Katsuhiro Hirata

List of Publications by Year
in descending order

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papers	citations	h-index	g-index

112	112	112	504
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Novel Soft Actuator Using Magnetorheological Elastomer. IEEE Transactions on Magnetics, 2012, 48, 1649-1652.	1.2	114
2	Cogging Torque Analysis of Magnetic Gear. IEEE Transactions on Industrial Electronics, 2012, 59, 2189-2197.	5.2	88
3	Dynamic Analysis Method of Two-Dimensional Linear Oscillatory Actuator Employing Finite Element Method. IEEE Transactions on Magnetics, 2007, 43, 1441-1444.	1.2	60
4	Effects of Near-Ultraviolet Light on Alkaloid Production inCatharanthus roseusPlants. Planta Medica, 1993, 59, 46-50.	0.7	59
5	Transmission Torque Analysis of a Novel Magnetic Planetary Gear Employing 3-D FEM. IEEE Transactions on Magnetics, 2012, 48, 1043-1046.	1.2	36
6	Trajectory Analysis of 2-D Magnetic Resonant Actuator. IEEE Transactions on Magnetics, 2009, 45, 1732-1735.	1.2	26
7	Effect of Near-Ultraviolet Light on Alkaloid Production in Multiple Shoot Cultures ofCatharanthus roseus. Planta Medica, 1991, 57, 499-500.	0.7	25
8	Analysis of 2-Degree of Freedom Outer Rotor Spherical Actuator Employing 3-D Finite Element Method. IEEE Transactions on Magnetics, 2013, 49, 2233-2236.	1.2	24
9	Dynamic Analysis of Linear Resonant Actuator Driven by DC Motor Taking into Account Contact Resistance Between Brush and Commutator. IEEE Transactions on Magnetics, 2008, 44, 1510-1513.	1.2	23
10	Experimental Verification of Feedback Control of a 2-DOF Spherical Actuator. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	23
11	Transmission torque characteristics in a magnetic gear. , 2010, , .		22
12	Continuously Variable Speed Vernier Magnetic Gear. IEEE Transactions on Magnetics, 2012, 48, 3104-3107.	1.2	22
13	Dynamic Analysis of Electromagnetic Impact Drive Mechanism Using Eddy Current. IEEE Transactions on Magnetics, 2007, 43, 1421-1424.	1.2	20
14	Hopping of a monopedal robot with a biarticular muscle driven by electromagnetic linear actuators. , 2012, , .		18
15	Quantitative Determination of Vinblastine in Tissue Cultures ofCatharanthus roseusby Radioimmunoassay. Planta Medica, 1989, 55, 262-264.	0.7	16
16	Development of a Haptic Device Using a 2-DOF Linear Oscillatory Actuator. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	13
17	A New Linear Oscillatory Actuator with Variable Characteristics Using Two Sets of Coils. Sensors, 2016, 16, 377.	2.1	13
18	Proposal of an axial-type magnetic-geared motor. , 2012, , .		12

#	Article	IF	Citations
19	Dynamic Analysis Method for Electromagnetic Artificial Muscle Actuator under PID Control. IEEJ Transactions on Industry Applications, 2011, 131, 166-170.	0.1	12
20	Design and Analysis of a Three-Degree-of-Freedom Linear Oscillatory Actuator. IEEE Transactions on Magnetics, 2020, 56, 1-4.	1.2	11
21	Proposal of an Axial Gap Magnetic Gear. IEEJ Transactions on Industry Applications, 2010, 130, 802-807.	0.1	10
22	Torque ripple analysis of a magnetic-geared motor. , 2012, , .		10
23	Study on Starting Performance of Ni-Mn-Ga Magnetic Shape Memory Alloy Linear Actuator. IEEE Transactions on Magnetics, 2013, 49, 2225-2228.	1.2	10
24	Control of three-degree-of-freedom resonant actuator driven by novel vector control. Transportation Systems and Technology, 2018, 4, 90-101.	0.4	10
25	Dynamic characteristics of three-degree-of-freedom resonant actuator. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2018, 37, 1566-1574.	0.5	9
26	Dynamic Characteristics of Novel Two-DOF Resonant Actuator by Vector Control. IEEE Transactions on Magnetics, 2012, 48, 2985-2988.	1.2	8
27	Feedback control of electromagnetic spherical actuator with three-degree-of-freedom. , 2010, , .		7
28	PID feedback control method for Linear Resonant Actuator using an estimated external load from the back-EMF as a target voltage. , 2012, , .		7
29	Analysis Accuracy in Positioning Calculation for Three-Degree-of-Freedom Spherical Actuator. IEEE Transactions on Magnetics, 2021, 57, 1-4.	1.2	7
30	Optimization of stator pole arrangement for 3-DOF spherical actuator using genetic algorithm. , 2015, , .		6
31	Development of Control Method for Outerâ€Rotor Spherical Actuator. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2016, 194, 54-63.	0.2	6
32	Motion Control of a Two-Degree-of-Freedom Linear Resonant Actuator without a Mechanical Spring. Sensors, 2020, 20, 1954.	2.1	6
33	Study on Transmission Torque Characteristics of a Surface-Permanent-Magnet-Type Magnetic Gear. IEEJ Transactions on Industry Applications, 2011, 131, 396-402.	0.1	6
34	Dynamic analysis of axial-type magnetic gear employing 3-D FEM. , 2010, , .		5
35	3-D Finite Element Analysis of Linear Resonant Actuator under PID Control Using Back EMF. IEEJ Journal of Industry Applications, 2012, 1, 111-116.	0.9	5
36	Characteristics Verification of an Independently Controllable Electromagnetic Spherical Motor. Sensors, 2014, 14, 10072-10080.	2.1	5

