# Yung C Shin

## List of Publications by Year
in descending order

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|---|---|---|---|
| 328 papers | 16,074 citations | 19657 61 h-index | 22832 112 g-index |
| 329 all docs | 329 docs citations | 329 times ranked | 9929 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | The status, challenges, and future of additive manufacturing in engineering. CAD Computer Aided Design, 2015, 69, 65-89. | 2.7 | 1,725 |
| 2 | Additive manufacturing of Ti6Al4V alloy: A review. Materials and Design, 2019, 164, 107552. | 7.0 | 1,384 |
| 3 | Remanufacturing of turbine blades by laser direct deposition with its energy and environmental impact analysis. Journal of Cleaner Production, 2014, 80, 170-178. | 9.3 | 364 |
| 4 | Modeling of machining of composite materials: A review. International Journal of Machine Tools and Manufacture, 2012, 57, 102-121. | 13.4 | 358 |
| 5 | Radial basis function neural network for approximation and estimation of nonlinear stochastic dynamic systems. IEEE Transactions on Neural Networks, 1994, 5, 594-603. | 4.2 | 336 |
| 6 | Laser-assisted machining of Inconel 718 with an economic analysis. International Journal of Machine Tools and Manufacture, 2006, 46, 1879-1891. | 13.4 | 301 |
| 7 | Machinability improvement of titanium alloy (Ti–6Al–4V) via LAM and hybrid machining. International Journal of Machine Tools and Manufacture, 2010, 50, 174-182. | 13.4 | 286 |
| 8 | Prospects of laser welding technology in the automotive industry: A review. Journal of Materials Processing Technology, 2017, 245, 46-69. | 6.3 | 227 |
| 9 | Optimization of machining conditions with practical constraints. International Journal of Production Research, 1992, 30, 2907-2919. | 7.5 | 180 |
| 10 | Molecular dynamics based cohesive zone law for describing Al–SiC interface mechanics. Composites Part A: Applied Science and Manufacturing, 2011, 42, 355-363. | 7.6 | 174 |
| 11 | Modeling of coaxial powder flow for the laser direct deposition process. International Journal of Heat and Mass Transfer, 2009, 52, 5867-5877. | 4.8 | 168 |
| 12 | Laser-assisted machining of hardened steel parts with surface integrity analysis. International Journal of Machine Tools and Manufacture, 2010, 50, 106-114. | 13.4 | 153 |
| 13 | Experimental Investigation of Thermo-Mechanical Characteristics in Laser-Assisted Machining of Silicon Nitride Ceramics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2001, 123, 639-646. | 2.2 | 152 |
| 14 | Modeling of grain refinement in aluminum and copper subjected to cutting. Computational Materials Science, 2011, 50, 3016-3025. | 3.0 | 150 |
| 15 | Modeling of transport phenomena during the coaxial laser direct deposition process. Journal of Applied Physics, 2010, 108, . | 2.5 | 148 |
| 16 | Transient, three-dimensional heat transfer model for the laser assisted machining of silicon nitride: I. Comparison of predictions with measured surface temperature histories. International Journal of Heat and Mass Transfer, 2000, 43, 1409-1424. | 4.8 | 147 |
| 17 | Analysis of bearing configuration effects on high speed spindles using an integrated dynamic thermo-mechanical spindle model. International Journal of Machine Tools and Manufacture, 2004, 44, 347-364. | 13.4 | 146 |
| 18 | Hybrid machining of Inconel 718. International Journal of Machine Tools and Manufacture, 2003, 43, 1391-1396. | 13.4 | 141 |

| # | Article | IF | Citations |
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| 19 | Plasma enhanced machining of Inconel 718: modeling of workpiece temperature with plasma heating and experimental results. International Journal of Machine Tools and Manufacture, 2001, 41, 877-897. | 13.4 | 129 |
| 20 | Predictive modeling of multi-track laser hardening of AISI 4140 steel. Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 480, 209-217. | 5.6 | 129 |
| 21 | Analysis on high-speed face-milling of 7075-T6 aluminum using carbide and diamond cutters. International Journal of Machine Tools and Manufacture, 2001, 41, 1763-1781. | 13.4 | 128 |
| 22 | In-Process monitoring of porosity during laser additive manufacturing process. Additive Manufacturing, 2019, 28, 497-505. | 3.0 | 125 |
