

# Vijay Kumar Jain

## List of Publications by Citations

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74  
papers

1,592  
citations

24  
h-index

36  
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76  
ext. papers

1,831  
ext. citations

2.9  
avg, IF

5.02  
L-index

#	Paper	IF	Citations
74	ANALYSIS OF SPARK PROFILES DURING EDM PROCESS. <i>Machining Science and Technology</i> , <b>1997</b> , 1, 195-217		105
73	Experimental investigations into forces acting during a magnetic abrasive finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2006</b> , 30, 652-662	3.2	87
72	Experimental Investigations into Traveling Wire Electrochemical Spark Machining (TW-ECSM) of Composites. <i>Journal of Engineering for Industry</i> , <b>1991</b> , 113, 75-84		68
71	NANO-FINISHING OF STAINLESS-STEEL TUBES USING ROTATIONAL MAGNETORHEOLOGICAL ABRASIVE FLOW FINISHING PROCESS. <i>Machining Science and Technology</i> , <b>2010</b> , 14, 365-389	2	62
70	ELECTRICAL DISCHARGE DIAMOND GRINDING OF HIGH SPEED STEEL. <i>Machining Science and Technology</i> , <b>1999</b> , 3, 91-105	2	55
69	Fabrication of micro-features and micro-tools using electrochemical micromachining. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2012</b> , 61, 1175-1183	3.2	49
68	Rheological characterization of magnetorheological polishing fluid for MRAFF. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 42, 656-668	3.2	48
67	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> , <b>2008</b> , 37, 471-485	3.2	47
66	Modeling and Simulation of Surface Roughness in Magnetic Abrasive Finishing Using Non-Uniform Surface Profiles. <i>Materials and Manufacturing Processes</i> , <b>2007</b> , 22, 256-270	4.1	46
65	Prediction of surface roughness during abrasive flow machining. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2006</b> , 31, 258-267	3.2	46
64	OPTIMIZATION OF ELECTRO-CHEMICAL MACHINING PROCESS PARAMETERS USING GENETIC ALGORITHMS. <i>Machining Science and Technology</i> , <b>2007</b> , 11, 235-258	2	44
63	Rheological Properties and Their Correlation with Surface Finish Quality in MR Fluid-Based Finishing Process. <i>Machining Science and Technology</i> , <b>2014</b> , 18, 367-385	2	41
62	Experimental investigations and modeling of drill bit-guided abrasive flow finishing (DBG-AFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 42, 678-688	3.2	41
61	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> , <b>2007</b> , 33, 725-729	3.2	41
60	Analysis of magnetorheological abrasive flow finishing (MRAFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2008</b> , 38, 613-621	3.2	41
59	Parametric optimization of advanced fine-finishing processes. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2007</b> , 34, 1191-1213	3.2	38
58	Hole quality and interelectrode gap dynamics during pulse current electrochemical deep hole drilling. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2007</b> , 34, 79-95	3.2	37

57	Effect of fluid composition on nanofinishing of single-crystal silicon by magnetic field-assisted finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2011</b> , 55, 243-252	3-2	34
56	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> , <b>2011</b> , 26, 1073-1084	4-1	34
55	ON THE PERFORMANCE ANALYSIS OF FLEXIBLE MAGNETIC ABRASIVE BRUSH. <i>Machining Science and Technology</i> , <b>2005</b> , 9, 601-619	2	33
54	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> , <b>2014</b> , 136,	3-3	29
53	Experimental investigations into surface roughness and yield stress in magnetorheological fluid based nano-finishing process. <i>International Journal of Precision Engineering and Manufacturing</i> , <b>2012</b> , 13, 855-860	1-7	25
52	On the effect of relative size of magnetic particles and abrasive particles in MR fluid-based finishing process. <i>Machining Science and Technology</i> , <b>2018</b> , 22, 493-506	2	24
51	Fabrication of Microchannels in Ceramics (Quartz) Using Electrochemical Spark Micromachining (ECSMM). <i>Journal of Advanced Manufacturing Systems</i> , <b>2014</b> , 13, 5-16	1-8	24
50	Tool Design for ECM: Correction Factor Method. <i>Journal of Engineering for Industry</i> , <b>1988</b> , 110, 111-118		24
49	Nano-finishing of cylindrical hard steel tubes using rotational abrasive flow finishing (R-AFF) process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2016</b> , 85, 2179-2187	3-2	23
48	Electrochemical micro texturing on flat and curved surfaces: simulation and experiments. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1269-1286	3-2	23
47	Predicting radial overcut in deep holes drilled by shaped tube electrochemical machining. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2008</b> , 39, 47-54	3-2	22
46	A 2D CFD simulation of MR polishing medium in magnetic field-assisted finishing process using electromagnet. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2015</b> , 76, 173-187	3-2	19
45	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> , <b>2012</b> , 59, 987-996	3-2	19
44	ANALYSIS OF PERFORMANCE OF PULSATING FLEXIBLE MAGNETIC ABRASIVE BRUSH (P-FMAB). <i>Machining Science and Technology</i> , <b>2008</b> , 12, 53-76	2	18
43	Experimental investigations into nanofinishing of Ti6Al4V flat disc using magnetorheological finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1055-1065	3-2	18
42	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> , <b>2016</b> , 85, 2163-2178	3-2	17
41	Analysis of finishing forces and surface finish during magnetorheological abrasive flow finishing of asymmetric workpieces. <i>Journal of Micromanufacturing</i> , <b>2019</b> , 2, 133-151	1-7	15
40	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> , <b>2018</b> , 22, 671-695	2	15

