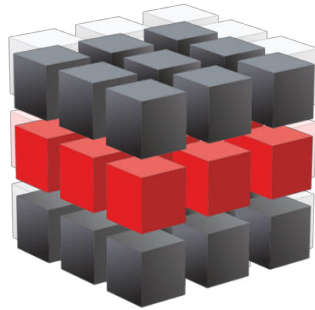




**MICANS Infotech**  
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# **MICANS Infotech**

## **Innovations For Business**

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**CHENNAI – PONDICHERY**



## **POWER ELECTRONICS & POWER SYSTEM TITLE LIST**

### **POWER ELECTRONICS**

#### **SOLAR ENERGY**

1. Unit-Minimum Least Power Point Tracking for the Optimization of Photovoltaic Differential Power Processing Systems.
2. A High-Efficiency Single-Phase T-Type BCM Micro inverter.
3. High-Efficiency and High-Density Single-Phase Dual-Mode Cascaded Buck–Boost Multilevel Transformer less PV Inverter.
4. DC Decoupling-Based Three-Phase Three Level Transformer less PV Inverter Topology for Minimization of Leakage Current.
5. Photovoltaic Fly back Micro inverter With Tertiary Winding Current Sensing.
6. A Novel Three-Phase Transformer less H-8 Topology With Reduced Leakage Current for Grid-Tied Solar PV Applications.
7. High Step-Up Transformer less Inverter for AC Module Applications With Active Power Decoupling.
8. Transformer less Z-Source Four-Leg PV Inverter With Leakage Current Reduction.
9. Common Mode Voltage Reduction in a Single-Phase Quasi Z-Source Inverter for Transformer less Grid-Connected Solar PV Applications.
10. Half-Bridge Voltage Swing Inverter With Active Power Decoupling for Single Phase PV Systems Supporting Wide Power Factor Range.
11. An Improved H5 Topology With Low Common Mode Current for Transformer less PV Grid-Connected Inverter.
12. Hybrid UP-PWM Scheme for HERIC Inverter to Improve Power Quality and Efficiency.
13. Three-Phase ZVR Topology and Modulation Strategy for Transformer less PV System.
14. Voltage-Sensor-Based MPPT for Stand-Alone PV Systems Through Voltage Reference Control.
15. Transformer less Hybrid Converter With AC and DC Outputs and Reduced Leakage Current.
16. Leakage Current Reduction of Three-Phase Z-Source Three-Level Four Leg Inverter for Transformer less PV System.
17. Common-Mode Current Suppression of Transformer less Nested Five Level Converter With Zero Common-Mode Vectors.
18. Single-Phase Transformer less Photovoltaic Inverter With Suppressing Resonance in Improved H6.
19. Photovoltaic AC Module Based on a Cuk Converter With a Switched-Inductor Structure.
20. Quasi-Resonant Voltage Doubler With Snubber Capacitor for Boost Half-Bridge DC–DC Converter in Photovoltaic Micro-Inverter.
21. Hybrid Control Scheme for Photovoltaic Micro inverter With Adaptive Inductor.



22. Simultaneous Common-Mode Resonance Circulating Current and Leakage Current Suppression for Transformer less Three-Level T-Type PV Inverter System.
23. An Integrated Step-Up Inverter With out Transformer and Leakage Current for Grid-Connected Photovoltaic System.
24. A Soft-Switched Power Module with Integrated Battery Interface for Photovoltaic-Battery Power Architecture.

### **WIND ENERGY**

25. A Multiple-Input Cascaded DC–DC Converter for Very Small Wind Turbines.
26. Analysis and Control of the Inductor less Boost Rectifier for Small-Power Wind-Energy Converters.
27. Parallel Operation of Unity Power Factor Rectifier for PMSG Wind Turbine System.
28. Design of a High-Power Resonant Converter for DC Wind Turbines.
29. Modular Step-Up Converter With Soft-Switched Module Having 1:1 Turns Ratio Multiphase Transformer for Wind Systems.
30. Highly Reliable Back-to-Back Power Converter With out Redundant Bridge Arm for Doubly Fed Induction Generator-Based Wind Turbine.
31. Dynamic Capabilities of an Energy Storage-Embedded DFIG System.