| 23 | Investigation of keyhole plume and molten pool based on a three-dimensional dynamic model with sharp interface formulation. Journal Physics D: Applied Physics, 2013, 46, 055501. | 2.8 | 124 |
| 24 | Laser direct deposition of AISI H13 tool steel powder with numerical modeling of solid phase transformation, hardness, and residual stresses. Journal of Materials Processing Technology, 2017, 247, 223-233. | 6.3 | 124 |
| 25 | Laser-Assisted Machining of Magnesia-Partially-Stabilized Zirconia. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 42-51. | 2.2 | 123 |
| 26 | Thermal and mechanical modeling analysis of laser-assisted micro-milling of difficult-to-machine alloys. Journal of Materials Processing Technology, 2012, 212, 601-613. | 6.3 | 121 |
| 27 | Experimental Evaluation of the Laser Assisted Machining of Silicon Nitride Ceramics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2000, 122, 666-670. | 2.2 | 118 |
| 28 | Integrated Dynamic Thermo-Mechanical Modeling of High Speed Spindles, Part 1: Model Development. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 148-158. | 2.2 | 118 |
| 29 | Microstructure and wear properties of laser-deposited functionally graded Inconel 690 reinforced with TiC. Surface and Coatings Technology, 2012, 207, 517-522. | 4.8 | 111 |
| 30 | A comprehensive chatter prediction model for face turning operation including tool wear effect. International Journal of Machine Tools and Manufacture, 2002, 42, 1035-1044. | 13.4 | 110 |
| 31 | Multi-step 3-D finite element modeling of subsurface damage in machining particulate reinforced metal matrix composites. Composites Part A: Applied Science and Manufacturing, 2009, 40, 1231-1239. | 7.6 | 107 |
| 32 | Multi-scale modeling of solidification and microstructure development in laser keyhole welding process for austenitic stainless steel. Computational Materials Science, 2015, 98, 446-458. | 3.0 | 106 |
| 33 | An experimental and numerical study on the face milling of Ti–6Al–4V alloy: Tool performance and surface integrity. Journal of Materials Processing Technology, 2011, 211, 294-304. | 6.3 | 105 |
| 34 | The influences of melting degree of TiC reinforcements on microstructure and mechanical properties of laser direct deposited Ti6Al4V-TiC composites. Materials and Design, 2017, 136, 185-195. | 7.0 | 105 |
| 35 | Predictive modeling and experimental results for residual stresses in laser hardening of AISI 4140 steel by a high power diode laser. Surface and Coatings Technology, 2009, 203, 2003-2012. | 4.8 | 102 |
| 36 | A comprehensive dynamic cutting force model for chatter prediction in turning. International Journal of Machine Tools and Manufacture, 1999, 39, 1631-1654. | 13.4 | 99 |

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| 37 | Laser-assisted machining of compacted graphite iron. International Journal of Machine Tools and Manufacture, 2006, 46, 7-17. | 13.4 | 96 |
| 38 | Thermal Modeling for Laser-Assisted Machining of Silicon Nitride Ceramics with Complex Features. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 425-434. | 2.2 | 94 |
| 39 | Sparse Multiple Kernel Learning for Signal Processing Applications. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2010, 32, 788-798. | 13.9 | 91 |
| 40 | Dynamics of Machine Tool Spindle/Bearing Systems Under Thermal Growth. Journal of Tribology, 1997, 119, 875-882. | 1.9 | 90 |
| 41 | Deformation mechanisms and constitutive modeling for silicon nitride undergoing laser-assisted machining. International Journal of Machine Tools and Manufacture, 2000, 40, 2213-2233. | 13.4 | 90 |
| 42 | Modeling of multi-burst mode pico-second laser ablation forÂimproved material removal rate. Applied Physics A: Materials Science and Processing, 2010, 98, 407-415. | 2.3 | 90 |
| 43 | Two-photon lithography for three-dimensional fabrication in micro/nanoscale regime: A comprehensive review. Optics and Laser Technology, 2021, 142, 107180. | 4.6 | 87 |
| 44 | Laser-Assisted Machining of Reaction Sintered Mullite Ceramics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 875-885. | 2.2 | 84 |
| 45 | A self-closed thermal model for laser shock peening under the water confinement regime configuration and comparisons to experiments. Journal of Applied Physics, 2005, 97, 113517. | 2.5 | 84 |
