

# Kornel F Ehmann

## List of Publications by Year in descending order

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156  
papers

4,558  
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101384

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g-index

158  
all docs

158  
docs citations

158  
times ranked

3028  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Machining of Carbon Fiber Reinforced Plastics/Polymers: A Literature Review. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .                          | 1.3 | 246       |
| 2  | Data-driven multi-scale multi-physics models to derive processâ€“structureâ€“property relationships for additive manufacturing. Computational Mechanics, 2018, 61, 521-541.                    | 2.2 | 162       |
| 3  | An analysis of the surface generation mechanics of the elliptical vibration texturing process. International Journal of Machine Tools and Manufacture, 2013, 64, 85-95.                        | 6.2 | 155       |
| 4  | Development of a tertiary motion generator for elliptical vibration texturing. Precision Engineering, 2013, 37, 364-371.   | 1.8 | 151       |
| 5  | Cutting forces in micro-end-milling processes. International Journal of Machine Tools and Manufacture, 2016, 107, 21-40.   | 6.2 | 133       |
| 6  | Data-driven prediction of the high-dimensional thermal history in directed energy deposition processes via recurrent neural networks. Manufacturing Letters, 2018, 18, 35-39.                  | 1.1 | 110       |
| 7  | Calibration of a hexapod machine tool using a redundant leg. International Journal of Machine Tools and Manufacture, 2000, 40, 489-512.  | 6.2 | 97        |
| 8  | In-situ high-speed X-ray imaging of piezo-driven directed energy deposition additive manufacturing. Scientific Reports, 2019, 9, 962.  | 1.6 | 96        |
| 9  | Surface Texturing of Tribological Interfaces Using the Vibromechanical Texturing Method. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2009, 131, .              | 1.3 | 93        |
| 10 | Development of a virtual machining system, part 1: approximation of the size effect for cutting force prediction. International Journal of Machine Tools and Manufacture, 2002, 42, 1595-1605. | 6.2 | 87        |
| 11 | Generation of hierarchical micro-structures for anisotropic wetting by elliptical vibration cutting. CIRP Annals - Manufacturing Technology, 2014, 63, 553-556.                                | 1.7 | 79        |
| 12 | A dynamic model of the rolling process. Part I: homogeneous model. International Journal of Machine Tools and Manufacture, 2000, 40, 1-19.   | 6.2 | 74        |
| 13 | Error Model and Accuracy Analysis of a Six-DOF Stewart Platform. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 286-295.                               | 1.3 | 72        |
| 14 | Experimentally validated predictions of thermal history and microhardness in laser-deposited Inconel 718 on carbon steel. Additive Manufacturing, 2019, 27, 540-551.                           | 1.7 | 64        |
| 15 | Experimental Assessment of Laser Textured Cutting Tools in Dry Cutting of Aluminum Alloys. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .            | 1.3 | 61        |
| 16 | Development of a Novel 2-D Vibration-Assisted Compliant Cutting System for Surface Texturing. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1796-1806.                                     | 3.7 | 61        |
| 17 | Identification and control for micro-drilling productivity enhancement. International Journal of Machine Tools and Manufacture, 1999, 39, 1539-1561.   | 6.2 | 58        |
| 18 | Models of the cutting edge geometry of medical needles with applications to needle design. International Journal of Mechanical Sciences, 2012, 65, 157-167.                                    | 3.6 | 58        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Design of parallel hybrid-loop manipulators with kinematotropic property and deployability. Mechanism and Machine Theory, 2014, 71, 1-26.  | 2.7 | 56        |
| 20 | Hollow needle tissue insertion force model. CIRP Annals - Manufacturing Technology, 2011, 60, 157-160.   | 1.7 | 54        |
| 21 | Laser-induced plasma micro-machining (LIPMM) for enhanced productivity and flexibility in laser-based micro-machining processes. CIRP Annals - Manufacturing Technology, 2013, 62, 211-214.                        | 1.7 | 54        |
| 22 | Design, Analysis, and Realization of a Novel Piezoelectrically Actuated Rotary Spatial Vibration System for Micro-/Nanomachining. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1227-1237.                     | 3.7 | 54        |
| 23 | Ultrasonic slot machining of a silicon carbide matrix composite. International Journal of Advanced Manufacturing Technology, 2013, 66, 1119-1134.  | 1.5 | 53        |
| 24 | Physical mechanisms in hybrid additive manufacturing: A process design framework. Journal of Materials Processing Technology, 2021, 291, 117048.   | 3.1 | 51        |
| 25 | Chipping and crushing mechanisms in orthogonal rock cutting. International Journal of Mechanical Sciences, 2016, 119, 224-236.   | 3.6 | 50        |
| 26 | Development of a virtual machining system, part 2: prediction and analysis of a machined surface error. International Journal of Machine Tools and Manufacture, 2002, 42, 1607-1615.                               | 6.2 | 47        |
| 27 | Thermal effect on clad dimension for laser deposited Inconel 718. Journal of Manufacturing Processes, 2017, 28, 550-557.   | 2.8 | 46        |
| 28 | Rotary spatial vibration-assisted diamond cutting of brittle materials. Precision Engineering, 2016, 44, 211-219.  | 1.8 | 45        |
| 29 | An analytical model of rotary ultrasonic milling. International Journal of Advanced Manufacturing Technology, 2013, 65, 1705-1720.   | 1.5 | 44        |
| 30 | Texturing of metallic surfaces for superhydrophobicity by water jet guided laser micro-machining. Applied Surface Science, 2020, 500, 144286.  | 3.1 | 44        |
| 31 | An Investigation On Deformation-Based Surface Texturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2011, 133, .  | 1.3 | 41        |
| 32 | Effects of ultrasonic vibrations in micro-groove turning. Ultrasonics, 2016, 67, 30-40.  | 2.1 | 41        |
| 33 | Fabrication of hierarchical freeform surfaces by 2D compliant vibration-assisted cutting. International Journal of Mechanical Sciences, 2019, 152, 454-464.  | 3.6 | 41        |
| 34 | A dynamic model of the rolling process. Part II: inhomogeneous model. International Journal of Machine Tools and Manufacture, 2000, 40, 21-31.   | 6.2 | 40        |
| 35 | A Mechanistic Model of Cutting Forces in Micro-End-Milling With Cutting-Condition-Independent Cutting Force Coefficients. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, . | 1.3 | 40        |
| 36 | Development of a two-frequency, elliptical-vibration texturing device for surface texturing. Journal of Mechanical Science and Technology, 2017, 31, 3465-3473.  | 0.7 | 40        |

