

Kaan Erkorkmaz

List of Publications by Year in descending order

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56
papers

2,537
citations

218662

26
h-index

189881

50
g-index

56
all docs

56
docs citations

56
times ranked

1014
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal cutting condition selection for high quality receptance measurements by sweep milling force excitation. International Journal of Machine Tools and Manufacture, 2022, 176, 103873.	13.4	5
2	Dynamic compliance attenuation in ball screw drives through model-based active damping of multiple vibration modes. CIRP Annals - Manufacturing Technology, 2022, 71, 373-376.	3.6	6
3	Influence of guideway friction on the cutting point receptance in machine tools. CIRP Annals - Manufacturing Technology, 2022, 71, 361-364.	3.6	5
4	Chip geometry and cutting force prediction in gear hobbing. CIRP Annals - Manufacturing Technology, 2021, 70, 95-98.	3.6	9
5	Control of Machining Processes. , 2021, , 345-351.		0
6	Suppression of harmonic positioning errors in ball-screw drives using Adaptive Feedforward Cancellation. Precision Engineering, 2021, 68, 235-255.	3.4	9
7	Dynamic model identification for CNC machine tool feed drives from in-process signals for virtual process planning. Mechatronics, 2020, 72, 102445.	3.3	4
8	In-process digital twin estimation for high-performance machine tools with coupled multibody dynamics. CIRP Annals - Manufacturing Technology, 2020, 69, 321-324.	3.6	29
9	Thermomechanical and geometry model for directed energy deposition with 2D/3D toolpaths. Additive Manufacturing, 2020, 35, 101294.	3.0	5
10	Feed drive control tuning considering machine dynamics and chatter stability. CIRP Annals - Manufacturing Technology, 2020, 69, 345-348.	3.6	13
11	Self-optimizing machining systems. CIRP Annals - Manufacturing Technology, 2020, 69, 740-763.	3.6	62
12	RoboDrop: A Multi-Input Multi-Output Control System for On-Demand Manipulation of Microfluidic Droplets Based on Computer Vision Feedback. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1129-1137.	5.8	7
13	Effect of Rack and Pinion Feed Drive Control Parameters on Machine Tool Dynamics. Journal of Manufacturing and Materials Processing, 2020, 4, 33.	2.2	4
14	Digital shadow identification from feed drive structures for virtual process planning. CIRP Journal of Manufacturing Science and Technology, 2019, 24, 55-65.	4.5	14
15	Portable damping system for chatter suppression on flexible workpieces. CIRP Annals - Manufacturing Technology, 2019, 68, 423-426.	3.6	26
16	Chip geometry and cutting forces in gear power skiving. CIRP Annals - Manufacturing Technology, 2019, 68, 109-112.	3.6	32
17	Mechatronic design, actuator optimization, and control of a long stroke linear nano-positioner. Precision Engineering, 2018, 52, 308-322.	3.4	18
18	Virtual Model of Gear Shapingâ€”Part I: Kinematics, Cutterâ€”Workpiece Engagement, and Cutting Forces. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	21

#	ARTICLE	IF	CITATIONS
19	Virtual Model of Gear Shapingâ€™Part II: Elastic Deformations and Virtual Gear Metrology. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	2.2	8
20	Modal Analysis, Metrology, and Error Budgeting of a Precision Motion Stage. Journal of Manufacturing and Materials Processing, 2018, 2, 8.	2.2	1
21	Linear programming and windowing based feedrate optimization for spline toolpaths. CIRP Annals - Manufacturing Technology, 2017, 66, 393-396.	3.6	54
22	Chip geometry and cutting forces in gear shaping. CIRP Annals - Manufacturing Technology, 2016, 65, 133-136.	3.6	24
23	Design and Optimization of a Voice Coil Actuator for Precision Motion Applications. IEEE Transactions on Magnetics, 2015, 51, 1-10.	2.1	31
24	Efficient Fitting of the Feed Correction Polynomial for Real-Time Spline Interpolation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, 044501.	2.2	18
25	Active suppression of structural chatter vibrations using machine drives and accelerometers. CIRP Annals - Manufacturing Technology, 2015, 64, 385-388.	3.6	58
26	Time-optimized hole sequence planning for 5-axis on-the-fly laser drilling. CIRP Annals - Manufacturing Technology, 2014, 63, 377-380.	3.6	9
27	Control of Machining Processes. , 2014, , 1-8.		1
28	Control of ball screw drives based on disturbance response optimization. CIRP Annals - Manufacturing Technology, 2013, 62, 387-390.	3.6	22
29	Feedrate optimization for freeform milling considering constraints from the feed drive system and process mechanics. CIRP Annals - Manufacturing Technology, 2013, 62, 395-398.	3.6	64
30	Accurate control of ball screw drives using pole-placement vibration damping and a novel trajectory prefilter. Precision Engineering, 2013, 37, 308-322.	3.4	59
31	Modeling, Simulation, and Optimization of Machining Polymer Infiltrated Calcium Polyphosphate. International Journal of Automation Technology, 2013, 7, 52-70.	1.0	0
32	High Frequency Harmonic Cancellation in Ball-screw Drives. Procedia CIRP, 2012, 1, 615-620.	1.9	5
33	Precision control of a T-type gantry using sensor/actuator averaging and active vibration damping. Precision Engineering, 2012, 36, 299-314.	3.4	20
34	A Control Systems Concept Inventory Test Design and Assessment. IEEE Transactions on Education, 2012, 55, 203-212.	2.4	8
35	Time-optimal trajectory generation for 5-axis on-the-fly laser drilling. CIRP Annals - Manufacturing Technology, 2011, 60, 411-414.	3.6	26
36	Constrained identification of virtual CNC drives using a genetic algorithm. International Journal of Advanced Manufacturing Technology, 2010, 50, 275-288.	3.0	9

