Vijay Kumar Jain

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74	1,592	24	36
papers	citations	h-index	g-index
76 ext. papers	1,831 ext. citations	2.9 avg, IF	5.02 L-index

#	Paper	IF	Citations
74	Sustainable Electrochemical Micromachining Using Atomized Electrolyte Flushing. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 043504	3.9	2
73	Micromachining: An overview (Part I). Journal of Micromanufacturing, 2020, 3, 142-158	1.7	6
72	Reducing overcut in electrochemical micromachining process by altering the energy of voltage pulse using sinusoidal and triangular waveform. <i>International Journal of Machine Tools and Manufacture</i> , 2020 , 151, 103526	9.4	14
71	Optimization of process parameters in nano-finishing of Co-Cr-Mo alloy knee joint. <i>Materials and Manufacturing Processes</i> , 2020 , 35, 985-992	4.1	9
70	Investigations into Wire Electrochemical Machining of Stainless Steel 304. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2020 , 41-52	0.3	
69	Analysis of finishing forces and surface finish during magnetorheological abrasive flow finishing of asymmetric workpieces. <i>Journal of Micromanufacturing</i> , 2019 , 2, 133-151	1.7	15
68	Real-time experimental study and numerical simulation of phase change material during the discharge stage: Thermo-fluidic behavior, solidification morphology, and energy content. <i>Energy Storage</i> , 2019 , 1, e51	2.8	4
67	Experimental and analytical investigations into wire electrochemical micro turning. <i>Journal of Micromanufacturing</i> , 2019 , 2, 42-58	1.7	4
66	Medium rheological characterization and performance study during rotational abrasive flow finishing (R-AFF) of Al alloy and Al alloy/SiC MMCs. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1149-1163	3.2	10
65	Fabrication of Micro-holes Array Through Multiple Electrodes with Distributed Pulsed Electrochemical Machining. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2019 , 47-60	0.3	
64	Experimental Investigations into Wire Electrical Discharge Machining Process for the Machining of Ti-6Al-4V. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2019 , 329-337	0.3	
63	Micro-electrical Discharge Milling Operation. Materials Forming, Machining and Tribology, 2019, 23-51	0.5	4
62	Development of inverse replica fixture for nano-finishing of knee joint using R-MRAFF process. Journal of Micromanufacturing, 2019 , 2, 35-41	1.7	12
61	Experimental investigations into nanofinishing of Ti6Al4V flat disc using magnetorheological finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1055-1065	3.2	18
60	Force analysis of magnetic abrasive nano-finishing of magnetic and non-magnetic materials. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1137-1147	3.2	8
59	Viscoelastic medium modeling and surface roughness simulation of microholes finished by abrasive flow finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1165-118	82 ² .2	12
58	Preliminary investigations into nano-finishing of freeform surface (femoral) using inverse replica fixture. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1081-1092	3.2	14

