

POWER ELECTRONICS Projects

I. POWER ELECTRONICS based DC TO DC CONVERTER

1. Hybrid transformer ZVS/ZCS DC-DC converter for Photovoltaic Module microinverters Applications. **[IEEE 2015]**.
2. Isolated DC–DC Converters Based on a Phase-Shift-Controlled Active Boost Rectifier **[IEEE 2015]**.
3. An optimal solution for operating a three-phase variable frequency drive from a single-phase AC source **[IEEE 2015]**.
4. Power analysis and evaluation for interleaved boost converter with close-coupled inductor **[IEEE 2015]**.
5. Modeling and implementation of high-gain switched-inductor switched-capacitor converter **[IEEE 2015]**.
6. Analysis between push-pull converter and non-isolated converter of low to high voltage gain **[IEEE 2015]**.
7. A DC-DC Full-Bridge Hybrid Series Resonant Converter enabling constant switching frequency across wide load range **[IEEE 2015]**.

II. POWER ELECTRONICS based RESONANT CONVERTER / INVERTER

1. New Interleaved Current-Fed Resonant Converter with Notably Reduced High Current Side Output Filter for EV and HEV Applications **[IEEE 2015]**.

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IEEE 2015

2. A single-phase transformer-less inverter with active decoupling for Non- isolated Micro inverter Applications [**IEEE 2015**].
3. Novel Integrated of Isolated Boost Converter with Coupled Inductors for Vehicle Inverter Application [**IEEE 2015**].
4. Modulation Scheme for a Differential-Mode Cuk Inverter [**IEEE 2015**].
5. Design and Simulation of Four-Switch Three-Phase SEPIC Based Inverter [**IEEE 2015**].
6. A Zero Voltage Source dual resonant converter for battery charging applications [**IEEE 2015**].
7. Performance and Evaluation of LLC Resonant Converter with Reduced Conduction Loss at Normal Operation for Hold-up Time Compensation Application [**IEEE 2015**].
8. Simulation of Multilevel Energy Buffer and Voltage Modulator for Grid-Interfaced Micro Inverters [**IEEE 2015**].
9. Performance Analysis of *LLC* Resonant Converters with Capacitor–Diode Clamp Current Limiting [**IEEE 2015**].
10. Implementation of the Half-Bridge Series Resonant Inverter for Improved Power Conversion Efficiency and Performance [**IEEE 2015**].
11. Optimal design methodology of bidirectional LLC resonant DC/DC converter for solid state transformer application [**IEEE 2015**].



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III. POWER ELECTRONICS based POWER FACTOR CORRECTION (PFC) CONVERTER

1. Experimental Study of Bridgeless PFC-SEPIC Rectifier with Extended Gain for Universal Input Voltage Applications [**IEEE 2015**].
2. A Three-Level Quasi-Two-Stage Single-Phase PFC with Flexible Output Voltage and Enhanced Efficiency [**IEEE 2015**].
3. Large-Signal Balanced of AC Grid Supplying Voltage-Source Converters with LCL-Filters [**IEEE 2015**].
4. An Enhanced Transformer less Hybrid Power Filter Based on a Six-Switch Two-Leg Inverter for Harmonic Compensation Performance [**IEEE 2015**].

IV. POWER ELECTRONICS based RENEWABLE ENERGY

1. Energy Management Based On High Step-Up Converter with a Three Winding Coupled Inductor for a Fuel Energy Source Application [**IEEE 2015**].
2. Inverter Evaluation of Photovoltaic Application with An Interleaved High Power Flyback Inverter [**IEEE 2015**].
3. A SPWM Bridge Transformer less PV Grid-Connected Inverter with Constant Common Voltage [**IEEE 2015**].
4. DC/DC Converter Based on Coupled Inductor and Switched-Capacitor Techniques for Renewable Energy Applications [**IEEE 2015**].
5. Review of Single-Phase Transformer less Photovoltaic Inverters for Leakage Current Suppression [**IEEE 2015**].



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IEEE 2015

V. POWER ELECTRONICS based MULTIPLE OUTPUT CONVERTERS

1. Design Consideration and Topology Review for Three-Port DC–DC Converter for Stand-Alone Photovoltaic Systems [**IEEE 2015**].
2. Impact of Multiport Buck–Boost Converters Based on DC-Link-Inductors (DLIs) [**IEEE 2015**].
3. Review of Integrated Hybrid Phase-Shift-Controlled Three-Level and LLC DC–DC Converter with Active Connection at Secondary Side [**IEEE 2015**].