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|----|--|-----|-----------|
| 37 | Development of a virtual machining system, part 3: cutting process simulation in transient cuts. International Journal of Machine Tools and Manufacture, 2002, 42, 1617-1626.  | 6.2 | 39        |
| 38 | Measurement methods for the position errors of a multi-axis machine. Part 1: principles and sensitivity analysis. International Journal of Machine Tools and Manufacture, 1999, 39, 951-964.   | 6.2 | 38        |
| 39 | A thermo-mechanical model of dry orthogonal cutting and its experimental validation through embedded micro-scale thin film thermocouple arrays in PCBN tooling. International Journal of Machine Tools and Manufacture, 2013, 70, 70-87. | 6.2 | 37        |
| 40 | Experimental studies of wettability control on cylindrical surfaces by elliptical vibration texturing. International Journal of Advanced Manufacturing Technology, 2015, 76, 1807-1817.  | 1.5 | 37        |
| 41 | Analysis of cutting forces in the ultrasonic elliptical vibration-assisted micro-groove turning process. International Journal of Advanced Manufacturing Technology, 2015, 78, 139-152.  | 1.5 | 37        |
| 42 | Ultrasonic elliptical vibration cutting of hard materials: simulation and experimental study. International Journal of Advanced Manufacturing Technology, 2017, 91, 363-374.   | 1.5 | 37        |
| 43 | Fabrication and tribological behaviors of corner-cube-like dimple arrays produced by laser surface texturing on medical needles. Tribology International, 2015, 92, 553-558.   | 3.0 | 35        |
| 44 | Generation of engineered surfaces by the surface-shaping system. International Journal of Machine Tools and Manufacture, 1995, 35, 1269-1290.  | 6.2 | 34        |
| 45 | Influence of pulse energy on machining characteristics in laser induced plasma micro-machining. Journal of Materials Processing Technology, 2018, 262, 85-94.  | 3.1 | 34        |
| 46 | Study of the effect of cannula rotation on tissue cutting for needle biopsy. Medical Engineering and Physics, 2013, 35, 1584-1590.   | 0.8 | 33        |
| 47 | Experimental study of force responses in polycrystalline diamond face turning of rock. International Journal of Rock Mechanics and Minings Sciences, 2014, 72, 80-91.  | 2.6 | 33        |
| 48 | In-situ springback compensation in incremental sheet forming. CIRP Annals - Manufacturing Technology, 2019, 68, 317-320.   | 1.7 | 33        |
| 49 | High throughput microfabrication using laser induced plasma in saline aqueous medium. Journal of Materials Processing Technology, 2015, 217, 77-87.  | 3.1 | 31        |
| 50 | A calibration method for overconstrained spatial translational parallel manipulators. Robotics and Computer-Integrated Manufacturing, 2019, 57, 241-254.   | 6.1 | 31        |
| 51 | Analysis of dynamic characteristics of micro-drills. Journal of Materials Processing Technology, 2003, 141, 16-28.   | 3.1 | 30        |
| 52 | Effective forming strategy for double-sided incremental forming considering in-plane curvature and tool direction. CIRP Annals - Manufacturing Technology, 2016, 65, 265-268.  | 1.7 | 30        |
| 53 | Measurement of Transient Tool-Internal Temperature Fields During Hard Turning by Insert-Embedded Thin Film Sensors. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .                             | 1.3 | 29        |
| 54 | Measurement methods for the position errors of a multi-axis machine. Part 2: applications and experimental results. International Journal of Machine Tools and Manufacture, 1999, 39, 1485-1505.   | 6.2 | 28        |