39	Analysis of contoured holes produced using STED process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 44, 133-148	3.2	15
38	MAGNETIC ABRASIVE FINISHING PROCESS IN PARAMETRIC ANALYSIS. <i>Journal of Advanced Manufacturing Systems</i> , <b>2005</b> , 04, 131-150	1.8	15
37	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> , <b>2020</b> , 151, 103526	9.4	14
36	Investigations into the mechanism of material removal and surface modification at atomic scale on stainless steel using molecular dynamics simulation. <i>Philosophical Magazine</i> , <b>2018</b> , 98, 1437-1469	1.6	14
35	Preliminary investigations into nano-finishing of freeform surface (femoral) using inverse replica fixture. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1081-1092	3.2	14
34	Simulation and experimental investigations into abrasive flow nanofinishing of surgical stainless steel tubes. <i>Machining Science and Technology</i> , <b>2018</b> , 22, 454-475	2	13
33	Experimental and theoretical investigations into internal magnetic abrasive finishing of a revolver barrel. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1105-1122	3.2	13
32	Wire Electrochemical Threading: A Technique for Fabricating Macro/Micro Thread Profiles. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, E397-E405	3.9	12
31	Development of inverse replica fixture for nano-finishing of knee joint using R-MRAFF process. <i>Journal of Micromanufacturing</i> , <b>2019</b> , 2, 35-41	1.7	12
30	Viscoelastic medium modeling and surface roughness simulation of microholes finished by abrasive flow finishing process. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1165-1182	3.2	12
29	Investigations into side gap in wire electrochemical micromachining (wire-ECMM). <i>International Journal of Advanced Manufacturing Technology</i> , <b>2018</b> , 94, 4469-4478	3.2	11
28	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> , <b>2019</b> , 100, 1149-1163	3.2	10
27	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> , <b>2001</b> , 123, 10-12	3.3	10
26	Optimization of process parameters in nano-finishing of Co-Cr-Mo alloy knee joint. <i>Materials and Manufacturing Processes</i> , <b>2020</b> , 35, 985-992	4.1	9
25	Theoretical Analysis of Thermal Stresses in Electro-discharge Diamond Grinding. <i>Machining Science and Technology</i> , <b>2004</b> , 8, 119-140	2	9
24	Investigations into insertion force of electrochemically micro-textured hypodermic needles. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1311-1326	3.2	9
23	Analysis, design and synthesis of water-based magnetorheological fluid for CMMRF process. <i>Journal of Micromanufacturing</i> , <b>2018</b> , 1, 45-52	1.7	8
22	Force analysis of magnetic abrasive nano-finishing of magnetic and non-magnetic materials. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 100, 1137-1147	3.2	8

21	Fabrication of complex circuit on printed circuit board (PCB) using electrochemical micro-machining. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2016</b> , 85, 2073-2081	3.2	7
20	Parametric Study of Temperature Distribution in Electrodischarge Diamond Grinding. <i>Materials and Manufacturing Processes</i> , <b>2004</b> , 19, 1071-1101	4.1	7
19	Micromachining: An overview (Part I). <i>Journal of Micromanufacturing</i> , <b>2020</b> , 3, 142-158	1.7	6
18	Analysis of magnetic abrasive finishing with slotted magnetic pole. <i>AIP Conference Proceedings</i> , <b>2004</b> ,	0	6
17	Investigations into the effect of cathode material on temperature distribution during electrochemical machining. <i>International Journal of Production Research</i> , <b>1986</b> , 24, 439-450	7.8	6
16	On the production of elliptical holes by ECM. <i>International Journal of Production Research</i> , <b>1987</b> , 25, 433-445	7.45	5
15	Effects of Accelerated Tests on Shear Flow Stress in Machining. <i>Journal of Engineering for Industry</i> , <b>1987</b> , 109, 206-212		5
14	Micro-texturing on flat and cylindrical surfaces using electric discharge micromachining. <i>Journal of Micromanufacturing</i> , 251659842098040	1.7	5
13	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> , <b>2019</b> , 1, e51	2.8	4
12	Experimental and analytical investigations into wire electrochemical micro turning. <i>Journal of Micromanufacturing</i> , <b>2019</b> , 2, 42-58	1.7	4
11	Characterization of shearing features for sheet metal components in 2-D layout. <i>International Journal of Production Research</i> , <b>1996</b> , 34, 157-190	7.8	4
10	Micro-electrical Discharge Milling Operation. <i>Materials Forming, Machining and Tribology</i> , <b>2019</b> , 23-51	0.5	4
9	Simultaneous microchannel formation and copper deposition on silicon along with surface treatment <b>2010</b> ,		2
8	Sustainable Electrochemical Micromachining Using Atomized Electrolyte Flushing. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 043504	3.9	2
7	Traveling down the microchannels: Fabrication and analysis <b>2010</b> ,		1
6	MEASUREMENT OF HYDROGEN CONTENT IN ELECTRICAL DISCHARGE MACHINED COMPONENTS. <i>Machining Science and Technology</i> , <b>2005</b> , 9, 289-299	2	1
5	Micro-machining: An overview (Part II). <i>Journal of Micromanufacturing</i> , 251659842110452	1.7	1
4	3-D fabrication using electrical discharge-milling: an overview. <i>Materials and Manufacturing Processes</i> , 1-31	4.1	1

3	Fabrication of Micro-holes Array Through Multiple Electrodes with Distributed Pulsed Electrochemical Machining. <i>Lecture Notes on Multidisciplinary Industrial Engineering, 2019, 47-60</i>	0.3
2	Experimental Investigations into Wire Electrical Discharge Machining Process for the Machining of Ti-6Al-4V. <i>Lecture Notes on Multidisciplinary Industrial Engineering, 2019, 329-337</i>	0.3
1	Investigations into Wire Electrochemical Machining of Stainless Steel 304. <i>Lecture Notes on Multidisciplinary Industrial Engineering, 2020, 41-52</i>	0.3