

Seungyoung Ahn

List of Publications by Year in descending order

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129
all docs

129
docs citations

129
times ranked

1927
citing authors

#	ARTICLE	IF	CITATIONS
1	Implementation of a Noise-Shaped Signaling System through Software-Defined Radio. Applied Sciences (Switzerland), 2022, 12, 641.	2.5	2
2	An Active Shielding Control Method for a Wireless Power Transfer System under Misalignment Conditions. Journal of Electromagnetic Engineering and Science, 2022, 22, 56-63.	1.8	3
3	DSRC-Enabled Train Safety Communication System at Unmanned Crossings. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 18210-18223.	8.0	2
4	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	4
5	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.	1.8	2
6	Improved Calculation Method of Coupling Factors for Low-Frequency Wireless Power Transfer Systems. International Journal of Environmental Research and Public Health, 2022, 19, 44.	2.6	1
7	Accurate Method for Extracting the Coupling Coefficient of an <i>LCC</i> -Series Wireless Power Transfer System. IEEE Transactions on Power Electronics, 2022, 37, 11406-11422.	7.9	9
8	Design and Analysis of Magnetic Energy Harvester with Improved Power Density for Drone Charging Station Near High Voltage Power Line. , 2022, , .		1
9	Design and Analysis of a Magnetic Field Communication System Using a Giant Magneto-Impedance Sensor. IEEE Access, 2022, 10, 56961-56973.	4.2	6
10	Sensor Coil System for Misalignment Detection and Information Transfer in Dynamic Wireless Power Transfer of Electric Vehicle. Journal of Electromagnetic Engineering and Science, 2022, 22, 309-318.	1.8	4
11	Design of Ferrite Wall Structure for Leakage Magnetic Field Reduction in a Wireless Power Transfer System with a Bipolar Magnetic Coupler. The Journal of Korean Institute of Electromagnetic Engineering and Science, 2022, 33, 386-397.	0.3	0
12	Application of Wireless Power Transfer Technology to Implantable Medical Devices. , 2022, , .		0
13	Design of a Wireless Power Transfer System With Two Inputs With Large Voltage Differences for Missiles Mounted on Maritime Vessels. IEEE Access, 2022, 10, 70825-70839.	4.2	3
14	A Novel Interposer Channel Structure with Vertical Tabbed Vias to Reduce Far-End Crosstalk for Next-Generation High-Bandwidth Memory. Micromachines, 2022, 13, 1070.	2.9	4
15	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	10
16	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.	4.2	13
17	A Noise-Shaped Signaling Method for Vehicle-to-Everything Security. IEEE Access, 2021, 9, 75385-75397.	4.2	4
18	Design Considerations for Adding Series Inductors to Reduce Electromagnetic Field Interference in an Over-Coupled WPT System. Energies, 2021, 14, 2791.	3.1	9

#	ARTICLE	IF	CITATIONS
19	Wireless Torque Transfer using Rotating Magnetic Field with Multiple Coils. , 2021, , .		1
20	Design of Reactive Shield Coil for Wireless Charger with Multiple Coils. , 2021, , .		1
21	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.	3.1	6
22	Giant Magnetoimpedance Receiver With a Double-Superheterodyne Topology for Magnetic Communication. IEEE Access, 2021, 9, 82903-82908.	4.2	6
23	Dual Loop Reactive Shield Application of Wireless Power Transfer System for Leakage Magnetic Field Reduction and Efficiency Enhancement. IEEE Access, 2021, 9, 118307-118323.	4.2	15
24	Methodology for Reduction of Noise Interference in Wireless Charging Implantable ECG Sensor. , 2021, , .		0
25	Assessment of Human Exposure to Electromagnetic Fields: Review and Future Directions. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1619-1630.	2.2	62
26	Wireless Torque and Power Transfer Using Multiple Coils with LCC-S Topology for Implantable Medical Drug Pump. Sensors, 2021, 21, 8150.	3.8	8
27	Analysis of Spectrum Requirements for Autonomous Driving Using SINR Probability Distributions. IEEE Communications Letters, 2020, 24, 202-206.	4.1	1
28	Patterned Magnetic Fields for Remote Steering and Wireless Powering to a Swimming Microrobot. IEEE/ASME Transactions on Mechatronics, 2020, 25, 207-216.	5.8	16
29	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.	2.1	13
30	A Robust Channel Access Using Cooperative Reinforcement Learning for Congested Vehicular Networks. IEEE Access, 2020, 8, 135540-135557.	4.2	12
31	A Novel Experimental Approach to the Applicability of High-Sensitivity Giant Magneto-Impedance Sensors in Magnetic Field Communication. IEEE Access, 2020, 8, 193091-193101.	4.2	10
32	Survey of Spectrum Regulation for Intelligent Transportation Systems. IEEE Access, 2020, 8, 140145-140160.	4.2	21
33	A LCL-LCL Topology for Odd Harmonic Magnetic Fields Reduction in Over-Coupled WPT System. , 2020, , .		2
34	Novel Resonance-Based Wireless Power Transfer Using Mixed Coupling. Sensors, 2020, 20, 7277.	3.8	2
35	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	18
36	A Wireless Power Transfer Based Implantable ECG Monitoring Device. Energies, 2020, 13, 905.	3.1	24