### **HYBRID POWERSYSTEM**

32. A Three-Port Converter Based Distributed DC Grid Connected PV System With Autonomous Output Voltage Sharing Control.
33. A Decentralized Control Architecture Applied to DC Nano grid Clusters for Rural Electrification in Developing Regions.
34. A Bidirectional High-Efficiency Transformer less Converter With Common-Mode Decoupling for the Interconnection of AC and DC Grids.
35. Power-Based Droop Control in DC Micro grids Enabling Seamless Disconnection From Upstream Grids.
36. Development of a Fuzzy-Logic-Based Energy Management System for a Multiport Multi operation Mode Residential Smart Micro grid.
37. High-Efficiency Bidirectional Buck–Boost Converter for Photovoltaic and Energy Storage Systems in a Smart Grid.
38. Enhanced Frequency Regulation Using Multilevel Energy Storage in Remote Area Power Supply Systems.
39. A Composite Sliding Mode Controller for Wind Power Extraction in Remotely Located Solar PV–Wind Hybrid System.
40. Model Predictive Control of Bidirectional DC-DC Converters and AC/DC Interlinking Converters – A New Control Method for PV-Wind-Battery Micro grids.
41. Adaptive Active Power Sharing Techniques for DC and AC Voltage Control in a Hybrid DC/AC Micro grid.



42. Control of Energy Storage System Integrating Electrochemical Batteries and Super capacitors for Grid-Connected Applications.
43. A High-Efficiency Active-Boost-Rectifier-Based Converter With a Novel Double-Pulse Duty Cycle Modulation for PV to DC Micro grid Applications.
44. Three-Step Switching Frequency Selection Criteria for Symmetrical CLLC-Type DC Transformer in Hybrid AC/DC Micro grid.
45. Hardware Decoupling and Autonomous Control of Series-Resonance-Based Three-Port Converters in DC Micro grids
46. Disturbance Rejection through Adaptive Frequency Estimation Observer for Wind-Solar Integrated AC Micro grid.
47. A Hybrid Photovoltaic-Fuel Cell for Grid Integration With Jaya Based Maximum Power Point Tracking.
48. Techno-Economic Feasibility Analysis of Grid-Tied PV-Wind Hybrid System to Meet a Typical Household Demand.

### **WIRELESS POWER TRANSFER**

49. Modeling and Analysis of Series-None Compensation for Wireless Power Transfer Systems With a Strong Coupling.
50. Design and Control of Inductive Power Transfer System for Electric Vehicles Considering Wide Variation of Output Voltage and Coupling Coefficient.
51. Frequency Optimization of a Loosely Coupled Underwater Wireless Power Transfer System Considering Eddy Current Loss.
52. Reconfigurable Intermediate Resonant Circuit Based WPT System With Load-Independent Constant Output Current and Voltage for Charging Battery.
53. An Inductive-Power-Transfer Converter With High Efficiency Throughout Battery-Charging Process.
54. Cost-Effective and Compact Multi string LED Driver Based on a
55. Three-Coil Wireless Power Transfer System

### **ELECTRIC VEHICLE APPLICATIONS**

56. Integrated PV Charging of EV Fleet Based on Energy Prices, V2G, and Offer of Reserves.
57. Cost Reduction for an EV Charging Station Integrated With Battery Energy Storage and PV Generation.
58. High-Efficiency Bridgeless Single-Power-Conversion Battery Charger for Light Electric Vehicles.
59. Decentralized EV-Based Charging Optimization With Building Integrated Wind Energy.
60. Imbalanced Load Regulation Based on Virtual Resistance of A Three-Phase Four-Wire Inverter for EV Vehicle-to-Home Applications.



61. A Five-Switch Bridge Based Reconfigurable LLC Converter for Deeply Depleted PEV Charging Applications.
62. Multi-Objective Reconfigurable Three-Phase Off-Board Charger for EV.
63. Single-Stage Isolated Electrolytic Capacitor-Less EV On board Charger With Power Decoupling.

### **INVERTERS AND MULTILEVEL INVERTERS**

64. Selective Harmonic Mitigation Based Self-Elimination of Triplen Harmonics for Single-Phase Five-Level Inverters.
65. Grid-Current Control of a Differential Boost Inverter With Hidden LCL Filters.
66. A Family of PWM Control Strategies for Single-Phase Quasi-Switched-Boost Inverter.
67. A Sinusoidal Pulse width Modulation (SPWM) Technique for Capacitor Voltage Balancing of a Nested T-Type Four-Level Inverter.
68. Analysis and Design of a High Power Density Flying-Capacitor Multilevel Boost Converter for High Step-Up Conversion.
69. Family of Multiport Switched-Capacitor Multilevel Inverters for High-Frequency AC Power Distribution.
70. Advanced Single-Phase Nine-Level Converter for the Integration of Multi terminal DC Supplies.
71. Compact Switched Capacitor Multilevel Inverter (CSCMLI) with Self-Voltage Balancing and Boosting Ability.
72. A Novel Nine-Level Quadruple Boost Inverter With Inductive-Load Ability.
73. A New Non isolated Quasi-Z-Source Inverter With High Voltage Gain.
74. A Boost-Type Nine-Level Switched Capacitor Inverter.
75. Single-Stage Variable-Turns-Ratio High-Frequency Link Grid-Connected Inverter.
76. A Self-Balancing Five-Level Boosting Inverter With Reduced Components.
77. A Hybrid 7-Level Inverter Using Low-Voltage Devices and Operation With Single DC-Link. +91 90036 28940 | +91 94435 11725
78. Cross-Switched Multilevel Inverter Using Novel Switched Capacitor Converters.
79. Dual-T-Type Seven-Level Boost Active-Neutral-Point-Clamped Inverter.
80. Switched-Capacitor-Based Quadruple-Boost Nine-Level Inverter.
81. Seven-level inverter with switched capacitors.

