Ajay M Sidpara

List of Publications by Year
in descending order

56 papers	1,582 citations	304743 22 h-index	315739 38 g-index
56 all docs	56 docs citations	56 times ranked	790 citing authors

#	Article	IF	Citations
1	Rheological Characterization of Magnetorheological Finishing Fluid. Materials and Manufacturing Processes, 2009, 24, 1467-1478.	4.7	141
2	Nanofinishing of freeform surfaces (knee joint implant) by rotational-magnetorheological abrasive flow finishing (R-MRAFF) process. Precision Engineering, 2015, 42, 165-178.	3.4	94
3	Theoretical analysis of forces in magnetorheological fluid based finishing process. International Journal of Mechanical Sciences, 2012, 56, 50-59.	6.7	86
4	Nanoâ€“level finishing of single crystal silicon blank using magnetorheological finishing process. Tribology International, 2012, 47, 159-166.	5.9	76
5	Experimental investigations into forces during magnetorheological fluid based finishing process. International Journal of Machine Tools and Manufacture, 2011, 51, 358-362.	13.4	75
6	Analysis of forces on the freeform surface in magnetorheological fluid based finishing process. International Journal of Machine Tools and Manufacture, 2013, 69, 1-10.	13.4	71
7	Nanofinishing of freeform surfaces of prosthetic knee joint implant. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2012, 226, 1833-1846.	2.4	63
8	Micromanufacturing: A reviewâ€”Part I. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2014, 228, 973-994.	2.4	62
9	Fabrication of micro-features and micro-tools using electrochemical micromachining. International Journal of Advanced Manufacturing Technology, 2012, 61, 1175-1183.	3.0	54
10	Nano-finishing techniques: a review. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2012, 226, 327-346.	2.1	50
11	Investigations into abrasive flow finishing of complex workpieces using FEM. Wear, 2009, 267, 71-80.	3.1	49
12	Rheological Properties and Their Correlation with Surface Finish Quality in MR Fluid-Based Finishing Process. Machining Science and Technology, 2014, 18, 367-385.	2.5	49
13	Understanding the role of surface roughness on the tribological performance and corrosion resistance of WC-Co coating. Surface and Coatings Technology, 2019, 378, 125080.	4.8	48
14	Graphene and CNT filled hybrid thermoplastic composites for enhanced EMI shielding effectiveness. Materials Research Express, 2019, 6, 085617.	1.6	45
15	Effect of fluid composition on nanofinishing of single-crystal silicon by magnetic field-assisted finishing process. International Journal of Advanced Manufacturing Technology, 2011, 55, 243-252.	3.0	43
16	High efficiency chemical assisted nanofinishing of HVOF sprayed WC-Co coating. Surface and Coatings Technology, 2018, 334, 204-214.	4.8	42
17	Review of several precision finishing processes for optics manufacturing. Journal of Micromanufacturing, 2018, 1, 170-188.	1.1	40
18	Experimental and theoretical investigation into surface roughness and residual stress in magnetorheological finishing of OFHC copper. Journal of Materials Processing Technology, 2021, 288, 116899.	6.3	36

