Kun Bai

List of Publications by Year
in descending order

45 papers	578 citations	759055 12 h-index	642610 23 g-index
48 all docs	48 docs citations	48 times ranked	455 citing authors

#	Article	IF	Citations
1	Regulation and Tracking Control of Omnidirectional Rotation for Spherical Motors. IEEE Transactions on Industrial Electronics, 2023, 70, 1696-1705.	5.2	9
2	Spherical Wrist With Hybrid Motion-Impedance Control for Enhanced Robotic Manipulations. IEEE Transactions on Robotics, 2022, 38, 1174-1185.	7.3	15
3	Robust control of a spherical motor in moving frame. Mechatronics, 2021, 75, 102548.	2.0	9
4	A transfer alignment method for inertial attitude correction of spherical motor on moving base. Measurement Science and Technology, 2021, 32, 105023.	1.4	1
5	Programmable robotized â€˜transfer-and-jetâ€™ printing for large, 3D curved electronics on complex surfaces. International Journal of Extreme Manufacturing, 2021, 3, 045101.	6.3	20
6	Introduction to the focused section on new trends in modelling and simulation for intelligent robotics. International Journal of Intelligent Robotics and Applications, 2021, 5, 425-428.	1.6	0
7	Distributed current source modeling method for 3D eddy current problem in magnetic conductor with discrete state-space J-Ï† formulation. Journal of Computational Physics, 2020, 401, 109027.	1.9	13
8	Improving Clamping Accuracy of Thin-walled Workpiece in Turning Operation. IOP Conference Series: Materials Science and Engineering, 2020, 751, 012080.	0.3	2
9	Guest Editorial: Focused Section on Nano/Micromotion System: Design, Sensing, and Control. IEEE/ASME Transactions on Mechatronics, 2020, 25, 487-490.	3.7	0
10	Analytical and Experimental Investigation of Temporal Interference for Selective Neuromuscular Activation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 3100-3112.	2.7	5
11	State-space Model and Analysis of Motion-induced Eddy-current based on Distributed Current Source Method. , 2019, , .		2
12	Harmonic Model and Remedy Strategy of Multiphase PM Motor Under Open-Circuit Fault. IEEE/ASME Transactions on Mechatronics, 2019, 24, 1407-1419.	3.7	8
13	Design and chatter prediction analysis of a duplex face turning machine for manufacturing disk-like workpieces. International Journal of Machine Tools and Manufacture, 2019, 140, 12-19.	6.2	7
14	Design concept development of a variable magnetization motor with improved efficiency and controllable stiffness for robotic applications. Science China Technological Sciences, 2019, 62, 39-46.	2.0	4
15	Multiparameter Eddy-Current Sensor Design for Conductivity Estimation and Simultaneous Distance and Thickness Measurements. IEEE Transactions on Industrial Informatics, 2019, 15, 1647-1657.	7.2	25
16	Design and Development of a Spherical Motor for Conformal Printing of Curved Electronics. IEEE Transactions on Industrial Electronics, 2018, 65, 9190-9200.	5.2	49
17	Permanent Magnet Spherical Motors. Research on Intelligent Manufacturing, 2018, , .	0.2	5
18	Inverse Models and Harmonics Compensation for Suppressing Torque Ripples of Multiphase Permanent Magnet Motor. IEEE Transactions on Industrial Electronics, 2018, 65, 8730-8739.	5.2	23

#	Article	IF	Citations
19	A Novel Current-Interference Scanning Method for Detection of Abnormal Tissues. , 2018, , .		2
20	Eddy-Current Dynamic Model for Simultaneous Geometrical and Material Parameter Measurements of Magnetic Materials. , 2018, , .		0
21	Distributed Parameter Element Method for Design Analysis of Electrical Muscle Stimulation. , 2018, , .		1
22	Soft human–machine interfaces: design, sensing and stimulation. International Journal of Intelligent Robotics and Applications, 2018, 2, 313-338.	1.6	55
23	Direct Field-Feedback Control. Research on Intelligent Manufacturing, 2018, , 125-150.	0.2	0
24	A Back-EMF Method for Multi-DOF Motion Detection. Research on Intelligent Manufacturing, 2018, , 109-122.	0.2	0
25	Design and Decoupled Compensation Methods of a PM Motor Capable of 6-D Force/Torque Actuation for Minimum Bearing Reaction. IEEE/ASME Transactions on Mechatronics, 2017, 22, 2252-2264.	3.7	7
26	An Efficient Flexible Division Algorithm for Predicting Temperature-Fields of Mechatronic System with Manufacturing Applications. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1818-1827.	3.7	6
27	Design of a compliant knee-motion actuator for lower extremity exoskeletons. , 2016, , .		2
28	A magnetic flux model based method for detecting multi-DOF motion of a permanent magnet spherical motor. Mechatronics, 2016, 39, 217-225.	2.0	31
29	Analytical development of a minimum bearing reaction twin-motor for duplex machining. , 2015, , .		2
30	An Investigation of Eddy-Current Effects on Parameter Monitoring for Duplex Lathe Machining of Thin-Wall Components. , 2014, , .		4
31	Direct Field-Feedback Control of a Ball-Joint-Like Permanent-Magnet Spherical Motor. IEEE/ASME Transactions on Mechatronics, 2014, 19, 975-986.	3.7	66
32	Thermal field modeling algorithm based on flexible space division for high-power, high-precision mechatronic systems. , 2014, , .		3
33	Shaping Container Motion for Multimode and Robust Slosh Suppression. Journal of Spacecraft and Rockets, 2013, 50, 440-448.	1.3	22
34	Magnetic field model for direct field-feedback control of a permanent magnet spherical motor. , 2013, , .		0
35	A Sensor-Less Motion Sensing Method of a 3-DOF Permanent Magnet Spherical Motor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 160-164.	0.4	1
36	A generalized framework using hardware-in-evaluation-loop for design optimization. , 2012, , .		0

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37	A two-mode six-DOF motion system based on a ball-joint-like spherical motor for haptic applications. Computers and Mathematics With Applications, 2012, 64, 978-987.	1.4	24
38	Harnessing Embedded Magnetic Fields for Angular Sensing With Nanodegree Accuracy. IEEE/ASME Transactions on Mechatronics, 2012, 17, 687-696.	3.7	39
39	Direct field-feedback control for multi-DOF spherical actuators. , 2011, , .		8
40	Design of multi-DOF electromagnetic actuators using distributed multipole models and image method. International Journal of Applied Electromagnetics and Mechanics, 2010, 34, 195-210.	0.3	8
41	Magnetic field-based sensing method for spherical joint. , 2010, , .		5
42	Slosh suppression by robust input shaping. , 2010, , .		30
43	Magnetic dipoles for electromagnetic multi-DOF actuator design. , 2009, , .		1
44	Dipole Models for Forward/Inverse Torque Computation of a Spherical Motor. IEEE/ASME Transactions on Mechatronics, 2009, 14, 46-54.	3.7	62
45	Image Method With Distributed Multipole Models for Analyzing Permanent-Magnet-Based Electromagnetic Actuators. , 2008, , .		2