

RESEARCH PUBLICATIONS
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A. RESEARCH PUBLICATIONS:

- (a) **International Journal Published (SCI/SCIE Indexed Journal)**: 55 Nos. (Q1=16, Q2=21, Q3=9, Q4=9)
1. A. K. Soni, **K. C. Jana**, & D. K. Gupta, "Intelligent Level-Shifted PWM Controlled PV-Fed Multilevel Inverter with Advanced Partial Shading Detection and GMPP Tracking Capability." Accepted for publication in the **IEEE Journal of Emerging and Selected Topics in Industrial Electronics** (2026) (Q1 Journal, SCIE, IF: 4.0), DOI: [10.1109/JESTIE.2026.3708688](https://doi.org/10.1109/JESTIE.2026.3708688).
 2. Suryakant Kumar, Khalid Raza Khan, Vedantham Lakshmi Srinivas, Ram Khelawan Saket, Gauri Shankar, and **Kartick Chandra Jana** "Electric Vehicle Fast Charging Integrated with Hybrid Renewable Sources for V2G and G2V Operation", **IEEE Transactions on Industry Applications**, 62(1) p.p. 165-172, (2025) (Q1 Journal, SCIE, IF: 4.2), DOI: [10.1109/TIA.2025.3585855](https://doi.org/10.1109/TIA.2025.3585855).
 3. Rai, A., Shrivastava, A., **Jana, K. C.**, Liu, J., Singh, K., Jayalakshmi, N. S., & Agrawal, A. (2025). Meta-machine learning framework for robust short-term solar power prediction across different climatic zones. *Engineering Applications of Artificial Intelligence*, 147(2025), 110295, (Q1 Journal, SCIE, IF: 8.0), <https://doi.org/10.1016/j.engappai.2025.110295>.
 4. S. Tripathi, A. Shrivastava, & **K. C. Jana**, "An efficient energy management system for a micro-grid system considering the volatility of hybrid renewable energy", *International Journal of Hydrogen Energy* (Elsevier), 101, 673-691 (Q1 Journal, SCIE, IF: 8.1) (2025), DOI: [10.1016/j.ijhydene.2024.12.260](https://doi.org/10.1016/j.ijhydene.2024.12.260).
 5. Ankit Kumar Soni, **Kartick Chandra Jana**, Deepak Kumar Gupta, Pradipta Kumar Pal, and Amit Kumar V. Jha "Design and Analysis of an Adaptive Global Maximum Power Point Tracking Algorithm for Enhanced Partial Shading Detection and GMPP Tracking" accepted in *Arabian Journal for Science and Engineering* (Springer), (2025) 50:17519–17536 (Q2 Journal, SCIE, IF: 2.6), <https://doi.org/10.1007/s13369-025-10018-y>.
