

# Ratil Ashique

## List of Publications by Year in descending order

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87  
papers

3,759  
citations

186265

28  
h-index

155660

55  
g-index

87  
all docs

87  
docs citations

87  
times ranked

3084  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | A review of maximum power point tracking techniques of PV system for uniform insolation and partial shading condition. Renewable and Sustainable Energy Reviews, 2013, 19, 475-488.                                  | 16.4 | 488       |
| 2  | A Maximum Power Point Tracking (MPPT) for PV system using Cuckoo Search with partial shading capability. Applied Energy, 2014, 119, 118-130.   | 10.1 | 471       |
| 3  | The application of soft computing methods for MPPT of PV system: A technological and status review. Applied Energy, 2013, 107, 135-148.  | 10.1 | 320       |
| 4  | A Modified P&O Maximum Power Point Tracking Method With Reduced Steady-State Oscillation and Improved Tracking Efficiency. IEEE Transactions on Sustainable Energy, 2016, 7, 1506-1515.                              | 8.8  | 304       |
| 5  | Electric vehicles charging using photovoltaic: Status and technological review. Renewable and Sustainable Energy Reviews, 2016, 54, 34-47.   | 16.4 | 189       |
| 6  | An Effective Hybrid Maximum Power Point Tracker of Photovoltaic Arrays for Complex Partial Shading Conditions. IEEE Transactions on Industrial Electronics, 2019, 66, 6990-7000.                                     | 7.9  | 118       |
| 7  | Integrated photovoltaic-grid dc fast charging system for electric vehicle: A review of the architecture and control. Renewable and Sustainable Energy Reviews, 2017, 69, 1243-1257.                                  | 16.4 | 117       |
| 8  | An Improved Method to Predict the Position of Maximum Power Point During Partial Shading for PV Arrays. IEEE Transactions on Industrial Informatics, 2015, 11, 1378-1387.  | 11.3 | 108       |
| 9  | An Accurate Method for MPPT to Detect the Partial Shading Occurrence in a PV System. IEEE Transactions on Industrial Informatics, 2017, 13, 2151-2161.   | 11.3 | 105       |
| 10 | A rule-based energy management scheme for uninterrupted electric vehicles charging at constant price using photovoltaic-grid system. Renewable Energy, 2018, 125, 384-400.   | 8.9  | 96        |
| 11 | A critical review of electric vehicle charging using solar photovoltaic. International Journal of Energy Research, 2016, 40, 439-461.  | 4.5  | 83        |
| 12 | An Accurate and Fast Computational Algorithm for the Two-diode Model of PV Module Based on a Hybrid Method. IEEE Transactions on Industrial Electronics, 2017, 64, 6212-6222.  | 7.9  | 70        |
| 13 | Optimized sizing of photovoltaic grid-connected electric vehicle charging system using particle swarm optimization. International Journal of Energy Research, 2019, 43, 500-522.                                     | 4.5  | 69        |
| 14 | Modified phyto-waste Terminalia catappa fruit shells: a reusable adsorbent for the removal of micropollutant diclofenac. RSC Advances, 2015, 5, 30950-30962.   | 3.6  | 61        |
| 15 | Design and Implementation of New Multilevel Inverter Topology for Ternary Sequence Using Unipolar Pulsewidth Modulation. IEEE Transactions on Industrial Electronics, 2020, 67, 3573-3582.                           | 7.9  | 55        |
| 16 | A modified differential evolution based maximum power point tracker for photovoltaic system under partial shading condition. Energy and Buildings, 2015, 103, 175-184.   | 6.7  | 54        |
| 17 | Design and implementation of 15-level cascaded multi-level voltage source inverter with harmonics elimination pulse-width modulation using differential evolution method. IET Power Electronics, 2015, 8, 1740-1748. | 2.1  | 53        |
| 18 | A High-Performance Global Maximum Power Point Tracker of PV System for Rapidly Changing Partial Shading Conditions. IEEE Transactions on Industrial Electronics, 2021, 68, 2236-2245.                                | 7.9  | 53        |