| 46 | Analysis of multi-phase interaction and its effects on keyhole dynamics with a multi-physics numerical model. Journal Physics D: Applied Physics, 2014, 47, 345501. | 2.8 | 82 |
| 47 | Multi-physics modeling and simulations of surface microstructure alteration in hard turning. Journal of Materials Processing Technology, 2013, 213, 877-886. | 6.3 | 80 |
| 48 | In-process control of surface roughness due to tool wear using a new ultrasonic system. International Journal of Machine Tools and Manufacture, 1996, 36, 411-422. | 13.4 | 79 |
| 49 | Phase transformation characteristics and mechanical characterization of nitinol synthesized by laser direct deposition. Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 836-843. | 5.6 | 79 |
| 50 | Superhydrophobic contoured surfaces created on metal and polymer using a femtosecond laser. Applied Surface Science, 2017, 405, 465-475. | 6.1 | 78 |
| 51 | A novel laser-assisted truing and dressing technique for vitrified CBN wheels. International Journal of Machine Tools and Manufacture, 2002, 42, 825-835. | 13.4 | 77 |
| 52 | Femtosecond laser drilling of high-aspect ratio microchannels inÂglass. Applied Physics A: Materials Science and Processing, 2011, 104, 713-719. | 2.3 | 77 |
| 53 | Transient, three-dimensional heat transfer model for the laser assisted machining of silicon nitride: II. Assessment of parametric effects. International Journal of Heat and Mass Transfer, 2000, 43, 1425-1437. | 4.8 | 74 |
| 54 | Vision-based weld pool boundary extraction and width measurement during keyhole fiber laser welding. Optics and Lasers in Engineering, 2015, 64, 59-70. | 3.8 | 73 |

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| 55 | On-Line Chatter Detection Using Wavelet-Based Parameter Estimation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2003, 125, 21-28. | 2.2 | 72 |
| 56 | Predictive modeling and experimental results for laser hardening of AISI 1536 steel with complex geometric features by a high power diode laser. Surface and Coatings Technology, 2006, 201, 2256-2269. | 4.8 | 72 |
| 57 | Transient Thermal Response of a Rotating Cylindrical Silicon Nitride Workpiece Subjected to a Translating Laser Heat Source, Part I: Comparison of Surface Temperature Measurements With Theoretical Results. Journal of Heat Transfer, 1998, 120, 899-906. | 2.1 | 70 |
| 58 | Laser-assisted burnishing of metals. International Journal of Machine Tools and Manufacture, 2007, 47, 14-22. | 13.4 | 68 |
| 59 | Design of operating conditions for crackfree laser-assisted machining of mullite. International Journal of Machine Tools and Manufacture, 2004, 44, 677-694. | 13.4 | 67 |
| 60 | Laser-Assisted Milling of Silicon Nitride Ceramics and Inconel 718. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, . | 2.2 | 65 |
| 61 | Dynamics of Spindle-Bearing Systems at High Speeds Including Cutting Load Effects. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1998, 120, 387-394. | 2.2 | 64 |
| 62 | Multiphase Finite Element Modeling of Machining Unidirectional Composites: Prediction of Debonding and Fiber Damage. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, . | 2.2 | 64 |
| 63 | Improvement of machinability of Waspaloy via laser-assisted machining. International Journal of Advanced Manufacturing Technology, 2013, 64, 475-486. | 3.0 | 64 |
| 64 | A novel integrated model combining Cellular Automata and Phase Field methods for microstructure evolution during solidification of multi-component and multi-phase alloys. Computational Materials Science, 2011, 50, 2573-2585. | 3.0 | 63 |
| 65 | Adaptive divided difference filtering for simultaneous state and parameter estimation. Automatica, 2009, 45, 1686-1693. | 5.0 | 62 |
| 66 | A Digital Robust Controller for Cutting Force Control in the End Milling Process. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1997, 119, 146-152. | 1.6 | 61 |
| 67 | A new procedure to determine instantaneous cutting force coefficients for machining force prediction. International Journal of Machine Tools and Manufacture, 1997, 37, 1337-1351. | 13.4 | 61 |
