters for Drilling of Metal Matrix Composites (MMC) Using Taguchi Analysis. Advanced Materials Research, 0, 410, 249-252.	0.3	14
45	Effect of Electrolytes on Quality Characteristics of Glass during ECDM. Key Engineering Materials, 0, 658, 141-145.	0.4	14
46	Investigations on Rotary Tool Near-Dry Electric Discharge Machining. Minerals, Metals and Materials Series, 2017, , 327-334.	0.3	13
47	Determinants of job satisfaction in Ethiopia: evidence from the leather industry. African Journal of Economic and Management Studies, 2018, 9, 410-429.	0.5	12
48	Quality management as a tool for job satisfaction improvement in low-level technology organizations: the case of Ethiopia. Production Planning and Control, 2019, 30, 665-681.	5.8	11
49	Decision-making on job satisfaction improvement programmes using fuzzy QFD model: a case study in Ethiopia. Total Quality Management and Business Excellence, 2019, 30, 1068-1091.	2.4	10
50	Experimental investigations, empirical modeling and multi objective optimization of performance characteristics for ECDD with pressurized feeding method. Measurement: Journal of the International Measurement Confederation, 2020, 149, 107017.	2.5	10
51	Investigation on Deposition of the Machined By-Products and Its Reduction during Electrochemical Discharge Machining (ECDM). Journal of the Electrochemical Society, 2022, 169, 023506.	1.3	10
52	Parametric optimisation of surface roughness on wire-EDM using Taguchi method. International Journal of Manufacturing Technology and Management, 2011, 24, 88.	0.1	9
53	Comparative study of powder mixed EDM and rotary tool EDM performance during machining of Al-SiC metal matrix composites. International Journal of Machining and Machinability of Materials, 2014, 16, 113.	0.1	9
54	On Improvement in Surface Integrity of Âµ-EDMed Tiâ€“6Alâ€“4V Alloy by Âµ-ECM Process. Minerals, Metals and Materials Series, 2019, , 745-753.	0.3	9

#	Article	IF	Citations
55	Development of material removal rate model and performance evaluation of ultrasonic turning process. Materials and Manufacturing Processes, 2020, 35, 1598-1611.	2.7	9
56	Experimental Investigation on Surface Morphology of Micro-EDMed Ti-6Al-4ÂV Alloy. Lecture Notes in Intelligent Transportation and Infrastructure, 2020, , 69-74.	0.3	9
57	Development and performance study of biomedical porous zinc scaffold manufactured by using additive manufacturing and microwave sintering. Materials and Manufacturing Processes, 2023, 38, 1020-1032.	2.7	9
58	Effect of EDM process parameters on surface quality of Al 6063 SiC<SUB align=right>p metal matrix composite. International Journal of Materials and Product Technology, 2010, 39, 357.	0.1	8
59	Tribological characteristics of Al 6063â€“SiCp metalâ€“matrix composite under reciprocating and wet conditions. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2012, 226, 138-149.	1.0	8
60	On the use of sacrificial layer in ECDM process for form accuracy. Journal of Manufacturing Processes, 2022, 79, 219-232.	2.8	8
61	Near-dry electrical discharge machining of stainless steel. International Journal of Machining and Machinability of Materials, 2015, 17, 127.	0.1	7
62	Identifying and prioritising operational performance indicators of the Ethiopian leather industry. International Journal of Productivity and Quality Management, 2017, 22, 378.	0.1	7
63	Finishing of Micro-channels Using Abrasive Flow Machining. Lecture Notes in Mechanical Engineering, 2014, , 243-252.	0.3	7
64	Investigation on the Effect of Input Parameters on Surface Quality During Rotary Tool Near-Dry EDM. Lecture Notes in Intelligent Transportation and Infrastructure, 2020, , 41-47.	0.3	7
65	Fabrication and characterization of Al6063/SiC composites using electromagnetic stir casting process. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2022, 236, 187-193.	1.4	7
66	Dry and Near-Dry Electric Discharge Machining Processes. Materials Forming, Machining and Tribology, 2017, , 249-266.	0.7	6
67	Micro-ultrasonic drilling of monocrystalline silicon: An experimental investigation on machined surface topography and optimization using User's preference rating based TOPSIS. Materials Science in Semiconductor Processing, 2019, 102, 104584.	1.9	6