### **MOTOR APPLICATIONS**

82. A Single-Stage Sensor less Control of a PV-Based Bore-Well Submersible BLDC Motor.
83. Advanced Speed Control for a Five-Leg Inverter Driving a Dual-Induction Motor System.
84. A Commutation Torque Ripple Suppression Strategy for Brushless DC Motor Based on Diode-Assisted Buck–Boost Inverter.





85. Reduced-Sensor-Based PV Array-Fed Direct Torque Control Induction Motor Drive for Water Pumping.
86. Single-Current-Sensor Control for PMSM Driven by Quasi-Z-Source Inverter.
87. Design of Speed Control and Reduction of Torque Ripple Factor in BLDC Motor Using Spider Based Controller.
88. A Novel Hybrid Control Method for Single-Phase-Input Variable Frequency Speed Control System With a Small DC-Link Capacitor.
89. A Standalone BLDC Based Solar Air Cooler with MPP Tracking for Improved Efficiency.
90. Performance-Based Design of Induction Motor Drive for Single-Stage PV Array Fed Water Pumping.

### LED APPLICATIONS

91. AC–DC LED Driver With an Additional Active Rectifier and a Unidirectional Auxiliary Circuit for AC Power Ripple Isolation.
92. A PFC Single-Coupled-Inductor Multiple-Output LED Driver Without Electrolytic Capacitor.
93. A Bridgeless Electrolytic Capacitor-Free LED Driver Based on Series Resonant Converter With Constant Frequency Control.
94. Flicker-Free Single-Switch Quadratic Boost LED Driver Compatible With Electronic Transformers.
95. An Interleaved Fly back-Typed LED Driver With ZVS and Energy Recovery of Leakage Inductance.

### 96. CONVERTERS

97. A Novel Soft-Switching Secondary-Side Modulated Multi output DC–DC Converter With Extended ZVS Range.
98. Design Considerations for Current-Regulated Series-Resonant Converters With a Constant Input Current.
99. A Soft-Switching Step-Down PFC Converter With Output Voltage Doubler and High Power Factor Stability and Small-Signal Analyses of the Dual Series Resonant DC–DC Converter.
100. Non isolated High-Step-up DC–DC Converter With Minimum Switch Voltage Stress.
101. Diode Reverse Recovery Process and Reduction of a Half-Wave Series Cockcroft–Walton Voltage Multiplier for High-Frequency High-Voltage Generator Applications.
102. Quadratic Boost DC–DC Converter With High Voltage Gain and Reduced Voltage Stresses.
103. Analysis and Design of High-Efficiency Hybrid High Step-Up DC–DC Converter for Distributed PV Generation Systems.
104. Multitrack Power Factor Correction Architecture.



105. A Modified SEPIC-Based High Step-Up DC–DC Converter With Quasi-Resonant Operation for Renewable Energy Applications.
106. Low Common Mode Noise Half-Bridge LLC DC–DC Converter With an Asymmetric Center Tapped Rectifier.
107. DC–DC Boost Converter With a Wide Input Range and High Voltage Gain for Fuel Cell Vehicles.
108. High-Voltage Gain Quasi-SEPIC DC–DC Converter Large Step Ratio Input-Series–Output-Parallel Chain-Link DC–DC Converter.
109. Switched Tank Converters.
110. A Negative-Output High Quadratic Conversion Ratio DC–DC Converter With Dual Working Modes.
111. Fly back PFC With a Series-Pass Module in Cascode Structure for Input Current Shaping.
112. An Isolated Power Factor Corrected Power Supply Utilizing the Transformer Leakage Inductance.
113. Interleaved High Step-Up Converter With Coupled Inductors.
114. Interleaved High Step-Up Converter Integrating Coupled Inductor and Switched Capacitor for Distributed Generation Systems.
115. A Novel High Voltage Gain Non coupled Inductor SEPIC Converter.
116. Active-Clamp Forward Converter With Lossless-Snubber on Secondary-Side.
117. A Single-Switched High-Switching-Frequency Quasi-Resonant Fly back Converter.
118. High-Voltage-Gain DC–DC Step-Up Converter With Bifold Dickson Voltage Multiplier Cells.
119. A Family of Cuk, Zeta, and SEPIC Based Soft-Switching DC–DC Converters.
120. A Power Quality Improved EV Charger with Bridgeless Cuk Converter.
121. A Cuk Dual Resonance Core Based Dickson Resonant Switched-Capacitor Converter with Wide Conversion Ratio Range.