| 68 | Dislocation density-based modeling of subsurface grain refinement with laser-induced shock compression. Computational Materials Science, 2012, 53, 79-88. | 3.0 | 61 |
| 69 | Ultrafast Laser Applications in Manufacturing Processes: A State-of-the-Art Review. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, . | 2.2 | 61 |
| 70 | Thermo-mechanical modeling of orthogonal machining process by finite element analysis. International Journal of Machine Tools and Manufacture, 1999, 39, 731-750. | 13.4 | 59 |
| 71 | Laser-assisted machining of an austenitic stainless steel: P550. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2006, 220, 2055-2067. | 2.4 | 59 |
| 72 | In Situ Synthesis and Characterization of Shape Memory Alloy Nitinol by Laser Direct Deposition. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 650-657. | 2.2 | 59 |

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| 73 | Experimental evaluation of laser-assisted machining of silicon carbide particle-reinforced aluminum matrix composites. International Journal of Advanced Manufacturing Technology, 2013, 66, 1603-1610. | 3.0 | 59 |
| 74 | Heat transfer model of semi-transparent ceramics undergoing laser-assisted machining. International Journal of Heat and Mass Transfer, 2005, 48, 1999-2012. | 4.8 | 56 |
| 75 | Surface Roughness Measurement by Ultrasonic Sensing for In-Process Monitoring. Journal of Engineering for Industry, 1995, 117, 439-447. | 0.8 | 55 |
| 76 | Synthesis and characterization of Fe-based amorphous composite by laser direct deposition. Surface and Coatings Technology, 2014, 239, 34-40. | 4.8 | 54 |
| 77 | Laser Shock Peening on Zr-based Bulk Metallic Glass and Its Effect on Plasticity: Experiment and Modeling. Scientific Reports, 2015, 5, 10789. | 3.3 | 54 |
| 78 | Modeling of nanosecond laser ablation with vapor plasma formation. Journal of Applied Physics, 2006, 99, 084310. | 2.5 | 53 |
| 79 | Effect of porosity on the interface behavior of an Al2O3–aluminum composite: A molecular dynamics study. Composites Science and Technology, 2011, 71, 350-356. | 7.8 | 53 |
| 80 | Dislocation Density-Based Grain Refinement Modeling of Orthogonal Cutting of Titanium. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, . | 2.2 | 52 |
| 81 | Investigation on Cutting Temperature in Turning by a Tool-Work Thermocouple Technique. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1997, 119, 502-508. | 2.2 | 51 |
| 82 | Femtosecond laser ablation of aluminum in vacuum and air at high laser intensity. Applied Surface Science, 2013, 283, 94-99. | 6.1 | 51 |
| 83 | Molecular dynamics-based cohesive zone representation of Ti6Al4V/TiC composite interface. Materials and Design, 2018, 155, 161-169. | 7.0 | 51 |
| 84 | Stability Analysis in Face Milling Operations, Part 1: Theory of Stability Lobe Prediction. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1999, 121, 600-605. | 2.2 | 50 |
| 85 | Assessment of Plasma Enhanced Machining for Improved Machinability of Inconel 718. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1997, 119, 125-129. | 2.2 | 49 |
| 86 | Multiscale Finite Element Modeling of Silicon Nitride Ceramics Undergoing Laser-Assisted Machining. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 287-295. | 2.2 | 49 |
| 87 | Modeling and control of cnc machines using a PC-based open architecture controller. Mechatronics, 1995, 5, 401-420. | 3.3 | 48 |
| 88 | Analysis of microstructure and mechanical properties change in laser welding of Ti6Al4V with a multiphysics prediction model. Journal of Materials Processing Technology, 2016, 237, 420-429. | 6.3 | 48 |
| 89 | Analysis of weld geometry and liquid flow in laser transmission welding between polyethylene terephthalate (PET) and Ti6Al4V based on numerical simulation. Optics and Laser Technology, 2018, 103, 99-108. | 4.6 | 48 |
| 90 | Generalized practical models of cylindrical plunge grinding processes. International Journal of Machine Tools and Manufacture, 2008, 48, 61-72. | 13.4 | 47 |

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| 91 | Predictive modeling of grain refinement during multi-pass cold rolling. Journal of Materials Processing Technology, 2012, 212, 1003-1013. | 6.3 | 47 |
