Seungyoung Ahn

List of Publications by Year in Descending Order

105 papers	1,915 citations	20 h-index	42 g-index
129 ext. papers	2,639 ext. citations	2.7 avg, IF	4.85 L-index

#	Paper	IF	Citations
105	Implementation of a Noise-Shaped Signaling System through Software-Defined Radio. *Applied Sciences (Switzerland)*, **2022**, 12, 641	2.6	
104	An Active Shielding Control Method for a Wireless Power Transfer System under Misalignment Conditions. *Journal of Electromagnetic Engineering and Science*, **2022**, 22, 56-63	1.9	0
103	DSRC-Enabled Train Safety Communication System at Unmanned Crossings. *IEEE Transactions on Intelligent Transportation Systems*, **2022**, 1-14	6.1	
102	Shielding Sensor Coil to Reduce the Leakage Magnetic Field and Detect the Receiver Position in Wireless Power Transfer System for Electric Vehicle. *Energies*, **2022**, 15, 2493	3.1	0
101	Propulsion of a Magnetic Material-Applied Microrobot in a Tube Based on a Wireless Power Transfer System. *Journal of Electromagnetic Engineering and Science*, **2022**, 22, 171-177	1.9	0
100	Accurate Method for Extracting the Coupling Coefficient of an LCC-Series Wireless Power Transfer System. *IEEE Transactions on Power Electronics*, **2022**, 1-1	7.2	2
99	Design and Analysis of a Magnetic Field Communication System using a Giant Magneto-Impedance Sensor. *IEEE Access*, **2022**, 1-1	3.5	1
98	Assessment of Human Exposure to Electromagnetic Fields: Review and Future Directions. *IEEE Transactions on Electromagnetic Compatibility*, **2021**, 63, 1619-1630	2	17
97	Design Considerations for Adding Series Inductors to Reduce Electromagnetic Field Interference in an Over-Coupled WPT System. *Energies*, **2021**, 14, 2791	3.1	5
96	Low- and High-Frequency Extrapolation of Band-Limited Frequency Responses to Extract Delay Causal Time Responses. *IEEE Transactions on Electromagnetic Compatibility*, **2021**, 63, 888-901	2	2
95	The Magnetic Energy Harvester With Improved Power Density Using Saturable Magnetizing Inductance Model for Maintenance Applications Near High Voltage Power Line. *IEEE Access*, **2021**, 9, 82661-82674	3.5	6
94	A Noise-Shaped Signaling Method for Vehicle-to-Everything Security. *IEEE Access*, **2021**, 9, 75385-75397	3.5	1
93	Modeling, Verification and Signal Integrity Analysis of High-Speed Signaling Channel with Tabbed Routing in High Performance Computing Server Board. *Electronics (Switzerland)*, **2021**, 10, 1590	2.6	0
92	Giant Magnetoimpedance Receiver With a Double-Superheterodyne Topology for Magnetic Communication. *IEEE Access*, **2021**, 9, 82903-82908	3.5	1
91	Dual Loop Reactive Shield Application of Wireless Power Transfer System for Leakage Magnetic Field Reduction and Efficiency Enhancement. *IEEE Access*, **2021**, 9, 118307-118323	3.5	4
90	Novel Resonance-Based Wireless Power Transfer Using Mixed Coupling. *Sensors*, **2020**, 20,	3.8	0
89	Design and Implementation of a Wireless Charging-Based Cardiac Monitoring System Focused on Temperature Reduction and Robust Power Transfer Efficiency. *Energies*, **2020**, 13, 1008	3.1	5

