Power Electronics Projects

I. POWER ELECTRONICS based SOLAR ENERGY

1. *Leakage Current Suppression of Three-Phase Flying Capacitor PV Inverter with New Carrier Modulation and Logic Function.* **(IEEE2018)**

2. *Modified Single-Phase Single-Stage Grid-Tied Flying Inductor Inverter with MPPT and Suppressed Leakage Current.* **(IEEE2018)**

3. *High-Efficiency Two-Stage Three-Level Grid-Connected Photovoltaic Inverter* **(IEEE2018)**

4. *A Buck and Boost Based Grid Connected PV Inverter Maximizing Power Yield from Two PV Arrays in Mismatched Environmental Conditions.* **(IEEE2018)**

5. *Integrated DC–DC Converter Based Grid-Connected Transformer less Photovoltaic Inverter with Extended Input Voltage Range.* **(IEEE2018)**

6. *Novel Control Method for Multimodule PV Micro inverter With Multiple Functions.* **(IEEE2018)**

II. POWER ELECTRONICS based WIND ENERGY

1. *Analysis of a High-Power, Resonant DC–DC Converter for DC Wind Turbines* **(IEEE2018)**

2. *A Hybrid Resonant ZVZCS Three-Level Converter for MVDC-Connected Offshore Wind Power Collection Systems.* **(IEEE2018)**

III. POWER ELECTRONICS based HYBRID SYSTEMS AND ENERGY STORAGE

1. *Soft-switched Non-Isolated High Step-up Three-port DC-DC converter for Hybrid Energy Systems.* **(IEEE2018)**

2. *Stability Improvement of a Multimachine Power System Connected With a LargeScale Hybrid Wind-Photovoltaic Farm Using a Super capacitor.* **(IEEE2018)**

3. *Frequency Division Based Coordinated Control of Three-Port Converter Interfaced Hybrid Energy Storage Systems in Autonomous DC Microgrids.* **(IEEE2018)**

4. *Partially-Isolated Single-Magnetic Multi-Port Converter Based on Integration of Series-Resonant Converter and Bidirectional PWM Converter.* **(IEEE2018)**

5. *A Uniform Control Strategy for the Interlinking Converter in Hierarchical Controlled Hybrid AC/DC Microgrids.* **(IEEE2018)**

6. *Supervisory Power Quality Control Scheme for a Grid-Off Microgrid.* **(IEEE2018)**

7. *A Battery/Ultracapacitor Hybrid Energy Storage System for Implementing the Power Management of Virtual Synchronous Generators.* **(IEEE2018)**

8. *Instantaneous Symmetrical Component Theory based Parallel Grid Side Converter Control Strategy for Microgrid Power Management.* **(IEEE2018)**

IV. POWER ELECTRONICS based INVERTER AND MULTILEVEL INVERTERS

1. *A Single-Phase Single-Stage Switched-Boost Inverter With Four Switches Decentralized Control for Fully Modular Input-Series Output-Parallel (ISOP) Inverter System Based on the Active Power Inverse-Droop Method.* **(IEEE2018)**

2. *Multistage and Multilevel Power Electronic Converter-Based Power Supply for Plasma DBD Devices.* **(IEEE2018)**

3. *An Isolated Multi-Input ZCS DC–DC Front-End-Converter Based Multilevel Inverter for the Integration of Renewable Energy Sources.* **(IEEE2018)**

4. *A Novel Step-Up Single Source Multilevel Inverter: Topology, Operating Principle and Modulation.* **(IEEE2018)**

5. *Multi-Input Switched-Capacitor Multilevel Inverter for High-Frequency AC Power Distribution.* **(IEEE2018)**

V. POWER ELECTRONICS based WIRELESS POWER TRANSFER

1. *A New Controller for Bidirectional Wireless Power Transfer Systems.* **(IEEE2018)**

2. *High Power Density Z-Source Resonant Wireless Charger with Line Frequency Sinusoidal Charging.* **(IEEE2018)**

VI. POWER ELECTRONICS based DRIVES

1. *Quasi-Z-Source Indirect Matrix Converter Fed Induction Motor Drive for Flow Control of Dye in Paper Mill*. **(IEEE2018)**

2. *DC-Link Capacitor-Current Ripple Reduction in DPWM-Based Back-to-Back Converters.* **(IEEE2018)**

3. *Power Factor Correction in Modified SEPIC Converter fed Switched Reluctance Motor Drive.* **(IEEE2018)**

4. *Improved Finite Control-Set Model-Based Direct Power Control of BLDC Motor with Reduced Torque Ripple.* **(IEEE2018)**

5. *High-Precision Sensorless Drive for High-Speed BLDC Motors Based on the Virtual Third Harmonic Back-EMF.* **(IEEE2018)**