 6. S. Tripathi, A. Shrivastava, & **K. C. Jana**, "EO based fuzzy optimal controller for solar MPPT and battery charging circuit for EV charging application", *International Journal of Dynamics and Control* (Springer) 13 (2), 66, (Q2 Journal, SCIE, IF: 2.2) (2025), DOI: [10.1007/s40435-024-01582-6](https://doi.org/10.1007/s40435-024-01582-6).
 7. Khalid Raza Khan, Suryakant Kumar, Vedantham Lakshmi Srinivas, Ram Khelawan Saket, **Kartick Chandra Jana**, and Gauri Shankar, "Voltage Stabilization Control with Hybrid Renewable Power Sources in DC Microgrid" **IEEE Transactions on Industry Applications**, 61(2) 2024, p.p. 2057-2069 (Q1 Journal, SCIE, IF: 4.2), DOI: [10.1109/TIA.2024.3520087](https://doi.org/10.1109/TIA.2024.3520087).
 8. Bikramaditya Chandan, Pradipta Kumar Pal, **Kartick Chandra Jana**, and Yam P. Siwakoti, "Performance Evaluation of a New Transformerless Grid-Connected Six-Level Inverter with Integrated Voltage Boosting", **IEEE Journal of Emerging and Selected Topics in Power Electronics (JESTPE)**, Vol. 12(5), 4361-4376, 2024 (Q1 Journal, SCIE, IF: 4.6), 2024, DOI: [10.1109/JESTPE.2024.3427766](https://doi.org/10.1109/JESTPE.2024.3427766).
 9. Chandan, B., Pal, P. K., & **Jana, K. C.**, "Performance Evaluation of a 17-Level Octuple Boost Inverter for a Grid-connected PV System" **IEEE Access**, Vol. 12, 87284-87298 (2024), (Q2 Journal, SCIE, IF: 5.462), DOI: [10.1109/ACCESS.2024.3409171](https://doi.org/10.1109/ACCESS.2024.3409171).
 10. Sandeep Tripathy, Ashish Shrivastava, and **Kartick C. Jana**, "Chimp optimization-based fuzzy controller for Hybrid electric vehicle speed control using electronic throttle plate," **Optimal Control, Applications and Methods**, 45 (1), Jan/Feb 2024, p.p. 163-184 (Q3 Journal, SCIE, IF: 1.95), <https://doi.org/10.1002/oca.3051>.
 11. Pradipta Kumar Pal, **Kartick Chandra Jana**, Yam P. Siwakoti, Jagabar Sathik Mohamed Ali, and Frede Blaabjerg, "A Switched-Capacitor Multilevel Inverter with Modified Pulse-Width Modulation and Active DC-Link Capacitor Voltage Balancing" accepted for publication in the **IEEE Journal of Emerging and Selected Topics in Power Electronics (JESTPE)**, 6th June 2023 (Q1 Journal, SCIE, IF: 4.6), DOI: [10.1109/JESTPE.2023.3285690](https://doi.org/10.1109/JESTPE.2023.3285690).