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37	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.	0.8	2
38	Separated Circular Capacitive Coupler for Reducing Cross-Coupling Capacitance in Drone Wireless Power Transfer System. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3978-3985.	4.6	30
39	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.	0.7	7
40	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	0
41	Multi Resonant Reactive Shield for Reducing the Electromagnetic Fields from Wireless Charging Electric Vehicle. , 2020, , .		2
42	Position Prediction of Wireless Charging Electric Vehicle for Auto Parking using Extreme Gradient Boost Algorithm. , 2020, , .		9
43	Analysis of Efficiency According to the Design of Transmitter Coil for Wireless Power Transfer Implantable Medical Device. , 2020, , .		3
44	Mitigation of Frequency Splitting Phenomena Using a Matching Capacitor in Wireless Power Transfer System for Automated Guided Vehicle. , 2020, , .		3
45	Optimal Transmitter Selection Method for Maximum Power Efficiency for Wireless Power Transfer System Using Multi-Transmitter. , 2020, , .		4
46	Analysis of Eddy Current Loss for Wireless Power Transfer in Conductive Medium Using Z-parameters Method. , 2020, , .		5
47	Low Leakage Electromagnetic Field Level and High Efficiency Using a Novel Hybrid Loop-Array Design for Wireless High Power Transfer System. IEEE Transactions on Industrial Electronics, 2019, 66, 4356-4367.	7.9	26
48	Resonant Frequency Selection Method for Wireless Power Transfer System Considering Electromagnetic Interference Reduction. , 2019, , .		0
49	E-field induced keep-out zone determination method of through-silicon vias for 3-D ICs. Microelectronics Reliability, 2019, 98, 161-164.	1.7	1
50	Planar multiresonance reactive shield for reducing electromagnetic interference in portable wireless power charging application. Applied Physics Letters, 2019, 114, .	3.3	17
51	Single-Sided Near-Field Wireless Power Transfer by A Three-Dimensional Coil Array. Micromachines, 2019, 10, 200.	2.9	12
52	An Efficient Modeling for Underwater Wireless Power Transfer Using Z -Parameters. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 2006-2014.	2.2	49
53	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.	2.2	18
54	A Wireless Charging Coil in Printed Circuit Board with Partially Split Conductors for Low Resistance. , 2019, , .		6

