# Grant Covic

## List of Publications by Year in descending order

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|---|---|---|---|
| 98 papers | 8,380 citations | 101543 36 h-index | 175258 52 g-index |
| 98 all docs | 98 docs citations | 98 times ranked | 2574 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Thermal Evaluation of an Inductive Power Transfer Pad for Charging Electric Vehicles. IEEE Transactions on Industrial Electronics, 2022, 69, 314-322. | 7.9 | 13 |
| 2 | Magnetic Design Considerations for High-Power Wireless Charging Systems. IEEE Transactions on Power Electronics, 2022, 37, 9972-9982. | 7.9 | 20 |
| 3 | Reduced Ferrite Double D Pad for Roadway IPT Applications. IEEE Transactions on Power Electronics, 2021, 36, 5055-5068. | 7.9 | 21 |
| 4 | A systematic review of charging infrastructure location problem for electric vehicles. Transport Reviews, 2021, 41, 432-455. | 8.8 | 29 |
| 5 | Multiobjective Optimization of Inductive Power Transfer Double-D Pads for Electric Vehicles. IEEE Transactions on Power Electronics, 2021, 36, 5135-5146. | 7.9 | 46 |
| 6 | Variable-Frequency Retuned WPT System for Power Transfer and Efficiency Improvement in Dynamic EV Charging With Fixed Voltage Characteristic. IEEE Transactions on Energy Conversion, 2021, 36, 2141-2151. | 5.2 | 39 |
| 7 | An Inductive Coupler Array for In-Motion Wireless Charging of Electric Vehicles. IEEE Transactions on Power Electronics, 2021, 36, 9854-9863. | 7.9 | 39 |
| 8 | Ironsand (Titanomagnetite-Titanohematite): Chemistry, Magnetic Properties and Direct Applications for Wireless Power Transfer. Materials, 2021, 14, 5455. | 2.9 | 4 |
| 9 | An MMC based IPT System with Integrated Magnetics and ZVS Operations. IEEE Transactions on Power Electronics, 2021, , 1-1. | 7.9 | 7 |
| 10 | Evaluation of a Meandering Track Primary Topology for EV Roadway Charging. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2020, 1, 26-35. | 3.9 | 5 |
| 11 | Design of a SAE Compliant Multicoil Ground Assembly. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2020, 1, 14-25. | 3.9 | 13 |
| 12 | A Power Loss Measurement Technique for Inductive Power Transfer Magnetic Couplers. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2020, 1, 113-122. | 3.9 | 13 |
| 13 | Development of Partial Ferrite double-D Pad for IPT Systems for EV Charging. , 2020, , . | | 6 |
| 14 | Thermal Characterisation of a Double-D Pad. , 2019, , . | | 12 |
| 15 | Measuring the Q-factor of IPT Magnetic Couplers. , 2019, , . | | 6 |
| 16 | Push-pull driven Low-cost Coupler Array for Dynamic IPT systems. , 2019, , . | | 2 |
| 17 | Passive Reflection Winding for Ferrite-less Double D Topology for Roadway IPT Applications. , 2019, , . | | 4 |
| 18 | A Hybrid Solenoid Coupler for Wireless Charging Applications. IEEE Transactions on Power Electronics, 2019, 34, 5632-5645. | 7.9 | 44 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Robust Ferrite-Less Double D Topology for Roadway IPT Applications. IEEE Transactions on Power Electronics, 2019, 34, 6062-6075. | 7.9 | 45 |
| 20 | Comparison of Tripolar and Circular Pads for IPT Charging Systems. IEEE Transactions on Power Electronics, 2018, 33, 6093-6103. | 7.9 | 66 |
| 21 | An Alternative IPT Pickup Controller for Material Handling Using a Current Doubler. IEEE Transactions on Power Electronics, 2018, 33, 10135-10147. | 7.9 | 9 |
| 22 | Mitigation of Local Grid Congestion Due to Electric Vehicles Through Localized Demand Control. , 2018, , . | | 3 |
| 23 | Comparison of Meander Track Primary Topologies for EV Roadway Charging. , 2018, , . | | 7 |
| 24 | A Comparison of Multi-Coil Pads in IPT systems for EV Charging. , 2018, , . | | 12 |
| 25 | Multi-objective Optimization of Double D Coils for Wireless Charging System. , 2018, , . | | 3 |
| 26 | Effective Coupling Factors for Series and Parallel Tuned Secondaries in IPT Systems Using Bipolar Primary Pads. IEEE Transactions on Transportation Electrification, 2017, 3, 434-444. | 7.8 | 36 |
| 27 | Ferrite-Less Circular Pad With Controlled Flux Cancelation for EV Wireless Charging. IEEE Transactions on Power Electronics, 2017, 32, 8349-8359. | 7.9 | 77 |
| 28 | Tripolar Pad for Inductive Power Transfer Systems for EV Charging. IEEE Transactions on Power Electronics, 2017, 32, 5045-5057. | 7.9 | 215 |
| 29 | A Dynamic EV Charging System for Slow Moving Traffic Applications. IEEE Transactions on Transportation Electrification, 2017, 3, 354-369. | 7.8 | 122 |
| 30 | A Reduced Order Model to Determine the Coupling Factor Between Magnetic Pads Used in Wireless Power Transfer. IEEE Transactions on Transportation Electrification, 2017, 3, 321-331. | 7.8 | 19 |
| 31 | A Mistuning-Tolerant and Controllable Power Supply for Roadway Wireless Power Systems. IEEE Transactions on Power Electronics, 2017, 32, 6689-6699. | 7.9 | 37 |
| 32 | Self-Tuning Power Supply for Inductive Charging. IEEE Transactions on Power Electronics, 2017, 32, 3467-3479. | 7.9 | 63 |
| 33 | Interoperable EV Detection for Dynamic Wireless Charging With Existing Hardware and Free Resonance. IEEE Transactions on Transportation Electrification, 2017, 3, 370-379. | 7.8 | 59 |
| 34 | Leakage Flux Control of Mismatched IPT Systems. IEEE Transactions on Transportation Electrification, 2017, 3, 474-487. | 7.8 | 32 |
| 35 | Robust double D topology for roadway IPT applications. , 2017, , . | | 8 |
| 36 | Analysis of mutually decoupled primary coils for IPT systems for EV charging. , 2016, , . | | 18 |

