



## EEE SIMULATION M.Tech/M.E IEEE Projects List

| <b>S.no</b> | <b>PROJECT TITLES</b>  | <b>IEEE</b> |
|-------------|--|-------------|
| 1           | Commutation Torque Ripple Reduction in the BLDC Motor Using Modified SEPIC and Three-Level NPC Inverter                                  | 2018        |
| 2           | Reconfiguration of NPC Multilevel Inverters to Mitigate Short Circuit Faults Using Back-to-Back Switches                                 | 2018        |
| 3           | Implementation and Comparison of Symmetric and Asymmetric Multilevel Inverters for Dynamic Loads   | 2018        |
| 4           | A Grid Connected Single Phase Transformer less Inverter Controlling Two Solar PV Arrays Operating under Different Atmospheric Conditions | 2018        |
| 5           | Irradiance-adaptive PV Module Integrated Converter for High Efficiency and Power Quality in Standalone and DC Microgrid Applications     | 2018        |
| 6           | ZSI for PV systems with LVRT capability  | 2018        |
| 7           | Control of Solar Photovoltaic Integrated Universal Active Filter Based on Discrete Adaptive Filter                                       | 2018        |
| 8           | A Buck & Boost based Grid Connected PV Inverter Maximizing Power Yield from Two PV Arrays in Mismatched Environmental Conditions         | 2018        |
| 9           | Single-phase multilevel inverter topologies with self-voltage balancing capabilities   | 2018        |
| 10          | A Three-Phase Symmetrical DC-Link Multilevel Inverter with Reduced Number of DC Sources  | 2018        |
| 11          | A Bridge Modular Switched-Capacitor-Based Multilevel Inverter With Optimized SPWM Control Method And Enhanced Power-Decoupling Ability   | 2018        |
| 12          | Single-Phase Modified Quasi-Z-Source Cascaded Hybrid Five-Level Inverter   | 2018        |
| 13          | Improved control algorithm for grid connected cascaded H-bridge photovoltaic   | 2018        |

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|    |   |      |
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|    | inverters under asymmetric operating conditions   |      |
| 14 | Power-decoupling of a Multi-port Isolated Converter for an Electrolytic-capacitor less Multi-level Inverter                               | 2018 |
| 15 | Verification of a low Components Nine-Level Cascaded-Transformer Multilevel Inverter in Grid Tie Mode                                     | 2018 |
| 16 | Power management in PV-battery-hydro based standalone microgrid   | 2018 |
| 17 | Research on the Unbalanced Compensation of Delta-connected Cascaded H-bridge Multilevel SVG   | 2018 |
| 18 | Autonomous Power Management for Interlinked AC-DC Microgrids  | 2018 |
| 19 | Multi-Input Switched-Capacitor Multilevel Inverter for High-Frequency AC Power Distribution   | 2018 |
| 20 | Autonomous Power Control and Management Between Standalone DC Microgrids  | 2018 |
| 21 | Soft Switched Interleaved DC/DC Converter as front-end of Multi Inverter Structure for Micro Grid Applications                            | 2018 |
| 22 | Dynamic Power Management and Control of PV PEM fuel Cell based Standalone AC/DC Microgrid Using Hybrid Energy Storage                     | 2018 |
| 23 | Modelling Design, Control, and Implementation of a Modified Z-source Integrated PV/Grid/EV DC Charger/Inverter                            | 2018 |
| 24 | Three-Phase Transformer less Shunt Active Power Filter with Reduced Switch Count for Harmonic Compensation in Grid-Connected Applications | 2018 |
| 25 | Control of a Three-Phase Hybrid Converter for a PV Charging Station   | 2018 |
| 26 | A Novel Hybrid Modular Three-Level Shunt Active Power Filter  | 2018 |
| 27 | An Improved Modulated Carrier Control with On-Time Doubler for Single-Phase Shunt Active Power Filter                                     | 2018 |
| 29 | A Hybrid Boost Modular Multilevel Converter-Based Bipolar High Voltage  | 2017 |