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55	Analysis and Introduction of Effective Permeability with Additional Air-Gaps on Wireless Power Transfer Coils for Electric Vehicle Based on SAE J2954 Recommended Practice. <i>Energies</i> , 2019, 12, 4797.	3.1	11
56	A compact low-phase noise oscillator using ϵ -network and complimentary $\frac{1}{4}$ -near zero metamaterial resonator. <i>Microwave and Optical Technology Letters</i> , 2019, 61, 9-14.	1.4	2
57	An Efficient Extrapolation Method of Band-Limited S-Parameters for Extracting Causal Impulse Responses. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2019, 38, 2086-2098.	2.7	10
58	Precise Vehicle Location Detection Method Using a Wireless Power Transfer (WPT) System. <i>IEEE Transactions on Vehicular Technology</i> , 2019, 68, 1167-1177.	6.3	38
59	Ferrite Position Identification System Operating With Wireless Power Transfer for Intelligent Train Position Detection. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019, 20, 374-382.	8.0	31
60	Toroidal-Shaped Coils for a Wireless Power Transfer System for an Unmanned Aerial Vehicle. <i>Journal of the Korean Institute of Electromagnetic Engineering and Science</i> , 2019, 19, 48-55.	3.0	13
61	Millimeter-Wave Scattering and Transmission of Misaligned Dual Metallic Grating Screens. <i>IEICE Transactions on Communications</i> , 2019, E102.B, 1180-1187.	0.7	0
62	Printed Circuit Board-Type Wireless Charging Coil with Split Conductors for Power Loss Reduction. <i>The Journal of Korean Institute of Electromagnetic Engineering and Science</i> , 2019, 30, 754-761.	0.3	0
63	Optimization design of toroidal core for magnetic energy harvesting near power line by considering saturation effect. <i>AIP Advances</i> , 2018, 8, .	1.3	13
64	Steerable Electromagnetic Transmission of Metal Gratings on a Magnetized Ferrite Slab. <i>IEEE Transactions on Magnetics</i> , 2018, 54, 1-4.	2.1	0
65	Foreword: Special Section on Recent Progress in the Electrical Design of Advanced Package and Systems. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2018, 8, 3-4.	2.5	0
66	EMI Reduction Methods in Wireless Power Transfer System for Drone Electrical Charger Using Tightly Coupled Three-Phase Resonant Magnetic Field. <i>IEEE Transactions on Industrial Electronics</i> , 2018, 65, 6839-6849.	7.9	104
67	Magnetic field concentration using ferromagnetic material to propel a wireless power transfer based micro-robot. <i>AIP Advances</i> , 2018, 8, 056723.	1.3	1
68	Rigorous mathematical model of through-silicon via capacitance. <i>IET Circuits, Devices and Systems</i> , 2018, 12, 589-593.	1.4	2
69	Microrobot propulsion force generation using semiconductor based wireless power transfer coils. , 2018, , .		0
70	Elliptic function compact-size of the band-pass filter using complimentary MNZ metamaterial resonator. <i>Microwave and Optical Technology Letters</i> , 2018, 60, 2907-2912.	1.4	1
71	Detection of the Interface-Trap Charge Density and Lateral Nonuniformity of Through-Silicon Vias. <i>IEEE Microwave and Wireless Components Letters</i> , 2018, 28, 422-424.	3.2	3
72	Planar Resonance Reactive Shield for Reducing the EMI in Portable WPT Device Application. , 2018, , .		9

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73	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.	2.5	0
74	Wide band compact coplanar waveguide with interdigital capacitor using left-handed metamaterial. Microwave and Optical Technology Letters, 2018, 60, 2030-2033.	1.4	0
75	Simulation-Based Feasibility Study on the Wireless Charging Railway System With a Ferriteless Primary Module. IEEE Transactions on Vehicular Technology, 2017, 66, 1004-1010.	6.3	26
76	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.	2.1	18
77	A Simple Equivalent Circuit Model for Shielding Analysis of Magnetic Sheets Based on Microstrip Line Measurement. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	19
78	A Resonant Reactive Shielding for Planar Wireless Power Transfer System in Smartphone Application. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 695-703.	2.2	133
79	Pickup Coil Counter for Detecting the Presence of Trains Operated by Wireless Power Transfer. IEEE Sensors Journal, 2017, 17, 7526-7532.	4.7	12
80	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.	3.2	4
81	A Compact and Multi-Stack Electromagnetic Bandgap Structure for Gigahertz Noise Suppression in Multilayer Printed Circuit Boards. Applied Sciences (Switzerland), 2017, 7, 804.	2.5	6
82	An Autonomous Coil Alignment System for the Dynamic Wireless Charging of Electric Vehicles to Minimize Lateral Misalignment. Energies, 2017, 10, 315.	3.1	62
83	Miniaturization of Implantable Micro-Robot Propulsion Using a Wireless Power Transfer System. Micromachines, 2017, 8, 269.	2.9	9
84	Shielding of Magnetic Field. , 2017, , 197-206.		3
85	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	2
86	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	3
87	High efficiency wireless power and force transfer for micro-robot using 3-axis AC/DC magnetic coil. , 2016, , .		1
88	Generating propulsion force in micro-robot using wireless power transfer system. , 2016, , .		3
89	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.	2.2	30
90	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.	3.2	9

