

# Alokesh Pramanik

## List of Publications by Year in descending order

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134  
papers

4,713  
citations

109137

35  
h-index

118652

62  
g-index

135  
all docs

135  
docs citations

135  
times ranked

2986  
citing authors

#	ARTICLE	IF	CITATIONS
1	Joining of carbon fibre reinforced polymer (CFRP) composites and aluminium alloys – A review. Composites Part A: Applied Science and Manufacturing, 2017, 101, 1-29.	3.8	418
2	Problems and solutions in machining of titanium alloys. International Journal of Advanced Manufacturing Technology, 2014, 70, 919-928.	1.5	322
3	Machining of metal matrix composites: Effect of ceramic particles on residual stress, surface roughness and chip formation. International Journal of Machine Tools and Manufacture, 2008, 48, 1613-1625.	6.2	200
4	Prediction of cutting forces in machining of metal matrix composites. International Journal of Machine Tools and Manufacture, 2006, 46, 1795-1803.	6.2	193
5	An FEM investigation into the behavior of metal matrix composites: Tool–particle interaction during orthogonal cutting. International Journal of Machine Tools and Manufacture, 2007, 47, 1497-1506.	6.2	186
6	Effects of reinforcement on wear resistance of aluminum matrix composites. Transactions of Nonferrous Metals Society of China, 2016, 26, 348-358.	1.7	136
7	Machining of Titanium Alloy (Ti-6Al-4V) – Theory to Application. Machining Science and Technology, 2015, 19, 1-49.	1.4	133
8	A critical review on additive manufacturing of Ti-6Al-4V alloy: microstructure and mechanical properties. Journal of Materials Research and Technology, 2022, 18, 4641-4661.	2.6	131
9	Developments in the non-traditional machining of particle reinforced metal matrix composites. International Journal of Machine Tools and Manufacture, 2014, 86, 44-61.	6.2	128
10	Evaluating Mechanical Properties and Failure Mechanisms of Fused Deposition Modeling Acrylonitrile Butadiene Styrene Parts. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	1.3	99
11	Surface Modification of Ti-6Al-4V Alloy by Electrical Discharge Coating Process Using Partially Sintered Ti-Nb Electrode. Materials, 2019, 12, 1006.	1.3	97
12	Machinability study of first generation duplex (2205), second generation duplex (2507) and austenite stainless steel during drilling process. Wear, 2013, 304, 20-28.	1.5	86
13	Understanding the wire electrical discharge machining of Ti6Al4V alloy. Heliyon, 2019, 5, e01473.	1.4	85
14	Evaluating Hole Quality in Drilling of Al 6061 Alloys. Materials, 2018, 11, 2443.	1.3	80
15	Deformation and strengthening of SiC reinforced Al-MMCs during in-situ micro-pillar compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 763, 138141.	2.6	79
16	Investigation of machining characteristics of hard-to-machine Ti-6Al-4V-ELI alloy for biomedical applications. Journal of Materials Research and Technology, 2019, 8, 4849-4862.	2.6	76
17	Optimizing dimensional accuracy of titanium alloy features produced by wire electrical discharge machining. Materials and Manufacturing Processes, 2019, 34, 1083-1090.	2.7	74
18	Machining parameter optimization in shear thickening polishing of gear surfaces. Journal of Materials Research and Technology, 2020, 9, 5112-5126.	2.6	71