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|    | Pulse Generator  |      |
| 30 | A New-Coupled-Inductor Circuit Breaker for DC Applications   | 2017 |
| 31 | A New Dual-Bridge Series Resonant DC-DC Converter with Dual-Tank   | 2017 |
| 32 | A Novel Single-Stage Single-Phase Reconfigurable Inverter Topology for a Solar Powered Hybrid AC/DC Home   | 2017 |
| 33 | A Performance Investigation of a Four-Switch Three-Phase Inverter-Fed IM Drives at Low Speeds Using Fuzzy Logic and PI Controllers                       | 2017 |
| 34 | A Novel Step-Up Multi input DC–DC Converter for Hybrid Electric Vehicles Application   | 2017 |
| 35 | A Novel Structure for Single-Switch Nonisolated Transformerless Buck–Boost DC–DC Converter   | 2017 |
| 36 | A Performance Investigation of a Four-Switch Three-Phase Inverter-Fed IM Drives at Low Speeds Using Fuzzy Logic and PI Controllers                       | 2017 |
| 37 | A Robust Back stepping High-Order Sliding Mode Control Strategy for Grid-Connected DG Units With Harmonic/Inter harmonic Current Compensation Capability | 2017 |
| 38 | A Single-Phase Transformer less Inverter With Charge Pump Circuit Concept for Grid-Tied PV Applications  | 2017 |
| 39 | A Three-Level LC-Switching-Based Boost NPC Inverter  | 2017 |
| 40 | ACMC-based hybrid AC/LVDC micro-grid   | 2017 |
| 41 | An Optimized Three-Phase Multilevel Inverter Topology With Separate Level and Phase Sequence Generation Part   | 2017 |
| 42 | Application of STATCOM for Harmonic Mitigation and Power Factor Improvement Using Direct Current Control Techniq   | 2017 |
| 43 | Control and Experiment of AC/AC Sparse Modular Multilevel Converter  | 2017 |
| 44 | Current-Fed Multilevel Converters: An Overview of Circuit Topologies,  | 2017 |

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|    | Modulation Techniques, and Applications  |      |
| 45 | Direct Torque Control With Feedback Linearization for Induction Motor Drives   | 2017 |
| 46 | Evaluation of DVR Capability Enhancement-Zero Active Power Tracking Technique  | 2017 |
| 47 | High-Efficiency Bridgeless Three-Level Power Factor Correction Rectifier   | 2017 |
| 48 | Improved Grid-Photovoltaic System Based on Variable-Step MPPT, Predictive Control, and Active/Reactive Control           | 2017 |
| 49 | Improvement of Power Quality Using a Robust Hybrid Series Active Power Filter  | 2017 |
| 50 | Single-Stage Three-Phase Grid-Tied PV System With Universal Filtering Capability Applied to DG Systems and AC Microgrids | 2017 |
| 51 | Low-Capacitance Cascaded H-Bridge Multilevel StatCom   | 2017 |
| 52 | Multiple harmonic elimination-based feedback controller for Shunt Hybrid ActivePowerFilter                               | 2017 |
| 53 | Neutral Point Clamped MOSFET Inverter With Full-Bridge Configuration for Nonisolated Grid-Tied Photovoltaic System       | 2017 |
| 54 | Online Condition Monitoring of Surge Arresters Based on Third-Harmonic Analysis of Leakage Current                       | 2017 |
| 55 | Photovoltaic Module-Integrated Stand-alone Single-Stage Switched Capacitor Inverter with Maximum Power Point Tracking    | 2017 |
| 56 | Three-phase battery storage system with transformer less cascaded multilevel inverter for distribution grid applications | 2017 |
| 57 | A Capacitor Voltage-Balancing Method for Nested Neutral Point Clamped (NNPC) Inverter                                    | 2016 |
| 58 | A Compact Multifunctional Power Electronic Interface for Plug-in Hybrid Electric Vehicles                                | 2016 |

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| 59 | A dc-Side Sensor less Cascaded H-Bridge Multilevel Converter Based Photovoltaic System  | 2016 |
| 60 | A Family of Five-Level Dual-Buck Full-bridge Inverters for Grid-tied Applications   | 2016 |
| 61 | A Hybrid Simulation Model for VSC HVDC  | 2016 |
| 62 | A Hybrid-STATCOM with Wide Compensation Range and Low DC-Link Voltage   | 2016 |
| 63 | A Modified P&O Maximum Power Point Tracking Method with Reduced Steady State Oscillation and Improved Tracking Efficiency         | 2016 |
| 64 | A Multi-Level Converter with a Floating Bridge for Open-Ended Winding Motor Drive Applications                                    | 2016 |
| 65 | A New Approach to DTC Method For BLDC Motor Adjustable Speed Drives   | 2016 |
| 66 | A New Cascaded Switched-Capacitor Multilevel Inverter Based on Improved Series-Parallel Conversion with Less Number of Components | 2016 |
| 68 | A new maximum power point method based on a sliding mode approach for solar energy harvesting                                     | 2016 |
| 69 | A Unified Control and Power Management Scheme for PV-Battery-Based Hybrid Microgrids for Both Grid-Connected and Islanded Modes   | 2016 |
| 70 | A Novel Five-Level Voltage Source Inverter with Sinusoidal Pulse Width Modulator for Medium-Voltage Applications                  | 2016 |
| 71 | A Novel Multilevel Multi-Output Bidirectional Active Buck PFC Rectifier   | 2016 |
| 72 | A Novel Ten-Switch Topology for Unified Power Quality Conditioner   | 2016 |
| 73 | A Power Factor Oriented Railway Power Flow Controller for Power Quality Improvement in Electrical Railway Power System            | 2016 |
| 74 | A Power Factor Oriented Railway Power Flow Controller for Power Quality   | 2016 |

