Soichi Ibaraki

List of Publications by Year
in descending order

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90	2,263	279798	243625
papers	citations	23 h-index	44 g-index

90	90	90	787
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Visually Quantifiable Test Piece for Five-Axis Machine Tools Thermal Effects. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2022, 144, .	2.2	10
2	Proposal of a Machining Test to Evaluate Dynamic Synchronization Error of Rotary and Linear Axes With Reversal of Rotation Direction. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2022, 144, .	2.2	3
3	A novel error mapping of bi-directional angular positioning deviation of rotary axes in a SCARA-type robot by â€œopen-loopâ€•tracking interferometer measurement. Precision Engineering, 2022, 74, 60-68.	3.4	7
4	Inclusion of Bidirectional Angular Positioning Deviations in the Kinematic Model of a Six-DOF Articulated Robot for Static Volumetric Error Compensation. IEEE/ASME Transactions on Mechatronics, 2022, 27, 4339-4349.	5.8	9
5	Novel kinematic model of a SCARA-type robot with bi-directional angular positioning deviation of rotary axes. International Journal of Advanced Manufacturing Technology, 2022, 120, 4901-4915.	3.0	3
6	Measurement of Machine Tool Two-Dimensional Error Motions Using Direction-Regulated Laser Interferometers. International Journal of Automation Technology, 2022, 16, 157-166.	1.0	2
7	A self-calibration scheme to monitor long-term changes in linear and rotary axis geometric errors. Measurement: Journal of the International Measurement Confederation, 2022, 196, 111183.	5.0	9
8	A novel scheme to measure 2D error motions of linear axes by regulating the direction of a laser interferometer. Precision Engineering, 2021, 67, 152-159.	3.4	15
9	Novel six-axis robot kinematic model with axis-to-axis crosstalk. CIRP Annals - Manufacturing Technology, 2021, 70, 411-414.	3.6	11
10	Identification of Rotary Axis Location Errors under Spindle Rotation by using a Laser Barrier Tool Measurement System. Transactions of the Institute of Systems Control and Information Engineers, 2021, 34, 81-88.	0.1	2
11	A machining test to evaluate thermal influence on the kinematics of a five-axis machine tool. International Journal of Machine Tools and Manufacture, 2021, 163, 103702.	13.4	31
12	Robustness Improvement against Sensor Failure in Estimating Thermal Displacement of Machine Tools Based on Deep Learning. Journal of the Japan Society for Precision Engineering, 2021, 87, 698-703.	0.1	0
13	Kinematic Modeling of Six-Axis Industrial Robot and its Parameter Identification: A Tutorial. International Journal of Automation Technology, 2021, 15, 599-610.	1.0	10
14	Evaluation of Kinematic and Compliance Calibration of Serial Articulated Industrial Manipulators. International Journal of Automation Technology, 2021, 15, 567-580.	1.0	13
15	Special Issue on New Technologies for Robotic Manipulators and Their Industrial Applications. International Journal of Automation Technology, 2021, 15, 565-566.	1.0	0
16	Assessment of non-rigid body, direction- andvelocity-dependent error motions and their cross-talk by two-dimensional digital scale measurements at multiple positions. Precision Engineering, 2020, 66, 144-153.	3.4	8
17	Self-calibration of rotary axis and linear axes error motions by an automated on-machine probing test cycle. International Journal of Advanced Manufacturing Technology, 2020, 107, 2107-2120.	3.0	13
18	Machining Tests to Evaluate Machine Tool Thermal Displacement in Z-Direction: Proposal to ISO 10791-10. International Journal of Automation Technology, 2020, 14, 380-385.	1.0	2

