Katsuhiro Hirata

List of Publications by Year in Descending Order

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	Proposal of a Transverse Type Z-□Actuator. *Nihon AEM Gakkaishi*, **2021**, 29, 558-563	0.2	
95	Design and Analysis of a Six-Degree-of-Freedom Oscillatory Actuator Using Lorentz Force. *Nihon AEM Gakkaishi*, **2021**, 29, 538-543	0.2	
94	Analysis Accuracy in Positioning Calculation for Three-Degree-of-Freedom Spherical Actuator. *IEEE Transactions on Magnetics*, **2021**, 57, 1-4	2	3
93	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	
92	A Novel Alternating Magnetic Field Generator Based on the Principle of Lattice Vibration in Crystals. *IEEE Transactions on Magnetics*, **2021**, 57, 1-5	2	2
91	Proposal of a New Coil Arrangement for a Four-Phase Switched Reluctance Motor. *IEEE Transactions on Magnetics*, **2021**, 57, 1-6	2	2
90	Feasibility evaluation of new electric motors driven by intrinsic localized mode. *Nonlinear Theory and Its Applications IEICE*, **2021**, 12, 475-488	0.6	1
89	Numerical Analysis of Magnetic Soliton Excited on Nonlinear LC Ladder Circuit Array Using Permanent Magnet Flux Biased Inductor. *IEEE Transactions on Magnetics*, **2021**, 1-1	2	1
88	Triaxial Active Control Magnetic Bearing With Asymmetric Structure. *IEEE Transactions on Industry Applications*, **2021**, 57, 4675-4685	4.3	0
87	Motion Control of a Two-Degree-of-Freedom Linear Resonant Actuator without a Mechanical Spring. *Sensors*, **2020**, 20,	3.8	5
86	Design and Analysis of a Three-Degree-of-Freedom Linear Oscillatory Actuator. *IEEE Transactions on Magnetics*, **2020**, 56, 1-4	2	4
85	Linear Vernier actuator with two movers. *Transportation Systems and Technology*, **2020**, 6, 63-79	0.3	
84	Edge effect of multi-degree-of-freedom oscillatory actuator driven by vector control. *Open Physics*, **2020**, 18, 346-351	1.3	
83	Analysis of non-contact electromagnetic impact device connected to boosting circuit. *International Journal of Applied Electromagnetics and Mechanics*, **2020**, 64, 1145-1154	0.4	
82	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	
81	Proposal of 3-Degree-of-Freedom Spherical Actuator with Auxiliary Poles **2019**,		1
80	Motion Control of Two Degree of Freedom Linear Resonant Actuator without Mechanical Spring **2019**,		1

79	Vibration Investigation of a 24/20 Switched Reluctance Motor Focusing on the Driving Methods **2019**,		1
78	Development of Triaxial Active Control Magnetic Bearing with Asymmetric Structure **2019**,		4
77	Dynamic characteristics of triaxial active control magnetic bearing with asymmetric structure. *Open Physics*, **2018**, 16, 9-13	1.3	2
76	Control of three-degree-of-freedom resonant actuator driven by novel vector control. *Transportation Systems and Technology*, **2018**, 4, 90-101	0.3	5
75	Characteristic Evaluation of Linear Resonant Actuator Utilizing Electrical Resonance. *IEEJ Journal of Industry Applications*, **2018**, 7, 175-180	0.7	2
74	Characteristics Verification of a Novel Motor with Two Controllable Rotors. **2018**,		2
73	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	0.7	4
72	Current superimposition variable flux reluctance motor with 8 salient poles. *Open Physics*, **2017**, 15, 857-861	0.3	
71	Numerical Analysis of Formation of Ferromagnetic Powders under a Magnetic Field. *IEEJ Transactions on Power and Energy*, **2017**, 137, 173-178	0.2	
70	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	
69	Development of Control Method for Outer-Rotor Spherical Actuator. *Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi)*, **2016**, 194, 54-63	0.4	3
68	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	0.7	3
67	Experimental Verification of Linear Oscillatory Actuator Using DC Motor. *IEEJ Transactions on Industry Applications*, **2016**, 136, 285-290	0.2	
66	Evaluation Method for Multi-Degree-of-Freedom Spherical Electromagnetic Synchronous Actuators under Constant Power. *IEEJ Transactions on Industry Applications*, **2016**, 136, 907-912	0.2	1
65	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	
64	A New Linear Oscillatory Actuator with Variable Characteristics Using Two Sets of Coils. *Sensors*, **2016**, 16,	3.8	8
63	Optimization of stator pole arrangement for 3-DOF spherical actuator using genetic algorithm **2015**,		5
62	Dynamic Characteristic Analysis and Experimental Verification of 2-DoF Resonant Actuator under Feedback Control. *Nihon AEM Gakkaishi*, **2015**, 23, 521-526	0.2	4