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|----|--|-----|-----------|
| 19 | A soft computing MPPT for PV system based on Cuckoo Search algorithm. , 2013, , .  |     | 48        |
| 20 | Recent developments of MPPT techniques for PV systems under partial shading conditions: a critical review and performance evaluation. IET Renewable Power Generation, 2020, 14, 3401-3417.               | 3.1 | 46        |
| 21 | A Family of True Zero Voltage Zero Current Switching (ZVZCS) Nonisolated Bidirectional DC-DC Converter With Wide Soft Switching Range. IEEE Transactions on Industrial Electronics, 2017, 64, 5416-5427. | 7.9 | 39        |
| 22 | Electric Vehicle Charging Using Photovoltaic based Microgrid for Remote Islands. Energy Procedia, 2016, 103, 213-218.  | 1.8 | 37        |
| 23 | A High-Gain, High-Efficiency Nonisolated Bidirectional DC-DC Converter With Sustained ZVS Operation. IEEE Transactions on Industrial Electronics, 2018, 65, 7829-7840.                                   | 7.9 | 37        |
| 24 | The Leakage Current Components as a Diagnostic Tool to Estimate Contamination Level on High Voltage Insulators. IEEE Access, 2020, , 1-1.  | 4.2 | 37        |
| 25 | Risk Assessment of Polluted Glass Insulator Using Leakage Current Index Under Different Operating Conditions. IEEE Access, 2020, 8, 175827-175839.   | 4.2 | 36        |
| 26 | Maximum Power Point Tracking for PV system under partial shading condition via particle swarm optimization. , 2011, , .  |     | 35        |
| 27 | Analysis and design of a high efficiency bidirectional DC-DC converter for battery and ultracapacitor applications. Simulation Modelling Practice and Theory, 2011, 19, 1651-1667.                       | 3.8 | 35        |
| 28 | A Simple and Effective Method to Estimate the Model Parameters of Dielectric Barrier Discharge Ozone Chamber. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1676-1683.                 | 4.7 | 33        |
| 29 | Image based surface damage detection of renewable energy installations using a unified deep learning approach. Energy Reports, 2021, 7, 4566-4576.   | 5.1 | 33        |
| 30 | A study on large scale cultivation of Microcystis aeruginosa under open raceway pond at semi-continuous mode for biodiesel production. Bioresource Technology, 2014, 172, 186-193.                       | 9.6 | 28        |
| 31 | A review on machine learning and deep learning for various antenna design applications. Heliyon, 2022, 8, e09317.  | 3.2 | 28        |
| 32 | A Comprehensive Overview of Electric Vehicle Charging using Renewable Energy. International Journal of Power Electronics and Drive Systems, 2016, 7, 114.  | 0.6 | 27        |
| 33 | An improved asymmetrical multi-level inverter topology with boosted output voltage and reduced components count. IET Power Electronics, 2021, 14, 2052-2066.   | 2.1 | 21        |
| 34 | Parameter extraction of photovoltaic cell using differential evolution method. , 2011, , .   |     | 20        |
| 35 | Application of particle swarm optimization for maximum power point tracking of PV system with direct control method. , 2011, , .   |     | 18        |
| 36 | A Simple Yet Fully Adaptive PSO Algorithm for Global Peak Tracking of Photovoltaic Array Under Partial Shading Conditions. IEEE Transactions on Industrial Electronics, 2022, 69, 5922-5930.             | 7.9 | 18        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Assessment of maximum power point trackers performance using direct and indirect control methods. International Transactions on Electrical Energy Systems, 2020, 30, e12565.                                      | 1.9 | 17        |
| 38 | A New Hybrid Multilevel Inverter Topology with Reduced Switch Count and dc Voltage Sources. Energies, 2019, 12, 977.  | 3.1 | 16        |
| 39 | Design and implementation of a high-frequency LC-based half-bridge resonant converter for dielectric barrier discharge ozone generator. IET Power Electronics, 2014, 7, 2403-2411.                                | 2.1 | 15        |