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|----|--|-----|-----------|
| 55 | A novel piezoelectrically actuated 2-DoF compliant micro/nano-positioning stage with multi-level amplification. Review of Scientific Instruments, 2016, 87, 105006.  | 0.6 | 28        |
| 56 | Tool Embedded Thin Film Microsensors for Monitoring Thermal Phenomena at Tool-Workpiece Interface During Machining. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2011, 133, .   | 1.3 | 27        |
| 57 | Issues in Polycrystalline Diamond Compact Cutterâ€™Rock Interaction From a Metal Machining Point of Viewâ€™Part I: Temperature, Stresses, and Forces. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .           | 1.3 | 27        |
| 58 | Tri-pyramid Robot: Design and kinematic analysis of a 3-DOF translational parallel manipulator. Robotics and Computer-Integrated Manufacturing, 2014, 30, 648-657.   | 6.1 | 27        |
| 59 | A novel instantaneous uncut chip thickness model for mechanistic cutting force model in micro-end-milling. International Journal of Advanced Manufacturing Technology, 2017, 93, 2305-2319.  | 1.5 | 27        |
| 60 | Investigation of hybrid micro-texture fabrication in elliptical vibration-assisted cutting. International Journal of Machine Tools and Manufacture, 2017, 120, 72-84.  | 6.2 | 26        |
| 61 | Issues in Polycrystalline Diamond Compact Cutterâ€™Rock Interaction From a Metal Machining Point of Viewâ€™Part II: Bit Performance and Rock Cutting Mechanics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, . | 1.3 | 25        |
| 62 | A Mixed Double-Sided Incremental Forming Toolpath Strategy for Improved Geometric Accuracy. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .   | 1.3 | 25        |
| 63 | Springback Reduction by Annealing for Incremental Sheet Forming. Procedia Manufacturing, 2016, 5, 696-706.   | 1.9 | 25        |
| 64 | Joining sheet metals by electrically-assisted roll bonding. CIRP Annals - Manufacturing Technology, 2015, 64, 273-276.   | 1.7 | 24        |
| 65 | An Efficient and General Finite Element Model for Double-Sided Incremental Forming. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .   | 1.3 | 24        |
| 66 | Compensation of dynamic mechanical tracking errors in ball screw drives. Mechatronics, 2018, 55, 27-37.  | 2.0 | 24        |
| 67 | Acceleration strategies for explicit finite element analysis of metal powder-based additive manufacturing processes using graphical processing units. Computational Mechanics, 2019, 64, 879-894.  | 2.2 | 24        |
| 68 | Galling phenomena in metal forming. Friction, 2021, 9, 665-685.  | 3.4 | 24        |
| 69 | Prediction of rigid body motion in multi-pass single point incremental forming. Journal of Materials Processing Technology, 2019, 269, 117-127.  | 3.1 | 23        |
| 70 | Surface roughness modeling in micro end-milling. International Journal of Advanced Manufacturing Technology, 2018, 95, 1655-1664.  | 1.5 | 22        |
| 71 | Fabrication of controllable wettability of crystalline silicon surfaces by laser surface texturing and silanization. Applied Surface Science, 2019, 497, 143805.   | 3.1 | 22        |
| 72 | Towards smart manufacturing process selection in Cyber-Physical Systems. Manufacturing Letters, 2018, 17, 1-5.   | 1.1 | 21        |