61	Simplified Position Estimation Using Back-EMF for Two-DoF Linear Resonant Actuator. *IEEE Transactions on Magnetics*, **2014**, 50, 961-964	2	4
60	Embedded PM magnetic-geared generator. *International Journal of Applied Electromagnetics and Mechanics*, **2014**, 45, 709-715	0.4	4
59	Characteristics verification of an independently controllable electromagnetic spherical motor. *Sensors*, **2014**, 14, 10072-80	3.8	5
58	Experimental Verification of Feedback Control of a 2-DOF Spherical Actuator. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	18
57	Development of a Haptic Device Using a 2-DOF Linear Oscillatory Actuator. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	7
56	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	
55	Linear oscillatory actuator using new magnetic movement converter **2013**,		3
54	Study on Starting Performance of Ni-Mn-Ga Magnetic Shape Memory Alloy Linear Actuator. *IEEE Transactions on Magnetics*, **2013**, 49, 2225-2228	2	9
53	Analysis of 2-Degree of Freedom Outer Rotor Spherical Actuator Employing 3-D Finite Element Method. *IEEE Transactions on Magnetics*, **2013**, 49, 2233-2236	2	17
52	Design, Optimization, and Realization of Salient-Pole Electromagnetic Gear for Variable-Transmission Applications. *IEEJ Journal of Industry Applications*, **2013**, 2, 87-97	0.7	2
51	Electromagnetic Vibration Analysis and Measurement of a Magnetic Gear. *IEEJ Journal of Industry Applications*, **2013**, 2, 261-268	0.7	1
50	Transmission Torque Analysis of a Novel Magnetic Planetary Gear Employing 3-D FEM. *IEEE Transactions on Magnetics*, **2012**, 48, 1043-1046	2	24
49	Novel Soft Actuator Using Magnetorheological Elastomer. *IEEE Transactions on Magnetics*, **2012**, 48, 1649-1652	2	79
48	Cogging Torque Analysis of Magnetic Gear. *IEEE Transactions on Industrial Electronics*, **2012**, 59, 2189-2197	8.9	57
47	Dynamic characteristics analysis of circuit breaker with oil dashpot employing improved multi-mesh modification method **2012**,		1
46	Proposal of an axial-type magnetic-geared motor **2012**,		11
45	Continuously Variable Speed Vernier Magnetic Gear. *IEEE Transactions on Magnetics*, **2012**, 48, 3104-3107	2	14
44	Torque ripple analysis of a magnetic-geared motor **2012**,		7

43	PID feedback control method for Linear Resonant Actuator using an estimated external load from the back-EMF as a target voltage **2012**,		4
42	3-D Finite Element Analysis of Linear Resonant Actuator under PID Control Using Back EMF. *IEEJ Journal of Industry Applications*, **2012**, 1, 111-116	0.7	3
41	Hopping of a monopedal robot with a biarticular muscle driven by electromagnetic linear actuators **2012**,		11
40	Dynamic Characteristics of Novel Two-DOF Resonant Actuator by Vector Control. *IEEE Transactions on Magnetics*, **2012**, 48, 2985-2988	2	6
39	Performance Evaluation of Linear Oscillatory Actuator for Active Control Engine Mount. *IEEJ Transactions on Industry Applications*, **2012**, 132, 1091-1096	0.2	1
38	Magnetic Fluid Oscillation Analysis using Finite Element Method. *IEEJ Transactions on Industry Applications*, **2012**, 132, 78-83	0.2	
37	Two-DOF Resonant Actuator Using Vector Control. *IEEJ Journal of Industry Applications*, **2012**, 1, 117-122	0.7	1
36	Novel Proposals for the Realization of Variable-Transmission Magnetic Gear. *IEEJ Transactions on Industry Applications*, **2011**, 131, 1263-1268	0.2	2
35	Dynamic Analysis Method for Electromagnetic Artificial Muscle Actuator under PID Control. *IEEJ Transactions on Industry Applications*, **2011**, 131, 166-170	0.2	8
34	Study on Transmission Torque Characteristics of a Surface-Permanent-Magnet-Type Magnetic Gear. *IEEJ Transactions on Industry Applications*, **2011**, 131, 396-402	0.2	5
33	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	
32	Dynamic Analysis of 3 DOF Actuator Employing 3 D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2011**, 131, 1240-1245	0.2	
31	Dynamic Characteristics Analysis of Two-DOF Oscillatory Actuator and Experimental Verification of Prototype. *IEEJ Transactions on Industry Applications*, **2011**, 131, 1165-1170	0.2	
30	Proposal of an Axial Gap Magnetic Gear. *IEEJ Transactions on Industry Applications*, **2010**, 130, 802-807	0.2	4
29	Dynamic analysis of axial-type magnetic gear employing 3-D FEM **2010**,		1
28	Transmission torque characteristics in a magnetic gear **2010**,		14
27	Feedback control of electromagnetic spherical actuator with three-degree-of-freedom **2010**,		5
26	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	0.2	3