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37	Design of a NURBS interpolator with minimal feed fluctuation and continuous feed modulation capability. International Journal of Machine Tools and Manufacture, 2010, 50, 281-293.	13.4	129
38	Robust compensation of elastic deformations in ball screw drives. International Journal of Machine Tools and Manufacture, 2010, 50, 559-574.	13.4	54
39	Precision machine tool X & Y stage utilizing a planar air bearing arrangement. CIRP Annals - Manufacturing Technology, 2010, 59, 425-428.	3.6	38
40	Machining Porous Calcium Polyphosphate Implants for Tissue Engineering Applications. International Journal of Automation Technology, 2010, 4, 291-302.	1.0	6
41	A heuristic feedrate optimization strategy for NURBS toolpaths. CIRP Annals - Manufacturing Technology, 2008, 57, 407-410.	3.6	31
42	Compensation of Axial Vibrations in Ball Screw Drives. CIRP Annals - Manufacturing Technology, 2007, 56, 373-378.	3.6	64
43	Rapid identification technique for virtual CNC drives. International Journal of Machine Tools and Manufacture, 2007, 47, 1381-1392.	13.4	34
44	Accurate tracking controller design for high-speed drives. International Journal of Machine Tools and Manufacture, 2007, 47, 1393-1400.	13.4	46
45	High Bandwidth Control of Ball Screw Drives. CIRP Annals - Manufacturing Technology, 2006, 55, 393-398.	3.6	76
46	Virtual Computer Numerical Control System. CIRP Annals - Manufacturing Technology, 2006, 55, 399-402.	3.6	30
47	Virtual CNC system. Part II. High speed contouring application. International Journal of Machine Tools and Manufacture, 2006, 46, 1124-1138.	13.4	117
48	Virtual CNC system. Part I. System architecture. International Journal of Machine Tools and Manufacture, 2006, 46, 1107-1123.	13.4	98
49	Precision Tracking Controller Design for High Speed Feed Drives. , 2005, , 657.		6
50	Quintic Spline Interpolation With Minimal Feed Fluctuation. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2005, 127, 339-349.	2.2	96
51	Feedrate Optimization for Spline Interpolation In High Speed Machine Tools. CIRP Annals - Manufacturing Technology, 2003, 52, 297-302.	3.6	103
52	Quintic Spline Interpolation With Minimal Feed Fluctuation. , 2003, , 523.		1
53	High speed CNC system design. Part I: jerk limited trajectory generation and quintic spline interpolation. International Journal of Machine Tools and Manufacture, 2001, 41, 1323-1345.	13.4	469
54	High speed CNC system design. Part II: modeling and identification of feed drives. International Journal of Machine Tools and Manufacture, 2001, 41, 1487-1509.	13.4	197

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55	High speed CNC system design. Part III: high speed tracking and contouring control of feed drives. International Journal of Machine Tools and Manufacture, 2001, 41, 1637-1658.	13.4	119
56	Sliding Mode Controller Design for High Speed Feed Drives. CIRP Annals - Manufacturing Technology, 2000, 49, 265-270.	3.6	137