| 40 | Study on the effectiveness of lightning rod tips in capturing lightning leaders. Electrical Engineering, 2013, 95, 367-381.   | 2.0 | 14        |
| 41 | <sc>A</sc> skipping adaptive P&O MPPT for fast and efficient tracking under partial shading in <sc>PV</sc> arrays. International Transactions on Electrical Energy Systems, 2021, 31, e13017.                     | 1.9 | 14        |
| 42 | Critical evaluation of soft computing methods for maximum power point tracking algorithms of photovoltaic systems. International Journal of Power Electronics and Drive Systems, 2019, 10, 548.                   | 0.6 | 14        |
| 43 | Analysis and experimental validation of partial shading mitigation in photovoltaic system using integrated dc-dc converter with maximum power point tracker. IET Renewable Power Generation, 2019, 13, 2356-2366. | 3.1 | 12        |
| 44 | Exergy based evaluation of power plants for sustainability and economic performance identification. Case Studies in Thermal Engineering, 2021, 28, 101393.  | 5.7 | 12        |
| 45 | Design and implementation of a low cost, high yield dielectric barrier discharge ozone generator based on the single switch resonant converter. IET Power Electronics, 2013, 6, 1583-1591.                        | 2.1 | 11        |
| 46 | Space vector PWM technique for a novel three-to-seven phase matrix converter. , 2013, , .   |     | 10        |
| 47 | Dielectric Barrier Discharge Ozonizer Using the Transformerless Single-Switch Resonant Converter for Portable Applications. IEEE Transactions on Industry Applications, 2014, 50, 2197-2206.                      | 4.9 | 10        |
| 48 | Comprehensive Design and Propagation Study of a Compact Dual Band Antenna for Healthcare Applications. Journal of Sensor and Actuator Networks, 2015, 4, 50-66.   | 3.9 | 10        |
| 49 | An adaptive P&O MPPT using a sectionalized piece-wise linear P-V curve. , 2015, , .   |     | 10        |
| 50 | Charging of Electric Vehicle with Constant Price Using Photovoltaic Based Grid-connected System. , 2016, , .  |     | 10        |
| 51 | Intelligent Machine Learning With Evolutionary Algorithm Based Short Term Load Forecasting in Power Systems. IEEE Access, 2021, 9, 100113-100124.   | 4.2 | 10        |
| 52 | Solution of Economic Dispatch Problem Using Hybrid Multi-Verse Optimizer. Electric Power Systems Research, 2022, 208, 107912.   | 3.6 | 10        |
| 53 | A high power density soft switching bidirectional converter using unified resonant circuit. , 2015, , .   |     | 9         |
| 54 | The effect of soil ionization on transient grounding electrode resistance in non-homogeneous soil conditions. International Transactions on Electrical Energy Systems, 2016, 26, 1462-1475.                       | 1.9 | 9         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Efficiency for photovoltaic inverter: A technological review. , 2014, , .   |     | 8         |
| 56 | Common-mode voltage elimination in a three-to-seven phase dual matrix converter feeding a seven phase open-end induction motor drive. , 2014, , .   |     | 8         |
| 57 | SiC power devices and applications in quasi-z-source converters/inverters. , 2015, , .  |     | 8         |
| 58 | An accurate two diode model computation for CIS thin film PV module using the hybrid approach. , 2015, , .  |     | 8         |
| 59 | Asymmetrical multilevel inverter topology with reduced power semiconductor devices. , 2016, , .   |     | 8         |
| 60 | A Rule-based Power Management Controller using Stateflow for Grid-Connected PV-Battery Energy System supplying Household load. , 2018, , .  |     | 8         |
| 61 | Mitigation of mismatch power loss in aged photovoltaic arrays following a comparative investigation into module rearrangement techniques. Energy Reports, 2022, 8, 1896-1906.                 | 5.1 | 8         |
| 62 | Hardware Implementation of the High Frequency Link Inverter Using the dSPACE DS1104 Digital Signal Processing Board. , 2006, , .  |     | 7         |