#	ARTICLE	IF	CITATIONS
19	Cutting performance of diamond tools during ultra-precision turning of electroless-nickel plated die materials. <i>Journal of Materials Processing Technology</i> , 2003, 140, 308-313.	3.1	59
20	Electrical discharge machining of 6061 aluminium alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2015, 25, 2866-2874.	1.7	57
21	Additive manufacturing of mechanical testing samples based on virgin poly (lactic acid) (PLA) and PLA/wood fibre composites. <i>Advances in Manufacturing</i> , 2018, 6, 71-82.	3.2	57
22	Burr formation and its treatments—a review. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 107, 2189-2210.	1.5	57
23	Machining performance of Inconel 718 using graphene nanofluid in EDM. <i>Materials and Manufacturing Processes</i> , 2020, 35, 33-42.	2.7	54
24	Sustainability in wire electrical discharge machining of titanium alloy: Understanding wire rupture. <i>Journal of Cleaner Production</i> , 2018, 198, 472-479.	4.6	51
25	Deformation mechanisms of MMCs under indentation. <i>Composites Science and Technology</i> , 2008, 68, 1304-1312.	3.8	50
26	Developments of rubber material wear in conveyer belt system. <i>Tribology International</i> , 2017, 111, 148-158.	3.0	49
27	Weldability of Duplex Stainless Steel. <i>Materials and Manufacturing Processes</i> , 2015, 30, 1053-1068.	2.7	48
28	Machining and Tool Wear Mechanisms during Machining Titanium Alloys. <i>Advanced Materials Research</i> , 0, 651, 338-343.	0.3	46
29	Effect of Size, Content and Shape of Reinforcements on the Behavior of Metal Matrix Composites (MMCs) Under Tension. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 4444-4459.	1.2	45
30	Tool Condition Monitoring While Using Vegetable Based Cutting Fluids During Milling of Inconel 625. <i>Journal of Advanced Manufacturing Systems</i> , 2019, 18, 563-581.	0.4	44
31	Methods and variables in Electrical discharge machining of titanium alloy – A review. <i>Heliyon</i> , 2020, 6, e05554.	1.4	43
32	Tool wear and surface quality of metal matrix composites due to machining: A review. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2017, 231, 739-752.	1.5	42
33	Developments in Machining of Stacked Materials Made of CFRP and Titanium/Aluminum Alloys. <i>Machining Science and Technology</i> , 2014, 18, 485-508.	1.4	40
34	Fatigue life of machined components. <i>Advances in Manufacturing</i> , 2017, 5, 59-76.	3.2	39
35	Degradation of wire electrode during electrical discharge machining of metal matrix composites. <i>Wear</i> , 2016, 346-347, 124-131.	1.5	38
36	Chip formation mechanism and machinability of wrought duplex stainless steel alloys. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 80, 1127-1135.	1.5	36

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37	Comparison of Design of Experiments via Traditional and Taguchi Method. Journal of Advanced Manufacturing Systems, 2016, 15, 151-160.	0.4	35
38	Electrical Discharge Machining of MMCs Reinforced with Very Small Particles. Materials and Manufacturing Processes, 2016, 31, 397-404.	2.7	35
39	Application of coolants during tool-based machining – A review. Ain Shams Engineering Journal, 2023, 14, 101830.	3.5	34
40	Wire EDM Mechanism of MMCs with the Variation of Reinforced Particle Size. Materials and Manufacturing Processes, 2016, 31, 1700-1708.	2.7	33
41	Assessment of Dimensional Stability, Biodegradability, and Fracture Energy of Bio-Composites Reinforced with Novel Pine Cone. Polymers, 2021, 13, 3260.	2.0	33
42	Ultra-precision turning of electroless-nickel: Effect of phosphorus contents, depth-of-cut and rake angle. Journal of Materials Processing Technology, 2008, 208, 400-408.	3.1	32
43	Effect of cooling methods on dimensional accuracy and surface finish of a turned titanium part. International Journal of Advanced Manufacturing Technology, 2013, 69, 2711-2722.	1.5	32
44	Accuracy and finish during wire electric discharge machining of metal matrix composites for different reinforcement size and machining conditions. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2018, 232, 1068-1078.	1.5	31
45	Effect of wire electric discharge machining (EDM) parameters on fatigue life of Ti-6Al-4V alloy. International Journal of Fatigue, 2019, 128, 105186.	2.8	29
46	Surface integrity of Mg-based nanocomposite produced by Abrasive Water Jet Machining (AWJM). Materials and Manufacturing Processes, 2017, 32, 1707-1714.	2.7	28
47	Material recovery and recycling of waste tyres-A review. Cleaner Materials, 2022, 5, 100115.	1.9	28
48	Contribution of machining to the fatigue behaviour of metal matrix composites (MMCs) of varying reinforcement size. International Journal of Fatigue, 2017, 102, 9-17.	2.8	27
49	Effect of machining parameters on the surface finish of a metal matrix composite under dry cutting conditions. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2017, 231, 913-923.	1.5	26
50	Wear behavior of chromium nitride coating in dry condition at lower sliding velocity and load. International Journal of Advanced Manufacturing Technology, 2018, 96, 1665-1675.	1.5	26
51	Drilling of titanium alloy (Ti6Al4V) – a review. Machining Science and Technology, 2021, 25, 637-702.	1.4	26
52	Processing of duplex stainless steel by WEDM. Materials and Manufacturing Processes, 2018, 33, 1559-1567.	2.7	25
53	Micro-Indentation of Metal Matrix Composite - An FEM Investigation. Key Engineering Materials, 2007, 340-341, 563-570.	0.4	24
54	Effect of reinforced particle size on wire EDM of MMCs. International Journal of Machining and Machinability of Materials, 2015, 17, 139.	0.1	24