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|----|--|-----|-----------|
| 73 | Theoretical and Experimental Investigation on Inclined Ultrasonic Elliptical Vibration Cutting of Alumina Ceramics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .     | 1.3 | 20        |
| 74 | Design of general kinematotropic mechanisms. Robotics and Computer-Integrated Manufacturing, 2016, 38, 67-81.  | 6.1 | 20        |
| 75 | Wettability modification of zirconia by laser surface texturing and silanization. International Journal of Applied Ceramic Technology, 2020, 17, 2182-2192.  | 1.1 | 20        |
| 76 | PL-2 Micro/Meso-scale Mechanical Manufacturing : Opportunities and Challenges. The Proceedings of the JSME Materials and Processing Conference (M&P), 2002, 10.1, 6-13.  | 0.1 | 19        |
| 77 | Dynamic design methodology of high speed micro-spindles for micro/meso-scale machine tools. International Journal of Advanced Manufacturing Technology, 2015, 76, 229-246.                                       | 1.5 | 19        |
| 78 | Study of ultrasonic vibration-assisted thread turning of Inconel 718 superalloy. Advances in Mechanical Engineering, 2019, 11, 168781401988377.  | 0.8 | 19        |
| 79 | A shape memory alloy based tool clamping device. Journal of Materials Processing Technology, 2012, 212, 735-744.   | 3.1 | 18        |
| 80 | Cooling rate effect on tensile strength of laser deposited Inconel 718. Procedia Manufacturing, 2018, 26, 912-919.   | 1.9 | 18        |
| 81 | Parameter Identification and Nonparametric Calibration of the Tri-Pyramid Robot. IEEE/ASME Transactions on Mechatronics, 2020, 25, 2309-2317.  | 3.7 | 18        |
| 82 | General contact force control algorithm in double-sided incremental forming. CIRP Annals - Manufacturing Technology, 2018, 67, 381-384.  | 1.7 | 17        |
| 83 | Prediction of forming temperature in electrically-assisted double-sided incremental forming using a neural network. Journal of Materials Processing Technology, 2022, 302, 117486.                               | 3.1 | 17        |
| 84 | Comparative Assessment of the Laser-Induced Plasma Micromachining and the Ultrashort Pulsed Laser Ablation Processes. Journal of Micro and Nano-Manufacturing, 2014, 2, .  | 0.8 | 16        |
| 85 | Turning of Microgrooves Both With and Without Aid of Ultrasonic Elliptical Vibration. Materials and Manufacturing Processes, 2015, 30, 1001-1009.  | 2.7 | 16        |
| 86 | On the Fracture Characterization in Double-Sided Incremental Forming of Ti6Al4V Sheets at Elevated Temperatures. Procedia Manufacturing, 2017, 10, 407-416.  | 1.9 | 16        |
| 87 | Study on design and cutting parameters of rotating needles for core biopsy. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 86, 43-54.   | 1.5 | 16        |
| 88 | Chatter detection based on wavelet coherence functions in micro-end-milling processes. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2019, 233, 1934-1945. | 1.5 | 16        |
| 89 | Cutting forces prediction: The experimental identification of orthogonal cutting coefficients. FME Transactions, 2017, 45, 459-467.  | 0.7 | 16        |
| 90 | Drill wandering motion: Experiment and analysis. International Journal of Mechanical Sciences, 1995, 37, 495-509.  | 3.6 | 15        |

