

Kok-Meng Lee

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

148
papers

2,074
citations

24
h-index

38
g-index

185
ext. papers

2,653
ext. citations

4.2
avg, IF

5.33
L-index

#	Paper	IF	Citations
148	Analytical and experimental investigation on the magnetic field and torque of a permanent magnet spherical actuator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2006 , 11, 409-419	5.5	108
147	Design and Analysis of a Permanent Magnet Spherical Actuator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2008 , 13, 239-248	5.5	92
146	Open-Loop Controller Design and Dynamic Characteristics of a Spherical Wheel Motor. <i>IEEE Transactions on Industrial Electronics</i> , 2010 , 57, 3475-3482	8.9	78
145	. <i>IEEE Transactions on Magnetics</i> , 2007 , 43, 3904-3913	2	71
144	A real-time optical sensor for simultaneous measurement of three-DOF motions. <i>IEEE/ASME Transactions on Mechatronics</i> , 2004 , 9, 499-507	5.5	65
143	Distributed Multipole Models for Design and Control of PM Actuators and Sensors. <i>IEEE/ASME Transactions on Mechatronics</i> , 2008 , 13, 228-238	5.5	59
142	Dynamic Modeling and Control of a Ball-Joint-Like Variable-Reluctance Spherical Motor. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 1996 , 118, 29-40	1.6	58
141	Kinematic and dynamic analysis of an anatomically based knee joint. <i>Journal of Biomechanics</i> , 2010 , 43, 1231-6	2.9	52
140	Hydrodynamics of an Undulating Fin for a Wave-Like Locomotion System Design. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 554-562	5.5	49
139	Dipole Models for Forward/Inverse Torque Computation of a Spherical Motor. <i>IEEE/ASME Transactions on Mechatronics</i> , 2009 , 14, 46-54	5.5	49
138	Effects of the torque model on the control of a VR spherical motor. <i>Control Engineering Practice</i> , 2004 , 12, 1437-1449	3.9	47
137	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2014 , 19, 975-986	5.5	45
136	High-Acceleration Precision Point-to-Point Motion Control With Look-Ahead Properties. <i>IEEE Transactions on Industrial Electronics</i> , 2011 , 58, 4343-4352	8.9	42
135	Adaptive Knee Joint Exoskeleton Based on Biological Geometries. <i>IEEE/ASME Transactions on Mechatronics</i> , 2014 , 19, 1268-1278	5.5	40
134	Development of a novel intelligent robotic manipulator. <i>Control Systems Magazine</i> , 1987 , 7, 9-15		39
133	Wireless Mobile Sensor Network for the System Identification of a Space Frame Bridge. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 499-507	5.5	38
132	Temperature field sensing of a thin-wall component during machining: Numerical and experimental investigations. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 126, 935-945	4.9	37

131	Harnessing Embedded Magnetic Fields for Angular Sensing With Nanodegree Accuracy. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 687-696	5.5	34
130	Generalized Shooting Method for Analyzing Compliant Mechanisms With Curved Members. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2006 , 128, 765-775	3	33
129	Design and Development of a Spherical Motor for Conformal Printing of Curved Electronics. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 9190-9200	8.9	31
128	Dynamic Modeling of Damping Effects in Highly Damped Compliant Fingers for Applications Involving Contacts. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2012 , 134,	1.6	31
127	Electromechanical Modeling of a Permanent-Magnet Spherical Actuator Based on Magnetic-Dipole-Moment Principle. <i>IEEE Transactions on Industrial Electronics</i> , 2009 , 56, 1640-1648	8.9	31
126	Large-Deformation Analysis and Experimental Validation of a Flexure-Based Mobile Sensor Node. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 606-616	5.5	27
125	Modeling and Iron-Effect Analysis on Magnetic Field and Torque Output of Electromagnetic Spherical Actuators With Iron Stator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 1080-1087	5.5	25
124	A Passive Gait-Based Weight-Support Lower Extremity Exoskeleton With Compliant Joints. <i>IEEE Transactions on Robotics</i> , 2016 , 32, 933-942	6.5	24
123	Thermal deflection and thermal stresses in a thin circular plate under an axisymmetric heat source. <i>Journal of Thermal Stresses</i> , 2019 , 42, 361-373	2.2	23
122	Two-DOF magnetic orientation sensor using distributed multipole models for spherical wheel motor. <i>Mechatronics</i> , 2011 , 21, 156-165	3	22
121	Distributed Multilevel Current Models for Design Analysis of Electromagnetic Actuators. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 2413-2424	5.5	21
120	2015 ,		21
119	Explicit dynamic finite element analysis of an automated grasping process using highly damped compliant fingers. <i>Computers and Mathematics With Applications</i> , 2012 , 64, 965-977	2.7	21
118	. <i>IEEE Transactions on Automation Science and Engineering</i> , 2007 , 4, 40-51	4.9	21
117	Design and analysis of an absolute non-contact orientation sensor for wrist motion control		21
116	Hybrid torque modeling of spherical actuators with cylindrical-shaped magnet poles. <i>Mechatronics</i> , 2011 , 21, 85-91	3	20
115	Design criteria for developing an automated live-bird transfer system. <i>IEEE Transactions on Automation Science and Engineering</i> , 2001 , 17, 483-490		19
114	Multiparameter Eddy-Current Sensor Design for Conductivity Estimation and Simultaneous Distance and Thickness Measurements. <i>IEEE Transactions on Industrial Informatics</i> , 2019 , 15, 1647-1657	11.9	19