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|---|---|---|---|
| 37 | A mistuning-tolerant and controllable power supply for roadway wireless power systems. , 2016, , . | | 0 |
| 38 | Evaluation of a current doubler IPT pickup controller for materials handling applications. , 2016, , . | | 5 |
| 39 | A comparative study of various magnetic design topologies for a semi-dynamic EV charging application. , 2016, , . | | 12 |
| 40 | Leakage and coupling of square and double D magnetic couplers. , 2016, , . | | 10 |
| 41 | Shaped passive magnetic field shaping for roadway IPT. , 2016, , . | | 0 |
| 42 | Interoperable EV detection for dynamic wireless charging with existing hardware and free resonance. , 2016, , . | | 9 |
| 43 | Evaluation of Magnetic Pad Sizes and Topologies for Electric Vehicle Charging. IEEE Transactions on Power Electronics, 2015, 30, 6391-6407. | 7.9 | 104 |
| 44 | Novel single-sided ferrite-less magnetic coupler for roadway EV charging. , 2015, , . | | 10 |
| 45 | Analysis of Coplanar Intermediate Coil Structures in Inductive Power Transfer Systems. IEEE Transactions on Power Electronics, 2015, 30, 6141-6154. | 7.9 | 83 |
| 46 | Power Management for Multiple-Pickup IPT Systems in Materials Handling Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 163-176. | 5.4 | 46 |
| 47 | Design Considerations for Variable Coupling Lumped Coil Systems. IEEE Transactions on Power Electronics, 2015, 30, 680-689. | 7.9 | 51 |
| 48 | Wireless Fleet Charging System for Electric Bicycles. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 75-86. | 5.4 | 47 |
| 49 | Investigation of Multiple Decoupled Coil Primary Pad Topologies in Lumped IPT Systems for Interoperable Electric Vehicle Charging. IEEE Transactions on Power Electronics, 2015, 30, 1937-1955. | 7.9 | 286 |
| 50 | Double-Coupled Systems for IPT Roadway Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 37-49. | 5.4 | 133 |
| 51 | Improved Grid Dynamics Using a Localized Demand Control System. IEEE Transactions on Smart Grid, 2014, 5, 2748-2756. | 9.0 | 11 |
| 52 | Analysis of co-planar intermediate coil structures in inductive power transfer systems. , 2014, , . | | 3 |
| 53 | Reducing leakage flux in IPT systems by modifying pad ferrite structures. , 2014, , . | | 43 |
| 54 | A Parallel Topology for Inductive Power Transfer Power Supplies. IEEE Transactions on Power Electronics, 2014, 29, 1140-1151. | 7.9 | 161 |