68	Experimental investigations and its dimensional analysisâ€“based modeling of the UAECDM process. International Journal of Advanced Manufacturing Technology, 2020, 111, 3241-3257.	1.5	6
69	Assessing the performance of STED process for fabricating high aspect ratio holes on Inconel 718 alloy. Materials and Manufacturing Processes, 2021, 36, 677-692.	2.7	5
70	On energy channelization analysis for ECSM process during fabrication of microchannels in glass. Materials and Manufacturing Processes, 2022, 37, 1506-1510.	2.7	5
71	On Tool Wear in Rotary Tool Micro-Ultrasonic Machining. Minerals, Metals and Materials Series, 2017, , 75-82.	0.3	4
72	Influence of glycerin-air dielectric medium on near-dry EDM of titanium alloy. International Journal of Additive and Subtractive Materials Manufacturing, 2017, 1, 328.	0.2	4

#	Article	IF	Citations
73	Dry Sliding Wear Behaviour of Glass Fibre Reinforced Epoxy Composites Filled with Natural Fillers. Reason-A Technical Journal, 2013, 12, 61.	0.0	4
74	Investigating the Performance of the Rotary Tool Near-Dry Electrical Discharge Machining Process through Debris Analysis. Journal of Materials Engineering and Performance, 2022, 31, 8405-8417.	1.2	4
75	Investigation of hole roundness-error using different electrolytes in STED process. Materials and Manufacturing Processes, 2022, 37, 1405-1421.	2.7	4
76	Design and development of abrasive-assisted drilling process for improvement in surface finish during drilling of metal matrix composites. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2014, 228, 858-867.	1.5	3
77	Effect of tool materials on performance of rotary tool micro-USM processÂduring fabrication of microchannels. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	0.8	3
78	Application of value stream mapping (VSM) in low-level technology organizations: a case study. International Journal of Productivity and Performance Management, 2021, ahead-of-print, .	2.2	3
79	Influence of Process Parameters during Fabrication of Si Microchannels Using Microultrasonic Machining. I-managerâ€™s Journal on Mechanical Engineering, 2013, 3, 1-7.	0.4	3
80	Influence of glycerin-air dielectric medium on near-dry EDM of titanium alloy. International Journal of Additive and Subtractive Materials Manufacturing, 2017, 1, 328.	0.2	3
81	Evaluation of the Surface Integrity of Titanium Nitride Coating Deposited on the Niâ€“Ti Substrate Through the Near-Dry Electrical Discharge Surface Coating Process. Minerals, Metals and Materials Series, 2021, , 421-429.	0.3	2
82	Effect of Natural Fillers on Wear Behavior of Glass-Fiber-Reinforced Epoxy Composites. Lecture Notes in Mechanical Engineering, 2014, , 441-450.	0.3	2
83	Identifying and prioritising operational performance indicators of the Ethiopian leather industry. International Journal of Productivity and Quality Management, 2017, 22, 378.	0.1	2
84	Fabrication of 3D complex micro-features used in bio-medical applications. , 2016, , .		2
85	Experimental Investigations on the Effect of Energy Interaction Durations During Micro-channeling with ECDM. Lecture Notes on Multidisciplinary Industrial Engineering, 2019, , 269-277.	0.4	2
86	Experimental investigation on drilling of borosilicate glass using micro-USM with and without tool rotation: a comparative study. International Journal of Additive and Subtractive Materials Manufacturing, 2017, 1, 213.	0.2	1
87	Enhancement in Machining Efficiency and Accuracy of ECDM Process Using Hollow Tool Electrode. Lecture Notes on Multidisciplinary Industrial Engineering, 2020, , 313-323.	0.4	1
88	Experimental investigation on drilling of borosilicate glass using micro-USM with and without tool rotation: a comparative study. International Journal of Additive and Subtractive Materials Manufacturing, 2017, 1, 213.	0.2	1
89	An Ultrasonic Micromachining Setup for Machining of 3D Geometries. Lecture Notes in Mechanical Engineering, 2014, , 253-260.	0.3	0
90	Investigations and optimization of rotary tool micro-USM process for fabrication of microchannels. Materials Today: Proceedings, 2021, 45, 4993-4997.	0.9	0