| 92 | Multi-scale modeling to predict sub-surface damage applied to laser-assisted machining of a particulate reinforced metal matrix composite. Journal of Materials Processing Technology, 2013, 213, 153-160. | 6.3 | 47 |
| 93 | Estimation of keyhole geometry and prediction of welding defects during laser welding based on a vision system and a radial basis function neural network. International Journal of Advanced Manufacturing Technology, 2015, 81, 263-276. | 3.0 | 47 |
| 94 | Laser pulse transmission through the water breakdown plasma in laser shock peening. Applied Physics Letters, 2006, 88, 041116. | 3.3 | 46 |
| 95 | A Comprehensive Dynamic End Milling Simulation Model. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 86-95. | 2.2 | 46 |
| 96 | Comparative evaluation of laser-assisted micro-milling for AISI 316, AISI 422, TI-6AL-4V and Inconel 718 in a side-cutting configuration. Journal of Micromechanics and Microengineering, 2010, 20, 075012. | 2.6 | 46 |
| 97 | A Metallo-Thermomechanically Coupled Analysis of Orthogonal Cutting of AISI 1045 Steel. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, . | 2.2 | 46 |
| 98 | Improved machinability of SiC/SiC ceramic matrix composite via laser-assisted micromachining. International Journal of Advanced Manufacturing Technology, 2017, 90, 731-739. | 3.0 | 46 |
| 99 | Modeling and experimental verification of plasmas induced by high-power nanosecond laser-aluminum interactions in air. Physical Review E, 2007, 76, 026405. | 2.1 | 45 |
| 100 | Early-stage plasma dynamics with air ionization during ultrashort laser ablation of metal. Physics of Plasmas, 2011, 18, . | 1.9 | 45 |
| 101 | Predictive modeling of laser hardening of AISI5150H steels. International Journal of Machine Tools and Manufacture, 2007, 47, 307-320. | 13.4 | 44 |
| 102 | Mechanical breathing in organic electrochromics. Nature Communications, 2020, 11, 211. | 12.8 | 44 |
| 103 | Material Constitutive Modeling Under High Strain Rates and Temperatures Through Orthogonal Machining Tests. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1999, 121, 577-585. | 2.2 | 43 |
| 104 | Ablation enhancement of silicon by ultrashort double-pulse laser ablation. Applied Physics Letters, 2014, 105, . | 3.3 | 41 |
| 105 | Laser-Assisted Machining of a Fiber Reinforced Metal Matrix Composite. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, . | 2.2 | 40 |
| 106 | Multiscale Modeling of Transport Phenomena and Dendritic Growth in Laser Cladding Processes. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 1306-1318. | 2.1 | 40 |
| 107 | Modeling of the Off-Axis High Power Diode Laser Cladding Process. Journal of Heat Transfer, 2011, 133, . | 2.1 | 40 |
| 108 | Simulation and experimental studies on microstructure evolution of resolidified dendritic TiC in laser direct deposited Ti-TiC composite. Materials and Design, 2018, 159, 212-223. | 7.0 | 40 |

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| 109 | Deep-learning-based porosity monitoring of laser welding process. Manufacturing Letters, 2020, 23, 62-66. | 2.2 | 40 |
| 110 | Integrated Dynamic Thermo-Mechanical Modeling of High Speed Spindles, Part 2: Solution Procedure and Validations. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2004, 126, 159-168. | 2.2 | 39 |
| 111 | A simple model for high fluence ultra-short pulsed laser metal ablation. Applied Surface Science, 2007, 253, 4079-4084. | 6.1 | 39 |
| 112 | Micromachining of Metals, Alloys, and Ceramics by Picosecond Laser Ablation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, . | 2.2 | 39 |
| 113 | Coulomb explosion and early plasma generation during femtosecond laser ablation of silicon at high laser fluence. Journal Physics D: Applied Physics, 2013, 46, 335501. | 2.8 | 38 |
| 114 | Control of Cutting Force for End Milling Processes Using an Extended Model Reference Adaptive Control Scheme. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1996, 118, 339-347. | 2.2 | 37 |
| 115 | Laser-Assisted Machining of Damage-Free Silicon Nitride Parts with Complex Geometric Features via In-Process Control of Laser Power. Journal of the American Ceramic Society, 2006, 89, 3397-3405. | 3.8 | 37 |
| 116 | Two dimensional hydrodynamic simulation of high pressures induced by high power nanosecond laser-matter interactions under water. Journal of Applied Physics, 2007, 101, 103514. | 2.5 | 37 |
