

Moumita Das

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

121
papers

3,880
citations

28
h-index

61
g-index

145
ext. papers

5,125
ext. citations

5.4
avg, IF

6.29
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 121 | A New Three-Phase Inverter Topology for Reducing the dv/dt and peak-to-peak Value of Common Mode Voltage. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1 | 8.9 | 0 |
| 120 | Dual Active Bridge based Reduced Stage Multi-Port DC/AC Converter for PV-Battery Systems. <i>IEEE Transactions on Industry Applications</i> , 2021 , 1-1 | 4.3 | 2 |
| 119 | Novel Switched Capacitor Boost Inverter Configuration for Three-Phase Induction Motor Driven Home Appliances. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 1450-1458 | 4.3 | 6 |
| 118 | A Transformerless 1- \square 5-Level Half-Bridge PV Inverter Configuration Based on Switched-Capacitor Technique. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 1619-1628 | 4.3 | 5 |
| 117 | A Multicarrier-PWM Scheme Along With a Reconfigurable Buck Converter Imitating Multiple Times Higher Switching Frequency. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 68, 3638-3642 | 8.9 | |
| 116 | Improved Set-Point Tracking and Disturbance Rejection of DCDC Converters Using Voltage-Mode Digital Control. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021 , 9, 3276-3286 | 5.6 | 1 |
| 115 | An Active Damping Technique for PI and Predictive Controllers of an Interlinking Converter in an Islanded Hybrid Microgrid. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 5521-5529 | 7.2 | 6 |
| 114 | A Novel Per Unit (P.U.) Integer Format Applied to the Control of a Grid-Tied Solar PV Inverter. <i>IEEE Transactions on Industrial Informatics</i> , 2021 , 1-1 | 11.9 | 2 |
| 113 | A Novel Single-Phase Switched-Capacitor Based 5-level Inverter Topology Featuring Voltage Boosting Capability and Common Mode Voltage Reduction 2021 , | | 1 |
| 112 | A Modified 2-level Three-Phase Inverter Topology with Common Mode Voltage Performance of a 3-level Inverter 2021 , | | 1 |
| 111 | Novel Three-Phase H10 Inverter Topology with Zero Common Mode Voltage for Three-Phase Induction Motor Drive Applications. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1 | 8.9 | 4 |
| 110 | A Novel Control Strategy to Achieve SOC Balancing for Batteries in a DC Microgrid Without Droop Control. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 4196-4206 | 4.3 | 2 |
| 109 | High Efficiency Three Phase Interleaved Buck Converter for Fast Charging of EV 2021 , | | 3 |
| 108 | Hybrid Energy Storage System Based on a Novel Reduced Rating Multi-Input Converter. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 12133-12142 | 7.2 | 8 |
| 107 | An Advanced Voltage Support Scheme Considering the Impact of Zero-Sequence Voltage Under Microgrid Faults Using Model Predictive Control. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 8957-8968 | 8.9 | 7 |
| 106 | New self-balancing 7-level inverter with coupled inductors for 1- \square grid-connected renewable energy systems with voltage boosting capability. <i>IET Power Electronics</i> , 2020 , 13, 899-908 | 2.2 | 1 |
| 105 | Novel Multicarrier PWM Scheme for a Reconfigurable Single-Phase Inverter to Achieve Manifold Higher Effective Switching Frequency. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 2340-2349 | 5.6 | 0 |