| 63 | Hardware Approach to Mitigate the Effects of Module Mismatch in a Grid-connected Photovoltaic System: A Review. Energies, 2019, 12, 4321.   | 3.1 | 7         |
| 64 | Analysis of Online Lyapunov-Based Adaptive State of Charge Observer for Lithium-Ion Batteries Under Low Excitation Level. IEEE Access, 2020, 8, 178805-178815.                                | 4.2 | 7         |
| 65 | A Comparative Analysis of Soft Switching Techniques in Reducing the Energy Loss and Improving the Soft Switching Range in Power Converters. Electronics (Switzerland), 2022, 11, 1062.        | 3.1 | 7         |
| 66 | Using Differential Evolution to Solve the Harmonic Elimination Pulse Width Modulation for Five Level Cascaded Multilevel Voltage Source Inverter. , 2013, , .                                 |     | 6         |
| 67 | A high gain soft switching non-isolated bidirectional DC-DC converter. , 2016, , .  |     | 6         |
| 68 | Space vector PWM technique for a direct five-to-three-phase matrix converter. , 2013, , .   |     | 5         |
| 69 | Modifications to Accelerate the Iterative Algorithm for the Two-diode Model of PV Module. , 2018, , .   |     | 5         |
| 70 | An Analysis and Modeling of the Class-E Inverter for ZVS/ZVDS at Any Duty Ratio with High Input Ripple Current. Electronics (Switzerland), 2021, 10, 1312.                                    | 3.1 | 5         |
| 71 | An Improved Approach to Enhance Training Performance of ANN and the Prediction of PV Power for Any Time-Span without the Presence of Real-Time Weather Data. Sustainability, 2021, 13, 11893. | 3.2 | 5         |
| 72 | HEPWM implementation for fifteen level cascaded inverter using field programmable gate array. , 2014, , .   |     | 4         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | An adaptive sliding mode control technique applied in grid-connected PV system with reduced chattering effect. , 2017, , .                                |     | 4         |
| 74 | A fast MPPT technique based on I-V curve characteristics under partial shading. , 2017, , .   |     | 4         |
| 75 | Space vector control of dual matrix converters based five-phase open-end winding drive. , 2014, , .   |     | 3         |
| 76 | Soft computing-based harmonic elimination PWM techniques for multi-level voltage source inverter. , 2014, , .   |     | 3         |
| 77 | Two-diode model for parameters extraction of photovoltaic module under temperature variation. IEICE Electronics Express, 2015, 12, 20150492-20150492.     | 0.8 | 3         |
| 78 | INVESTIGATION AND MODELLING OF LOAD SHEDDING AND ITS MITIGATION USING HYBRID RENEWABLE ENERGY SYSTEM. , 2018, , .   |     | 3         |
| 79 | Dual matrix converters based seven-phase open-end winding drive. , 2014, , .  |     | 2         |
| 80 | Model predictive control of a direct three-to-seven phase matrix converter. , 2014, , .   |     | 2         |
| 81 | Real time implementation of space vector pulse width modulation for three level neutral point clamped (NPC) inverter using Arduino DUE board. , 2017, , . |     | 2         |
| 82 | An Improved Evolutionary Programming (IEP) Method Under the EN 50530 Dynamic MPPT Efficiency Test. , 2019, , .  |     | 2         |
| 83 | Methodology to Determine Photovoltaic Inverter Conversion Efficiency for the Equatorial Region. Applied Sciences (Switzerland), 2020, 10, 201.            | 2.5 | 2         |
| 84 | A Comparative Performance Analysis of Zero Voltage Switching Class E and Selected Enhanced Class E Inverters. Electronics (Switzerland), 2021, 10, 2226.  | 3.1 | 2         |
| 85 | Cascaded 3-Stage Nuclei Segmentation Using U-net, Faster-RCNN and SegNet for Higher Precision. , 2021, , .  |     | 2         |
| 86 | Q Slot Terahertz (THz) Novel Antenna Design for Wireless Communication. , 2021, , .   |     | 1         |
| 87 | Review of Market Clearing Method for Blockchain-Based P2P Energy Trading in Microgrid. , 2021, , .  |     | 1         |