

Katsuhiko Hirata

List of Publications by Citations

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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.

96
papers

602
citations

14
h-index

21
g-index

112
ext. papers

744
ext. citations

1.1
avg, IF

3.95
L-index

#	Paper	IF	Citations
96	Novel Soft Actuator Using Magnetorheological Elastomer. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 1649-1652	7.9	79
95	Cogging Torque Analysis of Magnetic Gear. <i>IEEE Transactions on Industrial Electronics</i> , 2012 , 59, 2189-2197	5.9	57
94	Effects of Near-Ultraviolet Light on Alkaloid Production in Catharanthus roseus Plants. <i>Planta Medica</i> , 1993 , 59, 46-50	3.1	51
93	Dynamic Analysis Method of Two-Dimensional Linear Oscillatory Actuator Employing Finite Element Method. <i>IEEE Transactions on Magnetics</i> , 2007 , 43, 1441-1444	2	45
92	Transmission Torque Analysis of a Novel Magnetic Planetary Gear Employing 3-D FEM. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 1043-1046	2	24
91	Effect of Near-Ultraviolet Light on Alkaloid Production in Multiple Shoot Cultures of Catharanthus roseus. <i>Planta Medica</i> , 1991 , 57, 499-500	3.1	22
90	Experimental Verification of Feedback Control of a 2-DOF Spherical Actuator. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-4	2	18
89	Trajectory Analysis of 2-D Magnetic Resonant Actuator. <i>IEEE Transactions on Magnetics</i> , 2009 , 45, 1732-1735	1.8	18
88	Dynamic Analysis of Linear Resonant Actuator Driven by DC Motor Taking into Account Contact Resistance Between Brush and Commutator. <i>IEEE Transactions on Magnetics</i> , 2008 , 44, 1510-1513	2	18
87	Analysis of 2-Degree of Freedom Outer Rotor Spherical Actuator Employing 3-D Finite Element Method. <i>IEEE Transactions on Magnetics</i> , 2013 , 49, 2233-2236	2	17
86	Dynamic Analysis of Electromagnetic Impact Drive Mechanism Using Eddy Current. <i>IEEE Transactions on Magnetics</i> , 2007 , 43, 1421-1424	2	17
85	Continuously Variable Speed Vernier Magnetic Gear. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 3104-3107	1.4	14
84	Transmission torque characteristics in a magnetic gear 2010 ,		14
83	Quantitative Determination of Vinblastine in Tissue Cultures of Catharanthus roseus by Radioimmunoassay. <i>Planta Medica</i> , 1989 , 55, 262-4	3.1	14
82	Proposal of an axial-type magnetic-gear motor 2012 ,		11
81	Hopping of a monopedal robot with a biarticular muscle driven by electromagnetic linear actuators 2012 ,		11
80	Study on Starting Performance of Ni-Mn-Ga Magnetic Shape Memory Alloy Linear Actuator. <i>IEEE Transactions on Magnetics</i> , 2013 , 49, 2225-2228	2	9