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| 104 | An Improved Reduced Complexity Model Predictive Current Controller for Grid-Connected Four-Leg Multilevel Inverter. <i>IEEE Transactions on Industry Applications</i> , 2020 , 56, 498-506 | 4.3 | 9 |
| 103 | Model Predictive Control for Flexible Reduction of Active Power Oscillation in Grid-Tied Multilevel Inverters Under Unbalanced and Distorted Microgrid Conditions. <i>IEEE Transactions on Industry Applications</i> , 2020 , 56, 1107-1115 | 4.3 | 14 |
| 102 | Comprehensive power management scheme for the intelligent operation of photovoltaic-battery based hybrid microgrid system. <i>IET Renewable Power Generation</i> , 2020 , 14, 1688-1698 | 2.9 | 10 |
| 101 | Novel Boost-SEPIC Type Interleaved DCDC Converter for Mitigation of Voltage Imbalance in a Low-Voltage Bipolar DC Microgrid. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 6494-6504 | 8.9 | 33 |
| 100 | Optimal Placement of Distributed Energy Resources in a DC Microgrid with Constant Power Loads to Minimize Bus Voltage Deviations and Line Losses 2019 , | | 2 |
| 99 | A New Family of 1-Five-Level Transformerless Inverters for Solar PV Applications. <i>IEEE Transactions on Industry Applications</i> , 2019 , 1-1 | 4.3 | 11 |
| 98 | RES and battery fed energy efficient single-phase induction motor drive system with retrofit solution. <i>IET Electric Power Applications</i> , 2019 , 13, 332-339 | 1.8 | 3 |
| 97 | A Hybrid Nine-Level, 1-Grid Connected Multilevel Inverter With Low Switch Count and Innovative Voltage Regulation Techniques Across Auxiliary Capacitor. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 2159-2170 | 7.2 | 14 |
| 96 | Design and Development of a Novel High Voltage Gain, High-Efficiency Bidirectional DCDC Converter for Storage Interface. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 4490-4501 | 8.9 | 32 |
| 95 | A Low Cost Electrolytic Capacitor-less Induction Motor Drive Based on a Novel Open Loop Model Predictive Control Strategy 2019 , | | 1 |
| 94 | SoC based droop control for a DC microgrid with improved voltage regulation using Low Bandwidth Communication 2019 , | | 1 |
| 93 | Terminal voltage analysis for the transformerless PV inverter topologies in a single-phase system. <i>IET Renewable Power Generation</i> , 2019 , 13, 2723-2739 | 2.9 | 3 |
| 92 | Fuzzy Logic Control of the Ultracapacitor Interface for Enhanced Transient Response and Voltage Stability of a DC Microgrid. <i>IEEE Transactions on Industry Applications</i> , 2019 , 55, 712-720 | 4.3 | 31 |
| 91 | A Novel Three-Phase Transformerless H-8 Topology With Reduced Leakage Current for Grid-Tied Solar PV Applications. <i>IEEE Transactions on Industry Applications</i> , 2019 , 55, 1765-1774 | 4.3 | 28 |
| 90 | . <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 528-537 | 3.7 | 14 |
| 89 | A Novel Communication-Based Average Voltage Regulation Scheme for a Droop Controlled DC Microgrid. <i>IEEE Transactions on Smart Grid</i> , 2019 , 10, 1250-1258 | 10.7 | 31 |
| 88 | Hybrid Phase Locked Loop for Controlling Master-Slave Configured Centralized Inverters in Large Solar Photovoltaic Power Plants. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 3566-3574 | 4.3 | 8 |
| 87 | Single Phase Current Source Inverter With Multiloop Control for Transformerless GridPV Interface. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 2416-2424 | 4.3 | 23 |

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| 86 | Novel Control Scheme for an Interleaved Flyback Converter Based Solar PV Microinverter to Achieve High Efficiency. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 3473-3482 | 4.3 | 31 |
| 85 | Novel Nonlinear Droop Control Techniques to Overcome the Load Sharing and Voltage Regulation Issues in DC Microgrid. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 4477-4487 | 7.2 | 79 |
| 84 | A Low Computational Cost Model Predictive Controller for Grid Connected Three Phase Four Wire Multilevel Inverter 2018 , | | 5 |
| 83 | A Frequency-Dependent Virtual Impedance for Voltage-Regulating Converters Feeding Constant Power Loads in a DC Microgrid. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 5630-5639 | 4.3 | 35 |
| 82 | A novel switched-capacitor based single-phase five-level transformerless inverter 2018 , | | 5 |
| 81 | An Improved Three-Phase Five-Level Inverter Topology With Reduced Number of Switching Power Devices. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 3296-3305 | 8.9 | 31 |
| 80 | Trajectory Optimization for Loss Minimization in Induction Motor Fed Elevator Systems. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 5160-5170 | 7.2 | 10 |
| 79 | A Novel Single-Phase T-Type PV Inverter with Improved DC Utilization 2018 , | | 6 |
| 78 | A Multi Input Converter for Interfacing Battery and Supercapacitor to the Load 2018 , | | 5 |
| 77 | A Simple Adaptive Fractional Order Model of Supercapacitor for Pulse Power Applications 2018 , | | 2 |
| 76 | A Novel Three-Phase Induction Motor Drive for Domestic Fan Application with Improved Reliability 2018 , | | 3 |
| 75 | An Advanced Model Predictive Controller for Grid-Tied Four-Leg Multilevel Inverters 2018 , | | 2 |
| 74 | State of Charge Estimation of Supercapacitors with Fractional Order Modelling 2018 , | | 2 |
| 73 | A Novel Voltage-Zone based power management scheme for PV- Battery based Standalone System 2018 , | | 1 |
| 72 | Analysis and Control of a Novel Transformer-Less Microinverter for PV-Grid Interface. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 1110-1118 | 3.7 | 21 |
| 71 | Experimental Evaluation of Internal Model Control Scheme on a DCDC Boost Converter Exhibiting Nonminimum Phase Behavior. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 8880-8891 | 7.2 | 42 |
| 70 | A Novel 1- ϕ , 5-level transformerless inverter with voltage boosting capability 2017 , | | 3 |
| 69 | Simplified Implementation Scheme for Space Vector Pulse Width Modulation of n-Level Inverter With Online Computation of Optimal Switching Pulse Durations. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 63, 6695-6704 | 8.9 | 19 |