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37	Embedded PM magnetic-geared generator. International Journal of Applied Electromagnetics and Mechanics, 2014, 45, 709-715.	0.3	5
38	Dynamic Characteristic Analysis and Experimental Verification of 2-DoF Resonant Actuator under Feedback Control. Nihon AEM Gakkaishi, 2015, 23, 521-526.	0.0	5
39	Vibration Comparison of Current Superimposition Variable Flux Machine and Switched Reluctance Machine. , 2018, , .		5
40	Proposal of 3-Degree-of-Freedom Spherical Actuator with Auxiliary Poles. , 2019, , .		5
41	Development of Triaxial Active Control Magnetic Bearing with Asymmetric Structure. , 2019, , .		5
42	Triaxial Active Control Magnetic Bearing With Asymmetric Structure. IEEE Transactions on Industry Applications, 2021, 57, 4675-4685.	3.3	5
43	Study on Cogging Torque Reduction in a Hybrid-Type Magnetic Gear. IEEJ Transactions on Industry Applications, 2010, 130, 692-698.	0.1	5
44	Optimization of Asymmetric Acceleration Waveform for Haptic Device Driven by Two-Degree-of-Freedom Oscillatory Actuator. IEEJ Journal of Industry Applications, 2016, 5, 215-220.	0.9	5
45	New Spherical Resonant Actuator. IEEJ Transactions on Industry Applications, 2008, 128, 642-647.	0.1	5
46	Linear oscillatory actuator using new magnetic movement converter. , 2013, , .		4
47	Simplified Position Estimation Using Back-EMF for Two-DoF Linear Resonant Actuator. IEEE Transactions on Magnetics, 2014, 50, 961-964.	1.2	4
48	Study on a current superimposition variable flux reluctance machine with distributed winding. , 2016, , .		4
49	Characteristics Verification of a Novel Motor with Two Controllable Rotors. , 2018, , .		4
50	A Novel Alternating Magnetic Field Generator Based on the Principle of Lattice Vibration in Crystals. IEEE Transactions on Magnetics, 2021, 57, 1-5.	1.2	4
51	Fully coupled electro-magneto-mechanical analysis method of magnetostrictive actuator using 3-D finite element method. , 2008, , .		3
52	Dynamic characteristics of triaxial active control magnetic bearing with asymmetric structure. Open Physics, 2018, 16, 9-13.	0.8	3
53	Characteristic Evaluation of Linear Resonant Actuator Utilizing Electrical Resonance. IEEJ Journal of Industry Applications, 2018, 7, 175-180.	0.9	3
54	Proposal of a New Coil Arrangement for a Four-Phase Switched Reluctance Motor. IEEE Transactions on Magnetics, 2021, 57, 1-6.	1.2	3