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19	Special Issue on Machine Accuracy Evaluation. International Journal of Automation Technology, 2020, 14, 359-359.	1.0	1
20	A machining test to identify rotary axis geometric errors on a five-axis machine tool with a swiveling rotary table for turning operations. Precision Engineering, 2019, 55, 22-32.	3.4	33
21	Adaptive thermal displacement compensation method based on deep learning. CIRP Journal of Manufacturing Science and Technology, 2019, 25, 22-25.	4.5	39
22	On-machine identification of rotary axis location errors under thermal influence by spindle rotation. Precision Engineering, 2019, 55, 42-47.	3.4	19
23	A Framework for a Large-Scale Machine Tool With Long Coarse Linear Axes Under Closed-Loop Volumetric Error Compensation. IEEE/ASME Transactions on Mechatronics, 2018, 23, 823-832.	5.8	10
24	Kinematic modeling and error sensitivity analysis for on-machine five-axis laser scanning measurement under machine geometric errors and workpiece setup errors. International Journal of Advanced Manufacturing Technology, 2018, 96, 4051-4062.	3.0	14
25	A pyramid-shaped machining test to identify rotary axis error motions on five-axis machine tools: software development and a case study. International Journal of Advanced Manufacturing Technology, 2018, 94, 227-237.	3.0	16
26	On the limitation of dual-view triangulation in reducing the measurement error induced by the speckle noise in scanning operations. International Journal of Advanced Manufacturing Technology, 2017, 88, 731-737.	3.0	14
27	Formulation of the influence of rotary axis geometric errors on five-axis on-machine optical scanning measurementâ€”application to geometric error calibration by â€œchase-the-ballâ€•test. International Journal of Advanced Manufacturing Technology, 2017, 92, 4263-4273.	3.0	15
28	Virtual pivot alignment method and its influence to profile error in bonnet polishing. International Journal of Machine Tools and Manufacture, 2017, 122, 18-31.	13.4	15
29	â€œOpen-Loopâ€•Tracking Interferometer Measurement Using Rotary Axes of a Five-Axis Machine Tool. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2342-2350.	5.8	15
30	A cutting sequence optimization algorithm to reduce the workpiece deformation in thin-wall machining. Precision Engineering, 2017, 50, 506-514.	3.4	60
31	A Five-Axis Machining Error Simulator for Rotary-Axis Geometric Errors Using Commercial Machining Simulation Software. International Journal of Automation Technology, 2017, 11, 179-187.	1.0	20
32	Extension of Machine Tool Kinematic Model to Direction- and Velocity-dependent Error Motions and Their Cross-talk. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2017, 2017.9, 064.	0.0	0
33	Measurement of thermal influence on a two-dimensional motion trajectory using a tracking interferometer. CIRP Annals - Manufacturing Technology, 2016, 65, 483-486.	3.6	22
34	Formulation of Influence of Machine Geometric Errors on Five-Axis On-Machine Scanning Measurement by Using a Laser Displacement Sensor. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .	2.2	34
35	Estimation of three-dimensional volumetric errors of machining centers by a tracking interferometer. Precision Engineering, 2015, 39, 179-186.	3.4	40
36	FEM-Based Simulation for Workpiece Deformation in Thin-Wall Milling. International Journal of Automation Technology, 2015, 9, 122-128.	1.0	16