79	Dynamic Analysis Method for Electromagnetic Artificial Muscle Actuator under PID Control. <i>IEEJ Transactions on Industry Applications</i> , 2011 , 131, 166-170	0.2	8
78	A New Linear Oscillatory Actuator with Variable Characteristics Using Two Sets of Coils. <i>Sensors</i> , 2016 , 16,	3.8	8
77	Development of a Haptic Device Using a 2-DOF Linear Oscillatory Actuator. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 1-4	2	7
76	Torque ripple analysis of a magnetic-gear motor 2012 ,		7
75	Dynamic Characteristics of Novel Two-DOF Resonant Actuator by Vector Control. <i>IEEE Transactions on Magnetics</i> , 2012 , 48, 2985-2988	2	6
74	Motion Control of a Two-Degree-of-Freedom Linear Resonant Actuator without a Mechanical Spring. <i>Sensors</i> , 2020 , 20,	3.8	5
73	Optimization of stator pole arrangement for 3-DOF spherical actuator using genetic algorithm 2015 ,		5
72	Characteristics verification of an independently controllable electromagnetic spherical motor. <i>Sensors</i> , 2014 , 14, 10072-80	3.8	5
71	Feedback control of electromagnetic spherical actuator with three-degree-of-freedom 2010 ,		5
70	Study on Transmission Torque Characteristics of a Surface-Permanent-Magnet-Type Magnetic Gear. <i>IEEJ Transactions on Industry Applications</i> , 2011 , 131, 396-402	0.2	5
69	Control of three-degree-of-freedom resonant actuator driven by novel vector control. <i>Transportation Systems and Technology</i> , 2018 , 4, 90-101	0.3	5
68	Design and Analysis of a Three-Degree-of-Freedom Linear Oscillatory Actuator. <i>IEEE Transactions on Magnetics</i> , 2020 , 56, 1-4	2	4
67	Simplified Position Estimation Using Back-EMF for Two-DoF Linear Resonant Actuator. <i>IEEE Transactions on Magnetics</i> , 2014 , 50, 961-964	2	4
66	Embedded PM magnetic-gear generator. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2014 , 45, 709-715	0.4	4
65	Dynamic Characteristic Analysis and Experimental Verification of 2-DoF Resonant Actuator under Feedback Control. <i>Nihon AEM Gakkaishi</i> , 2015 , 23, 521-526	0.2	4
64	PID feedback control method for Linear Resonant Actuator using an estimated external load from the back-EMF as a target voltage 2012 ,		4
63	Proposal of an Axial Gap Magnetic Gear. <i>IEEJ Transactions on Industry Applications</i> , 2010 , 130, 802-807	0.2	4
62	Study on Cogging Torque Reduction in a Hybrid-Type Magnetic Gear. <i>IEEJ Transactions on Industry Applications</i> , 2010 , 130, 692-698	0.2	4

61	Development of Triaxial Active Control Magnetic Bearing with Asymmetric Structure 2019 ,		4
60	Dynamic characteristics of three-degree-of-freedom resonant actuator. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2018 , 37, 1566-1574	0.7	4
59	Development of Control Method for Outer-Rotor Spherical Actuator. <i>Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi)</i> , 2016 , 194, 54-63	0.4	3
58	Linear oscillatory actuator using new magnetic movement converter 2013 ,		3
57	3-D Finite Element Analysis of Linear Resonant Actuator under PID Control Using Back EMF. <i>IEEJ Journal of Industry Applications</i> , 2012 , 1, 111-116	0.7	3
56	Dynamic Characteristics Analysis of a Small-Sized Linear Oscillatory Actuator Employing the 3-D Finite Element Method. <i>IEEJ Transactions on Industry Applications</i> , 2010 , 130, 568-573	0.2	3
55	Optimization of Asymmetric Acceleration Waveform for Haptic Device Driven by Two-Degree-of-Freedom Oscillatory Actuator. <i>IEEJ Journal of Industry Applications</i> , 2016 , 5, 215-220	0.7	3
54	New Spherical Resonant Actuator. <i>IEEJ Transactions on Industry Applications</i> , 2008 , 128, 642-647	0.2	3
53	Analysis Accuracy in Positioning Calculation for Three-Degree-of-Freedom Spherical Actuator. <i>IEEE Transactions on Magnetics</i> , 2021 , 57, 1-4	2	3
52	Dynamic characteristics of triaxial active control magnetic bearing with asymmetric structure. <i>Open Physics</i> , 2018 , 16, 9-13	1.3	2
51	Design, Optimization, and Realization of Salient-Pole Electromagnetic Gear for Variable-Transmission Applications. <i>IEEJ Journal of Industry Applications</i> , 2013 , 2, 87-97	0.7	2
50	New Linear Oscillatory Actuator Using DC Motor. <i>IEEJ Transactions on Industry Applications</i> , 2006 , 126, 1156-1160	0.2	2
49	Fast Computation Technique of Genetic Algorithm Based on Finite Element Method. <i>IEEJ Transactions on Industry Applications</i> , 2007 , 127, 1009-1012	0.2	2
48	Analysis Method for Giant Magnetostrictive Material Based Actuator Using FEM. <i>IEEJ Transactions on Industry Applications</i> , 2010 , 130, 721-727	0.2	2
47	Novel Proposals for the Realization of Variable-Transmission Magnetic Gear. <i>IEEJ Transactions on Industry Applications</i> , 2011 , 131, 1263-1268	0.2	2
46	Dynamic Analysis of A New Linear Actuator Using 3-D Finite Element Method. <i>IEEJ Transactions on Industry Applications</i> , 2006 , 126, 1151-1155	0.2	2
45	A Novel Alternating Magnetic Field Generator Based on the Principle of Lattice Vibration in Crystals. <i>IEEE Transactions on Magnetics</i> , 2021 , 57, 1-5	2	2
44	Proposal of a New Coil Arrangement for a Four-Phase Switched Reluctance Motor. <i>IEEE Transactions on Magnetics</i> , 2021 , 57, 1-6	2	2

