



## POWER ELECTRONICS FOR 2015-16

| S.No | TITLES                                                                                                                        | DOMAIN          | YEAR |
|------|-------------------------------------------------------------------------------------------------------------------------------|-----------------|------|
| 1    | Input/output Current Ripple Cancellation and RHP Zero Elimination in a Boost Converter using an Integrated Magnetic Technique | Boost Converter | 2015 |
| 2    | High Step-Up Converter With Three-Winding Coupled Inductor for Fuel Cell Energy Source Applications                           | Boost Converter | 2015 |
| 3    | Derivation, Analysis, and Comparison of Non isolated Single-Switch High Step-up Converters With Low Voltage Stress            | Boost Converter | 2015 |
| 4    | The Worst Conducted EMI Spectrum of Critical Conduction Mode Boost PFC Converter                                              | Boost Converter | 2015 |
| 5    | Robust Sliding-Mode Control Design for a Voltage Regulated Quadratic Boost Converter                                          | Boost Converter | 2015 |
| 6    | A Non isolated Multi input Multi output DCDC Boost Converter for Electric Vehicle Applications                                | Boost Converter | 2015 |
| 7    | High-Frequency-Fed Unity Power-Factor ACDC Power Converter With One Switching Per Cycle                                       | Boost Converter | 2015 |
| 8    | Multi cell Switched-Inductor/Switched-Capacitor Combined Active-Network Converters                                            | Boost Converter | 2015 |
| 9    | Robust Control for PWM-Based DCDC Buck Power Converters With Uncertainty Via Sampled-Data Output Feedback                     | Buck Converter  | 2015 |

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| 10 | Modular Multilevel DC/DC Converters With Phase-Shift Control Scheme for High-Voltage DC-Based Systems                                                          | DC DC Converter | 2015 |
| 11 | Analysis and Design Considerations of LLCC Resonant Multi output DC/DC LED Driver With Charge Balancing and Exchanging of Secondary Series Resonant Capacitors | DC DC Converter | 2015 |
| 12 | Naturally Clamped Zero-Current Commutated Soft-Switching Current-Fed Push Pull DC/DC Converter: Analysis, Design, and Experimental Results                     | DC DC Converter | 2015 |
| 13 | A High Gain Input-Parallel Output-Series DC/DC Converter With Dual Coupled Inductors                                                                           | DC DC Converter | 2015 |
| 14 | A Novel Load Adaptive ZVS Auxiliary Circuit for PWM Three-Level DCDC Converters                                                                                | DC DC Converter | 2015 |
| 15 | Hybrid Transformer ZVS/ZCS DCDC Converter With Optimized Magnetics and Improved Power Devices Utilization for Photovoltaic Module Applications                 | DC DC Converter | 2015 |
| 16 | Hybrid-Type Full-Bridge DC/DC Converter With High Efficiency                                                                                                   | DC DC Converter | 2015 |
| 17 | Universal Integrated Synchronization and Control for Single-Phase DC/AC Converters                                                                             | Inverter        | 2015 |
| 18 | Predictive Control Method With Future Zero-Sequence Voltage to Reduce Switching Losses in Three-Phase Voltage Source Inverters                                 | Inverter        | 2015 |

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| 19 | An Adaptive Droop DC-Bus Voltage Controller for a Grid-Connected Voltage Source Inverter With LCL Filter                            | Inverter  | 2015 |
| 20 | Swinging Bus Operation of Inverters for Fuel Cell Applications With Small DC-Link Capacitance                                       | Inverter  | 2015 |
| 21 | Power Controllability of a Three-Phase Converter With an Unbalanced AC Source                                                       | Inverter  | 2015 |
| 22 | A Novel Control Strategy of Suppressing DC Current Injection to the Grid for Single-Phase PV Inverter                               | Inverter  | 2015 |
| 23 | Switching State Vector Selection Strategies for Paralleled Multilevel Current-Fed Inverter Under Unequal DC-Link Currents Condition | Inverter  | 2015 |
| 24 | A High-Efficiency MOSFET Transformerless Inverter for Non isolated Micro inverter Applications                                      | Inverter  | 2015 |
| 25 | Frequency Adaptive Selective Harmonic Control for Grid-Connected Inverters                                                          | Inverter  | 2015 |
| 26 | An Extended Lyapunov-Function-Based Control Strategy for Single-Phase UPS Inverters                                                 | Inverter  | 2015 |
| 27 | A High Power Factor, Electrolytic Capacitor-Less AC-Input LED Driver Topology With High Frequency Pulsating Output Current          | LED Drive | 2015 |
| 28 | Design and Implementation of a Single-Stage Driver for Supplying an LED Street-Lighting Module With Power Factor Corrections        | LED Drive | 2015 |

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| 29 | Power Flow Analysis and Critical Design Issues of Retrofit Light-Emitting Diode (LED) Light Bulb                                          | LED Drive           | 2015 |
| 30 | Proportional-Integral (PI) Compensator Design of Duty-Cycle-Controlled Buck LED Driver                                                    | LED Drive           | 2015 |
| 31 | A Current-Sourced LED Driver Compatible With Fluorescent Lamp Ballasts                                                                    | LED Drive           | 2015 |
| 32 | Filter Capacitor Minimization in a Flyback LED Driver Considering Input Current Harmonics and Light Flicker Characteristics               | LED Drive           | 2015 |
| 33 | A Novel Primary-Side Controlled Universal-Input ACDC LED Driver Based on a Source-Driving Control Scheme                                  | LED Drive           | 2015 |
| 34 | PFC Cuk Converter-Fed BLDC Motor Drive                                                                                                    | Motor Drives        | 2015 |
| 35 | Investigation and Suppression of Harmonics Interaction in High-Power PWM Current-Source Motor Drives                                      | Motor Drives        | 2015 |
| 36 | Predictive Torque Control Scheme for Three-Phase Four-Switch Inverter-Fed Induction Motor Drives With DC-Link Voltages Offset Suppression | Motor Drives        | 2015 |
| 37 | Deterioration Monitoring of DC-Link Capacitors in AC Machine Drives by Current Injection                                                  | Motor Drives        | 2015 |
| 38 | Optimal Low Switching Frequency Pulse width Modulation of Nine-Level Cascade Inverter                                                     | Multilevel Inverter | 2015 |
| 39 | Modular Multilevel Converter With an Adaptive Observer of Capacitor Voltages                                                              | Multilevel Inverter | 2015 |