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55	A Review on Mechanical Properties of Natural Fibre Reinforced Polymer Composites under Various Strain Rates. <i>Journal of Composites Science</i> , 2021, 5, 130.	1.4	24
56	Fracture and fatigue life of Al-based MMCs machined at different conditions. <i>Engineering Fracture Mechanics</i> , 2018, 191, 33-45.	2.0	23
57	Accuracy of duplex stainless steel feature generated by electrical discharge machining (EDM). Measurement: <i>Journal of the International Measurement Confederation</i> , 2018, 130, 137-144.	2.5	23
58	Developments of non-conventional drilling methods—a review. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 106, 2133-2166.	1.5	23
59	Finite element submodeling technique to analyze the contact pressure and wear of hard bearing couples in hip prosthesis. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020, 23, 422-431.	0.9	23
60	Comparative study between wear of uncoated and TiAlN-coated carbide tools in milling of Ti6Al4V. <i>Advances in Manufacturing</i> , 2017, 5, 83-91.	3.2	21
61	Recast Layer Formation during Wire Electrical Discharge Machining of Titanium (Ti-Al6-V4) Alloy. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 8926-8935.	1.2	21
62	Burr formation during drilling of mild steel at different machining conditions. <i>Materials and Manufacturing Processes</i> , 2019, 34, 726-735.	2.7	20
63	A Briefing on the Manufacture of Hip Joint Prostheses. <i>Advanced Materials Research</i> , 0, 76-78, 212-216.	0.3	18
64	The effects of material formulation and manufacturing process on mechanical and thermal properties of epoxy/clay nanocomposites. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 87, 1999-2012.	1.5	18
65	Duplex surface treatment of steels by nitriding and chromizing. <i>Australian Journal of Mechanical Engineering</i> , 2017, 15, 55-72.	1.5	18
66	Investigations on tribo-mechanical behaviour of Al-Si10-Mg/sugarcane bagasse ash/SiC hybrid composites. <i>China Foundry</i> , 2019, 16, 277-284.	0.5	18
67	Magneto-Rheological Fluid Assisted Abrasive Nanofinishing of $\beta$ -Phase Ti-Nb-Ta-Zr Alloy: Parametric Appraisal and Corrosion Analysis. <i>Materials</i> , 2020, 13, 5156.	1.3	18
68	Fabrication of Nano-Particle Reinforced Metal Matrix Composites. <i>Advanced Materials Research</i> , 0, 651, 289-294.	0.3	17
69	Investigation on the Behavior of Austenite and Ferrite Phases at Stagnation Region in the Turning of Duplex Stainless Steel Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 3165-3177.	1.1	17
70	Stagnation zone during the turning of Duplex SAF 2205 stainless steels alloy. <i>Materials and Manufacturing Processes</i> , 2017, 32, 1486-1489.	2.7	17
71	Particle fracture and debonding during orthogonal machining of metal matrix composites. <i>Advances in Manufacturing</i> , 2017, 5, 77-82.	3.2	16
72	Milling of Nanoparticles Reinforced Al-Based Metal Matrix Composites. <i>Journal of Composites Science</i> , 2018, 2, 13.	1.4	16

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73	Elastomers™ wear: Comparison of theory with experiment. Tribology International, 2019, 135, 46-54.	3.0	16
74	Ultraprecision turning of electroless nickel: effects of crystal orientation and origin of diamond tools. International Journal of Advanced Manufacturing Technology, 2009, 43, 681-689.	1.5	15
75	Failure Mechanisms of Nanoparticle Reinforced Metal Matrix Composite. Advanced Materials Research, 0, 774-776, 548-551.	0.3	14
76	Residual stress generation in metal matrix composites after cooling. Materials Science and Technology, 2018, 34, 1388-1400.	0.8	14
77	Effect of lubrication on the wear behaviour of CrN coating deposited by PVD process. International Journal of Surface Science and Engineering, 2019, 13, 60.	0.4	14
78	A novel approach towards sustainable electrical discharge machining of metal matrix composites (MMCs). International Journal of Advanced Manufacturing Technology, 2020, 106, 1477-1486.	1.5	14
79	Residual stresses in silicon-on-sapphire thin film systems. International Journal of Solids and Structures, 2011, 48, 1290-1300.	1.3	13
80	Thermal-Assisted Machining of Titanium Alloys. Materials Forming, Machining and Tribology, 2017, , 49-76.	0.7	13
81	Effect of machining parameters on deformation behaviour of Al-based metal matrix composites under tension. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2018, 232, 217-225.	1.5	12
82	Workability and Flexural Properties of Fibre-Reinforced Geopolymer Using Different Mono and Hybrid Fibres. Materials, 2021, 14, 4447.	1.3	12
83	Challenges and recent developments on nanoparticle-reinforced metal matrix composites. , 2015, , 349-367.		11
84	Optimization of material formulation and processing parameters in relation to mechanical properties of bioepoxy/clay nanocomposites using Taguchi design of experiments. Journal of Applied Polymer Science, 2018, 135, 45769.	1.3	11
85	Micro-mechanical characterization of superficial layer synthesized by electric discharge machining process. Materials Letters, 2021, 305, 130769.	1.3	11
86	Study of effective parameters on wear behavior of rubbers based on statistical methods. Polymers for Advanced Technologies, 2019, 30, 1415-1426.	1.6	10
87	Effect of peak current and peak voltage on machined surface morphology during WEDM of TiNiCu shape memory alloys. Journal of Mechanical Science and Technology, 2020, 34, 3957-3961.	0.7	10
88	Investigations on the tribological behaviour, toxicity, and biodegradability of kapok oil bio-lubricant blended with (SAE20W40) mineral oil. Biomass Conversion and Biorefinery, 2023, 13, 3669-3681.	2.9	10
89	Mechanical Properties of Titanium Diboride Particles Reinforced Aluminum Alloy Matrix Composites: A Comprehensive Review. Advances in Materials Science and Engineering, 2021, 2021, 1-18.	1.0	10
90	Machining of Particulate-Reinforced Metal Matrix Composites. , 2008, , 127-166.		9