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| 68 | Current source inverter with reduced leakage current for transformer-less Grid -PV interface 2016 , | | 1 |
| 67 | Design and Analysis of a High-Efficiency DCDC Converter With Soft Switching Capability for Renewable Energy Applications Requiring High Voltage Gain. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 63, 2936-2944 | 8.9 | 101 |
| 66 | A self-switched virtual impedance based stabilization method for a droop controlled DC microgrid with Constant Power Loads and input load filters 2016 , | | 2 |
| 65 | A Sliding Mode Control based stabilization solution for multiple Constant Power Loads with identical input filters interfaced with the DC bus of a More Electric Aircraft 2016 , | | 1 |
| 64 | Single stage multi-port Flyback type solar PV module integrated micro-inverter with battery backup 2016 , | | 10 |
| 63 | Hybrid Phase Locked Loop for controlling Centralized inverters in large solar Photovoltaic power plants 2016 , | | 2 |
| 62 | An optimized dual inverter configuration for open end winding induction motor drive with Common Mode Voltage elimination 2016 , | | 4 |
| 61 | Mitigation of voltage unbalance in a low voltage bipolar DC microgrid using a boost-SEPIC type interleaved dc-dc compensator 2016 , | | 12 |
| 60 | Implementation of an internal model controller with anti-reset windup compensation for output voltage tracking of a non-minimum phase dc-dc boost converter using FPGA 2016 , | | 3 |
| 59 | A hybrid 9-level inverter with minimum number of switches for single phase grid connected solar PV system 2016 , | | 1 |
| 58 | Advanced maximum power point tracking scheme for centralized inverters for large solar photovoltaic power plants 2016 , | | 1 |
| 57 | A novel 3-phase, transformerless H-8 topology with low variation in CMV to reduce leakage current 2016 , | | 2 |
| 56 | Closed loop control of novel transformer-less inverter topology for single phase grid connected photovoltaic system 2016 , | | 8 |
| 55 | Novel High-Performance Stand-Alone Solar PV System With High-Gain High-Efficiency DCDC Converter Power Stages. <i>IEEE Transactions on Industry Applications</i> , 2015 , 51, 4718-4728 | 4.3 | 78 |
| 54 | A new control technique to enhance the stability of a DC microgrid and to reduce battery current ripple during the charging of plug-in electric vehicles 2015 , | | 4 |
| 53 | Novel soft switched interleaved DC-DC converters for integration of renewable sources and storage into low voltage DC micro grid 2015 , | | 3 |
| 52 | A Novel Reconfigurable Microgrid Architecture With Renewable Energy Sources and Storage. <i>IEEE Transactions on Industry Applications</i> , 2015 , 51, 1805-1816 | 4.3 | 92 |
| 51 | Novel Integration of a PV-Wind Energy System With Enhanced Efficiency. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 3638-3649 | 7.2 | 61 |