57	Experimental and theoretical investigations into internal magnetic abrasive finishing of a revolver barrel. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1105-1122	3.2	13	
56	Investigations into insertion force of electrochemically micro-textured hypodermic needles. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1311-1326	3.2	9	
55	Electrochemical micro texturing on flat and curved surfaces: simulation and experiments. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1269-1286	3.2	23	
54	Investigations into the mechanism of material removal and surface modification at atomic scale on stainless steel using molecular dynamics simulation. <i>Philosophical Magazine</i> , 2018 , 98, 1437-1469	1.6	14	
53	Differential finishing of freeform surfaces (knee joint) using R-MRAFF process and negative replica of workpiece as a fixture. <i>Machining Science and Technology</i> , 2018 , 22, 671-695	2	15	
52	Investigations into side gap in wire electrochemical micromachining (wire-ECMM). <i>International Journal of Advanced Manufacturing Technology</i> , 2018 , 94, 4469-4478	3.2	11	
51	Simulation and experimental investigations into abrasive flow nanofinishing of surgical stainless steel tubes. <i>Machining Science and Technology</i> , 2018 , 22, 454-475	2	13	
50	On the effect of relative size of magnetic particles and abrasive particles in MR fluid-based finishing process. <i>Machining Science and Technology</i> , 2018 , 22, 493-506	2	24	
49	Analysis, design and synthesis of water-based magnetorheological fluid for CMMRF process. <i>Journal of Micromanufacturing</i> , 2018 , 1, 45-52	1.7	8	
48	Wire Electrochemical Threading: A Technique for Fabricating Macro/Micro Thread Profiles. <i>Journal of the Electrochemical Society</i> , 2018 , 165, E397-E405	3.9	12	
47	Finishing force analysis and simulation of nanosurface roughness in abrasive flow finishing process using medium rheological properties. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 85, 2163-2178	3.2	17	
46	Nano-finishing of cylindrical hard steel tubes using rotational abrasive flow finishing (R-AFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 85, 2179-2187	3.2	23	
45	Fabrication of complex circuit on printed circuit board (PCB) using electrochemical micro-machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2016 , 85, 2073-2081	3.2	7	
44	A 2D CFD simulation of MR polishing medium in magnetic field-assisted finishing process using electromagnet. <i>International Journal of Advanced Manufacturing Technology</i> , 2015 , 76, 173-187	3.2	19	
43	Rheological Properties and Their Correlation with Surface Finish Quality in MR Fluid-Based Finishing Process. <i>Machining Science and Technology</i> , 2014 , 18, 367-385	2	41	
42	Fabrication of Microchannels in Ceramics (Quartz) Using Electrochemical Spark Micromachining (ECSMM). <i>Journal of Advanced Manufacturing Systems</i> , 2014 , 13, 5-16	1.8	24	
41	A Theoretical Assessment of Surface Defect Machining and Hot Machining of Nanocrystalline Silicon Carbide. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2014 , 136,	3.3	29	
40	Fabrication of micro-features and micro-tools using electrochemical micromachining. <i>International Journal of Advanced Manufacturing Technology</i> , 2012 , 61, 1175-1183	3.2	49	

39	Experimental investigations into surface roughness and yield stress in magnetorheological fluid based nano-finishing process. <i>International Journal of Precision Engineering and Manufacturing</i> , 2012 , 13, 855-860	1.7	25
38	Some aspects of fabrication of micro devices by electrochemical micromachining (ECMM) and its finishing by magnetorheological fluid. <i>International Journal of Advanced Manufacturing Technology</i> , 2012 , 59, 987-996	3.2	19
37	Effect of fluid composition on nanofinishing of single-crystal silicon by magnetic field-assisted finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , 2011 , 55, 243-252	3.2	34
36	The Out-of-Roundness of the Internal Surfaces of Stainless Steel Tubes Finished by the Rotational Magnetorheological Abrasive Flow Finishing Process. <i>Materials and Manufacturing Processes</i> , 2011 , 26, 1073-1084	4.1	34
35	Traveling down the microchannels: Fabrication and analysis 2010,		1
34	NANO-FINISHING OF STAINLESS-STEEL TUBES USING ROTATIONAL MAGNETORHEOLOGICAL ABRASIVE FLOW FINISHING PROCESS. <i>Machining Science and Technology</i> , 2010 , 14, 365-389	2	62
33	Simultaneous microchannel formation and copper deposition on silicon along with surface treatment 2010 ,		2
32	Rheological characterization of magnetorheological polishing fluid for MRAFF. <i>International Journal of Advanced Manufacturing Technology</i> , 2009 , 42, 656-668	3.2	48
31	Experimental investigations and modeling of drill bit-guided abrasive flow finishing (DBG-AFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , 2009 , 42, 678-688	3.2	41
30	Analysis of contoured holes produced using STED process. <i>International Journal of Advanced Manufacturing Technology</i> , 2009 , 44, 133-148	3.2	15
29	ANALYSIS OF PERFORMANCE OF PULSATING FLEXIBLE MAGNETIC ABRASIVE BRUSH (P-FMAB). <i>Machining Science and Technology</i> , 2008 , 12, 53-76	2	18
28	Development of a cutting tool condition monitoring system for high speed turning operation by vibration and strain analysis. <i>International Journal of Advanced Manufacturing Technology</i> , 2008 , 37, 47	1-485	47
27	Analysis of magnetorheological abrasive flow finishing (MRAFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , 2008 , 38, 613-621	3.2	41
26	Predicting radial overcut in deep holes drilled by shaped tube electrochemical machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2008 , 39, 47-54	3.2	22
25	Effect of extrusion pressure and number of finishing cycles on surface roughness in magnetorheological abrasive flow finishing (MRAFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , 2007 , 33, 725-729	3.2	41
24	Hole quality and interelectrode gap dynamics during pulse current electrochemical deep hole drilling. <i>International Journal of Advanced Manufacturing Technology</i> , 2007 , 34, 79-95	3.2	37
23	Parametric optimization of advanced fine-finishing processes. <i>International Journal of Advanced Manufacturing Technology</i> , 2007 , 34, 1191-1213	3.2	38
22	OPTIMIZATION OF ELECTRO-CHEMICAL MACHINING PROCESS PARAMETERS USING GENETIC ALGORITHMS. <i>Machining Science and Technology</i> , 2007 , 11, 235-258	2	44