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|-----|--|-----|-----------|
| 91  | Development and performance analysis of new spade bit designs. International Journal of Machine Tools and Manufacture, 2002, 42, 1403-1414.  | 6.2 | 15        |
| 92  | Error modeling for sensitivity analysis and calibration of the tri-pyramid parallel robot. International Journal of Advanced Manufacturing Technology, 2017, 93, 1319-1332.                            | 1.5 | 15        |
| 93  | Experimental study of water jet incremental micro-forming with supporting dies. Journal of Materials Processing Technology, 2019, 268, 117-131.  | 3.1 | 15        |
| 94  | Freeform surface fabrication on hardened steel by double frequency vibration cutting. Journal of Materials Processing Technology, 2020, 275, 116369.   | 3.1 | 15        |
| 95  | Geometry-agnostic data-driven thermal modeling of additive manufacturing processes using graph neural networks. Additive Manufacturing, 2021, 48, 102449.  | 1.7 | 15        |
| 96  | Effects of Tool Positions in Accumulated Double-Sided Incremental Forming on Part Geometry. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .                   | 1.3 | 14        |
| 97  | Tool path generation for milling of free form surfaces with feed rate scheduling. FME Transactions, 2015, 43, 9-15.  | 0.7 | 14        |
| 98  | Feasibility of Fiber-Deposition Control by Secondary Electric Fields in Near-Field Electrospinning. Journal of Micro and Nano-Manufacturing, 2015, 3, .  | 0.8 | 13        |
| 99  | Contributions in medical needle technologiesâ€™ Geometry, mechanics, design, and manufacturing. Machining Science and Technology, 2016, 20, 1-43.  | 1.4 | 13        |
| 100 | Ultrasonic elliptical vibration texturing of the rake face of carbide cutting tools for adhesion reduction. International Journal of Advanced Manufacturing Technology, 2016, 85, 2669-2679.           | 1.5 | 13        |
| 101 | Modeling of machined depth in laser surface texturing of medical needles. Precision Engineering, 2017, 47, 10-18.  | 1.8 | 13        |
| 102 | Tissue Cutting With Microserrated Biopsy Punches. Journal of Micro and Nano-Manufacturing, 2017, 5, .  | 0.8 | 13        |
| 103 | Porosity Formation and Melt pool Geometry Analysis Using High-speed, <i>in situ</i> Imaging of Directed Energy Deposition. Microscopy and Microanalysis, 2019, 25, 2556-2557.                          | 0.2 | 13        |
| 104 | Three-Dimensional Surface Characterization by Two-Dimensional Autoregressive Models. Journal of Tribology, 1995, 117, 385-393.   | 1.0 | 12        |
| 105 | Experimental Investigation of Hard Turning Mechanisms by PCBN Tooling Embedded Micro Thin Film Thermocouples. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2013, 135, . | 1.3 | 12        |
| 106 | Tri-pyramid Robot: stiffness modeling of a 3-DOF translational parallel manipulator. Robotica, 2016, 34, 383-402.  | 1.3 | 12        |
| 107 | Three-dimensional process stability prediction of thin-walled workpiece in milling operation. Machining Science and Technology, 2016, 20, 406-424.   | 1.4 | 12        |
| 108 | Modeling and simulation of micro-groove topography on cylindrical surface by elliptical vibration-assisted turning. International Journal of Advanced Manufacturing Technology, 2016, 86, 1407-1424.   | 1.5 | 12        |