88	A Wireless Power Transfer Based Implantable ECG Monitoring Device. *Energies*, **2020**, 13, 905	3.1	10
87	COMPLIANCE TESTING FOR HUMAN BODY MODEL EXPOSURE TO ELECTROMAGNETIC FIELDS FROM A HIGH-POWER WIRELESS CHARGING SYSTEM FOR DRONES. *Radiation Protection Dosimetry*, **2020**, 189, 13-27	0.9	1
86	Position Prediction of Wireless Charging Electric Vehicle for Auto Parking using Extreme Gradient Boost Algorithm **2020**,		3
85	Analysis of Eddy Current Loss for Wireless Power Transfer in Conductive Medium Using Z-parameters Method **2020**,		1
84	. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 3978-3985	4.1	17
83	A Coil Design and Control Method of Independent Active Shielding System for Leakage Magnetic Field Reduction of Wireless UAV Charger. *IEICE Transactions on Communications*, **2020**, E103.B, 889-898	0.5	4
82	Numerical Analysis of Human Exposure to Nonuniform Electromagnetic Field from Low-Frequency Wireless Power Transfer Systems. *The Journal of Korean Institute of Electromagnetic Engineering and Science*, **2020**, 31, 851-854	0.3	
81	Analysis of Spectrum Requirements for Autonomous Driving Using SINR Probability Distributions. *IEEE Communications Letters*, **2020**, 24, 202-206	3.8	
80	Patterned Magnetic Fields for Remote Steering and Wireless Powering to a Swimming Microrobot. *IEEE/ASME Transactions on Mechatronics*, **2020**, 25, 207-216	5.5	8
79	Propulsion and Rotation of Microrobot Based on a Force on a Magnetic Material in a Time-Varying Magnetic Field Using a Wireless Power Transfer System. *IEEE Transactions on Magnetics*, **2020**, 56, 1-5	2	4
78	A Robust Channel Access Using Cooperative Reinforcement Learning for Congested Vehicular Networks. *IEEE Access*, **2020**, 8, 135540-135557	3.5	4
77	A Novel Experimental Approach to the Applicability of High-Sensitivity Giant Magneto-Impedance Sensors in Magnetic Field Communication. *IEEE Access*, **2020**, 8, 193091-193101	3.5	3
76	. *IEEE Access*, **2020**, 8, 140145-140160	3.5	8
75	E-field induced keep-out zone determination method of through-silicon vias for 3-D ICs. *Microelectronics Reliability*, **2019**, 98, 161-164	1.2	
74	Planar multiresonance reactive shield for reducing electromagnetic interference in portable wireless power charging application. *Applied Physics Letters*, **2019**, 114, 203902	3.4	9
73	Single-Sided Near-Field Wireless Power Transfer by A Three-Dimensional Coil Array. *Micromachines*, **2019**, 10,	3.3	8
72	. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 4356-4367	8.9	12
71	Toroidal-Shaped Coils for a Wireless Power Transfer System for an Unmanned Aerial Vehicle. *Journal of the Korean Institute of Electromagnetic Engineering and Science*, **2019**, 19, 48-55	2.3	8

70	Millimeter-Wave Scattering and Transmission of Misaligned Dual Metallic Grating Screens. *IEICE Transactions on Communications*, **2019**, E102.B, 1180-1187	0.5	
69	Printed Circuit Board-Type Wireless Charging Coil with Split Conductors for Power Loss Reduction. *The Journal of Korean Institute of Electromagnetic Engineering and Science*, **2019**, 30, 754-761	0.3	
68	An Efficient Modeling for Underwater Wireless Power Transfer Using Z-Parameters. *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 2006-2014	2	13
67	A Frequency-Selective EMI Reduction Method for Tightly Coupled Wireless Power Transfer Systems Using Resonant Frequency Control of a Shielding Coil in Smartphone Application. *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 2031-2039	2	8
66	Analysis and Introduction of Effective Permeability with Additional Air-Gaps on Wireless Power Transfer Coils for Electric Vehicle Based on SAE J2954 Recommended Practice. *Energies*, **2019**, 12, 4797	3.1	3
65	A compact low-phase noise oscillator using ⊟network and complimentary ⊟hear zero metamaterial resonator. *Microwave and Optical Technology Letters*, **2019**, 61, 9-14	1.2	1
64	An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, **2019**, 38, 2086-2098	2.5	4
63	Precise Vehicle Location Detection Method Using a Wireless Power Transfer (WPT) System. *IEEE Transactions on Vehicular Technology*, **2019**, 68, 1167-1177	6.8	21
62	Ferrite Position Identification System Operating With Wireless Power Transfer for Intelligent Train Position Detection. *IEEE Transactions on Intelligent Transportation Systems*, **2019**, 20, 374-382	6.1	14
61	Optimization design of toroidal core for magnetic energy harvesting near power line by considering saturation effect. *AIP Advances*, **2018**, 8, 056728	1.5	7
60	Steerable Electromagnetic Transmission of Metal Gratings on a Magnetized Ferrite Slab. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	
59	Foreword: Special Section on Recent Progress in the Electrical Design of Advanced Package and Systems. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2018**, 8, 3-4	1.7	
58	EMI Reduction Methods in Wireless Power Transfer System for Drone Electrical Charger Using Tightly Coupled Three-Phase Resonant Magnetic Field. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 6839-6849	8.9	61
57	Magnetic field concentration using ferromagnetic material to propel a wireless power transfer based micro-robot. *AIP Advances*, **2018**, 8, 056723	1.5	1
56	Wide band compact coplanar waveguide with interdigital capacitor using left-handed metamaterial. *Microwave and Optical Technology Letters*, **2018**, 60, 2030-2033	1.2	
55	Rigorous mathematical model of through-silicon via capacitance. *IET Circuits, Devices and Systems*, **2018**, 12, 589-593	1.1	2
54	Elliptic function compact-size of the band-pass filter using complimentary MNZ metamaterial resonator. *Microwave and Optical Technology Letters*, **2018**, 60, 2907-2912	1.2	1
53	Detection of the Interface-Trap Charge Density and Lateral Nonuniformity of Through-Silicon Vias. *IEEE Microwave and Wireless Components Letters*, **2018**, 28, 422-424	2.6	3