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37	R-Test Analysis Software for Error Calibration of Five-Axis Machine Tools â€“ Application to a Five-Axis Machine Tool with Two Rotary Axes on the Tool Side â€“. International Journal of Automation Technology, 2015, 9, 387-395.	1.0	28
38	0203 Reduction of Measurement Error Induced by Laser Speckles in Scanning Operations using a Triangulation-based Laser displacement Sensor. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2015, 2015.8, _0203-1_-_0203-4_.	0.0	0
39	â€˜Open-loopâ€™ tracking interferometer for machine tool volumetric error measurementâ€”Two-dimensional case. Precision Engineering, 2014, 38, 666-672.	3.4	18
40	A machining test to calibrate rotary axis error motions of five-axis machine tools and its application to thermal deformation test. International Journal of Machine Tools and Manufacture, 2014, 86, 81-88.	13.4	49
41	Proposal of â€œopen-loopâ€•tracking interferometer for machine tool volumetric error measurement. CIRP Annals - Manufacturing Technology, 2014, 63, 501-504.	3.6	15
42	A Machining Test to Evaluate Geometric Errors of Five-axis Machine Tools with its Application to Thermal Deformation Test. Procedia CIRP, 2014, 14, 323-328.	1.9	15
43	Error calibration of five-axis machine tools by on-machine measurement system using a laser displacement sensor. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2014, 8, JAMDSM0053-JAMDSM0053.	0.7	4
44	Error Calibration for Five-Axis Machine Tools by On-the-Machine Measurement Using a Touch-Trigger Probe. International Journal of Automation Technology, 2014, 8, 20-27.	1.0	37
45	Error map construction for rotary axes on five-axis machine tools by on-the-machine measurement using a touch-trigger probe. International Journal of Machine Tools and Manufacture, 2013, 68, 21-29.	13.4	83
46	Non-contact R-test with laser displacement sensors for error calibration of five-axis machine tools. Precision Engineering, 2013, 37, 159-171.	3.4	94
47	C003 Error calibration of 5-axis machine tools by on-machine measurement system using a laser displacement sensor. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2013, 2013.7, 313-318.	0.0	2
48	C001 'Open-loop' Tracking Interferometer for Three-dimensional Volumetric Error Measurement for Machine Tools. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2013, 2013.7, 302-307.	0.0	0
49	C002 Estimation of Machine Tool Volumetric Error based on the Multi-lateration Principle using Machine Tool Rotary Axes : Two-dimensional case. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2013, 2013.7, 308-312.	0.0	1
50	Calibration of location errors of rotary axes on five-axis machine tools by on-the-machine measurement using a touch-trigger probe. International Journal of Machine Tools and Manufacture, 2012, 58, 44-53.	13.4	131
51	Graphical presentation of error motions of rotary axes on a five-axis machine tool by static R-test with separating the influence of squareness errors of linear axes. International Journal of Machine Tools and Manufacture, 2012, 59, 24-33.	13.4	87
52	Indirect Measurement of Volumetric Accuracy for Three-Axis and Five-Axis Machine Tools: A Review. International Journal of Automation Technology, 2012, 6, 110-124.	1.0	201
53	Observation of Thermal Influence on Error Motions of Rotary Axes on a Five-Axis Machine Tool by Static R-Test. International Journal of Automation Technology, 2012, 6, 196-204.	1.0	27
54	Measurement and Compensation of Error Motions of Five-axis Machine Tools. Journal of the Japan Society for Precision Engineering, 2012, 78, 763-766.	0.1	0

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55	Vision-Based Measurement of Two-Dimensional Positioning Errors of Machine Tools. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2011, 5, 315-328.	0.7	24
56	Influence of position-dependent geometric errors of rotary axes on a machining test of cone frustum by five-axis machine tools. Precision Engineering, 2011, 35, 1-11.	3.4	124
57	Construction of an error map of rotary axes on a five-axis machining center by static R-test. International Journal of Machine Tools and Manufacture, 2011, 51, 190-200.	13.4	164
58	3240 Construction of an error map of rotary axes by static R-test. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2011, 2011.6, _3240-1_-_3240-6_.	0.0	3
59	3330 Non-contact R-test for Dynamic Measurement on Five-axis Machine Tools. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2011, 2011.6, _3330-1_-_3330-6_.	0.0	2
60	A new formulation of laser step diagonal measurementâ€"Three-dimensional case. Precision Engineering, 2010, 34, 516-525.	3.4	30
61	Machining tests to identify kinematic errors on five-axis machine tools. Precision Engineering, 2010, 34, 387-398.	3.4	123
62	On the removal of critical cutting regions by trochoidal grooving. Precision Engineering, 2010, 34, 467-473.	3.4	45
63	A long-term control scheme of cutting forces to regulate tool life in end milling processes. Precision Engineering, 2010, 34, 675-682.	3.4	15
64	A new formulation of laser step-diagonal measurementâ€"two-dimensional case. Precision Engineering, 2009, 33, 56-64.	3.4	19
65	Prediction and compensation of machining geometric errors of five-axis machining centers with kinematic errors. Precision Engineering, 2009, 33, 194-201.	3.4	124
66	On the magnification of two-dimensional contouring errors by using contour-parallel offsets. Precision Engineering, 2009, 33, 322-326.	3.4	13
67	Monitoring and Control of Cutting Forces in Machining Processes: A Review. International Journal of Automation Technology, 2009, 3, 445-456.	1.0	39
68	A18 Standardization of testing methods for kinematic motion of five-axis machining centers : Draft proposal for ISO standard. The Proceedings of the Manufacturing & Machine Tool Conference, 2008, 2008.7, 95-96.	0.0	5
69	Efficiency Comparison of Cutting Strategies for End Milling Processes Under Feedrate Scheduling. International Journal of Automation Technology, 2008, 2, 377-383.	1.0	9
70	A Tool Path Modification Approach to Cutting Engagement Regulation for the Improvement of Machining Accuracy in 2D Milling With a Straight End Mill. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2007, 129, 1069-1079.	2.2	14
71	Dynamic Characteristics and Positioning Performance of Piezoactuatorâ€"integrated Ball Screw Drive. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2007, 2007.4, 8D415.	0.0	1
72	A Long-term Control Scheme of Cutting Forces to Regulate Tool Life in End Milling Processes. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2007, 2007.4, 7C307.	0.0	1

