

Renewable power electronics and EV

Researchers at Brainware University are working on the integration of multiple renewable energysources, such as solar, wind, and biomass etc., to create efficient and sustainable energy solutions to meet the challenges by optimizing the performance, reliability, and cost-effectiveness of hybrid renewable energy systems. In addition, the application of power electronic switches applied in converter design for the applications of grid integration, Electric Vehicle (EV) etc are also included in the domain of research.

Faculties

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2. Soumya Kanti Bandyopadhyay Assistant Professor, Department of Electrical Engineering
3. Krishnendu Ghosh, Assistant Professor, Department of Electrical Engineering
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Publications

1. Anindita Das Mondal, Nasim Ali Khan, “A Brief Review on Optimum Power Generation for Standalone Hybrid Renewable Systems”, *International Journal of Creative Research Thoughts*, Vol. 11, No. 12, h657-h663, 2023, <http://doi.one/10.1729/Journal.37387>.
2. Anindita Das Mondal, Nasim Ali Khan, & Asif Ikbali., “A study on load sensitive power generation in Hybrid Renewable Energy system using Evolutionary Algorithms based -Energy Management System control”. *Journal Of the India Chemical Society*, Vol. 97, No. 10b ,2020, 1920–1928. <https://doi.org/10.5281/zenodo.5969595>
3. Anindita Das Mondal, “Analysis of the Transient Response of a Capacitor-Excited Induction Generator for Unity Power Factor Load Condition using MATLAB/SIMULINK”, *International Journal on Recent and Innovation Trends in Computing and Communication*, Vol. 5 No.6, 287 – 292, June 2017.
4. Anindita Das Mondal, “Dynamic Behaviour of Asynchronous Generator in Stand-Alone Mode Under Load Perturbation Using MATLAB/SIMULINK.” *International Journal of Engineering Research and Development*, Vol. 14, No. 01, 2018, 59–63
5. Soumya Kanti Bandyopadhyay, Subhankar Mukherjee, S.Naha, R.Bhadra "A Comparison of Performance Analysis in Between PWM and SVPWM Fed Induction Motor Drive", *3rd International Conference on Foundations and Frontiers in Communication, Computer and Electrical Engineering*, 481-486 Taylor & Francis Group, London, ISBN: 978-1-138-02877-7
6. Subhankar Mukherjee, Soumya Kanti Bandyopadhyay, Aveek Chattopadhyay, Bikash Das "Study of Dynamic Responses of an Interconnected Power System using Zero Order Hold Circuit" *3rd International Conference on Foundations and Frontiers in Communication, Computer and Electrical Engineering*, 447-450 Taylor & Francis Group, London, ISBN: 978-1-138-02877-7

7. Krishnendu Ghosh and Balamurugan P., A Modified SEPIC Converter with Voltage Multiplier Cell and Low Voltage Stress on the Switch for Renewable Applications, *International Journal of Applied Engineering and Research*, ISSN 0973-4562, Vol.10 No. 44, 31691-31696, 2015
8. Krishnendu Ghosh and Balamurugan P., Design & Implementation of a high gain SEPIC Converter for renewable applications, *Science Engineering Technology Conference*, VIT University, 2015
9. Krishnendu Ghosh and Balamurugan Parandhaman, “Zero Voltage Switching of parallel loaded resonance converter for photovoltaic standalone system”, in Proc. 3rd International Conference on Signal Processing and Integrated Networks, *IEEE conference*, 676-680, 2016
10. Krishnendu Ghosh and Balamurugan P, “Implementation of a transformer-less S4 converter with constant input power factor, low DC-link voltage and high step down voltage features” *IEEE Conf.SPIN*, 73-78, 2016
11. Krishnendu Ghosh & Dilip Debnath, “Interleaved Buck Converter with Zero Voltage Switching for renewable Energy Applications”, in International Conference on Recent Advances in Informatics, Communication, Management, Health & Applied Sciences (RAICMHAS-2019)