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|    | Improvement in Electrical Railway Power System   |      |
| 75 | A Predictive Control Scheme for a Dual Output Indirect Matrix Converter  | 2016 |
| 76 | A Real-Time Selective Harmonic Elimination Based on A Transient-free, Inner Closed-Loop Control for Cascaded Multilevel Power Inverters      | 2016 |
| 77 | A Seven Level Inverter using a Solar Power Generation System   | 2016 |
| 78 | A Single DC Source Cascaded Seven-Level Inverter Integrating Switched-Capacitor Techniques   | 2016 |
| 79 | A Single-phase Four-Switch Rectifier with Significantly Reduced Capacitance  | 2016 |
| 80 | A Single-phase PV Quasi-Z-source Inverter with Reduced Capacitance using Modified Modulation and Double-Frequency Ripple Suppression Control | 2016 |
| 81 | Active and Reactive Power Control During Unbalanced Grid Voltage in PV systems   | 2016 |
| 82 | Adaptive Maximum Power Point Tracking Control Algorithm for Wind Energy Conversion Systems   | 2016 |
| 83 | Adaptive Neuro Fuzzy Inference System Least Mean Square Based Control Algorithm for DSTATCOM   | 2016 |
| 84 | Adaptive Power System for Managing Large Dynamic Loads   | 2016 |
| 85 | An Active Filter with Resonant Current Control to Suppress Harmonic Resonance in a Distribution Power System                                 | 2016 |
| 86 | An Approach of Hybrid Modulation in Fusion seven-level Cascaded Multilevel Inverter accomplishment to IM drive system                        | 2016 |
| 87 | Distributed Generators Based on the Reactive Power Disturbance   | 2016 |
| 88 | Buck-boost-flyback integrated converter with single switch to achieve high voltage gain for PV or fuel-cell applications                     | 2016 |
| 89 | Cascaded Dual Model Predictive Control of an Active Front-End Rectifier  | 2016 |
| 90 | Control and Operation of a DC Grid-Based Wind Power Generation System in a   | 2016 |

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|     | Microgrid   |      |
| 91  | Control methodology for compensation of grid voltage unbalance using a series-converter scheme for the DFIG                                   | 2016 |
| 92  | Control of Induction Motor Drive using Space Vector PWM   | 2016 |
| 93  | Control of Ripple Eliminators to Improve the Power Quality of DC Systems and Reduce the Usage of Electrolytic Capacitors                      | 2016 |
| 94  | Control of Three-phase Bidirectional Current Source Converter to Inject Balanced Three-phase Currents under Unbalanced Grid Voltage Condition | 2016 |
| 95  | Control Strategy of Fly back Micro inverter with Hybrid Mode for PV AC Modules  | 2016 |
| 96  | Current Source Modular Multilevel Converter Detailed Analysis and STATCOM Application   | 2016 |
| 97  | DC-link capacitor voltage control for single phase shunt active power filter with step size error cancellation in self-charging algorithm     | 2016 |
| 98  | Design and Implementation of a Novel Multilevel DC-AC Inverter  | 2016 |
| 99  | Design and Simulation of a 10 MW Photovoltaic Power Plant using MATLAB and Simulink   | 2016 |
| 100 | Design of Agricultural based water pumping drive system using Bridgeless Buck-Boost converter   | 2016 |
| 101 | Development and Comparison of an Improved Incremental Conductance Algorithm for Tracking the MPPT of a Solar PV Panel                         | 2016 |
| 102 | Digital Current Sensorless Control for Dual-Boost Half-Bridge PFC Converter with Natural Capacitor Voltage Balancing                          | 2016 |
| 103 | Discrete-Time Repetitive Control of Flyback CCM Inverter for PV Power Applications  | 2016 |
| 104 | DSTATCOM supported induction generator for improving power quality  | 2016 |