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|---|---|---|---|
| 55 | Detection of EVs on IPT Highways. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 584-597. | 5.4 | 94 |
| 56 | Determining the physical size of inductive couplers for IPT EV systems. , 2014, , . | | 50 |
| 57 | Magnetic couplers in kickstands for wireless charging of electric bicycles. , 2014, , . | | 7 |
| 58 | An Approximate Dynamic Model of LCL- <formula formulatype="inline"><tex Notation="TeX">$T$</tex></formula>-Based Inductive Power Transfer Power Supplies. IEEE Transactions on Power Electronics, 2014, 29, 5554-5567. | 7.9 | 182 |
| 59 | Determining the Physical Size of Inductive Couplers for IPT EV Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 571-583. | 5.4 | 66 |
| 60 | Double-coupled systems for roadway IPT systems. , 2014, , . | | 3 |
| 61 | Detection of EVs on IPT highways. , 2014, , . | | 16 |
| 62 | Effects of pulse and DC charging on lithium iron phosphate (LiFePO<inf>4</inf>) batteries. , 2013, , . | | 21 |
| 63 | Practical Design Considerations for Contactless Power Transfer Quadrature Pick-Ups. IEEE Transactions on Industrial Electronics, 2013, 60, 400-409. | 7.9 | 96 |
| 64 | Modern Trends in Inductive Power Transfer for Transportation Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2013, 1, 28-41. | 5.4 | 1,041 |
| 65 | Inductive Power Transfer. Proceedings of the IEEE, 2013, 101, 1276-1289. | 21.3 | 916 |
| 66 | A novel fast-switching control for multiple pickup IPT systems. , 2013, , . | | 3 |
| 67 | A novel slow-switching control for multiple pickup IPT systems. , 2013, , . | | 1 |
| 68 | Development of a Single-Sided Flux Magnetic Coupler for Electric Vehicle IPT Charging Systems. IEEE Transactions on Industrial Electronics, 2013, 60, 318-328. | 7.9 | 943 |
| 69 | Net energy stored control for residential demand-side management. , 2013, , . | | 6 |
| 70 | Wireless fleet charging system for electric bicycles. , 2013, , . | | 7 |
| 71 | A Direct ACâ€“AC Converter for Inductive Power-Transfer Systems. IEEE Transactions on Power Electronics, 2012, 27, 661-668. | 7.9 | 145 |
| 72 | Comparative Study of CCPT Systems With Two Different Inductor Tuning Positions. IEEE Transactions on Power Electronics, 2012, 27, 294-306. | 7.9 | 66 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Resonant network design considerations for variable coupling lumped coil systems. , 2012, , . | | 0 |
| 74 | A bipolar receiver pad in a lumped IPT system for electric vehicle charging applications. , 2012, , . | | 136 |
| 75 | A practical 1.2kW Inductive Power Transfer lighting system using AC processing controllers. , 2011, , . | | 14 |
| 76 | Normalized characteristics of AC processing pickups. , 2011, , . | | 1 |
| 77 | A low energy storage IPT system using AC processing controllers. , 2011, , . | | 2 |
| 78 | Design and Optimization of Circular Magnetic Structures for Lumped Inductive Power Transfer Systems. IEEE Transactions on Power Electronics, 2011, 26, 3096-3108. | 7.9 | 805 |
| 79 | A parallel topology for inductive power transfer power supplies. , 2011, , . | | 12 |
| 80 | Development and evaluation of single sided flux couplers for contactless electric vehicle charging. , 2011, , . | | 176 |
| 81 | Magnetic design of a 300 W under-floor contactless Power Transfer system. , 2011, , . | | 19 |
| 82 | A 1kW inductive charging system using AC processing pickups. , 2011, , . | | 6 |
| 83 | Steady-State Flat-Pickup Loading Effects in Polyphase Inductive Power Transfer Systems. IEEE Transactions on Industrial Electronics, 2011, 58, 2274-2282. | 7.9 | 61 |
| 84 | High power IPT stage lighting controller. , 2011, , . | | 9 |
| 85 | Implementation and evaluation of an IPT battery charging system in assisting grid frequency stabilisation through Dynamic Demand Control. , 2010, , . | | 3 |
| 86 | A practical multiphase IPT system for AGV and roadway applications. , 2010, , . | | 42 |
| 87 | An AC Processing Pickup for IPT Systems. IEEE Transactions on Power Electronics, 2010, 25, 1275-1284. | 7.9 | 96 |
| 88 | Multiphase Pickups for Large Lateral Tolerance Contactless Power-Transfer Systems. IEEE Transactions on Industrial Electronics, 2010, 57, 1590-1598. | 7.9 | 202 |
| 89 | A new primary power regulation method for contactless power transfer. , 2009, , . | | 44 |
| 90 | Practical considerations for designing IPT system for EV battery charging. , 2009, , . | | 44 |

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|---|---|---|---|
| 91 | Detection of the Tuned Point of a Fixed-Frequency LCL Resonant Power Supply. IEEE Transactions on Power Electronics, 2009, 24, 1140-1143. | 7.9 | 97 |
| 92 | Interphase Mutual Inductance in Polyphase Inductive Power Transfer Systems. IEEE Transactions on Industrial Electronics, 2009, 56, 2393-2400. | 7.9 | 140 |
| 93 | Design and optimisation of magnetic structures for lumped Inductive Power Transfer systems. , 2009, , . | | 81 |
| 94 | Development of a discrete energy injection inverter for contactless power transfer. , 2008, , . | | 12 |
| 95 | Regulator capacitor selection for series compensated IPT pickups. , 2008, , . | | 18 |
| 96 | Self tuning pick-ups for inductive power transfer. Power Electronics Specialist Conference (PESC), IEEE, 2008, , . | 0.0 | 66 |
| 97 | A Three-Phase Inductive Power Transfer System for Roadway-Powered Vehicles. IEEE Transactions on Industrial Electronics, 2007, 54, 3370-3378. | 7.9 | 371 |
| 98 | An Appropriate Magnetic Coupling Co-Efficient for the Design and Comparison of ICPT Pickups. IEEE Transactions on Power Electronics, 2007, 22, 333-335. | 7.9 | 92 |