43	Characteristic Evaluation of Linear Resonant Actuator Utilizing Electrical Resonance. <i>IEEJ Journal of Industry Applications</i> , 2018 , 7, 175-180	0.7	2
42	Characteristics Verification of a Novel Motor with Two Controllable Rotors. 2018 ,		2
41	Dynamic characteristics analysis of circuit breaker with oil dashpot employing improved multi-mesh modification method 2012 ,		1
40	Dynamic analysis of axial-type magnetic gear employing 3-D FEM 2010 ,		1
39	Fully coupled electro-magneto-mechanical analysis method of magnetostrictive actuator using 3-D finite element method 2008 ,		1
38	Analysis method of negative ion by electrostatic atomization employing MPS method and FEM 2008 ,		1
37	Dynamic Analysis of Eddy Current Damping Mechanism Employing 3-D Finite Element Method. <i>IEEJ Transactions on Industry Applications</i> , 2005 , 125, 1140-1144	0.2	1
36	Study on The Response Improvement of A Linear Actuator Using Temperature-Sensitive Magnetic Material. <i>IEEJ Transactions on Industry Applications</i> , 2007 , 127, 1103-1108	0.2	1
35	Evaluation Method for Multi-Degree-of-Freedom Spherical Electromagnetic Synchronous Actuators under Constant Power. <i>IEEJ Transactions on Industry Applications</i> , 2016 , 136, 907-912	0.2	1
34	Performance Evaluation of Linear Oscillatory Actuator for Active Control Engine Mount. <i>IEEJ Transactions on Industry Applications</i> , 2012 , 132, 1091-1096	0.2	1
33	Two-DOF Resonant Actuator Using Vector Control. <i>IEEJ Journal of Industry Applications</i> , 2012 , 1, 117-122	0.7	1
32	Electromagnetic Vibration Analysis and Measurement of a Magnetic Gear. <i>IEEJ Journal of Industry Applications</i> , 2013 , 2, 261-268	0.7	1
31	Proposal of 3-Degree-of-Freedom Spherical Actuator with Auxiliary Poles 2019 ,		1
30	Motion Control of Two Degree of Freedom Linear Resonant Actuator without Mechanical Spring 2019 ,		1
29	Vibration Investigation of a 24/20 Switched Reluctance Motor Focusing on the Driving Methods 2019 ,		1
28	Feasibility evaluation of new electric motors driven by intrinsic localized mode. <i>Nonlinear Theory and Its Applications IEICE</i> , 2021 , 12, 475-488	0.6	1
27	Numerical Analysis of Magnetic Soliton Excited on Nonlinear LC Ladder Circuit Array Using Permanent Magnet Flux Biased Inductor. <i>IEEE Transactions on Magnetics</i> , 2021 , 1-1	2	1
26	Triaxial Active Control Magnetic Bearing With Asymmetric Structure. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 4675-4685	4.3	0