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| 105 | Dynamic voltage restorer employing multilevel cascaded H-bridge inverter  | 2016 |
| 106 | Feasibility of Four-Switch Three-phase Brushless DC Motor Control Scheme Based on Quasi Z-Source Network                      | 2016 |
| 107 | Fuzzy Control Based Apf With Dg Integration For Power Quality Improvement In Disribution System                               | 2016 |
| 108 | Grid connected three-phase multiple-pole multilevel unity power factor rectifier with reduce components count                 | 2016 |
| 109 | Harmonic Analysis of Grid Connected Power Electronic Systems in Low Voltage Distribution Networks                             | 2016 |
| 110 | High-Performance Constant Power Generation in Grid-Connected PV Systems   | 2016 |
| 111 | Impact of SFCL on the Four Types of HVDC Circuit Breakers by Simulation   | 2016 |
| 112 | Improved performance low-cost incremental conductance PV MPPT technique   | 2016 |
| 113 | Improvement of Power Quality Using a Hybrid UPQC with Distributed Generator   | 2016 |
| 114 | Integration of DG Systems Composed of Photovoltaic and a Micro-turbine In Remote Areas  | 2016 |
| 115 | Integration of Single-Stage SPV Generation to Grid using Admittance based LMS Technique                                       | 2016 |
| 116 | Investigation on Dynamic Voltage Restorers With Two DC Links and Series Converters for Three-Phase Four-Wire Systems          | 2016 |
| 117 | Load Model for Medium Voltage Cascaded H-Bridge Multi-Level Inverter Drive Systems  | 2016 |
| 118 | Modelling, simulation, and verification for detailed short-circuit analysis of a 1 × 25 kV railway traction system            | 2016 |
| 119 | Modular Multilevel Converter-Based Bipolar High-Voltage Pulse Generator With Sensorless Capacitor Voltage Balancing Technique | 2016 |

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| 120 | Modular Multilevel Converter Circulating Current Reduction Using Model Predictive Control  | 2016 |
| 121 | Modular symmetric and asymmetric reduced count switch multilevel current source inverter   | 2016 |
| 122 | Modulation and Control of Transformer less UPFC  | 2016 |
| 123 | Multilevel Cascaded-Type Dynamic Voltage Restorer with Fault Current Limiting Function   | 2016 |
| 124 | Novel Isolated Multi-level DC-DC Power Converter   | 2016 |
| 125 | Open-Circuit Fault-Tolerant Control for Outer Switches of Three-Level Rectifiers in Wind Turbine Systems   | 2016 |
| 126 | An Optimal Frequency Control Method Through a Dynamic Load Frequency Control (LFC) Model Incorporating Wind Farm   | 2016 |
| 127 | Optimal Multiple-Steps Single-Tuned Harmonic Filters Under Time-Varying Conditions   | 2016 |
| 128 | Harmonics Suppression for Critical Loads Using Electric Springs With Current-Source Inverters  | 2016 |
| 129 | Power and Voltage Balance Control of a Novel Three-phase Solid State Transformer Using Multilevel Cascaded H-Bridge Inverters for Microgrid Applications | 2016 |
| 130 | Power-Electronics-Based Energy Management System With Storage  | 2016 |
| 131 | Property of Rational Functions Related to Band-Pass Transformation With Application to Symmetric Filters Design  | 2016 |
| 132 | Reactive Power Compensation Through UPFC And Statcom At Linear & Non-Linear Load   | 2016 |
| 133 | Real-Time Implementation of a Packed U-Cell Seven-Level Inverter with Low Switching Frequency Voltage Regulator  | 2016 |

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| 134 | Simplified model and sub module capacitor voltage balancing of single-phase AC/AC modular multilevel converter for railway traction purpose | 2016 |
| 135 | Simulation and modeling of STATCOM and WINDFARM in transmission line using MATLAB and analysis of bus voltage                               | 2016 |
| 136 | Simulation Of Three Phase Multilevel Inverter With Reduced Number Of Switches   | 2016 |
| 137 | Single-Phase to Three-Phase Converters With Two Parallel Single-Phase Rectifiers and Reduced Switch Count                                   | 2016 |
| 138 | Synchronous Reference Frame Based Control of MLI-STATCOM in Power Distribution Network  | 2016 |
| 139 | Solar PV Array Fed Brushless DC Motor Driven Water Pump   | 2016 |
| 140 | Switching Control of Buck Converter Based on Energy Conservation Principle  | 2016 |
| 141 | Stability Enhancement in Multi machine Power System by FACTS Controller   | 2016 |
| 142 | THD Analysis of an Overlapping Carrier Based SPWM For a 5- Level Cascaded H-bridge Multilevel Inverter                                      | 2016 |
| 143 | Transformer-less Single-Phase Universal Active Filter with UPS Features and Reduced Number of Electronic Power Switches                     | 2016 |
| 144 | Ultrahigh Step-up DC–DC Converter for Distributed Generation by Three Degrees of Freedom (3DoF) Approach                                    | 2016 |
| 145 | Versatile Unified Power Quality Conditioner Applied to Three-Phase Four-Wire Distribution Systems Using a Dual Control Strategy             | 2016 |
| 146 | Inertial Response of an Offshore Wind Power Plant with HVDC-VSC   | 2016 |

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