#	Article	IF	Citations
19	On the effect of relative size of magnetic particles and abrasive particles in MR fluid-based finishing process. Machining Science and Technology, 2018, 22, 493-506.	2.5	35
20	Highly filled multilayer thermoplastic/graphene conducting composite structures with high strength and thermal stability for electromagnetic interference shielding applications. Journal of Applied Polymer Science, 2019, 136, 47792.	2.6	35
21	Parameter optimization and texture evolution in single point incremental sheet forming process. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2020, 234, 126-139.	2.4	31
22	Experimental investigations into surface roughness and yield stress in magnetorheological fluid based nano-finishing process. International Journal of Precision Engineering and Manufacturing, 2012, 13, 855-860.	2.2	29
23	Some aspects of fabrication of micro devices by electrochemical micromachining (ECMM) and its finishing by magnetorheological fluid. International Journal of Advanced Manufacturing Technology, 2012, 59, 987-996.	3.0	24
24	Sustainable conducting polymer composites: study of mechanical and tribological properties of natural fiber reinforced PVA composites with carbon nanofillers. Polymer-Plastics Technology and Materials, 2020, 59, 1088-1099.	1.3	23
25	Magnetorheological finishing: a perfect solution to nanofinishing requirements. Optical Engineering, 2014, 53, 092002.	1.0	21
26	An investigation into the wear mechanism of zirconia-alumina polishing pad under different environments in shape adaptive grinding of WC-Co coating. Wear, 2019, 428-429, 223-236.	3.1	21
27	Single point incremental forming of AA6061 thin sheet: calibration of ductile fracture models incorporating anisotropy and post forming analyses. International Journal of Material Forming, 2019, 12, 623-642.	2.0	20
28	PVA/ MLG/ MWCNT hybrid composites for X band EMI shielding â€“ Study of mechanical, electrical, thermal and tribological properties. Materials Today Communications, 2020, 23, 100941.	1.9	19
29	Parametric study on influence function in magnetorheological finishing of single crystal silicon. International Journal of Advanced Manufacturing Technology, 2019, 100, 1043-1054.	3.0	18
30	A review on micro machining of polymer composites. Journal of Manufacturing Processes, 2022, 77, 87-113.	5.9	17
31	Magnetorheological finishing of WC-Co coating using iron-B4C-CNT composite abrasives. Tribology International, 2021, 155, 106807.	5.9	14
32	Theoretical analysis of magnetorheological finishing of HVOF sprayed WC-Co coating. International Journal of Mechanical Sciences, 2021, 207, 106629.	6.7	14
33	Length-wise tool wear compensation for micro electric discharge drilling of blind holes. Measurement: Journal of the International Measurement Confederation, 2019, 134, 888-896.	5.0	11
34	Experimental and theoretical investigation into simultaneous deburring of microchannel and cleaning of the cutting tool in micromilling. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2019, 233, 1761-1771.	2.4	11
35	Fabrication of micro-end mill tool by EDM and its performance evaluation. Machining Science and Technology, 2020, 24, 169-194.	2.5	11
36	Fabrication of mechanically durable slippery surface on HVOF sprayed WC-Co coating. Surface and Coatings Technology, 2020, 394, 125886.	4.8	11

#	Article	IF	Citations
37	Comprehensive study to evaluate the lifespan of flexible polishing pads by 3D surface characterization technique. Measurement: Journal of the International Measurement Confederation, 2018, 127, 29-41.	5.0	10
38	Theoretical and experimental investigation of material removal rate in shape adaptive grinding of HVOF sprayed WC-Co coating. Precision Engineering, 2021, 72, 627-639.	3.4	10
39	FABRICATIONS OF MICRO TOOLS AND MICRO PATTERNS BY ELECTROCHEMICAL MICROMACHINING AND SOME INVESTIGATION INTO OVERPOTENTIAL. Journal of Advanced Manufacturing Systems, 2013, 12, 85-106.	1.0	9
40	Fabrication of Optical Components by Ultraprecision Finishing Processes. Engineering Materials, 2018, , 87-119.	0.6	9
41	Study of different materials response in micro milling using four edged micro end mill tools. Journal of Manufacturing Processes, 2020, 56, 169-179.	5.9	9
42	Graphene/Magnetite (Fe3O4) Hybrid Fillers for Thermoplastic Composites: X-Band Electromagnetic Interference Shielding Characteristics. Journal of Electronic Materials, 2020, 49, 7259-7271.	2.2	7
43	Numerical and experimental study of influence function in magnetorheological finishing of oxygen-free high conductivity (OFHC) copper. Smart Materials and Structures, 2021, 30, 015034.	3.5	7
44	Parametric analysis of MR polishing fluid using statistical technique. International Journal of Precision Technology, 2011, 2, 51.	0.2	6
45	Some Aspects of Micro-Fabrication Using Electro Discharge Deposition Process. , 2012, , .		5
46	On the Flexible Abrasive Tool for Nanofinishing of Complex Surfaces. Journal of Advanced Manufacturing Systems, 2019, 18, 157-166.	1.0	4
47	Brittle-ductile transition in compliant finishing of HVOF sprayed hard WC-Co coating. International Journal of Refractory Metals and Hard Materials, 2021, 99, 105610.	3.8	4
48	Some Investigations Into Magnetorheological Finishing (MRF) of Hard Materials. , 2009, , .		3
49	Post-Processing of HVOF Sprayed WC-Co Coating to Enhance its Performance. , 2020, , 658-673.		3
50	Micromanufacturing. , 2012, , 3-37.		2
51	Analysis of forces and surface roughness in magnetic abrasive finishing with a ball-end tool. International Journal of Precision Technology, 2013, 3, 131.	0.2	2
52	Micro Electro Discharge Machining. , 0, , .		2
53	Advanced Micromachining. , 2016, , 115-148.		1
54	Characterization of Nanofinished WC-Co Coating Using Advanced 3D Surface Texture Parameters. , 2018, , .		0

#	Article	IF	Citations
55	Preliminary Results on Finishing of WC-Co Coating by Magnetorheological Finishing Process. , 2019, , .		0
56	Tribological aspects of different machining processes. , 2022, , 213-238.		0