| 117 | Comprehensive modeling of transport phenomena in laser hot-wire deposition process. International Journal of Heat and Mass Transfer, 2018, 125, 1356-1368. | 4.8 | 37 |
| 118 | Construction of fuzzy systems using least-squares method and genetic algorithm. Fuzzy Sets and Systems, 2003, 137, 297-323. | 2.7 | 36 |
| 119 | Observer-Based Adaptive Robust Control of Friction Stir Welding Axial Force. IEEE/ASME Transactions on Mechatronics, 2011, 16, 1032-1039. | 5.8 | 36 |
| 120 | Wideband anti-reflective silicon surface structures fabricated by femtosecond laser texturing. Applied Surface Science, 2018, 459, 86-91. | 6.1 | 36 |
| 121 | Wear of diamond dresser in laser assisted truing and dressing of vitrified CBN wheels. International Journal of Machine Tools and Manufacture, 2003, 43, 41-49. | 13.4 | 35 |
| 122 | Predictive modeling capabilities from incident powder and laser to mechanical properties for laser directed energy deposition. Computational Mechanics, 2018, 61, 617-636. | 4.0 | 35 |
| 123 | Neuro-fuzzy control of complex manufacturing processes. International Journal of Production Research, 1996, 34, 3291-3309. | 7.5 | 34 |
| 124 | A one-dimensional hydrodynamic model for pressures induced near the coating-water interface during laser shock peening. Journal of Applied Physics, 2007, 101, 023510. | 2.5 | 34 |
| 125 | Investigation on the Effects of Process Parameters on Defect Formation in Friction Stir Welded Samples Via Predictive Numerical Modeling and Experiments. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, . | 2.2 | 34 |
| 126 | An Integrated Approach Toward the Dynamic Analysis of High-Speed Spindles: Part I—System Model. Journal of Vibration and Acoustics, Transactions of the ASME, 1994, 116, 506-513. | 1.6 | 32 |

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| 127 | Evolutionary modelling and optimization of grinding processes. International Journal of Production Research, 2000, 38, 2787-2813. | 7.5 | 32 |
| 128 | Comprehensive predictive modeling and parametric analysis of multitrack direct laser deposition processes. Journal of Laser Applications, 2011, 23, . | 1.7 | 32 |
| 129 | Experimental Evaluation and Modeling Analysis of Micromilling of Hardened H13 Tool Steels. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2011, 133, . | 2.2 | 32 |
| 130 | A Time-Domain Dynamic Model for Chatter Prediction of Cylindrical Plunge Grinding Processes. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 404-415. | 2.2 | 31 |
| 131 | MICROSTRUCTURAL ANALYSIS AND MACHINABILITY IMPROVEMENT OF UDIMET 720 VIA CRYOGENIC MILLING. Machining Science and Technology, 2009, 13, 1-19. | 2.5 | 31 |
| 132 | Numerical Modeling of Transport Phenomena and Dendritic Growth in Laser Spot Conduction Welding of 304 Stainless Steel. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, . | 2.2 | 31 |
| 133 | Analysis of nanosecond laser ablation of aluminum with and without phase explosion in air and water. Journal of Laser Applications, 2013, 25, . | 1.7 | 31 |
| 134 | Robust Tool Wear Estimation With Radial Basis Function Neural Networks. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1995, 117, 459-467. | 1.6 | 30 |
| 135 | Automated Sensor Selection and Fusion for Monitoring and Diagnostics of Plunge Grinding. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, . | 2.2 | 30 |
| 136 | Vision-based clad height measurement. Machine Vision and Applications, 2011, 22, 129-136. | 2.7 | 30 |
| 137 | Laser-assisted milling of Ti-6Al-4V with the consideration of surface integrity. International Journal of Advanced Manufacturing Technology, 2015, 79, 1645-1658. | 3.0 | 30 |
| 138 | Transient Thermal Response of a Rotating Cylindrical Silicon Nitride Workpiece Subjected to a Translating Laser Heat Source, Part II: Parametric Effects and Assessment of a Simplified Model. Journal of Heat Transfer, 1998, 120, 907-915. | 2.1 | 29 |
| 139 | A study on chatter boundaries of cylindrical plunge grinding with process condition-dependent dynamics. International Journal of Machine Tools and Manufacture, 2007, 47, 1563-1572. | 13.4 | 29 |