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|----|--|-----|----|
| 50 | Maximum Power Extraction From Series-Connected Fuel Cell Stacks by the Current Compensation Technique. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 582-589 | 7.2 | 9 |
| 49 | Control of single-stage grid-connected three-phase solar photovoltaic system using sliding mode control 2015 , | | 1 |
| 48 | A novel single stage zero leakage current transformer-less inverter for grid connected PV systems 2015 , | | 19 |
| 47 | Novel transformer-less inverter topology for single-phase grid connected photovoltaic system 2015 , | | 10 |
| 46 | A novel control strategy for stand-alone solar PV systems with enhanced battery life 2014 , | | 4 |
| 45 | Exact Maximum Power Point Tracking of Grid-Connected Partially Shaded PV Source Using Current Compensation Concept. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 4684-4692 | 7.2 | 65 |
| 44 | A Novel Approach for Maximum Power Tracking From Curved Thin-Film Solar Photovoltaic Arrays Under Changing Environmental Conditions. <i>IEEE Transactions on Industry Applications</i> , 2014 , 50, 4142-4151 | 4.3 | 23 |
| 43 | Jerk and loss minimization in electric elevator systems 2014 , | | 2 |
| 42 | Hardware in the loop simulation of direct synthesis based two degree of freedom PID control of DC-DC boost converter using Real Time Digital Simulation in FPGA 2014 , | | 4 |
| 41 | High-gain boost converter with coupled inductor and switched capacitor for low voltage renewable energy sources 2014 , | | 1 |
| 40 | Reconfigurable hierarchical control of a microgrid developed with PV, wind, micro-hydro, fuel cell and ultra-capacitor 2013 , | | 13 |
| 39 | Multi-input DC-AC converter for renewable energy applications 2013 , | | 2 |
| 38 | Recursive Estimation-Based Maximum Power Extraction Technique for a Fuel Cell Power Source Used in Vehicular Applications. <i>IEEE Transactions on Power Electronics</i> , 2013 , 28, 4636-4643 | 7.2 | 11 |
| 37 | Novel self balancing single phase asymmetric 9 level grid connected inverter for photovoltaic applications 2013 , | | 1 |
| 36 | Single phase 9 level grid connected inverter for photovoltaic applications 2013 , | | 4 |
| 35 | Novel multi-input solar PV topologies for 1- Φ and 3- Φ stand alone applications to mitigate the effects of partial shading 2013 , | | 2 |
| 34 | Three-level NPC inverter with novel voltage equalization for PV grid interface suitable for partially shaded conditions 2013 , | | 6 |
| 33 | A novel and universal model for accurate prediction of PV module characteristics for power optimization under various design layouts and dynamic environmental conditions 2012 , | | 4 |

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| 32 | On the Input Resistance of a Reconfigurable Switched Capacitor DCDC Converter-Based Maximum Power Point Tracker of a Photovoltaic Source. <i>IEEE Transactions on Power Electronics</i> , 2012 , 27, 4880-4893 ^{7,2} | 34 |
| 31 | CAN based control of DC-DC converters in distributed generation units operating in master slave configuration 2012 , | 1 |
| 30 | Dynamic power control and performance analysis of Phosphoric Acid Fuel Cell - Battery hybrid system 2012 , | 1 |
| 29 | An ultracapacitor driven short-distance electric vehicle 2012 , | 1 |
| 28 | Ion mobility sensor based on photo-ionization light source for trace gas sensing 2010 , | 2 |
| 27 | A Novel Scheme for Rapid Tracking of Maximum Power Point in Wind Energy Generation Systems. <i>IEEE Transactions on Energy Conversion</i> , 2010 , 25, 228-236 | 5.4 116 |
| 26 | Analysis and design of a ground isolated switched capacitor DC-DC converter 2010 , | 11 |
| 25 | Design and Development of a Low-Cost Digital Magnetic Field Meter With Wide Dynamic Range for EMC Precompliance Measurements and Other Applications. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2009 , 58, 2837-2846 | 5.2 8 |
| 24 | A new energy optimal control scheme for a separately excited DC motor based incremental motion drive. <i>International Journal of Automation and Computing</i> , 2009 , 6, 267-276 | 3.5 19 |
| 23 | Speech recognition based computer keyboard replacement for the Quadriplegics, Paraplegics, paralytics and amputees 2009 , | 5 |
| 22 | MPPT Scheme for a PV-Fed Single-Phase Single-Stage Grid-Connected Inverter Operating in CCM With Only One Current Sensor. <i>IEEE Transactions on Energy Conversion</i> , 2009 , 24, 256-263 | 5.4 107 |
| 21 | A Cost-Effective Ultrasonic Sensor-Based Driver-Assistance System for Congested Traffic Conditions. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2009 , 10, 486-498 | 6.1 41 |
| 20 | A Single-Stage Single-Phase Transformer-Less Doubly Grounded Grid-Connected PV Interface. <i>IEEE Transactions on Energy Conversion</i> , 2009 , 24, 93-101 | 5.4 125 |
| 19 | An Integrated Hybrid Power Supply for Distributed Generation Applications Fed by Nonconventional Energy Sources. <i>IEEE Transactions on Energy Conversion</i> , 2008 , 23, 622-631 | 5.4 127 |
| 18 | Optimum Control of Selective and Total Harmonic Distortion in Current and Voltage Under Nonsinusoidal Conditions. <i>IEEE Transactions on Power Delivery</i> , 2008 , 23, 937-944 | 4.3 16 |
| 17 | Control of a Stand-Alone Inverter-Based Distributed Generation Source for Voltage Regulation and Harmonic Compensation. <i>IEEE Transactions on Power Delivery</i> , 2008 , 23, 1113-1120 | 4.3 34 |
| 16 | Universal Single-Stage Grid-Connected Inverter. <i>IEEE Transactions on Energy Conversion</i> , 2008 , 23, 128-137 ⁴ | 97 |
| 15 | Maximum Power Point Tracking Scheme for PV Systems Operating Under Partially Shaded Conditions. <i>IEEE Transactions on Industrial Electronics</i> , 2008 , 55, 1689-1698 | 8.9 637 |

