

Research Publications

A. International Journals:

- [1] Rajendra Kumar Sharma, **Bhukya Krishna Naick**, “A novel quasi oppositional artificial rabbit’s optimization algorithm for optimal distributed generation allocation in radial distribution systems under different load models”, *Computers and Electrical Engineering*, 122 (2025), 109965, <https://doi.org/10.1016/j.compeleceng.2024.109965> (**Q2, IF: 4, SCIE**)
- [2] Bhukya Krishna Priya, **Bhukya Krishna Naick**, N Ramasubramanian, “Enhancing the Lifetime of STT-RAM by IFTRP”, *Engineering Research Express*, Vol. 6(2024), 045201, DOI: 10.1088/2631-8695/ad7d64
- [3] Rani Kumari, **Bhukya Krishna Naick**, “Adaptive protection coordination in microgrid based on nature inspired meta-heuristic optimization algorithm”, *Engineering Research Express*, vol. 6 (2024), 025345, DOI: <https://doi.org/10.1088/2631-8695/ad5076>.
- [4] Janardhan Rao Moparthi, **Krishna Naick Bhukya**, Durga Prasad Chinta, Monalisa Biswal, “Enhancing transmission line protection with adaptive ANN-based relay for high resistance fault diagnosis”, *Electrical Engineering*, 2024, pp. 1-24, DOI: <https://doi.org/10.1007/s00202-024-02369-w> (**Q3, IF: 1.6, SCIE**).
- [5] Rani Kumari, **Bhukya K. Naick**, “Enhancing protection in AC microgrids: An adaptive approach with ANN and ANFIS models”, *Computers and Electrical Engineering*, 115 (2024), 109103, DOI: <https://doi.org/10.1016/j.compeleceng.2024.109103> (**Q2, IF: 4, SCIE**).
- [6] Prasad Bhukya, **Krishna Naick Bhukya**, “Enhancing ventilation fan performance in underground coal mines: a hybrid approach”, *Electrical Engineering*, 2024, pp. 1-24, DOI: <https://doi.org/10.1007/s00202-024-02268-0> (**Q3, IF: 1.6, SCIE**).
- [7] Rajendra Kumar Sharma, **Bhukya Krishna Naick**, “A Novel Artificial Rabbits Optimization Algorithm for Optimal Location and Sizing of Multiple Distributed Generation in Radial Distribution Systems”, *Arabian Journal for Science and Engineering*, 202, DOI: <https://doi.org/10.1007/s13369-023-08559-1> (**Q2, IF: 2.9, SCIE**).
- [8] Rani Kumari, **Bhukya K. Naick** and Debomita Ghosh, “Reliability assessment of distribution system using Petri net for enhancement of situational awareness”, *Electric Power Systems Research*, 224 (2023), 109739. DOI: <https://doi.org/10.1016/j.epsr.2023.109739> (**Q2, IF: 3.9, SCIE**).
- [9] **B. Krishna Naick**, K. Chatterjee and T.K. Chatterjee, “Fuzzy Logic Controller Based Maximum Power Point Tracking Technique for Different Configurations of Partially Shaded Photovoltaic System”, *Archives of Electrical Engineering*, Vol. 67, No. 2, 2018, pp. 307-320, DOI: 10.24425/119642
- [10] **Krishna Naick Bhukya**, Kalyan Chatterjee and Tarun Kumar Chatterjee, “Assessment of MPPT techniques during the faulty conditions of PV system”, *Advances in Electrical and Electronic Engineering*, Vol. 16, No.1, 2018, pp. 15-24, DOI: 10.15598/aece.v16i1.2581
- [11] **Bhukya Krishna Naick**, Tarun Kumar Chatterjee and Kalyan Chatterjee, “Performance Analysis of Maximum Power Point Tracking Algorithms Under Varying Irradiation”, *Int. Journal of Renewable Energy Development*, Vol. 6, No.1, 2017, pp. 65-74, DOI: <https://doi.org/10.14710/ijred.6.1.65-74>

- [12] **B. Krishna Naick**, T. K. Chatterjee and K. Chatterjee, "Fuzzy Logic Controller based PV System Connected in Standalone and Grid Connected Mode of Operation with Variation of Load", International Journal of Renewable Energy Research, Vol. 7, No. 1, 2017, pp. 311-322. <https://doi.org/10.20508/ijrer.v7i1.5538.g6991>
- [13] Chaudhary Prakash Roy, **Bhukya Krishna Naick** and Gauri Shankar, "Comparative Study of Photovoltaic MPPT Algorithms", International Journal on Recent Trends in Engineering and Technology, Vol. 11, No. 1, July 2014, pp. 191-201.