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55	Numerical Analysis of Magnetic Soliton Excited on Nonlinear LC Ladder Circuit Array Using Permanent Magnet Flux Biased Inductor. IEEE Transactions on Magnetics, 2022, 58, 1-5.	1.2	3
56	New Linear Oscillatory Actuator Using DC Motor. IEEJ Transactions on Industry Applications, 2006, 126, 1156-1160.	0.1	3
57	Dynamic Characteristics Analysis of a Small-Sized Linear Oscillatory Actuator Employing the 3-D Finite Element Method. IEEJ Transactions on Industry Applications, 2010, 130, 568-573.	0.1	3
58	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.	0.1	3
59	Electromagnetic Vibration Analysis and Measurement of a Magnetic Gear. IEEJ Journal of Industry Applications, 2013, 2, 261-268.	0.9	3
60	Robust control of threeâ€degreeâ€ofâ€freedom spherical actuator based on deep reinforcement learning. IEEJ Transactions on Electrical and Electronic Engineering, 0, , .	0.8	3
61	Dynamic Analysis of Eddy Current Damping Mechanism Employing 3-D Finite Element Method. IEEJ Transactions on Industry Applications, 2005, 125, 1140-1144.	0.1	2
62	Dynamic analysis method of spherical resonant actuator using 3-D finite element method. , 2008, , .		2
63	Eddy current analysis of magnetic gear employing 3-D FEM. , 2010, , .		2
64	Dynamic characteristics analysis of circuit breaker with oil dashpot employing improved multi-mesh modification method. , 2012, , .		2
65	Design, Optimization, and Realization of Salient-Pole Electromagnetic Gear for Variable-Transmission Applications. IEEJ Journal of Industry Applications, 2013, 2, 87-97.	0.9	2
66	2-Controllable-Rotor Motor Driven by a 5-Phase Current. , 2020, , .		2
67	Fast Computation Technique of Genetic Algorithm Based on Finite Element Method. IEEJ Transactions on Industry Applications, 2007, 127, 1009-1012.	0.1	2
68	Analysis Method for Giant Magnetostrictive Material Based Actuator Using FEM. IEEJ Transactions on Industry Applications, 2010, 130, 721-727.	0.1	2
69	Novel Proposals for the Realization of Variable-Transmission Magnetic Gear. IEEJ Transactions on Industry Applications, 2011, 131, 1263-1268.	0.1	2
70	Dynamic Analysis of A New Linear Actuator Using 3-D Finite Element Method. IEEJ Transactions on Industry Applications, 2006, 126, 1151-1155.	0.1	2
71	Performance Evaluation of Linear Oscillatory Actuator for Active Control Engine Mount. IEEJ Transactions on Industry Applications, 2012, 132, 1091-1096.	0.1	2
72	Analysis method of negative ion by electrostatic atomization employing MPS method and FEM. , 2008, , .		1

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73	Dynamic analysis of spiral resonant actuator using 3-D finite element method. , 2008, , .		1
74	High performance hybrid-type magnetic planetary gear. , 2013, , .		1
75	Current superimposition variable flux reluctance motor with 8 salient poles. Open Physics, 2017, 15, 857-861.	0.8	1
76	Motion Control of Two Degree of Freedom Linear Resonant Actuator without Mechanical Spring. , 2019, , .		1
77	Vibration Investigation of a 24/20 Switched Reluctance Motor Focusing on the Driving Methods. , 2019, , .		1
78	Feasibility evaluation of new electric motors driven by intrinsic localized mode. Nonlinear Theory and Its Applications IEICE, 2021, 12, 475-488.	0.4	1
79	Study on The Response Improvement of A Linear Actuator Using Temperature-Sensitive Magnetic Material. IEEJ Transactions on Industry Applications, 2007, 127, 1103-1108.	0.1	1
80	Impedance Characteristics Analysis of the Non-Contact Magnetic Type Position Sensor. IEEJ Transactions on Sensors and Micromachines, 2008, 128, 435-441.	0.0	1
81	Dynamic Analysis of 3 DOF Actuator Employing 3 D Finite Element Method. IEEJ Transactions on Industry Applications, 2011, 131, 1240-1245.	0.1	1
82	Two-DOF Resonant Actuator Using Vector Control. IEEJ Journal of Industry Applications, 2012, 1, 117-122.	0.9	1
83	Evaluation Method for Multi-Degree-of-Freedom Spherical Electromagnetic Synchronous Actuators under Constant Power. IEEJ Transactions on Industry Applications, 2016, 136, 907-912.	0.1	1
84	Performance Analysis of a Compact <scp>Threeâ€Degreeâ€ofâ€Freedom</scp> Oscillatory Actuator for Haptic Device. IEEJ Transactions on Electrical and Electronic Engineering, 0, , .	0.8	1
85	3-D finite element analysis of dynamic characteristics of spherical resonant actuator. , 2010, , .		0
86	Study on deformation analysis of high-viscosity electromagnetic fluid employing combined method. International Journal of Applied Electromagnetics and Mechanics, 2016, 52, 1519-1524.	0.3	0
87	Active vibration damping of linear oscillatory actuator using DC motor. , 2016, , .		0
88	Design and Analysis of Five-Degree-of-Freedom Oscillatory Actuator. IEEJ Journal of Industry Applications, 2021, , .	0.9	0
89	Sensorless attitude estimation of three-degree-of-freedom actuator for imageÂstabilization. International Journal of Applied Electromagnetics and Mechanics, 2021, 66, 249-263.	0.3	0
90	Intrinsic Localized Mode in a Multiple Mass Dynamic Vibration Systems Using Nonlinear Magnetic Springs. IEEJ Transactions on Electrical and Electronic Engineering, 2022, 17, 13-18.	0.8	0

