

# Byung-Il Kwon

## List of Publications by Year in descending order

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93  
papers

1,255  
citations

393982

19  
h-index

433756

31  
g-index

93  
all docs

93  
docs citations

93  
times ranked

786  
citing authors

#	ARTICLE	IF	CITATIONS
1	Material-Efficient Permanent-Magnet Shape for Torque Pulsation Minimization in SPM Motors for Automotive Applications. IEEE Transactions on Industrial Electronics, 2014, 61, 5779-5787.	5.2	82
2	Design and Analysis of a Novel Brushless Wound Rotor Synchronous Machine. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	78
3	Novel Brushless Wound Rotor Synchronous Machine With Zero-Sequence Third-Harmonic Field Excitation. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	78
4	Rotor Pole Design in Spoke-Type Brushless DC Motor by Response Surface Method. IEEE Transactions on Magnetics, 2007, 43, 1833-1836.	1.2	69
5	Design and Analysis of a Novel PM-Assisted Synchronous Reluctance Machine With Axially Integrated Magnets by the Finite-Element Method. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	50
6	Optimal Rotor Shape Design of a Concentrated Flux IPM-Type Motor for Improving Efficiency and Operation Range. IEEE Transactions on Magnetics, 2013, 49, 2205-2208.	1.2	39
7	Optimal Design of a Grid-Connected-to-Rotor Type Doubly Fed Induction Generator for Wind Turbine Systems. IEEE Transactions on Magnetics, 2012, 48, 3124-3127.	1.2	37
8	Brushless Operation of a Wound-Field Synchronous Machine Using a Novel Winding Scheme. IEEE Transactions on Magnetics, 2019, 55, 1-4.	1.2	34
9	Performance Comparison of Dual Airgap and Single Airgap Spoke-Type Permanent-Magnet Vernier Machines. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	32
10	Consequent-Pole Hybrid Excitation Brushless Wound Field Synchronous Machine With Fractional Slot Concentrated Winding. IEEE Transactions on Magnetics, 2019, 55, 1-5.	1.2	30
11	Wide Speed Range Operation of Non-Salient PM Machines. IEEE Transactions on Energy Conversion, 2016, 31, 1179-1191.	3.7	28
12	A new brushless wound rotor synchronous machine using a special stator winding arrangement. Electrical Engineering, 2018, 100, 1797-1804.	1.2	28
13	Dual-stator Interior Permanent Magnet Vernier Machine Having Torque Density and Power Factor Improvement. Electric Power Components and Systems, 2014, 42, 1717-1726.	1.0	26
14	HTS Dual-Stator Spoke-Type Linear Vernier Machine for Leakage Flux Reduction. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	26
15	Low-Cost High-Torque-Density Dual-Stator Consequent-Pole Permanent Magnet Vernier Machine. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	26
16	Design and optimisation of a novel asymmetric rotor structure for a PM-assisted synchronous reluctance machine. IET Electric Power Applications, 2019, 13, 573-580.	1.1	26
17	PM Assisted, Brushless Wound Rotor Synchronous Machine. Journal of Magnetics, 2016, 21, 399-404.	0.2	25
18	Optimal Design of Wound Field Synchronous Reluctance Machines to Improve Torque by Increasing the Saliency Ratio. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	24

#	ARTICLE	IF	CITATIONS
19	A Novel Technique for Two-Phase BLDC Motor to Avoid Demagnetization. IEEE Transactions on Magnetics, 2016, 52, 1-4.	1.2	23
20	Design and Optimization of a Novel Wound Field Synchronous Machine for Torque Performance Enhancement. Energies, 2018, 11, 2111.	1.6	21
21	Design, Optimization, and Prototyping of a Transverse Flux-Type-Switched Reluctance Generator With an Integrated Rotor. IEEE Transactions on Energy Conversion, 2016, 31, 1521-1529.	3.7	20
22	A Novel Two-Phase Permanent Magnet Synchronous Motor Modeling for Torque Ripple Minimization. IEEE Transactions on Magnetics, 2013, 49, 2355-2358.	1.2	19
23	Optimal Design and Experimental Verification of Wound Rotor Synchronous Machine Using Subharmonic Excitation for Brushless Operation. Energies, 2018, 11, 554.	1.6	19
24	Optimal Design of a Spoke-type Permanent Magnet Motor with Phase-group Concentrated-coil Windings to Minimize Torque Pulsations. IEEE Transactions on Magnetics, 2017, 53, 1-4.	1.2	18
25	A High Force Density HTS Tubular Vernier Machine. IEEE Transactions on Magnetics, 2017, 53, 1-5.	1.2	18
26	Investigation of Dual-Stator Spoke-Type Vernier Machine for EV Application. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	17
27	Brushless wound field synchronous machine with third-harmonic field excitation using a single inverter. Electrical Engineering, 2019, 101, 165-173.	1.2	17
28	Consequent-Pole Hybrid Brushless Wound-Rotor Synchronous Machine. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	16
29	Fault-Tolerant Operation of Wound Field Synchronous Machine Using Coil Switching. IEEE Access, 2019, 7, 67130-67138.	2.6	16
30	Analysis and Design of a PM-Assisted Wound Rotor Synchronous Machine With Reluctance Torque Enhancement. IEEE Transactions on Industrial Electronics, 2021, 68, 2887-2897.	5.2	15
31	Analysis of a Novel Transverse Flux Type Permanent Magnet Reluctance Generator. IEEE Transactions on Magnetics, 2014, 50, 809-812.	1.2	13
32	Brushless wound rotor synchronous machine with third-harmonic field excitation. Electrical Engineering, 2020, 102, 259-265.	1.2	13
33	Design of V-Type Consequent-Pole IPM Machine for PM Cost Reduction With Analytical Method. IEEE Access, 2021, 9, 77386-77397.	2.6	12
34	A Novel Starting Method of the SPM-type BLDC Motors without Position Sensor for Reciprocating Compressor. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2006, , .	0.0	11
35	Optimal Design and Experimental Test of a SPM Motor With Cost-Effective Magnet Utilization to Suppress Torque Pulsations. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	11
36	High-Efficiency Dual Output Stator-PM Machine for the Two-Mode Operation of Washing Machines. IEEE Transactions on Energy Conversion, 2018, 33, 2050-2059.	3.7	11