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|-----|---|-----|-----------|
| 109 | Modeling of the effects of phase shift on cutting performance in elliptical vibration cutting. International Journal of Advanced Manufacturing Technology, 2017, 92, 3103-3115.   | 1.5 | 12        |
| 110 | Mechanical properties of hybrid additively manufactured Inconel 718 parts created via thermal control after secondary treatment processes. Journal of Materials Processing Technology, 2021, 291, 117047.                                 | 3.1 | 12        |
| 111 | High-Speed Fabrication of Microchannels Using Line-Based Laser Induced Plasma Micromachining. Journal of Micro and Nano-Manufacturing, 2015, 3, .   | 0.8 | 11        |
| 112 | Characterization of 14YWT oxide dispersion strengthened structural materials under electrically-assisted tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 745, 484-494. | 2.6 | 11        |
| 113 | Material removal behavior in processing green Al <sub>2</sub> O <sub>3</sub> ceramics based on scratch and edge-indentation tests. Ceramics International, 2019, 45, 12495-12508.   | 2.3 | 11        |
| 114 | Improving the accuracy of double-sided incremental forming simulations by considering kinematic hardening and machine compliance. Procedia Manufacturing, 2019, 29, 88-95.  | 1.9 | 10        |
| 115 | Fabrication of super-hydrophobic and highly oleophobic Ti-6Al-4V surfaces by a hybrid method. Materials Research Bulletin, 2020, 130, 110915.   | 2.7 | 10        |
| 116 | A model of the kinetics of the temperature-induced phase transformation in NiTi alloys and its experimental verification. Journal of Intelligent Material Systems and Structures, 2012, 23, 35-44.  | 1.4 | 9         |
| 117 | Comparative Experimental Investigation of Micro-channel Fabrication in Ti Alloys by Laser Ablation and Laser-induced Plasma Micro-machining. Procedia Manufacturing, 2019, 34, 418-423.   | 1.9 | 9         |
| 118 | Near-field electrospinning on nonconductive substrates using AC fields. Procedia CIRP, 2020, 93, 120-124.   | 1.0 | 9         |
| 119 | Design and experimental investigation of a parallel flexure hinge-based 3D elliptical vibration-assisted cutting mechanism. Journal of Micromechanics and Microengineering, 2020, 30, 085008.   | 1.5 | 9         |
| 120 | Manipulation of Water Jet Trajectory by a Nonuniform Electric Field in Water Jet Material Processing. Journal of Micro and Nano-Manufacturing, 2016, 4, .   | 0.8 | 8         |
| 121 | Surface-blended texturing of medical needles for friction reduction using a picosecond laser. Applied Physics A: Materials Science and Processing, 2016, 122, 1.  | 1.1 | 8         |
| 122 | A high-fidelity simulation of double-sided incremental forming: Improving the accuracy by incorporating the effects of machine compliance. Journal of Materials Processing Technology, 2021, 295, 117152.                                 | 3.1 | 8         |
| 123 | Instantaneous shear plane based cutting force model for end milling. Journal of Materials Processing Technology, 2005, 170, 164-180.  | 3.1 | 7         |
| 124 | Vibrational Cutting of Soft Tissue with Micro-serrated Surgical Scalpels. Procedia CIRP, 2016, 45, 199-202.   | 1.0 | 7         |
| 125 | Modeling and analysis of uncertainty in on-machine form characterization of diamond-machined optical micro-structured surfaces. Measurement Science and Technology, 2016, 27, 125017.   | 1.4 | 7         |
| 126 | Improving Surface Hydrophobicity by Microrolling-Based Texturing. Journal of Micro and Nano-Manufacturing, 2016, 4, .   | 0.8 | 7         |