113	A two-mode six-DOF motion system based on a ball-joint-like spherical motor for haptic applications. <i>Computers and Mathematics With Applications</i> , 2012 , 64, 978-987	2.7	18
112	Thermohydraulic Dynamics and Fuzzy Coordination Control of a Microchannel Cooling Network for Space Electronics. <i>IEEE Transactions on Industrial Electronics</i> , 2011 , 58, 700-708	8.9	18
111	Inverse Models and Harmonics Compensation for Suppressing Torque Ripples of Multiphase Permanent Magnet Motor. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 8730-8739	8.9	17
110	Control system design and input shape for orientation of spherical wheel motor. <i>Control Engineering Practice</i> , 2014 , 24, 120-128	3.9	17
109	A Novel Cascade Temperature Control System for a High-Speed Heat-Airflow Wind Tunnel. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 1310-1319	5.5	17
108	Free Surface Flow in High Speed Fiber Drawing With Large-Diameter Glass Preforms. <i>Journal of Heat Transfer</i> , 2004 , 126, 713-722	1.8	17
107	Magnetic Tensor Sensor for Gradient-Based Localization of Ferrous Object in Geomagnetic Field. <i>IEEE Transactions on Magnetics</i> , 2016 , 52, 1-10	2	16
106	Compliant joint design and flexure finger dynamic analysis using an equivalent pin model. <i>Mechanism and Machine Theory</i> , 2013 , 70, 338-353	4	16
105	Cantilever Snap-Fit Performance Analysis for Haptic Evaluation. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2011 , 133,	3	16
104	Analysis and Control of Equivalent Physical Simulator for Nanosatellite Space Radiator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2010 , 15, 79-87	5.5	16
103	An adaptive meshless method for magnetic field computation. <i>IEEE Transactions on Magnetics</i> , 2006 , 42, 1996-2003	2	16
102	A magnetic flux model based method for detecting multi-DOF motion of a permanent magnet spherical motor. <i>Mechatronics</i> , 2016 , 39, 217-225	3	16
101	Modeling and supervisory control of a disassembly automation workcell based on blocking topology. <i>IEEE Transactions on Automation Science and Engineering</i> , 2000 , 16, 67-77		15
100	Design Criteria Based on Modal Analysis for Vibration Sensing of Thin-Wall Plate Machining. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 1406-1417	5.5	14
99	An Analytical Contact Model for Design of Compliant Fingers. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2008 , 130,	3	14
98	A Method Based on Measured Boundary Conditions for Reconstructing the Magnetic Field Distribution of an Electromagnetic Mechatronic System. <i>IEEE/ASME Transactions on Mechatronics</i> , 2010 , 15, 595-602	5.5	13
97	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 1028-1037	5.5	12
96	. <i>IEEE Transactions on Automation Science and Engineering</i> , 2018 , 15, 1665-1676	4.9	12