| 140 | Parametric Study on Single Shot and Overlapping Laser Shock Peening on Various Metals via Modeling and Experiments. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, . | 2.2 | 29 |
| 141 | Effects of Composition and Post Heat Treatment on Shape Memory Characteristics and Mechanical Properties for Laser Direct Deposited Nitinol. Lasers in Manufacturing and Materials Processing, 2019, 6, 41-58. | 2.2 | 29 |
| 142 | Overview of Laser Applications in Manufacturing and Materials Processing in Recent Years. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, . | 2.2 | 29 |
| 143 | From Incident Laser Pulse to Residual Stress: A Complete and Self-Closed Model for Laser Shock Peening. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 117-125. | 2.2 | 28 |
| 144 | Modeling Particle Spray and Capture Efficiency for Direct Laser Deposition Using a Four Nozzle Powder Injection System. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, . | 2.2 | 28 |

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| 145 | Modeling of Tool Forces for Worn Tools: Flank Wear Effects. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1996, 118, 359-366. | 2.2 | 27 |
| 146 | A simplified predictive model for high-fluence ultra-short pulsed laser ablation of semiconductors and dielectrics. Applied Surface Science, 2009, 255, 4996-5002. | 6.1 | 27 |
| 147 | A Bayesian machine learning method for sensor selection and fusion with application to on-board fault diagnostics. Mechanical Systems and Signal Processing, 2010, 24, 182-192. | 8.0 | 26 |
| 148 | Characterization of CNC machining centers. Journal of Manufacturing Systems, 1991, 10, 407-421. | 13.9 | 25 |
| 149 | Static and Dynamic Characteristics of a Two Stage Pilot Relief Valve. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1991, 113, 280-288. | 1.6 | 25 |
| 150 | Stability Analysis in Face Milling Operations, Part 2: Experimental Validation and Influencing Factors. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 1999, 121, 606-614. | 2.2 | 25 |
| 151 | Intelligent Model-based Optimization of the Surface Grinding Process for Heat-Treated 4140 Steel Alloys With Aluminum Oxide Grinding Wheels. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2003, 125, 65-76. | 2.2 | 25 |
| 152 | Constructive training of recurrent neural networks using hybrid optimization. Neurocomputing, 2010, 73, 2624-2631. | 5.9 | 25 |
| 153 | A two-dimensional comprehensive hydrodynamic model for femtosecond laser pulse interaction with metals. Journal Physics D: Applied Physics, 2012, 45, 105201. | 2.8 | 25 |
| 154 | A data-based framework for fault detection and diagnostics of non-linear systems with partial state measurement. Engineering Applications of Artificial Intelligence, 2013, 26, 446-455. | 8.1 | 25 |
| 155 | Integrated 2D cellular automata-phase field modeling of solidification and microstructure evolution during additive manufacturing of Ti6Al4V. Computational Materials Science, 2020, 183, 109889. | 3.0 | 25 |
| 156 | Effects of interface gap and shielding gas on the quality of alloy AA6061 fiber laser lap weldings. Journal of Materials Processing Technology, 2019, 268, 201-212. | 6.3 | 25 |
| 157 | Design of a multilevel fuzzy controller for nonlinear systems and stability analysis. IEEE Transactions on Fuzzy Systems, 2005, 13, 761-778. | 9.8 | 24 |
| 158 | Absorption coefficient of aluminum near the critical point and the consequences on high-power nanosecond laser ablation. Applied Physics Letters, 2006, 89, 111902. | 3.3 | 24 |
| 159 | Wheel Regenerative Chatter of Surface Grinding. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 393-403. | 2.2 | 24 |
| 160 | Self-Sufficient Modeling of Single Track Deposition of Ti–6Al–4V With the Prediction of Capture Efficiency. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, . | 2.2 | 24 |
| 161 | Ball end milling mechanistic model based on a voxel-based geometric representation and a ray casting technique. Journal of Manufacturing Processes, 2013, 15, 338-347. | 5.9 | 23 |
| 162 | Laser deposited coatings of Co-Cr-Mo onto Ti-6Al-4V and SS316L substrates for biomedical applications. , 2013, 101, 1124-1132. |  | 23 |

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