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37	Maximum torque control for optimal design to reduce cogging torque in spoke type interior permanent magnet synchronous motor. , 2010, , .		10
38	A Sag Compensator That Eliminates the Possibility of Inrush Current While Powering Transformer-Coupled Loads. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 891-900.	3.7	10
39	Low-Cost Dual-Mechanical-Port Dual-Excitation Machine for Washing Machine Application. IEEE Access, 2019, 7, 87141-87149.	2.6	10
40	High Gear Ratio Flux Switching Permanent Magnet Machine for High Torque Performance. IEEE Access, 2020, 8, 121630-121636.	2.6	10
41	Design of a Novel Low-Cost Consequent-Pole Permanent Magnet Synchronous Machine. IEEE Access, 2020, 8, 194251-194259.	2.6	10
42	A Wound-Field Pole-Changing Vernier Machine for Electric Vehicles. IEEE Access, 2020, 8, 91865-91875.	2.6	10
43	Improved Transverse Flux Type Permanent Magnet Reluctance Generator With Auxiliary Rotor Pole Inserted Permanent Magnet. IEEE Transactions on Magnetics, 2014, 50, 1-4.	1.2	9
44	Newly structured micro permanent magnet type stepping motor with claw-poles. IEEE Transactions on Magnetics, 2006, 42, 1331-1334.	1.2	8
45	Design of Low-Cost BLAC Motors for Integrated Electric Brake Systems. IEEE Access, 2019, 7, 184183-184193.	2.6	8
46	Analytical Design of a Hybrid-Excited Wound Field Synchronous Machine for the Improvement of Torque Characteristics. IEEE Access, 2020, 8, 87414-87421.	2.6	8
47	Dual-Mode Wound Rotor Synchronous Machine for Variable Speed Applications. IEEE Access, 2020, 8, 115812-115822.	2.6	8
48	Utilization of reluctance torque for improvement of the starting and average torques of a brushless wound field synchronous machine. Electrical Engineering, 2021, 103, 2327-2333.	1.2	8
49	Design and comparative analysis of single and multi-stack axial flux permanent magnet synchronous generator. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 865-872.	0.3	7
50	Winding Switching and Turn Switching in Permanent Magnet Vernier Machines for Wide Speed Range Operation and High Efficiency. IEEE Access, 2019, 7, 55344-55357.	2.6	7
51	Operation Method of Non-Salient Permanent Magnet Synchronous Machine for Extended Speed Range. IEEE Access, 2020, 8, 105922-105935.	2.6	7
52	Space-vector PWM Techniques for a Two-Phase Permanent Magnet Synchronous Motor Considering a Reduction in Switching Losses. Journal of Electrical Engineering and Technology, 2015, 10, 905-915.	1.2	7
53	A Distributed Winding Wound Field Pole-Changing Vernier Machine for Variable Speed Application. IEEE Transactions on Magnetics, 2019, 55, 1-6.	1.2	6
54	Analysis of a Brushless Wound Rotor Synchronous Machine Employing a Stator Harmonic Winding. IEEE Access, 2020, 8, 151392-151402.	2.6	6