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| 40 | Hybrid Multicarrier Modulation to Reduce Leakage Current in a Transformerless Cascaded Multilevel Inverter for Photovoltaic Systems | Multilevel Inverter     | 2015 |
| 41 | Optimal Lowest-Voltage-Switching for Boundary Mode Power Factor Correction Converters                                               | Power Factor Correction | 2015 |
| 42 | A Three-Level Quasi-Two-Stage Single-Phase PFC Converter with Flexible Output Voltage and Improved Conversion Efficiency            | Power Factor Correction | 2015 |
| 43 | A Stepping On-Time Adjustment Method for Interleaved Multichannel PFC Converters                                                    | Power Factor Correction | 2015 |
| 44 | Three-Level Single-Phase Bridgeless PFC Rectifiers                                                                                  | Power Factor Correction | 2015 |
| 45 | A Fully Integrated Three-Level Isolated Single-Stage PFC Converter                                                                  | Power Factor Correction | 2015 |
| 46 | A Digitally Controlled Critical Mode Boost Power4 Factor Corrector With Optimized Additional On Time and Reduced Circulating Losses | Power Factor Correction | 2015 |
| 47 | Bridgeless PFC-Modified SEPIC Rectifier With Extended Gain for Universal Input Voltage Applications                                 | Power Factor Correction | 2015 |
| 48 | Time-Varying Compensation for Peak Current-Controlled PFC Boost Converter                                                           | Power Factor Correction | 2015 |
| 49 | Innity-Norm of Impedance-Based Stability Criterion for Three-Phase AC Distributed Power Systems With Constant Power Loads           | Rectifier               | 2015 |

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| 50 | Improved Selective Harmonics Elimination Scheme With Online Harmonic Compensation for High-Power PWM Converters                                | Rectifier        | 2015 |
| 51 | Direct Power Control Based on Natural Switching Surface for Three-Phase PWM Rectifiers                                                         | Rectifier        | 2015 |
| 52 | A Family of Soft-Switching DCDC Converters Based on a Phase-Shift-Controlled Active Boost Rectifier                                            | Rectifier        | 2015 |
| 53 | Three-Port DCDC Converter for Stand-Alone Photovoltaic Systems                                                                                 | Renewable Energy | 2015 |
| 54 | An Interleaved High-Power Flyback Inverter for Photovoltaic Applications                                                                       | Renewable Energy | 2015 |
| 55 | A Quasi-Unipolar SPWM Full-Bridge Transformerless PV Grid-Connected Inverter with Constant Common-Mode Voltage                                 | Renewable Energy | 2015 |
| 56 | A Novel High Step-up DC/DC Converter Based on Integrating Coupled Inductor and Switched-Capacitor Techniques for Renewable Energy Applications | Renewable Energy | 2015 |
| 57 | Interleaved Boost-Integrated LLC Resonant Converter With Fixed-Frequency PWM Control for Renewable Energy Generation Applications              | Renewable Energy | 2015 |
| 58 | A Step-up Resonant Converter for Grid-Connected Renewable Energy Sources                                                                       | Renewable Energy | 2015 |
| 59 | Frequency-Coordinating Virtual Impedance for Autonomous Power Management of DC Microgrid                                                       | Renewable Energy | 2015 |

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| 60 | A Photovoltaic Array Transformer-Less Inverter With Film Capacitors and Silicon Carbide Transistors                                                   | Renewable Energy        | 2015 |
| 61 | Rotating Switching Surface Control of Series-Resonant Converter Based on a Piecewise Affine Model                                                     | Resonant Converter      | 2015 |
| 62 | Analysis and Design of LLC Resonant Converters With Capacitor Diode Clamp Current Limiting                                                            | Resonant Converter      | 2015 |
| 63 | A Bidirectional LLC Resonant Converter With Automatic Forward and Backward Mode Transition                                                            | Resonant Converter      | 2015 |
| 64 | High-Power-Factor Rectifier Using the Modified SEPIC Converter Operating in Discontinuous Conduction Mode                                             | SEPIC Converter         | 2015 |
| 65 | A Novel Control Method for Transformerless H-Bridge Cascaded STATCOM With Star Configuration                                                          | STATCOM                 | 2015 |
| 66 | A Fast Method for Generating Time-Varying Magnetic Field Patterns of Mid-Range Wireless Power Transfer Systems                                        | Wireless Power Transfer | 2015 |
| 67 | Analysis and Tracking of Optimal Load in Wireless Power Transfer Systems                                                                              | Wireless Power Transfer | 2015 |
| 68 | A Methodology for Making a Three-Coil Wireless Power Transfer System More Energy Efficient Than a Two-Coil Counterpart for Extended Transfer Distance | Wireless Power Transfer | 2015 |
| 69 | Analysis of Critical Inductance and Capacitor Voltage Ripple for a Bidirectional Z-Source Inverter                                                    | Z Source Inverter       | 2015 |

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| 70 | Impedance-Source Networks for Electric Power Conversion Part II: Review of Control and Modulation Techniques | Z Source Inverter | 2015 |
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