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91	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.	4.6	54
92	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.	4.6	140
93	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	31
94	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.	2.2	8
95	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.	2.1	56
96	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.	2.3	2
97	Effect of Air-Gap Between a Ferrite Plate and Metal Strips on Magnetic Shielding. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	12
98	Magnetic Shielding Analysis of a Ferrite Plate With a Periodic Metal Strip. IEEE Transactions on Magnetics, 2015, 51, 1-8.	2.1	11
99	Development of the Optimization Framework for Low-Power Wireless Power Transfer Systems. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 813-820.	4.6	17
100	Generation of Magnetic Propulsion Force and Torque for Microrobot Using Wireless Power Transfer Coil. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	29
101	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.	4.6	55
102	Propulsion and control of implantable micro-robot based on wireless power transfer. , 2015, , .		3
103	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.	2.5	27
104	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.	2.2	18
105	Reduction of magnetic emission by increasing secondary side capacitor for ferrite geometry based series-series topology for wireless power transfer to vehicles. , 2014, , .		1
106	Small-Size Low-Cost Wideband Continuous-Time Linear Passive Equalizer With an Embedded Cavity Structure on a High-Speed Digital Channel. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 94-99.	2.5	6
107	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.	2.1	13
108	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.	4.6	174

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109	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.	7.9	693
110	Optimized shield design for reduction of EMF from wireless power transfer systems. IEICE Electronics Express, 2014, 11, 20130930-20130930.	0.8	19
111	Electromagnetic Compatibility of Resonance Coupling Wireless Power Transfer in On-Line Electric Vehicle System. IEICE Transactions on Communications, 2014, E97.B, 416-423.	0.7	11
112	Charging up the road. IEEE Spectrum, 2013, 50, 48-54.	0.7	46
113	Coil Design and Shielding Methods for a Magnetic Resonant Wireless Power Transfer System. Proceedings of the IEEE, 2013, 101, 1332-1342.	21.3	362
114	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.	2.2	14
115	Future wireless power transportation system. , 2013, , .		1
116	Analysis of EMF noise from the receiving coil topologies for wireless power transfer. , 2012, , .		10
117	Suppression of leakage magnetic field from a wireless power transfer system using ferrimagnetic material and metallic shielding. , 2012, , .		57
118	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.	2.5	108
119	Analysis of TSV-to-TSV coupling with high-impedance termination in 3D ICs. , 2011, , .		28
120	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.	2.2	22
121	Low frequency electromagnetic field reduction techniques for the On-Line Electric Vehicle (OLEV). , 2010, , .		35
122	Over GHz electrical circuit model of a high-density multiple line grid array (MLGA) interposer. IEEE Transactions on Advanced Packaging, 2003, 26, 90-98.	1.6	4
123	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.	1.3	16
124	RF interconnect for multi-gbit/s board-level clock distribution. IEEE Transactions on Advanced Packaging, 2000, 23, 398-407.	1.6	23
125	Microwave model of anisotropic conductive film flip-chip interconnections for high frequency applications. IEEE Transactions on Components and Packaging Technologies, 1999, 22, 575-581.	1.3	34
126	Suppression of radiated emission from an 8-bit micro-controller using gate-oxide filtering capacitors. , 0, , .		2

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127	Effect of ground guard fence with via and ground slot on radiated emission in multi-layer digital printed circuit board. , O, , .		8
128	Accurate high frequency lossy model of differential signal line including mode-conversion and common-mode propagation effect. , O, , .		11