25	Study on Cogging Torque Reduction in a Hybrid-Type Magnetic Gear. *IEEJ Transactions on Industry Applications*, **2010**, 130, 692-698	0.2	4
24	Analysis Method for Giant Magnetostrictive Material Based Actuator Using FEM. *IEEJ Transactions on Industry Applications*, **2010**, 130, 721-727	0.2	2
23	Dynamic Analysis of 2D Electromagnetic Resonant Optical Scanner Using 3D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2010**, 130, 1102-1107	0.2	
22	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	
21	Study on Dynamic Characteristic Analysis of 3-D Spherical Actuator. *IEEJ Transactions on Industry Applications*, **2010**, 130, 1081-1086	0.2	
20	Trajectory Analysis of 2-D Magnetic Resonant Actuator. *IEEE Transactions on Magnetics*, **2009**, 45, 1732-1735	2	18
19	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	
18	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	2	18
17	Fully coupled electro-magneto-mechanical analysis method of magnetostrictive actuator using 3-D finite element method **2008**,		1
16	Analysis method of negative ion by electrostatic atomization employing MPS method and FEM **2008**,		1
15	New Spherical Resonant Actuator. *IEEJ Transactions on Industry Applications*, **2008**, 128, 642-647	0.2	3
14	Impedance Characteristics Analysis of the Non-Contact Magnetic Type Position Sensor. *IEEJ Transactions on Sensors and Micromachines*, **2008**, 128, 435-441	0.2	
13	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	
12	Dynamic Analysis of Electromagnetic Impact Drive Mechanism Using Eddy Current. *IEEE Transactions on Magnetics*, **2007**, 43, 1421-1424	2	17
11	Dynamic Analysis Method of Two-Dimensional Linear Oscillatory Actuator Employing Finite Element Method. *IEEE Transactions on Magnetics*, **2007**, 43, 1441-1444	2	45
10	Fast Computation Technique of Genetic Algorithm Based on Finite Element Method. *IEEJ Transactions on Industry Applications*, **2007**, 127, 1009-1012	0.2	2
9	Study on The Response Improvement of A Linear Actuator Using Temperature-Sensitive Magnetic Material. *IEEJ Transactions on Industry Applications*, **2007**, 127, 1103-1108	0.2	1
8	New Linear Oscillatory Actuator Using DC Motor. *IEEJ Transactions on Industry Applications*, **2006**, 126, 1156-1160	0.2	2

7	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	
6	Performance Analysis of MHz Band Transformer Taking Account of Displacement Current. *IEEJ Transactions on Industry Applications*, **2006**, 126, 131-136	0.2	
5	Dynamic Analysis of A New Linear Actuator Using 3-D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2006**, 126, 1151-1155	0.2	2
4	Dynamic Analysis of Eddy Current Damping Mechanism Employing 3-D Finite Element Method. *IEEJ Transactions on Industry Applications*, **2005**, 125, 1140-1144	0.2	1
3	Effects of Near-Ultraviolet Light on Alkaloid Production in Catharanthus roseus Plants. *Planta Medica*, **1993**, 59, 46-50	3.1	51
2	Effect of Near-Ultraviolet Light on Alkaloid Production in Multiple Shoot Cultures of Catharanthus roseus. *Planta Medica*, **1991**, 57, 499-500	3.1	22
1	Quantitative Determination of Vinblastine in Tissue Cultures of Catharanthus roseus by Radioimmunoassay. *Planta Medica*, **1989**, 55, 262-4	3.1	14