52	Planar Resonance Reactive Shield for Reducing the EMI in Portable WPT Device Application **2018**,		4
51	Foreword: Special Section on Recent Progress in the Electrical Design of Advanced Package and Systems (Part 2). *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2018**, 8, 509-510	1.7	
50	Simulation-Based Feasibility Study on the Wireless Charging Railway System With a Ferriteless Primary Module. *IEEE Transactions on Vehicular Technology*, **2017**, 66, 1004-1010	6.8	20
49	High-Efficiency Wireless Power and Force Transfer for a Micro-Robot Using a Multiaxis AC/DC Magnetic Coil. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	13
48	A Simple Equivalent Circuit Model for Shielding Analysis of Magnetic Sheets Based on Microstrip Line Measurement. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	9
47	A Resonant Reactive Shielding for Planar Wireless Power Transfer System in Smartphone Application. *IEEE Transactions on Electromagnetic Compatibility*, **2017**, 59, 695-703	2	65
46	Pickup Coil Counter for Detecting the Presence of Trains Operated by Wireless Power Transfer. *IEEE Sensors Journal*, **2017**, 17, 7526-7532	4	9
45	A Two-Line Time-Domain Gating Method for Characterization of Test Fixture With via Hole Discontinuity. *IEEE Microwave and Wireless Components Letters*, **2017**, 27, 936-938	2.6	2
44	A Compact and Multi-Stack Electromagnetic Bandgap Structure for Gigahertz Noise Suppression in Multilayer Printed Circuit Boards. *Applied Sciences (Switzerland)*, **2017**, 7, 804	2.6	1
43	An Autonomous Coil Alignment System for the Dynamic Wireless Charging of Electric Vehicles to Minimize Lateral Misalignment. *Energies*, **2017**, 10, 315	3.1	42
42	Miniaturization of Implantable Micro-Robot Propulsion Using a Wireless Power Transfer System. *Micromachines*, **2017**, 8,	3.3	4
41	Shielding of Magnetic Field **2017**, 197-206		
40	Application of Wireless Power Transmission Technology to Contactless Umbilical Connector of Unmanned Vehicle. *The Journal of Korean Institute of Electromagnetic Engineering and Science*, **2017** , 28, 713-722	0.3	1
39	Low EMF and EMI Design of a Tightly Coupled Handheld Resonant Magnetic Field (HH-RMF) Charger for Automotive Battery Charging. *IEEE Transactions on Electromagnetic Compatibility*, **2016**, 58, 1194-1206	2	22
38	An Improved 100 GHz Equivalent Circuit Model of a Through Silicon Via With Substrate Current Loop. *IEEE Microwave and Wireless Components Letters*, **2016**, 26, 425-427	2.6	5
37	Thin PCB-Type Metamaterials for Improved Efficiency and Reduced EMF Leakage in Wireless Power Transfer Systems. *IEEE Transactions on Microwave Theory and Techniques*, **2016**, 1-12	4.1	34
36	Coil Design and Measurements of Automotive Magnetic Resonant Wireless Charging System for High-Efficiency and Low Magnetic Field Leakage. *IEEE Transactions on Microwave Theory and Techniques*, **2016**, 1-18	4.1	86
35	Electromagnetic Shielding Analysis of Multiple Slits on a Metal Plate Coated With a Ferrite Sheet. *IEEE Transactions on Electromagnetic Compatibility*, **2016**, 58, 1448-1455	2	2