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| 14 | A Hybrid Control Algorithm for Voltage Regulation in DCDC Boost Converter. <i>IEEE Transactions on Industrial Electronics</i> , 2008 , 55, 2530-2538 | 8.9 | 126 |
| 13 | MATLAB-Based Modeling to Study the Effects of Partial Shading on PV Array Characteristics. <i>IEEE Transactions on Energy Conversion</i> , 2008 , 23, 302-310 | 5.4 | 73 ^o |
| 12 | Optimization of Operational Energy Cost in a Hybrid Distributed Generation System 2008 , | | 3 |
| 11 | Taguchi Based Performance and Reliability Improvement of an Ion Chamber Amplifier for Enhanced Nuclear Reactor Safety. <i>IEEE Transactions on Nuclear Science</i> , 2008 , 55, 2303-2314 | 1.7 | 2 |
| 10 | Induction Machines: A Novel, Model based Non-invasive Fault Detection and Diagnosis Technique 2008 , | | 6 |
| 9 | A DSP Based Optimal Algorithm for Shunt Active Filter Under Nonsinusoidal Supply and Unbalanced Load Conditions. <i>IEEE Transactions on Power Electronics</i> , 2007 , 22, 593-601 | 7.2 | 64 |
| 8 | A Single-Stage Grid Connected Inverter Topology for Solar PV Systems With Maximum Power Point Tracking. <i>IEEE Transactions on Power Electronics</i> , 2007 , 22, 1928-1940 | 7.2 | 331 |
| 7 | A DSP-Based Control Algorithm for Series Active Filter for Optimized Compensation Under Nonsinusoidal and Unbalanced Voltage Conditions. <i>IEEE Transactions on Power Delivery</i> , 2007 , 22, 302-310 ³ | 4.3 | 23 |
| 6 | A Circuit Theoretical Approach to Hybrid Mode Switching Control of a Pseudo CCM Boost Converter 2006 , | | 2 |
| 5 | PV Based Distributed Generation with Compensation Feature Under Unbalanced and Non-linear Load Conditions for a 3-?, 4 Wire System 2006 , | | 6 |
| 4 | Comparison of Mode Switched Controllers for a Pseudo Continuous Current Mode Boost Converter 2006 , | | 1 |
| 3 | A comparative study of gamma radiation effects on a logarithmic amplifier based multiplier circuit using common and Precision Devices. <i>Australian Journal of Electrical and Electronics Engineering</i> , 2006 , 3, 7-15 | 0.6 | |
| 2 | Hybrid control of a boost converter operating in discontinuous current mode | | 11 |
| 1 | A novel technique for optimising harmonics and reactive power with load balancing under nonsinusoidal supply and unbalanced load conditions | | 5 |