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91	Effects of Insert Geometry and Feed Rate on Quality Characteristics of Turned Parts. Journal of Advanced Manufacturing Systems, 2015, 14, 149-166.	0.4	9
92	Preheating and thermal behaviour of a rotating cylindrical workpiece in laser-assisted machining. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2020, 234, 559-570.	1.5	9
93	Understanding the Micro-Mechanical Behaviour of Recast Layer Formed during WEDM of Titanium Alloy. Metals, 2022, 12, 188.	1.0	9
94	Optimization of turning parameters for AlSi10Mg/SCBA/SiC hybrid metal matrix composite using response surface methodology. Materials Research Express, 2019, 6, 106553.	0.8	8
95	Experimental studies on viscosity, thermal and tribological properties of vegetable oil (kapok oil) with boric acid as an additive. Micro and Nano Letters, 2021, 16, 290-298.	0.6	8
96	Study of heat-affected zone and mechanical properties of Nd-YAG laser welding process of thin titanium alloy sheet. Natural Resources & Engineering, 2016, 1, 51-58.	0.3	7
97	Contact Stress and Wear Analysis of Zirconia Against Alumina for Normal and Physically Demanding Loads in Hip Prosthesis. Journal of Bionic Engineering, 2020, 17, 1045-1058.	2.7	7
98	Efficient Machining of Artificial Hip Joint Components. Advanced Materials Research, 0, 97-101, 2269-2272.	0.3	6
99	Tribological Properties of Chromium Nitride on the Cylinder Liner under the Influence of High Temperature. Materials, 2020, 13, 4497.	1.3	6
100	Use of palm olein as cutting fluid during turning of mild steel. Australian Journal of Mechanical Engineering, 2023, 21, 192-202.	1.5	6
101	Investigating the Efficacy of Adhesive Tape for Drilling Carbon Fibre Reinforced Polymers. Materials, 2021, 14, 1699.	1.3	6
102	Sustainability in drilling of aluminum alloy. Cleaner Materials, 2022, 3, 100048.	1.9	6
103	Development of Pb-Free Nanocomposite Solder Alloys. Journal of Composites Science, 2018, 2, 28.	1.4	5
104	Surface Topography Analysis of Mg-Based Composites with Different Nanoparticle Contents Disintegrated Using Abrasive Water Jet. Materials, 2021, 14, 5471.	1.3	5
105	In-vitro tribological study and submodeling finite element technique in analyzing wear of zirconia toughened alumina against alumina with bio-lubricants for hip implants. Medical Engineering and Physics, 2021, 98, 83-90.	0.8	5
106	Real-Time Comprehensive Energy Analysis of the LHD 811MK-V Machine with Mathematical Model Validation and Empirical Study of Overheating: An Experimental Approach. Arabian Journal for Science and Engineering, 2022, 47, 9043-9059.	1.7	5
107	Experimental investigation on material removal rate, kerf width, surface roughness and the dimensional accuracy the accuracy of hole in Inconel 718 using wire electric discharge. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 0, , 095440892210960.	1.4	5
108	Production, Characterization and Application of Silicon-on-Sapphire Wafers. Key Engineering Materials, 0, 443, 567-572.	0.4	4