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91	Performance Analysis of DC-DC Converter with MHz Band Transformer Employing Finite Element Method. IEEJ Transactions on Industry Applications, 2006, 126, 1274-1278.	0.1	0
92	Performance Analysis of MHz Band Transformer Taking Account of Displacement Current. IEEJ Transactions on Industry Applications, 2006, 126, 131-136.	0.1	0
93	Transmission Analysis of Electromagnetic Induction Type RFID System -Transmission Characteristics between Two Resonant Circuits-. IEEJ Transactions on Power and Energy, 2008, 128, 1271-1277.	0.1	0
94	Dynamic Analysis of 2D Electromagnetic Resonant Optical Scanner Using 3D Finite Element Method. IEEJ Transactions on Industry Applications, 2010, 130, 1102-1107.	0.1	0
95	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.	0.1	0
96	Study on Dynamic Characteristic Analysis of 3-D Spherical Actuator. IEEJ Transactions on Industry Applications, 2010, 130, 1081-1086.	0.1	0
97	Feedback Control of Electromagnetic Actuator with Three Degrees of Freedom Using Optical Image Sensors. IEEJ Transactions on Industry Applications, 2011, 131, 754-759.	0.1	0
98	Dynamic Characteristics Analysis of Two-DOF Oscillatory Actuator and Experimental Verification of Prototype. IEEJ Transactions on Industry Applications, 2011, 131, 1165-1170.	0.1	0
99	Magnetic Fluid Oscillation Analysis using Finite Element Method. IEEJ Transactions on Industry Applications, 2012, 132, 78-83.	0.1	0
100	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.	0.1	0
101	Experimental Verification of Linear Oscillatory Actuator Using DC Motor. IEEJ Transactions on Industry Applications, 2016, 136, 285-290.	0.1	0
102	Numerical Analysis of Formation of Ferromagnetic Powders under a Magnetic Field. IEEJ Transactions on Power and Energy, 2017, 137, 173-178.	0.1	0
103	Coupled Analysis by Viscoelastic Body with Rigid Body for Design of MRE Soft Actuator. IEEJ Transactions on Industry Applications, 2017, 137, 647-653.	0.1	0
104	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.	0.0	0
105	A Novel Three-Degree-of-Freedom Linear Resonant Actuator and Its Control Method. , 2020, , .		0
106	2-Degree -of-Freedom Z-Theta Actuator using 5-phase Control. , 2020, , .		0
107	Analysis of non-contact electromagnetic impact device connected to boosting circuit. International Journal of Applied Electromagnetics and Mechanics, 2020, 64, 1145-1154.	0.3	0
108	Linear Vernier actuator with two movers. Transportation Systems and Technology, 2020, 6, 63-79.	0.4	0

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109	Edge effect of multi-degree-of-freedom oscillatory actuator driven by vector control. Open Physics, 2020, 18, 346-351.	0.8	0
110	Proposal of a Transverse Type Z-Î¸ Actuator. Nihon AEM Gakkaishi, 2021, 29, 558-563.	0.0	0
111	Design and Analysis of a Six-Degree-of-Freedom Oscillatory Actuator Using Lorentz Force. Nihon AEM Gakkaishi, 2021, 29, 538-543.	0.0	0
112	Design of a 15-MW Magnetic-Geared Generator. , 2022, , .		0