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|-----|---|-----|-----------|
| 127 | The feasibility of eigenstructure assignment for machining chatter control. International Journal of Machine Tools and Manufacture, 2003, 43, 1603-1620.                              | 6.2 | 6         |
| 128 | A three-axis translation stage using opposing wedges with error compensation. International Journal of Precision Engineering and Manufacturing, 2012, 13, 401-406.                    | 1.1 | 6         |
| 129 | Surface hardening of metals at room temperature by nanoparticle-laden cavitating waterjets. Journal of Materials Processing Technology, 2020, 275, 116316.                            | 3.1 | 6         |
| 130 | A VIBRATION-ASSISTED POWDER DELIVERY SYSTEM FOR ADDITIVE MANUFACTURING - An experimental investigation -. Additive Manufacturing, 2020, 34, 101170.                                   | 1.7 | 6         |
| 131 | Powder-borne porosity in directed energy deposition. Journal of Manufacturing Processes, 2022, 80, 69-74.   | 2.8 | 6         |
| 132 | Response of High-Pressure Micro Water Jets to Static and Dynamic Nonuniform Electric Fields. Journal of Micro and Nano-Manufacturing, 2018, 6, .                                      | 0.8 | 5         |
| 133 | Micro wave patterns by vibrating-lens assisted laser machining. Journal of Materials Processing Technology, 2020, 277, 116424.  | 3.1 | 5         |
| 134 | Template-bayesian approach for the evaluation of melt pool shape and dimension of a DED-process from in-situ X-ray images. CIRP Annals - Manufacturing Technology, 2021, 70, 183-186. | 1.7 | 5         |
| 135 | Towards bi-metallic injection molds by directed energy deposition. Manufacturing Letters, 2021, 27, 78-81.  | 1.1 | 5         |
| 136 | Model of a NiTi shape memory alloy actuator. Journal of Intelligent Material Systems and Structures, 2015, 26, 386-399.   | 1.4 | 4         |
| 137 | Vibration-Assisted Slicing of Soft Tissue for Biopsy Procedures. Journal of Medical Devices, Transactions of the ASME, 2018, 12, .  | 0.4 | 4         |
| 138 | Tool wear monitoring by using the imaginary part of the transfer function of the cutting dynamics. International Journal of Machine Tools and Manufacture, 1994, 34, 393-406.         | 6.2 | 3         |
| 139 | Galling growth analysis in metal forming. Manufacturing Letters, 2018, 16, 32-35.   | 1.1 | 3         |
| 140 | Forming and uniformity of shaft parts without a stub bar by axial closedâ€“open-type cross-wedge rolling. Journal of Iron and Steel Research International, 2020, 27, 1054-1063.      | 1.4 | 3         |
| 141 | Manipulation and Localized Deposition of Particle Groups with Modulated Electric Fields. Micromachines, 2020, 11, 226.  | 1.4 | 3         |
| 142 | MetaFEM: A generic FEM solver by meta-expressions. Computer Methods in Applied Mechanics and Engineering, 2022, 394, 114907.  | 3.4 | 3         |
| 143 | Design of a 3-DOF Compliant Parallel Mechanism for Displacement Amplification. , 2013, , .  |     | 2         |
| 144 | Quantifying Discretization Errors in Electrophoretically-Guided Micro Additive Manufacturing. Micromachines, 2018, 9, 447.  | 1.4 | 2         |

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|-----|--|-----|-----------|
| 145 | Enumeration of additive manufacturing toolpaths using Hamiltonian paths. <i>Manufacturing Letters</i> , 2020, 26, 29-32.   | 1.1 | 2         |
| 146 | Solution principles for a new generation of precision self-correcting multi-axis machines. <i>Robotics and Computer-Integrated Manufacturing</i> , 1990, 7, 357-364.                                   | 6.1 | 1         |
| 147 | Mechanism for active $\hat{l}$ -joint as an equivalent to the combination of revolute joint and proximal fixed-length link. <i>Robotics and Computer-Integrated Manufacturing</i> , 2016, 37, 179-187. | 6.1 | 1         |
| 148 | Design and models of helical needle geometries for core biopsies. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 90, 113-124.   | 1.5 | 1         |
| 149 | Simulation of Ultrashort Laser Pulse Absorption at the Water-Metal Interface in Laser-Induced Plasma Micromachining. <i>Journal of Micro and Nano-Manufacturing</i> , 2020, 8, .                       | 0.8 | 1         |
| 150 | High-throughput, in situ imaging of multi-layer powder-blown directed energy deposition with angled nozzle. <i>Review of Scientific Instruments</i> , 2022, 93, 023701.                                | 0.6 | 1         |
| 151 | Toolpath Planning for Manufacturing of Complex Parts Through Incremental Sheet Forming. , 2022, 1, .   |     | 1         |
| 152 | Surface Modification of Polycrystalline Diamond Compacts by Carbon Ion Irradiation. <i>Procedia Manufacturing</i> , 2016, 5, 634-643.  | 1.9 | 0         |
| 153 | Error modeling of a novel flexible lunar sampler. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2017, 231, 1269-1280.                      | 0.7 | 0         |
| 154 | Preliminary investigation of particle mobility enhancement in electrophoretic deposition with modulated electric fields. , 2017, , .   |     | 0         |
| 155 | Energy Density Comparison via Highspeed, In-situ Imaging of Directed Energy Deposition. <i>Procedia Manufacturing</i> , 2020, 48, 691-696.   | 1.9 | 0         |
| 156 | Surface Morphology and Wall Angle Comparison of Microchannels Fabricated in Titanium Alloy Using Laser-Based Processes. <i>Journal of Micro and Nano-Manufacturing</i> , 2020, 8, .                    | 0.8 | 0         |