12. Bidyut Mahato, Saikat Majumdar, **Kartick Chandra Jana**, Ebrahim Babaei, Dushmanta Kumar Mohanta, "A New Switch-Diode Cell-Based Single-Phase Cascaded Multilevel Inverter, **Soft Computing** 27 (19), 13719-13738 (Springer) (**Q2 Journal**, SCIE, IF: 3.732), 2023, DOI:10.1007/s00500-023-09006-x.
13. Amit Rai, Ashish Shrivastava, and **Kartick C. Jana**, "Differential Attention Net: Multi-Directed Differential Attention Based Hybrid Deep Learning Model for Solar Power Forecasting" **Energy**, 263(2023), Part C, 2023, 125746 (**Q1 Journal**, SCIE, IF:8.857), <https://doi.org/10.1016/j.energy.2022.125746>.
14. Amit Rai, Ashish Shrivastava, and **Kartick C. Jana**, "A Cost-Emission Based Multi-Objective Dynamic Economic Dispatch Considering Solar-Wind Curtailment Cost", **IETE Journal of Research**, Pages 4806-4812 69 (7), 2023 (doi.org/10.1080/03772063.2021.1958071), (**Q4 Journal**, SCIE, IF:1.03).
15. Bidyut Mahato, Saikat Majumdar, **Kartick Chandra Jana**, Amit Agrawal, Ashish Shrivastava, "A Generalized Series-Connected Multilevel Inverter (MLI) Based on Reduced Power Electronic Devices for Symmetrical/Asymmetrical Sources", **Arabian Journal for Science and Engineering**, Vol. 48, p.p. 5907–5924 (2023) (2023), doi.org/10.1007/s13369-022-07066-z (**Q2 Journal**, SCIE, IF: 2.334).
16. Saikat Majumdar, Pradipta Kumar Pal, Samrat Paul, Bidyut Mahato, Kartick Chandra Jana & Frede Blaabjerg, "Performance Evaluation of a 15-level Inverter using Two DC Sources with Lower Standing Voltage", *International Journal of Electronics*, Vol. 111, Iss. 2, p.223-237 (2022) (**Q4 Journal**, SCIE, IF:1.336), <https://doi.org/10.1080/00207217.2022.2163300>.
17. Amit Rai, Ashish Shrivastava, and **Kartick C. Jana**, "An Empirical Analysis of Machine Learning Algorithms for Solar Power Forecasting in High Dimensional Uncertain Environment", **IETE Technical Review**, Vol. 40, No. 4, 558–573, 2022 (**Q2 Journal**, SCIE, IF:2.2), <https://doi.org/10.1080/02564602.2022.2136270>.
18. Pradipta Kumar Pal, **Kartick Chandra Jana**, Yam P. Siwakoti, Saikat Majumdar, and Frede Blaabjerg, "An Active-Neutral-Point-Clamped Switched-Capacitor Multilevel Inverter with Quasi-Resonant Capacitor Charging", **IEEE Transactions on Power Electronics**, 37(12), pp. 14888-15001, Dec 2022 (**Q1 Journal**, SCIE, IF: 6.153), DOI: 10.1109/TPEL.2022.3187736.
19. Srihari Gude, **Kartick Chandra Jana**, Antonino Laudani, Sudhakar Babu Thanikanti, "Parameter extraction of photovoltaic cell based on a multi-objective approach using nondominated sorting cuckoo search optimization", **Journal of Solar Energy**, 239(2022), p.p.- 359-374, 2022 (**Q1 Journal**, SCIE, IF: 5.742), DOI: 10.1016/j.solener.2022.05.007.
20. Amit Rai, Ashish Shrivastava, and **Kartick C. Jana**. "A robust auto encoder-gated recurrent unit (AE- GRU) based deep learning approach for short term solar power forecasting." **Optik**, 252 (2022): 168515(**Q2 Journal**, SCIE, IF: 2.443), <https://doi.org/10.1016/j.ijleo.2021.168515>.
21. Srihari Gude, **Kartick Chandra Jana**, "A multiagent system based cuckoo search optimization for parameter identification of photovoltaic cell using Lambert W-function." **Applied Soft Computing**, vol. 120 (2022): 108678 (**Q1 Journal**, SCIE, IF: 6.725), <https://doi.org/10.1016/j.asoc.2022.108678>.
22. Saikat Majumdar, **Kartick Chandra Jana**, Pradipta Kumar Pal, Ariya Sangwongwanich, and Frede Blaabjerg, "Design and Implementation of a Single source 17-level Inverter for a Single-phase Transformer-less Grid-Connected Photovoltaic Systems", **IEEE Journal of Emerging and Selected Topics in Power Electronics**, 10(4), p.p-4469-4485, 2021 (**Q1 Journal**, SCIE, IF:4.47), DOI: 10.1109/JESTPE.2021.3133369.
23. Amit Rai, Ashish Shrivastava, **Kartick C. Jana**, "A CNN-BiLSTM based deep learning model for mid- term solar radiation prediction", **International Transactions on Electrical Energy Systems**, 31(9), e12664 (DOI: 10.1002/2050-7038.12664) (**Q2 Journal**, SCIE, IF:2.86), 2021.
24. Samrat Paul, **Kartick Chandra Jana**, Saikat Majumdar, Pradipta Kumar Pal, and Bidyut Mahato, "Performance Analysis of a Multi-module Staircase (MM-STC) Type Multilevel Inverter with Reduced Component Count and Improved Efficiency", **IEEE Journal of**