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55	Design of a Rotary-Linear Motor With Unipolar SPM and Voice Coil Structure. IEEE Access, 2020, 8, 150291-150300.	2.6	6
56	2-D modeling and characteristic analysis of a magnetic position sensor. IEEE Transactions on Magnetics, 2005, 41, 1828-1831.	1.2	5
57	Two Phase Dual-Stator Axial-Flux PM BLDC Motor With Ironless Rotor Using Only-Pull Drive Technique. IEEE Access, 2019, 7, 82144-82153.	2.6	5
58	A pole changing vernier machine with consequent pole rotor. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 931-941.	0.3	5
59	A Novel Dual-Rotor Permanent Magnet Synchronous Reluctance Machine with High Electromagnetic Performance. , 2019, , .		5
60	Wide-Speed Range Operation of PM Vernier Machines Using Wye and Wye-Delta Winding Configurations. IEEE Access, 2020, 8, 194709-194718.	2.6	5
61	Investigation Study of Multi-Mode Multi-Speed Operation Method for Surface-Mounted Permanent Magnet Synchronous Machines. IEEE Access, 2020, 8, 169470-169485.	2.6	4
62	The analysis of bearing current using common mode equivalent circuit parameters by FEM. , 2005, , .		3
63	Design and Analysis of a High-Performance Outer Rotor Brushless DC Motor Using Loading Distribution Method for Range Hood Applications. , 2018, , .		3
64	Analysis and Control of the Permanent Magnet Synchronous Motor With Auxiliary Modular Design. IEEE Transactions on Magnetics, 2018, 54, 1-6.	1.2	3
65	Optimal design of dual stator spoke type vernier machine considering armature winding placement. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 921-930.	0.3	3
66	Sensitivity Comparison of Open-Circuit Airgap Flux Between Surface-Mounted Permanent Magnet and Spoke-Type Permanent Magnet Machines Considering Manufacturing Tolerances. IEEE Access, 2019, 7, 165908-165918.	2.6	3
67	Wye-delta winding configuration for brushless operation of a wound field synchronous machine. International Journal of Applied Electromagnetics and Mechanics, 2020, 64, 1165-1172.	0.3	3
68	A rotor design of a BLDC motor used for reciprocating compressor considering demagnetization. International Journal of Applied Electromagnetics and Mechanics, 2010, 33, 689-695.	0.3	2
69	Analytical analysis of the magnetic field and no-load voltage for the double sided axial flux permanent magnet synchronous generator. , 2010, , .		2
70	Optimal design of novel concentrated flux IPM type brushless DC motor. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 957-963.	0.3	2
71	A Magnetic Pole Modulation Method on Surface Permanent Magnet Machines for High Performances With Different Magnetization. IEEE Access, 2019, 7, 79839-79849.	2.6	2
72	Torque ripple reduction in brushless wound rotor synchronous machine by two-phase excitation winding. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 765-773.	0.3	2

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73	Improvement of the Constant-Power Speed Range of Surface-Permanent Magnet Machine Using Winding Switching. IEEE Access, 2021, 9, 32298-32309.	2.6	2
74	Development of a 4.0mm-outer-diameter PM type stepping motor with a newly structured claw-poles. , 2007, , .		2
75	A Self-Excitation Scheme for a Brushless Synchronous Generator. , 2019, , .		2
76	Dual-Mode Brushless Wound Rotor Synchronous Machine for High Starting Torque. IEEE Access, 2022, 10, 41657-41663.	2.6	2
77	Dynamic Characteristic Analysis of Small Sized PM Type Stepping Motor with H Shape Stator Yoke. , 0, , .		1
78	Multi-objective optimal design of 2 phase in-wheel PMSM for mobile robot. , 2010, , .		1
79	Optimal design of brushless DC motor by utilizing novel coefficient modeling for skewed PM and overhang structure. , 2010, , .		1
80	Design of interior permanent magnet synchronous machine for torque characteristic improvement by increasing reluctance torque and reducing leakage flux. , 2017, , .		1
81	Design and analysis of a high-performance dual-rotor PM synchronous reluctance machine with toroidal windings. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 855-864.	0.3	1
82	A Rotary-Linear SPM Voice Coil Motor with PM Flux Bridges for Output Performance Improvement. IEEE Access, 2021, , 1-1.	2.6	1
83	Torque Enhancement Principle of Stator PM Vernier Machine by Consequent Pole Structure. Energies, 2022, 15, 2993.	1.6	1
84	Analysis of the novel laminated structure of double excited three-degree-of-freedom motor. , 2010, , .		0
85	Optimization of 2 phase in-wheel IPMSM for wide speed range by using the Kriging model based on latin hypercube sampling. , 2010, , .		0
86	Optimization and analysis of rotor structure for maximum torque control of spoke-type interior permanent magnet synchronous motor. , 2010, , .		0
87	Optimal design of distributed winding axial flux permanent magnet synchronous generator for wind turbine systems. , 2010, , .		0
88	A three-phase off-line UPS system for transformer coupled loads. IEICE Electronics Express, 2017, 14, 20170815-20170815.	0.3	0
89	Design and Performance Evaluation of a Modular Linear Induction Machine for Rotating Electronic Billboard. IEEE Access, 2019, 7, 127393-127401.	2.6	0
90	Wide Speed-range Operation of a Dual-mode Wound Field Synchronous Machine. , 2019, , .		0

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91	Design and analysis of a PM-assisted brushless WRSM for improving torque characteristics. International Journal of Applied Electromagnetics and Mechanics, 2020, 64, 1127-1134.	0.3	0
92	Saliency enhancement and torque ripple reduction of wound field synchronous machine by injecting optimum harmonic in rotor shape. International Journal of Applied Electromagnetics and Mechanics, 2020, 64, 447-455.	0.3	0
93	Design and analysis of a novel variable flux spoke-type motor for washing machines. International Journal of Applied Electromagnetics and Mechanics, 2020, 64, 91-101.	0.3	0