(1986-2007)

21	Modeling and Simulation of Surface Roughness in Magnetic Abrasive Finishing Using Non-Uniform Surface Profiles. <i>Materials and Manufacturing Processes</i> , 2007 , 22, 256-270	4.1	46
20	Experimental investigations into forces acting during a magnetic abrasive finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , 2006 , 30, 652-662	3.2	87
19	Prediction of surface roughness during abrasive flow machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2006 , 31, 258-267	3.2	46
18	MAGNETIC ABRASIVE FINISHING PROCESS (A) PARAMETRIC ANALYSIS. <i>Journal of Advanced Manufacturing Systems</i> , 2005 , 04, 131-150	1.8	15
17	MEASUREMENT OF HYDROGEN CONTENT IN ELECTRICAL DISCHARGE MACHINED COMPONENTS. <i>Machining Science and Technology</i> , 2005 , 9, 289-299	2	1
16	ON THE PERFORMANCE ANALYSIS OF FLEXIBLE MAGNETIC ABRASIVE BRUSH. <i>Machining Science and Technology</i> , 2005 , 9, 601-619	2	33
15	Theoretical Analysis of Thermal Stresses in Electro-discharge Diamond Grinding. <i>Machining Science and Technology</i> , 2004 , 8, 119-140	2	9
14	Parametric Study of Temperature Distribution in Electrodischarge Diamond Grinding. <i>Materials and Manufacturing Processes</i> , 2004 , 19, 1071-1101	4.1	7
13	Analysis of magnetic abrasive finishing with slotted magnetic pole. <i>AIP Conference Proceedings</i> , 2004 ,	О	6
12	On-Line Monitoring of Tool Wear and Control of Dimensional Inaccuracy in Turning. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2001 , 123, 10-12	3.3	10
11	ELECTRICAL DISCHARGE DIAMOND GRINDING OF HIGH SPEED STEEL. <i>Machining Science and Technology</i> , 1999 , 3, 91-105	2	55
10	ANALYSIS OF SPARK PROFILES DURING EDM PROCESS. Machining Science and Technology, 1997 , 1, 195	-217	105
9	Characterization of shearing features for sheet metal components in 2-D layout. <i>International Journal of Production Research</i> , 1996 , 34, 157-190	7.8	4
8	Experimental Investigations into Traveling Wire Electrochemical Spark Machining (TW-ECSM) of Composites. <i>Journal of Engineering for Industry</i> , 1991 , 113, 75-84		68
7	Tool Design for ECM: Correction Factor Method. <i>Journal of Engineering for Industry</i> , 1988 , 110, 111-118		24
6	On the production of elliptical holes by ECM. <i>International Journal of Production Research</i> , 1987 , 25, 433	3- 4 . \$ 5	5
5	Effects of Accelerated Tests on Shear Flow Stress in Machining. <i>Journal of Engineering for Industry</i> , 1987 , 109, 206-212		5
4	Investigations into the effect of cathode material on temperature distribution during electrochemical machining. <i>International Journal of Production Research</i> , 1986 , 24, 439-450	7.8	6

3	Micro-texturing on flat and cylindrical surfaces using electric discharge micromachining. <i>Journal of Micromanufacturing</i> ,251659842098040	1.7	5
2	Micro-machining: An overview (Part II). Journal of Micromanufacturing,251659842110452	1.7	1
1	3-D fabrication using electrical discharge-milling: an overview. <i>Materials and Manufacturing Processes</i> ,1-31	4.1	1