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25. Amit Rai, Ashish Shrivastava, **Kartick C. Jana** & N. S. Jayalakshmi, "Techno-economic-environmental and sociological study of a microgrid for the electrification of difficult un-electrified isolated villages", **Journal of Sustainable Energy, Grids and Networks** (Elsevier), 28(2021), 100548 (Q1 Journal, SCIE, IF:3.899), [10.1016/j.segan.2021.100548](https://doi.org/10.1016/j.segan.2021.100548).
26. B Mahato, S Majumdar, **K C Jana**, P Thakura, D Kumar Mohanta, "Experimental Verification of a New Scheme of MLI Based on Modified T-Type Inverter and Switched-Diode Cell with Lower Number of Circuit Devices", **Electric Power Components and Systems**, 48(16-17), p.p-1814-1834, 2021 (Q4, SCIE, IF:1.071), <https://doi.org/10.1080/15325008.2021.1906793>.
27. Saikat Majumdar, Bidyut Mahato and **K. C. Jana**, "Analysis and implementation of a generalized switched-capacitor multi-level inverter having the lower total standing voltage", **IET Power Electronics**, 13(17), p.p. 4031-4042 (doi:10.1049/iet-pel.2020.0458), (Q2 Journal, SCIE, IF: 2.67), 2021.
28. B. Mahato, S. Majumdar, S. Paul, P K Pal, K. C. Jana, "A New and Modular Back-to-Back Connected T- Type Inverter for Minimum Number of Power Devices, TSV, and Cost Factor", **IETE Technical Review**, 39(2), p.p. 357-374 (2022), (Q2 Journal, SCIE, IF:1.618), <https://doi.org/10.1080/02564602.2020.1860838>.
29. Ankit Kumar Soni, **Kartick Chandra Jana**, and Deepak Kumar Gupta, "Variable Step-size Adaptive Maximum Power Point Tracking Algorithm for Solar Cell under Partial Shading Conditions", **IETE Journal of Research**, 69(3), p.p. 1562-1577 (Q4 Journal, SCIE, IF:1.03), 2021, <https://doi.org/10.1080/03772063.2020.1871425>.
30. Saikat Majumdar, Bidyut Mahato, and **K. C. Jana**, "Analysis of most optimal Multi-unit Multi-level inverter having minimum components and lower standing voltage", **IETE Technical Review**, 38(5), 2021, p.p- 520-536 (Q3 Journal, SCIE, IF: 1.618), <https://doi.org/10.1080/02564602.2020.1799874>.
31. A. Sinha, **K. C. Jana**, "A Comprehensive Review on Control Strategies of Parallel-Interfaced Voltage Source Inverters for Distributed Power Generation System", **IET Renewable Power Generation**, 14(13), pp. 2297-2314, June 2020 (Q1 Journal, SCIE, IF:3.605), <https://doi.org/10.1049/iet-rpg.2019.1067>.
32. S. Gude, **K. C. Jana**, "Parameter extraction of photo voltaic cell using an improved cuckoo search optimization", **Solar Energy**, 204(2020), p.p.280-293 (Q1 Journal, SCI, IF: 4.674), [10.1016/j.solener.2020.04.036](https://doi.org/10.1016/j.solener.2020.04.036).
33. Sandeep Tripathy, Ashish Shrivastava, and **Kartick C. Jana**, "Self-Tuning fuzzy controller for sun- tracker system using Gray Wolf Optimization (GWO) technique" **ISA Transactions**, 101(2020), p.p. 50- 59, (Q1 Journal, SCI, IF:4.34), [10.1016/j.isatra.2020.01.012](https://doi.org/10.1016/j.isatra.2020.01.012).
34. Bidyut Mahato, Saikat Majumdar, Sambit Vatsyayan and **Kartick Chandra Jana**, "A New and Generalized Structure of MLI Topology with Half-bridge Cell with Minimum Number of Power Electronic Devices" **Journal of IETE Technical Review**, 38(2), 267-278 (2021), (Q3 Journal SCIE, IF:1.618), [doi:10.1080/02564602.2020.1726215](https://doi.org/10.1080/02564602.2020.1726215).
35. B Mahato, S Majumdar, **K. C. Jana**, "A new and generalized structure of single-phase and three-phase cascaded multilevel inverter with reduced power components", **International Transactions on Electrical Energy Systems**, 30(2) (Wiley), July 2020 (Q3 Journal SCIE, IF:1.619), <https://doi.org/10.1002/2050-7038.12187>.
36. Saikat Majumdar, Bidyut Mahato, **K. C. Jana**, "Implementation of an Optimum Reduced Components Multi-cell Multilevel (MC-MLI) Inverter for Lower Standing Voltage", **IEEE Transaction on Industrial Electronics**, 67(4), April 2020, p.p-2765-2775 (Q1 Journal, SCI, IF: 7.503), DOI: [10.1109/TIE.2019.2913812](https://doi.org/10.1109/TIE.2019.2913812).
37. Bidyut Mahato, Saikat Majumdar and **Kartick Chandra Jana**, "A New and Generalized MLI with Overall Lesser Power Electronic Devices", **Journal of Circuits, Systems and**