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109	A Review Paper on Machining of Metal Matrix Composite and Optimizing Methods used in Electrical Discharge Machining. <i>Materials Today: Proceedings</i> , 2018, 5, 24428-24438.	0.9	4
110	Designing and analysis of the femoral neck for an artificial hip joint prosthesis. , 2019, , 47-65.		4
111	Wear of chromium nitride coating under high loads and speeds. <i>International Journal of Surface Science and Engineering</i> , 2019, 13, 263.	0.4	4
112	Effect of abrasive particle size on tribological behavior of elastomers. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2020, 234, 373-385.	1.0	4
113	Strain Rate Sensitivity of Epoxy Composites Reinforced with Varied Sizes of Bagasse Particles. <i>Journal of Composites Science</i> , 2020, 4, 110.	1.4	4
114	Microstructural and Mechanical Properties of AA6061 Aluminium Alloy Reinforced with Nano-SiC Particles Using FSP. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 195-204.	0.3	4
115	Ultra-Precision Machinability and Properties of Electroless-Nickel. <i>Advanced Materials Research</i> , 2013, 651, 344-349.	0.3	3
116	Manufacturing, Characterisation and Properties of Advanced Nanocomposites. <i>Journal of Composites Science</i> , 2018, 2, 46.	1.4	3
117	Optimization and Prediction of Machining Responses Using Response Surface Methodology and Adaptive Neural Network by Wire Electric Discharge Machining of Alloy-X. <i>Materials Science Forum</i> , 0, 1026, 28-38.	0.3	3
118	Identification of preferred combination of factors in manufacturing bioepoxy/clay nanocomposites. <i>Advanced Composite Materials</i> , 2018, 27, 511-530.	1.0	3
119	Introduction of a New Software Package in Teaching Design Methodology for Material Selection. <i>International Journal of Information and Education Technology</i> , 2014, 4, 360-363.	0.9	3
120	Learning Enhancement of Project-Based Unit in Mechanical Engineering Undergraduate Course. , 2019, , 73-84.		2
121	A study of spot weld pull-out failure (PF) mechanism under different loading conditions for stainless steel and mild steel joints. <i>Australian Journal of Mechanical Engineering</i> , 2022, 20, 603-616.	1.5	2
122	Module-Based Teaching of Mechanical Design. <i>Advances in Higher Education and Professional Development Book Series</i> , 0, , 60-68.	0.1	2
123	Ductile Mode Turning of Brittle Materials and its Practical Aspects. <i>Advanced Materials Research</i> , 2013, 651, 350-354.	0.3	1
124	Comparative Assessment and Merit Appraisal of Thermally Assisted Machining Techniques for Improving Machinability of Titanium Alloys. <i>Materials Forming, Machining and Tribology</i> , 2018, , 297-331.	0.7	1
125	Wear of Rubbers and Its Control in Conveyer Belt System. <i>Engineering Materials</i> , 2020, , 53-79.	0.3	1
126	Single-Walled Carbon Nanotube-Enhanced Bagasse-Epoxy Hybrid Composites under Varied Low Tensile Strain Rates. <i>Applied Mechanics</i> , 2021, 2, 863-877.	0.7	1



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127	Off-Line Feed Rate Scheduling Based on a Mechanistic Cutting Force on Discrete Segments during End Milling. <i>Advanced Materials Research</i> , 2013, 774-776, 1174-1180.	0.3	0
128	Recent Issues in Materials and Manufacturing. <i>Advances in Mechanical Engineering</i> , 2017, 9, 168781401774310.	0.8	0
129	Optimization of Accuracy and Surface Finish of Drilled Holes in 350 Mild Steel. <i>Springer Series in Advanced Manufacturing</i> , 2020, , 65-90.	0.2	0
130	Stress in the interfaces of metal matrix composites (MMCs) in thermal and tensile loading. , 2020, , 455-471.		0
131	EFFECT OF LOADS AND BIO-LUBRICANTS ON TRIBOLOGICAL STUDY OF ZIRCONIA AND ZIRCONIA TOUGHENED ALUMINA AGAINST Ti6Al4V FOR HIP PROSTHESIS. <i>Surface Review and Letters</i> , 0, , 2141006.	0.5	0
132	Effect of Temperature on the Wear Behaviour of CrN Coating Deposited by Physical Vapour Deposition. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2021, , 513-522.	0.4	0
133	Tribology in (abrasive) water jet machining: A review. , 2022, , 113-125.		0
134	Corrigendum to "Processing of Ti50Nb50xHAX composites by rapid microwave sintering technique for biomedical applications" [J Mater Res Technol 9 (1) (2020) 242-252]. <i>Journal of Materials Research and Technology</i> , 2022, 18, 5455.	2.6	0