95	Dynamic Modeling and Transient Performance Analysis of a LHP-MEMS Thermal Management System for Spacecraft Electronics. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2010 , 33, 597-606		12
94	Distributed Current Source Method for Modeling Magnetic and Eddy-Current Fields Induced in Nonferrous Metallic Objects. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 1038-1049	5.5	11
93	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2016 , 21, 2694-2704	5.5	11
92	An improved material constitutive model considering temperature-dependent dynamic recrystallization for numerical analysis of Ti-6Al-4V alloy machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2018 , 97, 3655-3670	3.2	11
91	Analytical Magnetic Field and Driving Force Models Based on Measured Boundary Conditions for Industrial Coriolis Mass Flowmeters. <i>IEEE Transactions on Industrial Electronics</i> , 2012 , 59, 4753-4760	8.9	10
90	An Adaptive Meshless Method for Analyzing Large Mechanical Deformation and Contacts. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2008 , 75,	2.7	10
89	A Backpack Minimizing the Vertical Acceleration of the Load Improves the Economy of Human Walking. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020 , 28, 1994-2004	4.8	10
88	Torque Modeling of Spherical Actuators with Double-layer Poles 2006 ,		9
87	Design and control of a spherical air-bearing system for multi-d.o.f. ball-joint-like actuators. <i>Mechatronics</i> , 2003 , 13, 175-194	3	8
86	Finite element torque modeling for the design of a spherical motor		8
85	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017 , 22, 2252-2264	5.5	7
84	Multi-motion robots control based on bioelectric signals from single-channel dry electrode. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015 , 229, 124-36	1.7	7
83	An adaptive knee joint exoskeleton based on biological geometries 2011 ,		7
82	Hydrodynamic modeling of an undulating fin for robotic fish design 2010 ,		7
81	Flux Field Formulation and Back-Iron Analysis of Tubular Linear Machines. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 2617-2626	2	7
80	Design of multi-DOF electromagnetic actuators using distributed multipole models and image method. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2010 , 34, 195-210	0.4	7
79	Computational thermal fluid models for design of a modern fiber draw process. <i>IEEE Transactions on Automation Science and Engineering</i> , 2006 , 3, 108-118	4.9	7
78	Design of air bearing system for fine motion application of multi-DOF spherical actuators 1999 ,		7

77	A Hybrid Method Based on Macro-Micro Modeling and Infrared Imaging for Tool Temperature Reconstruction in Dry Turning. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 1019-1027	5-5	7
76	Distributed current source modeling method for 3D eddy current problem in magnetic conductor with discrete state-space J- Γ formulation. <i>Journal of Computational Physics</i> , 2020 , 401, 109027	4-1	7
75	An Active Control Method for Chatter Suppression in Thin Plate Turning. <i>IEEE Transactions on Industrial Informatics</i> , 2020 , 16, 1742-1753	11-9	7
74	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019 , 24, 1407-1419	5-5	6
73	Machine Perception Based on Eddy Current for Physical Field Reconstruction of Conductivity and Hidden Geometrical Features. <i>IEEE Transactions on Industrial Informatics</i> , 2019 , 15, 5392-5403	11-9	6
72	Design and chatter prediction analysis of a duplex face turning machine for manufacturing disk-like workpieces. <i>International Journal of Machine Tools and Manufacture</i> , 2019 , 140, 12-19	9-4	6
71	Magnetic field-based multi-DOF orientation sensor for PM-based spherical actuators 2009 ,		6
70	Modeling by numerical reduction of modes for multivariable control of an optical-fiber draw process. <i>IEEE Transactions on Automation Science and Engineering</i> , 2006 , 3, 119-130	4-9	6
69	A machine-vision-based wrist sensor for direct measurement of three degrees-of-freedom orientation. <i>Mechatronics</i> , 1993 , 3, 571-587	3	6
68	Attenuating characteristics of a multi-element buffer bottle in an aircraft piston pump. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2017 , 231, 1791-1803	1-3	5
67	Coupled Parametric Effects on Magnetic Fields of Eddy-Current Induced in Non-Ferrous Metal Plate for Simultaneous Estimation of Geometrical Parameters and Electrical Conductivity. <i>IEEE Transactions on Magnetics</i> , 2017 , 53, 1-9	2	5
66	A numerical and experimental investigation of parametric effect on flow ripple. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2015 , 229, 2939-2951	1-3	5
65	2014 ,		5
64	Model-based fuzzy adaptation for control of a lower extremity rehabilitation exoskeleton 2009 ,		5
63	Effects of Nonlinear Micromagnetic Coupling on a Weak-Field Magnetoimpedance Sensor. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 2042-2048	2	5
62	Concept Development and Design of a Spherical Wheel Motor (SWM) 2005 ,		5
61	Modeling of the natural product deboning process using biological and human models 1999 ,		5
60	Real-time motion control of a multi-degree-of-freedom variable reluctance spherical motor		5