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73	Monitoring Method of Cutting Force by Using Additional Spindle Sensors. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2006, 49, 307-315.	0.3	26
74	Constant Engagement Tool Path Generation to Enhance Machining Accuracy in End Milling. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2006, 49, 43-49.	0.3	19
75	A Study on the Improvement of Motion Accuracy of Hexapod-type Parallel Mechanism Machine Tools (3rd Report). Journal of the Japan Society for Precision Engineering Contributed Papers, 2006, 72, 355-359.	0.0	5
76	Design of Luenberger State Observers Using Fixed-Structure<tex>$ cal H_infty $</tex>Optimization and its Application to Fault Detection in Lane-Keeping Control of Automated Vehicles. IEEE/ASME Transactions on Mechatronics, 2005, 10, 34-42.	5.8	32
77	Research on Spindle and Machining Process Monitoring for Intelligent Machine Tools(Advanced) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Century LEM21, 2005, 2005.2, 469-474.	0.0	2
78	Kinematic calibration on a parallel kinematic machine tool of the Stewart platform by circular tests. , 2004, , .		5
79	Enhancement of Feed Drive Dynamics of NC Machine Tools by Actively Controlled Sliding Guideway. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2004, 47, 150-159.	0.3	2
80	Disturbance Estimation on a Hexapod-Type Parallel Kinematic Machine Tool by Using A Disturbance Observer. Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2004, 70, 1764-1769.	0.2	4
81	A Numerical Optimization Approach to Frequency-Domain Loop-Shaping Design of a Fixed-Structure Controller (Design of an Anti-Vibration Filter for a Feed Drive System). Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2004, 70, 687-692.	0.2	4
82	Compensation of Gravity-Induced Errors on a Hexapod-Type Parallel Kinematic Machine Tool. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2004, 47, 160-167.	0.3	23
83	326 Monitoring and Adaptive Control of Cutting Forces Based on Spindle Motor and Servo Motor Currents in Machining Centers. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2003, 2003, 555-560.	0.0	5
84	322 Enhancement of Feed Drive Dynamics of NC Machine Tools by Actively Controlled Sliding Guideway. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2003, 2003, 535-540.	0.0	0
85	337 Compensation of Gravity-induced Errors on Hexapod-type Parallel Mechanism Machine Tools. Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2003, 2003, 619-624.	0.0	0
86	Tuning of a digital disk drive servo controller using fixed-structure H â^ž controller optimization. Microsystem Technologies, 2002, 9, 92-98.	2.0	1
87	Tuning of a Hard Disk Drive Servo Controller Using Fixed-Structure Hâ^ž Controller Optimization. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2001, 123, 544-549.	1.6	14
88	Rank minimization approach for solving BMI problems with random search. , 2001, , .		30
89	Thermal Test for Error Maps of Rotary Axes by R-Test. Key Engineering Materials, 0, 523-524, 809-814.	0.4	3
90	H/sub â^ž/ optimization of Luenberger state observers and its application to fault detection filter design. , 0, , .		10