B. International Conferences:

- [1] Rani Kumari, **Bhukya K. Naick**, "Adaptive Protection Coordination Scheme for Distribution Networks with Distributed Generation", 2024 1st International Conference on Innovative Sustainable Technologies for Energy, Mechatronics, and Smart Systems (ISTEMS, 2024, 26-27 April 2024, Dehradun, India. DOI: 10.1109/ISTEMS60181.2024.10560193
- [2] Rani Kumari, **Bhukya K. Naick**, "Enhancing Situational Awareness in Power Distribution System Using Fault Current Indicator", 2024 1st International Conference on Innovative Sustainable Technologies for Energy, Mechatronics, and Smart Systems (ISTEMS, 2024, 26-27 April 2024, Dehradun, India. DOI: 10.1109/ISTEMS60181.2024.10560147
- [3] Rani Kumari, **Bhukya K. Naick**, "Protection Coordination Impact on Reliability of Distribution Systems with Distributed Energy Resources", 2024 Third International Conference on Power, Control and Computing Technologies (ICPC2T), 2024, 18-20 January 2024, Raipur, India. DOI: 10.1109/ICPC2T60072.2024.10475112
- [4] J R Moparthy, S Kumar, **KN Bhukya**, "Microgrid Protection using Empirical Mode Decomposition and MRMR Feature Ranking Approach", 2023 5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE), 2023, 15-17 June 2023, Shillong, India. DOI: 10.1109/ICEPE57949.2023.10201650
- [5] Rani Kumari, **Bhukya K. Naick**, "Reliability Assessment of Distribution System Considering Protection Coordination", 2022 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET), 2022, 24-25 June 2022, Patna, India. DOI: 10.1109/ICEFEET51821.2022.9847765
- [6] Neelam Kumari, Rani Kumari, **Bhukya K. Naick**, "Optimal Emplacement and Allocation of Distributed Generators by Using Ant Lion Optimization", 2022 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET), 2022, 24-25 June 2022, Patna, India. DOI: 10.1109/ICEFEET51821.2022.9848207
- [7] P Srinivasa Rao Nayak, G Peddanna, K Kamalpathi, **Bhukya Krishna Naick**, "Analysis of Mutual Inductance Between Multi-Single Coupled Coils at Square Structure Using FEM", 2019 1st International Conference on Electrical, Control and Instrumentation Engineering (ICECIE), 25 Nov. 2019, Kuala Lumpur, Malaysia.
- [8] Ranjeet Kumar Singh, Avinash Kumar and **B Krishna Naick**, "Optimised Solar Power Fed Induction Motor Drive for Water Pumping Application along with Load", The 6th International Electrical Engineering Congress (iEECON 2018), 07-09 March 2018, Krabi, Thailand.

- [9] Avinash Kumar, Ranjeet Kumar Singh and **B Krishna Naick**, “A Highly Efficient PV and Fuel Cell Powered Full Bridge Bidirectional LLC Resonant Converter”, The 6th International Electrical Engineering Congress (iEECON 2018), 07-09 March 2018, Krabi, Thailand.
- [10] Raja Kumar Kedia and **B Krishna Naick**, “Review of Vehicle Route Optimisation”, 2nd IEEE International Conference on Intelligent Transportation Engineering, 01-03 Sept. 2017, Singapore.
- [11] Abdur Rahman Daanish and **B Krishna Naick**, “Implementation of Charging Station Based Electric Vehicle Routing Problem Using Nearest Neighbour Search Algorithm”, 2nd IEEE International Conference on Intelligent Transportation Engineering, 01-03 Sept. 2017, Singapore.
- [12] A. S. R. Lohith, **B. K. Naick**, T. K. Chatterjee and K.Chatterjee, “PEMFC Connected in Standalone Mode with Five Level Inverter”, 2016 International Conference on Computing, Analytics and Security Trends (CAST), 19-21 December, 2016, Pune, India.
- [13] **B. K. Naick**, Manisha Das, T. K. Chatterjee and K. Chatterjee, “Study and Implementation of Synchronization Algorithm in Three Phase Grid Connected PV System”, 3rd International Conference on Recent Advances in information Technology (RAIT-2016), 03-05 March, 2016, Dhanbad, India.
- [14] J. Harsha Vardhana and **B Krishna Naick**, “Optimization of PV MPPT Performance and DC Link Voltage Ripples Compensation using a Duty Cycle Modifier”, IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE-2014), 09-11 May 2014, Jaipur, India.
- [15] C.P. Roy, **B.K. Naick** and G. Shankar, “Modified Three-Point Weight Comparison method for Adaptive MPPT of Photovoltaic Systems”, Fifth International Conference on Advances in Recent Technologies in Communication and Computing (ARTCom 2013), 20-21 Sept. 2013, Bangalore, India.