34	Effect of Air-Gap Between a Ferrite Plate and Metal Strips on Magnetic Shielding. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	10
33	Magnetic Shielding Analysis of a Ferrite Plate With a Periodic Metal Strip. *IEEE Transactions on Magnetics*, **2015**, 51, 1-8	2	4
32	Development of the Optimization Framework for Low-Power Wireless Power Transfer Systems. *IEEE Transactions on Microwave Theory and Techniques*, **2015**, 63, 813-820	4.1	12
31	Generation of Magnetic Propulsion Force and Torque for Microrobot Using Wireless Power Transfer Coil. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	20
30	A Three-Phase Wireless-Power-Transfer System for Online Electric Vehicles With Reduction of Leakage Magnetic Fields. *IEEE Transactions on Microwave Theory and Techniques*, **2015**, 63, 3806-3813	4.1	46
29	High-Efficiency PCB- and Package-Level Wireless Power Transfer Interconnection Scheme Using Magnetic Field Resonance Coupling. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2015**, 5, 863-878	1.7	17
28	Autonomous Coil Alignment System Using Fuzzy Steering Control for Electric Vehicles with Dynamic Wireless Charging. *Mathematical Problems in Engineering*, **2015**, 2015, 1-14	1.1	26
27	Analysis of Quasistatic Magnetic Field Penetration into Multiple Slits in a Conducting Plane Loaded With a Ferrite Sheet. *IEEE Transactions on Electromagnetic Compatibility*, **2015**, 57, 210-215	2	7
26	Design of a Resonant Reactive Shield With Double Coils and a Phase Shifter for Wireless Charging of Electric Vehicles. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	27
25	Magnetic shielding analysis of a multiply-slotted metal plate coated with a ferrite sheet in a periodic line current source. *Journal of Magnetism and Magnetic Materials*, **2015**, 385, 250-256	2.8	2
24	. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2014**, 4, 94-99	1.7	1
23	Magnetic Shielding Analysis of a Slit on a Conducting Plate Coated With a Ferrite Sheet: Transverse Incidence. *IEEE Transactions on Magnetics*, **2014**, 50, 1-6	2	10
22	Design and Analysis of a Resonant Reactive Shield for a Wireless Power Electric Vehicle. *IEEE Transactions on Microwave Theory and Techniques*, **2014**, 62, 1057-1066	4.1	112
21	Design and Implementation of Shaped Magnetic-Resonance-Based Wireless Power Transfer System for Roadway-Powered Moving Electric Vehicles. *IEEE Transactions on Industrial Electronics*, **2014**, 61, 1179-1192	8.9	476
20	Optimized shield design for reduction of EMF from wireless power transfer systems. *IEICE Electronics Express*, **2014**, 11, 20130930-20130930	0.5	11
19	Closed-Form Expressions for the Noise Voltage Caused by a Burst Train of IC Switching Currents on a Power Distribution Network. *IEEE Transactions on Electromagnetic Compatibility*, **2014**, 56, 1585-1597	2	12
18	Reduction of magnetic emission by increasing secondary side capacitor for ferrite geometry based series-series topology for wireless power transfer to vehicles **2014**,		0
17	Electromagnetic Compatibility of Resonance Coupling Wireless Power Transfer in On-Line Electric Vehicle System. *IEICE Transactions on Communications*, **2014**, E97.B, 416-423	0.5	9

16	Charging up the road. *IEEE Spectrum*, **2013**, 50, 48-54	1.7	40
15	Coil Design and Shielding Methods for a Magnetic Resonant Wireless Power Transfer System. *Proceedings of the IEEE*, **2013**, 101, 1332-1342	14.3	252
14	Vertical Stepped Impedance EBG (VSI-EBG) Structure for Wideband Suppression of Simultaneous Switching Noise in Multilayer PCBs. *IEEE Transactions on Electromagnetic Compatibility*, **2013**, 55, 307-314	2	9
13	Future wireless power transportation system **2013**,		1
12	Suppression of leakage magnetic field from a wireless power transfer system using ferrimagnetic material and metallic shielding **2012**,		34
11	Analysis of EMF noise from the receiving coil topologies for wireless power transfer **2012**,		8
10	PDN Impedance Modeling and Analysis of 3D TSV IC by Using Proposed P/G TSV Array Model Based on Separated P/G TSV and Chip-PDN Models. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2011**, 1, 208-219	1.7	73
9	Analysis of TSV-to-TSV coupling with high-impedance termination in 3D ICs **2011**,		20
8	Mixed-Mode ABCD Parameters: Theory and Application to Signal Integrity Analysis of PCB-Level Differential Interconnects. *IEEE Transactions on Electromagnetic Compatibility*, **2011**, 53, 814-822	2	13
7	Low frequency electromagnetic field reduction techniques for the On-Line Electric Vehicle (OLEV) **2010**,		5
6	Over GHz electrical circuit model of a high-density multiple line grid array (MLGA) interposer. *IEEE Transactions on Advanced Packaging*, **2003**, 26, 90-98		1
5	High-frequency SPICE model of anisotropic conductive film flip-chip interconnections based on a genetic algorithm. *IEEE Transactions on Components and Packaging Technologies*, **2000**, 23, 542-545		12
4	RF interconnect for multi-gbit/s board-level clock distribution. *IEEE Transactions on Advanced Packaging*, **2000**, 23, 398-407		14
3	Microwave model of anisotropic conductive film flip-chip interconnections for high frequency applications. *IEEE Transactions on Components and Packaging Technologies*, **1999**, 22, 575-581		21
2	Accurate high frequency lossy model of differential signal line including mode-conversion and common-mode propagation effect		4
1	Suppression of radiated emission from an 8-bit micro-controller using gate-oxide filtering capacitors		1