Computers (Taylor & Fransis), 29(4), 2020. (Q4 Journal SCIE, IF: 0.939), DOI: [10.1142/S0218126620500589](https://doi.org/10.1142/S0218126620500589).

38. Bidyut Mahato, Saikat Majumdar and **Kartick Chandra Jana**, "Reduction of Power Electronic Devices in a Single-phase Generalized Multilevel Inverter", **Journal of Circuits, Systems and Computers** (Taylor & Fransis), 29(6), 2020 (Q4 Journal, SCIE, IF: 0.939), [doi:10.1142/S0218126620500930](https://doi.org/10.1142/S0218126620500930).
39. Akanksha Sinha, **Kartick Chandra Jana**, Madan Kumar Das, "Control of an Asymmetrical Cascaded Multi-level Inverter for a Grid-Connected Photovoltaic system", **IET Renewable Power Generation**, 2019, 13(9), pp. 1456-1465, (Q1 Journal, SCIE, IF:3.605), <https://doi.org/10.1049/iet-rpg.2018.5230>.
40. Akanksha Sinha, **Kartick Chandra Jana**, Madan Kumar Das, "Control Strategy of PV-Fed, Grid- Interfaced, Seven-level T-Type Multi level Inverter for Distributed Power Generation", **IET Power Electronics** (Q2 Journal, SCIE, IF:2.839), 12(12), p.p-3208-3219, Oct 2019, <https://doi.org/10.1049/iet-pel.2019.0379>.
41. Madan Kr. Das, Akanksha Sinha, **Kartick Chandra Jana**, "A Novel Asymmetrical Reduced Switch Nine-Level Inverter" **Journal of Circuits, Systems and Computers**, 29(8), August, 2019 (DOI:10.1142/S0218126620501170), (Q4 Journal, SCIE, IF:0.939).
42. Bidyut Mahato, Saikat Majumdar and **Kartick Chandra Jana**, "Reduction in controlled power switches for a Single-phase Novel Multilevel Inverter" **International Journal of Electronics**, 106(8), p.p-1200- 1215, Mar 2019 (SCIE, IF:1.07), <https://doi.org/10.1080/00207217.2019.1582713>.
43. Saikat Majumder, Bidyut Mahato, **K.C.Jana**, "Optimum Structure-Based Multi-level Inverter with Doubling Circuit Configuration", **Journal of Circuits, Systems and Computers**, 28(11), 1950194 (2019), (DOI:10.1142/S0218126619501949), (Q4 Journal, SCIE, IF: 0.939).
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45. Amit Kr. Agrawal, Ashish Shrivastava, **K. C. Jana**, "A Universal Input, Single Stage AC-DC LED Driver for an Auditorium Light", **Journal of Circuits, Systems, and Computers**, 28(2), Feb, 2019 (Q4 Journal, SCIE, IF:0.939), <https://doi.org/10.1142/S0218126619500245>.
46. Bidyut Mahato, Parasuram Thakura, **Kartick Chandra Jana**, "Constant V/f Control & Frequency Control of Isolated winding Induction Motor using 9-Level Three-phase Inverter", **Iranian Journal of Science and Technology**, Transactions of Electrical Engineering (Springer), 43(1), pp.123-135, 2019 (Q4 Journal, SCIE, IF:0.6), doi: [10.1007/s40998-018-0064-6](https://doi.org/10.1007/s40998-018-0064-6).
47. Amit Kr. Agrawal, **K. C. Jana**, Ashish Shrivastava, "Uniform Model and Analysis of PWM DC-DC Converter for Discontinuous Conduction Mode", **IETE Journal of Research**, 64(4), pp.569-581, 2018 (Q4 Journal, SCIE, IF:0.793), <https://doi.org/10.1080/03772063.2017.1361871>.
48. Akanksha Sinha, **Kartick Chandra Jana**, Madan Kumar Das, "An Inclusive Review on different Multi- Level Inverter topologies, their Modulation and Control Strategies for a Grid Connected Photo-voltaic System", **Journal of Solar Energy**, ISSN: 0038-092X, 170(2018), pp.633-657 (Q1 Journal, SCIE, IF:4.674), [10.1016/j.solener.2018.06.001](https://doi.org/10.1016/j.solener.2018.06.001).
49. Ravi Raushan, Bidyut Mahato, **Kartick Chandra Jana**, "Optimum Structure of a Generalized Three- phase Reduced Switch Multilevel Inverter", **Electric Power Systems Research**, 157(2018), p.p-10–19 (Q1 Journal, SCIE, IF:3.022), [10.1016/j.epsr.2017.11.017](https://doi.org/10.1016/j.epsr.2017.11.017).
50. Madan Kr. Das, **Kartick Chandra Jana**, Akanksha Sinha, "Performance Evaluation of an Asymmetrical Reduced Switched Multi-level Inverter for a Grid Connected PV System", **IET Renewable Power Generation**, 12(2), pp. 252-263, 2018 (Q1 Journal, SCIE, IF: 3.605), <https://doi.org/10.1049/iet-rpg.2016.0895>.
51. Bidyut Mahato, Ravi Raushan, **Kartick Chandra Jana**, "Modulation and Control of Multilevel Inverter for an Open-end Winding Induction Motor with Constant Voltage Levels