59	Flexible Capacitive Curvature Sensor with One-Time Calibration for Amphibious Gait Monitoring. <i>Soft Robotics</i> , 2021 , 8, 164-174	9.2	5
58	Spherical Wrist With Hybrid Motion-Impedance Control for Enhanced Robotic Manipulations. <i>IEEE Transactions on Robotics</i> , 2021 , 1-12	6.5	5
57	Review of anatomy-based ankle-foot robotics for mind, motor and motion recovery following stroke: design considerations and needs. <i>International Journal of Intelligent Robotics and Applications</i> , 2018 , 2, 267-282	1.7	5
56	Model-Based Digital Image Correlation for Noncontact Deformation Measurement of Strain Field and Mechanical Property. <i>IEEE Transactions on Industrial Informatics</i> , 2019 , 15, 5109-5118	11.9	4
55	Digital Image Correlation Based on Primary Shear Band Model for Reconstructing Displacement, Strain, and Stress Fields in Orthogonal Cutting. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 2088-2099	5.5	4
54	Magnetic Machine Perception for Reconstruction of Nonuniform Electrical Conductivity Based on Eddy Current Model. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 2318-2329	5.5	4
53	Soft-Switchable Dual-PI Controlled Axial Loading System for High-Speed EMU Axle-Box Bearing Test Rig. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 7370-7381	8.9	4
52	A Dual-driven Intelligent Combination Control of Heat Pipe Space Cooling System. <i>Chinese Journal of Aeronautics</i> , 2012 , 25, 566-574	3.7	4
51	A walking monitoring shoe system for simultaneous plantar-force measurement and gait-phase detection 2010 ,		4
50	Explicit finite element analysis of a flexible multibody dynamic system with highly damped compliant fingers 2010 ,		4
49	Design analysis of a grating interferometer sensor for HDD servo-track writing 1999 ,		4
48	Articular Geometry Reconstruction for Knee Joint with a Wearable Compliant Device. <i>Robotica</i> , 2019 , 37, 2104-2118	2.1	3
47	Permanent Magnet Spherical Motors. <i>Research on Intelligent Manufacturing</i> , 2018 ,	0.3	3
46	Design of flexonic mobile node using 3D compliant beam for smooth manipulation and structural obstacle avoidance 2014 ,		3
45	Lateral Optical Sensor With Slip Detection for Locating Live Products on Moving Conveyor. <i>IEEE Transactions on Automation Science and Engineering</i> , 2010 , 7, 123-132	4.9	3
44	Direct field-feedback control for multi-DOF spherical actuators 2011 ,		3
43	Torque Modeling of a Spherical Actuator Based on Lorentz Force Law		3
42	Effects of fixture dynamics on back-stepping control of a VR spherical motor		3