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### **BIDIRECTIONAL CONVERTER**

122. Operation of a Bidirectional Series-Resonant Converter With Minimized Tank Current and Wide ZVS Range.
123. Novel Modulation of Isolated Bidirectional DC–DC Converter for Energy Storage Systems.
124. Hybrid Switched-Capacitor/Switched-Quasi-Z-Source Bidirectional DC–DC Converter With a Wide Voltage Gain Range for Hybrid Energy Sources EVs.
125. Bidirectional Series Resonant DC/AC Converter for Energy Storage Systems.
126. Design and Implementation of a New Transformer less Bidirectional DC–DC Converter With Wide Conversion Ratios.

## POWER SYSTEM

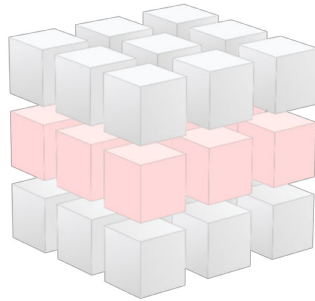
127. Smart Loads for Improving the Fault-Ride-Through Capability of Fixed-Speed Wind Generators in Micro grids.
128. A Control Strategy for Voltage Unbalance Mitigation in an Islanded Micro grid Considering Demand Side Management Capability.
129. Multi objective Predictability-Based Optimal Placement and Parameters Setting of UPFC in Wind Power Included Power Systems.
130. A Multiple Improved Notch Filter-Based Control for a Single-Stage PV System Tied to a Weak Grid.
131. Neutral-Point Voltage Analysis and Suppression for NPC Three-Level Photovoltaic Converter in LVRT Operation Under Imbalanced Grid Faults With Selective Hybrid SVPWM Strategy
132. Active Cross-Correlation Anti-Islanding Scheme for PV Module-Integrated Converters in the Prospect of High Penetration Levels and Weak Grid Conditions.
133. Multifunctional Hybrid Structure of SVC and Capacitive Grid-Connected Inverter (SVC//CGCI) for Active Power Injection and Non active Power Compensation.
134. Power Quality Improvement and PV Power Injection by DSTATCOM With Variable DC Link Voltage Control from RSC-MLC.
135. Enhancement of Solar Farm Connectivity With Smart PV Inverter PV-STATCOM.
136. GI-Based Control Scheme for Single-Stage Grid Interfaced SECS for Power Quality Improvement.
137. Stability Analysis for the Grid-Connected Single-Phase Asymmetrical Cascaded Multilevel Inverter With SRF-PI Current Control Under Weak Grid Conditions.
138. Protection of Sensitive Loads Using Sliding Mode Controlled Three-Phase DVR With Adaptive Notch Filter.
139. Power Flow and Stability Analyses of a Multifunctional Distributed Generation System Integrating a Photovoltaic System With Unified Power Quality Conditioner.
140. Compensation of Power Quality Problems in Wind-Based Renewable Energy System for Small Consumer as Isolated Loads.
141. Robust Repetitive Control Design for a Three-Phase Four Wire Shunt
142. Active Power Filter.
143. Battery Energy Storage System to Stabilize Transient Voltage and Frequency and Enhance Power Export Capability.
144. A Novel Dual-DC-Port Dynamic Voltage Restorer With Reduced-Rating Integrated DC–DC Converter for Wide-Range Voltage Sag Compensation.
145. An Overview of Assessment Methods for Synchronization Stability of Grid-Connected Converters Under Severe Symmetrical Grid Faults.





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146. Power Flow Control of Interconnected AC-DC Micro grids in Grid-Connected Hybrid Micro grids Using Modified UIPC.
147. Coordination control of positive and negative sequence voltages of cascaded H-bridge STATCOM operating under imbalanced grid Voltage.
148. An assessment of a Square-Wave Series Voltage Compensator increasing Power Quality on industrial electronic loads compensating voltage sag and swell.
149. Applying Reactive Power Compensators to Large Wind Farms to Improve the Stability of Isolated Power Systems.



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