and Harmonics" **IET Power Electronics**, 10(1), pp.71–79, 2017 (**Q2 Journal**, SCIE: 2.839), <https://doi.org/10.1049/iet-pel.2016.0105>.

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(b) Other Journals (Scopus/ESCI)

1. Sandeep Tripathi, Ashish Shrivastava, and **KC Jana**, "PO based adaptive sliding mode control for PV system under varying load condition, accepted for publication in the journal Materials Today: Proceedings (Elsevier), 2023.
2. A Rai, A Shrivastava, **KC Jana**, "A Solution for Power Crisis and Environment Pollution from Electricity Generation-A Study of Sub-tropical Regions", *Smart Science* 9 (1), 40-50, 2021.
3. B MAHATO, S Majumdar, **K C Jana**, "Carrier-based PWM techniques for multi-level inverters: A comprehensive performance study", *Gazi University Journal of Science Part A: Engineering and Innovation* 5 (3), 101-111, 2018.
4. Mukherjee, B. Mahato, A. Sinha, **K. C. Jana**, "comparative performance analysis of P.V. based grid tied single phase asymmetrical multilevel inverter using different PWM techniques", *Journal of Electrical Engineering*, 2017, (Scopus Indexed Journal).
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6. Bidyut Mahato, Rashmi Kumari, Ravi Raushan, **Kartick Chandra Jana**, Parashuram Thakura, Shio Kumar Singh, "Comparative Analysis of Different PWM Techniques in Multilevel Inverters", *Int. Journal Of Engg & Tech.*, 2016, Jan.2016, vol. 4, Iss 2, p.p- 12-17.
7. Saikat Majumdar, Ravi Raushan, Bidyut Mahato, **Kartick Chandra Jana**, Parashuram Thakura, Shio Kumar Singh, "Comparative Study of Space Vector Pulse Width Modulation based T-Type Three-level Inverter", *Int. Journal Of Engg & Tech* 2016 , Jan.2016. vol. 4, Iss 2, p.p- 7-11. Update as on 04-12-2021 4
8. Akanksha Sinha, **K. C. Jana**, Ajit Kumar, "Implementation of Optical Fiber Technology in Power Transmission-A Step Above Wireless Technology", *International Journal of Applied Engineering Research (IJAER)* Vol 10, no-79, pp. 19-23, 2015 (Scopus Indexed Journal)
9. **Kartick Chandra Jana**, Sujit Kumar Biswas, "A Simple and Generalized SVPWM Control of Cascaded H- Bridge Multilevel Inverters", *Journal of Electrical Engineering*, Volume: 8, 2008, edition 02, pp-30-36.

(c) Book Chapter Published:

1. Bidyut Mahato, Saikat Majumdar, Sambit Vatsyayan, **KC Jana**, Implementation of a Multi-level Inverter (MLI) with a New Structure with Different Values of D.C. Sources", *Nanoelectronics, Circuits and Communication Systems* p.p-501-513, Springer, Singapore,

2021, ISBN: 978-981-15-7486-3.