41	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 1922-1932	5.5	3
40	Robust control of a spherical motor in moving frame. <i>Mechatronics</i> , 2021 , 75, 102548	3	3
39	Design concept development of a variable magnetization motor with improved efficiency and controllable stiffness for robotic applications. <i>Science China Technological Sciences</i> , 2019 , 62, 39-46	3.5	3
38	Analytical development of a minimum bearing reaction twin-motor for duplex machining 2015 ,		2
37	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2016 , 21, 980-992	5.5	2
36	Magnetic field-based sensing method for spherical joint 2010 ,		2
35	Empirical formulation of torque output for spherical actuators with low-cost rotor poles 2009 ,		2
34	Torque modeling of a permanent magnet spherical actuator based on magnetic dipole moment principle 2008 ,		2
33	Equivalent voice-coil models for real-time computation in electromagnetic actuation and sensor applications 2007 ,		2
32	Cutting, by pressing and slicing applied to the robotic cut of bio-materials. II. Force during slicing and pressing cuts		2
31	A real-time optical sensor for simultaneous measurement of 3-DOF motions		2
30	Spine-Equivalent Beam Modeling Method With In Vivo Validation for the Analysis of Sagittal Standing Flexion. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 2075-2087	5.5	2
29	Design of a compliant knee-motion actuator for lower extremity exoskeletons 2016 ,		2
28	Flexonics for Manufacturing and Robotics. <i>Research on Intelligent Manufacturing</i> , 2019 ,	0.3	2
27	A Novel Current-Interference Scanning Method for Detection of Abnormal Tissues 2018 ,		2
26	Effects of reconstructed magnetic field from sparse noisy boundary measurements on localization of active neural source. <i>Medical and Biological Engineering and Computing</i> , 2016 , 54, 177-89	3.1	1
25	Temperature-based alternate perception method for human-motion detection with visually impaired user applications. <i>International Journal of Intelligent Robotics and Applications</i> , 2017 , 1, 383-398 ^{1.7}		1
24	Design of a Passive Gait-Based Lower-Extremity-Exoskeleton for Supporting Bodyweight. <i>Lecture Notes in Computer Science</i> , 2015 , 230-242	0.9	1

23	A novel temperature based flat-plate heat flux sensor for high accuracy measurement 2009 ,		1
22	A spherical encoder for real-time measurements of three-DOF wrist orientations		1
21	Generalized Shooting Method for Analyzing Compliant Mechanisms		1
20	Design and analysis of a permanent magnet spherical actuator 2005 ,		1
19	Kinematic analysis of a three degrees of freedom in-parallel actuated manipulator		1
18	Model-Based Reconstruction of 2D Geometrical Features using Eddy Current Testing. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022 , 1-1	5.2	1
17	A Distributed Current Source Model for Analyzing Motion-Induced Eddy-Current in a Conductor With Arbitrary Movements. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-13	5.5	1
16	Supervisory control of an automated disassembly workcell based on blocking topology		1
15	Analytical and Experimental Investigation of Temporal Interference for Selective Neuromuscular Activation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020 , 28, 3100-3112	4.8	1
14	Physical Field-Enhanced Intelligent Space with Temperature-Based Human Motion Detection for Visually Impaired Users. <i>Lecture Notes in Computer Science</i> , 2017 , 120-129	0.9	1
13	Reconfigurable Impedance Sensing System for Early Rehabilitation following Stroke Recovery 2020 ,		1
12	2019 ,		1
11	Design Criteria for developing an Anatomy-based Ankle-Foot-Orthosis: A State-of-the art Review and Needs of Mind, Motor and Motion Recovery following Stroke 2018 ,		1
10	Physics informed neural network for parameter identification and boundary force estimation of compliant and biomechanical systems. <i>International Journal of Intelligent Robotics and Applications</i> , 2021 , 5, 313-325	1.7	1
9	Regulation and Tracking Control of Omni-Directional Rotation for Spherical Motors. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	1
8	Feature-set characterization for target detection based on artificial color contrast and principal component analysis with robotic tealeaf harvesting applications. <i>International Journal of Intelligent Robotics and Applications</i> ,1	1.7	0
7	Analytical Harmonic Method for Modeling High-Frequency Oscillation With Applications to Aircraft Piston Pump Vibration Analysis. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021 , 26, 918-929	5.5	0
6	A Novel Method for Soft Contact Sensing Based on Electrical Impedance Sensitivity Images. <i>IEEE Sensors Journal</i> , 2022 , 1-1	4	0

- 5 Development of a Grating Interferometer with Application to HDD Servo-Track Writing. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2001**, 123, 445-452 3-3
- 4 Regenerative Effects of Orthogonal Chip Dimensions on Turning Stability of Thin-Wall Workpiece-Tool Coupled Dynamics. *IEEE/ASME Transactions on Mechatronics*, **2022**, 1-12 5-5
- 3 A Back-EMF Method for Multi-DOF Motion Detection. *Research on Intelligent Manufacturing*, **2018**, 109-123
- 2 Bio-inspired Exoskeleton. *Research on Intelligent Manufacturing*, **2019**, 139-164 0-3
- 1 Digital Magnetic Tensor Sensor With ANN Measurement Model for Human Joint Motion Sensing in Sagittal Plane. *IEEE/ASME Transactions on Mechatronics*, **2022**, 1-20 5-5