VII. POWER ELECTRONICS based ELECTRIC VEHICLE

1. *On an Electric Scooter With G2V/V2H/V2G and Energy Harvesting Functions*. **(IEEE2018)**

2. *PV Battery Charger Using an L3C Resonant Converter for Electric Vehicle Applications.* **(IEEE2018)**

3. *High Efficiency Bridgeless Single-Power-Conversion Battery Charger for Light Electric Vehicles.* **(IEEE2018)**

4. *Implementation of a Grid-Integrated PV-Battery System for Residential and Electrical Vehicle Applications.* **(IEEE2018)**

VIII. POWER ELECTRONICS based BI DIRECTIONAL CONVERTER

1. *Improved Modulation Strategy Using Dual Phase Shift Modulation for Active Commutated Current-Fed Dual Active Bridge.* **(IEEE2018)**

2. *A Common Ground Switched-Quasi-Z-Source Bidirectional DC–DC Converter with Wide-Voltage-Gain Range for EVs With Hybrid Energy Sources.* **(IEEE2018)**

IX. POWER ELECTRONICS based CUK AND RESONANT CONVERTER

1. *Modified High-Efficiency LLC Converters With Two Split Resonant Branches for Wide Input-Voltage Range Applications.* **(IEEE2018)**

2. *A Voltage Quadrupler Rectifier Based Pulse–Width–Modulated LLC Converter with Wide Output Range.* **(IEEE2018)**

3. *Dynamic Modeling and Controller Design of Dual-Mode Cuk Inverter in GridConnected PV/TE Applications.* **(IEEE2018)**

4. *Improved Power Quality Switched Inductor Cuk Converter for Battery Charging Application.* **(IEEE2018)**

X. POWER ELECTRONICS based HIGH VOLTAGE

1. *Improvement of Power-Conversion Efficiency of AC–DC Boost Converter Using 1:1 Transformer.* **(IEEE2018)**

2. *High-Efficiency High Step-Up DC–DC Converter With Dual Coupled Inductors for Grid-Connected Photovoltaic Systems.* **(IEEE2018)**

3. *Analysis and Design of High-Efficiency Hybrid High Step-Up DC-DC Converter for Distributed PV Generation Systems* **(IEEE2018)**

4. *High Step-Up Coupled-Inductor Cascade Boost DC–DC Converter With Lossless Passive Snubber.* **(IEEE2018)**

5. *A Three-Winding Coupled-Inductor DC–DC Converter Topology With High Voltage Gain and Reduced Switch Stress.* **(IEEE2018)**

XI. POWER ELECTRONICS based PFC AND INTERLEAVED CONVERTER

1. *Interleaved-Input Series-Output Ultra High Voltage Gain DC-DC Converter.* **(IEEE2018)**

2. *Multitrack Power Factor Correction Architecture.* **(IEEE2018)**

3. *Family of ZVT Interleaved Converters with Low Number of Components.* **(IEEE2018)**

4. *New Bridgeless Buck PFC Converter with Improved Input Current and Power Factor.* **(IEEE2018)**

5. *A Wide-Input-Range High-Efficiency Step-down Power Factor Correction Converter Using Variable Frequency Multiplier Technique.* **(IEEE2018)**

XII. POWER ELECTRONICS based SOFT SWITCHING ANG MULTIPLE OP CONVERTER

1. *Analysis and Design of an Input-Series Two-Transistor Forward Converter For HighInput Voltage Multiple-Output Applications.* **(IEEE2018)**

2. An Independently Controlled Single-PWM Multiple-Output Narrow-Band Resonant Converter. ***(IEEE2018)***

3. A New ZVS Full-Bridge DC–DC Converter for Battery Charging With Reduced Losses Over Full-Load Range. ***(IEEE2018)***

XIII. POWER ELECTRONICS based Z SOURCE AND SEPIC CONVERTER

1. Isolated SEPIC DC–DC Converter With Ripple-Free Input Current and Lossless Snubber. ***(IEEE2018)***

2. A High Performance Impedance-Source Converter with Switched Inductor. ***(IEEE2018)***

3. Study on a High Voltage Gain SEPIC-Based DC-DC Converter with Continuous Input Current for Sustainable Energy Applications. ***(IEEE2018)***

4. Single-Phase Hybrid Switched-Capacitor Voltage-Doubler SEPIC PFC Rectifiers. ***(IEEE2018)***

XIV. POWER ELECTRONICS based LED APPLICATIONS

1. Loss Analysis for Efficiency Improvement of the Integrated Buck-FlybackLED Driver. ***(IEEE2018)***

2. A PFC Single-Coupled-Inductor Multiple-Output LED Driver without Electrolytic Capacitor. ***(IEEE2018)***