- 25 Current superimposition variable flux reluctance motor with 8 salient poles. *Open Physics*, **2017**, 15, 857-861
- 24 Proposal of a Transverse Type Z-Actuator. *Nihon AEM Gakkaishi*, **2021**, 29, 558-563 0.2
- 23 Design and Analysis of a Six-Degree-of-Freedom Oscillatory Actuator Using Lorentz Force. *Nihon AEM Gakkaishi*, **2021**, 29, 538-543 0.2
- 22 Linear Vernier actuator with two movers. *Transportation Systems and Technology*, **2020**, 6, 63-79 0.3
- 21 Edge effect of multi-degree-of-freedom oscillatory actuator driven by vector control. *Open Physics*, **2020**, 18, 346-351 1.3
- 20 Performance Analysis of DC-DC Converter with MHz Band Transformer Employing Finite Element Method. *IEEJ Transactions on Industry Applications*, **2006**, 126, 1274-1278 0.2
- 19 Performance Analysis of MHz Band Transformer Taking Account of Displacement Current. *IEEJ Transactions on Industry Applications*, **2006**, 126, 131-136 0.2
- 18 Impedance Characteristics Analysis of the Non-Contact Magnetic Type Position Sensor. *IEEJ Transactions on Sensors and Micromachines*, **2008**, 128, 435-441 0.2
- 17 Transmission Analysis of Electromagnetic Induction Type RFID System -Transmission Characteristics between Two Resonant Circuits-. *IEEJ Transactions on Power and Energy*, **2008**, 128, 1271-1277 0.2
- 16 Numerical analysis on injection of MR fluid into clutch mechanism. *The Proceedings of JSME Annual Conference on Robotics and Mechatronics (Robomec)*, **2019**, 2019, 1P2-B15 0
- 15 Analysis of non-contact electromagnetic impact device connected to boosting circuit. *International Journal of Applied Electromagnetics and Mechanics*, **2020**, 64, 1145-1154 0.4
- 14 Experimental Verification of Linear Oscillatory Actuator Using DC Motor. *IEEJ Transactions on Industry Applications*, **2016**, 136, 285-290 0.2
- 13 Numerical Analysis of Formation of Ferromagnetic Powders under a Magnetic Field. *IEEJ Transactions on Power and Energy*, **2017**, 137, 173-178 0.2
- 12 Coupled Analysis by Viscoelastic Body with Rigid Body for Design of MRE Soft Actuator. *IEEJ Transactions on Industry Applications*, **2017**, 137, 647-653 0.2
- 11 Dynamic Analysis of Linear Resonant Actuator under PWM Control Employing the 3-D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2009**, 129, 756-760 0.2
- 10 Dynamic Analysis of 2D Electromagnetic Resonant Optical Scanner Using 3D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2010**, 130, 1102-1107 0.2
- 9 Coupled Electro-Magneto-Mechanical-Acoustic Analysis Method Developed by Using 2D Finite Element Method for Flat Panel Speaker Driven by Magnetostrictive-Material-Based Actuator. *IEEJ Transactions on Industry Applications*, **2010**, 130, 1315-1322 0.2
- 8 Study on Dynamic Characteristic Analysis of 3-D Spherical Actuator. *IEEJ Transactions on Industry Applications*, **2010**, 130, 1081-1086 0.2

- 7 Feedback Control of Electromagnetic Actuator with Three Degrees of Freedom Using Optical Image Sensors. *IEEJ Transactions on Industry Applications*, **2011**, 131, 754-759 0.2
- 6 Dynamic Analysis of 3 DOF Actuator Employing 3 D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2011**, 131, 1240-1245 0.2
- 5 Dynamic Characteristics Analysis of Two-DOF Oscillatory Actuator and Experimental Verification of Prototype. *IEEJ Transactions on Industry Applications*, **2011**, 131, 1165-1170 0.2
- 4 Magnetic Fluid Oscillation Analysis using Finite Element Method. *IEEJ Transactions on Industry Applications*, **2012**, 132, 78-83 0.2
- 3 Reduction of Vibro-acoustic Noise for Optical Image Stabilizer VCM Using Electromagnetic-Mechanical-Acoustic Coupled Analysis Method. *IEEJ Transactions on Industry Applications*, **2014**, 134, 712-719 0.2
- 2 Sensorless attitude estimation of three-degree-of-freedom actuator for image stabilization. *International Journal of Applied Electromagnetics and Mechanics*, **2021**, 66, 249-263 0.4
- 1 Study on deformation analysis of high-viscosity electromagnetic fluid employing combined method. *International Journal of Applied Electromagnetics and Mechanics*, **2016**, 52, 1519-1524 0.4