2. Samrat Paul, Bidyut Mahato, Saikat Majumdar, KC Jana, "Diode Switch-Based 17-Level Inverter with Lesser Power Electronic Elements", Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems, p.p-1-12, Springer, Singapore, 2021, ISBN: 978-981-15-5546-6
3. Tripathi, S., Shrivastava, A., & **Jana, K. C.** (2020), "GWO Based PID Controller Optimization for Robotic Manipulator", In Intelligent Computing Techniques for Smart Energy Systems (pp. 943-951), Springer, Singapore, 2020, ISBN: 978-981-15-0214-9.
4. Agrawal, A., Shrivastava, A., Rai, A., & **Jana, K. C.** (2020), "A 26 W Power Supply Based on Luo Converter with Improved Power Factor and Total Harmonic Distortion", In Intelligent Computing Techniques for Smart Energy Systems (pp. 953-962), Springer, Singapore, 2020, ISBN: 978-981-15-0214-9.
5. Rai, A., Shrivastava, A., & **Jana, K. C.** (2020), "Performance Evaluation of Solar Power Plant", In Intelligent Computing Techniques for Smart Energy Systems (pp. 937-942). Springer, Singapore, 2020, ISBN: 978-981-15-0214-9..
6. Bidyut Mahato, Sudhanshu Mittal, Saikat Majumdar, **Kartick Chandra Jana**, Paresh Kumar Nayak, "Multilevel Inverter with Optimal Reduction of Power Semi-conductor Switches" Accepted for publication in Book e-Chapter "Renewable Energy and its Innovative Technologies", Springer, Singapore, 2019, ISBN: 978-981-13-3185-5.
7. Saikat Majumdar, Bidyut Mahato, **Kartick C. Jana**, "Doubling circuit based hybrid multilevel inverter for reduced components", International Conference on Energy", an Innovations in soft computing and information technology, Springer, Singapore, 2019, 125-133, ISBN: 978-981-13-3185-5.
8. Kumar, C., Maity, T., & Jana, K. C. (2018), A Novel Single-Phase Multilevel Inverter Topology with Reduced Component Count. In Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017) (pp. 489-497). Springer, Singapore, ISBN: 978-981- 10-8234-4.

(a) Journal of Patent, Govt. of India (Granted: 04 Nos./Published: 05 Nos.)

Granted Patent:

1. **Kartick Chandra Jana**, Gauri Shankar, Vedantham Lakshmi Srinivas, Khalid Raza Khan, Suryakant Kumar, and Ram Khelawan Saket "Voltage Stabilization Control with Hybrid Renewable Power Sources in DC Microgrid" Journal of Patent, Patent Office, Government of India, Patent Application No. **202431073196** (Patent Applied on 27/09/2024, Published on 04/10/2024 in the Journal of Patent No: 40/2024 and **Granted on 24/09/2025, Patent No: 571117**).
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2. Published Patent (Application No. **202431093206** dated **28.11.2024**, published on **06/12/2024**) for “**A multi-level switched-capacitor- based single source inverter generating boosted output voltage**”, in the name of inventors Bikramaditya Chandan, Pradipta Kumar Pal, and **Kartick Chandra Jana** to the Indian Patent Office on 28th November, 2024.
3. Published Patent (**Application No: 202231032196** dated **06 / 06 / 2022**, published on **2024-02-16**) for “A hybrid renewable energy driven bidirectional wireless charging system for dynamic and static electric vehicle” in the name of inventors, Pradip Kumar Sadhu, Anik Goswami, Sonal Mishra, Nitai Pal, Arijit Baral, Anirban Ghoshal and **Kartick Chandra Jana**, at Patent Office, Kolkata, Government of India.
4. Bidyut Mahato, Samrat Paul, **Kartick Chandra Jana**, Pradipta Kumar Pal, Saikat Majumdar, Santanu Ghorai “Modified T-type and Switched-diode Cell based Multi-level Inverter” Journal of Patent, Patent Office, Government of India, Journal No. 10/2023, **publication date** 10/03/2023, Application No.202331011159 A, p.p. 25202.
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