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List of Publications

- 1. SK Rafi, R Tiwari, S Saravanan, P Pandiyan, **N Prabaharan**, "Performance Evaluation of Photo Voltaic System with Quadratic Boost Converter Employing with MPPT Control Algorithms K Kumar", International Journal of Renewable Energy Research (IJRER) 10 (3), 1083-1091, 2020.
- 2. NR Raajan, VSR Lakshmi, **N Prabaharan**, "Non-Invasive Technique-Based Novel Corona (COVID-19) Virus Detection Using CNN", National Academy Science Letters, 2020.
- 3. MSB Arif, U Mustafa, **N Prabaharan**, SBM Ayob, J Ahmad, "Performance evaluation of a hybrid solar PV system with reduced emission designed for residential load in subtropical region", Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 1-23, 2020.
- 4. T Renugadevi, K Geetha, **N Prabaharan**, P Siano, "Carbon-Efficient Virtual Machine Placement Based on Dynamic Voltage Frequency Scaling in Geo-Distributed Cloud Data Centers", Applied Sciences 10 (8), 2701,3, 2020.
- 5. **N Prabaharan**, Z Salam, C Cecati, K Palanisamy, "Design and implementation of new multilevel inverter topology for trinay sequence using unipolar pulse width modulation", IEEE Transactions on Industrial Electronics 67 (5), 3573-3582, 13, 2020.
- 6. M Jagabar Sathik, **N Prabaharan**, SAA Ibrahim, K Vijayakumar, "A new generalized switched diode multilevel inverter topology with reduced switch count and voltage on switches", International Journal of Circuit Theory and Applications, 2, 2019.
- 7. "Induction motor drive with trinary DC source asymmetrical inverter", V Arun, N **Prabaharan** International Journal of Recent Technology and Engineering 8 (2), 5484-5490, 2019.
- 8. NM Kumar, N Prabaharan, A Rini Ann Jerin, A Jayakumar, "Impact of Performance Degradation and Capital Subsidy on the Revenue of Rooftop Solar PV

- System", International Journal of Renewable Energy Research 9 (1), 128-136, 13, 2019.
- 9. **N Prabaharan**, PE Campana, ARA Jerin, K Palanisamy, "A new approach for grid integration of solar photovoltaic system with maximum power point tracking using multi-output converter", Energy Procedia: Renewable Energy Integration with Mini/Microgrid REM 2018, 2, 2019.
- 10. **N Prabaharan**, MA Rosen, PE Campana, "Recent Developments in Photovoltaic Materials and Devices", 2019.
- 11. G Irusapparajan, D Periyaazhagar, **N Prabaharan**, AR Jerin Automatika, "Experimental verification of trinary DC source cascaded H-bridge multilevel inverter using unipolar pulse width modulation", 60 (1), 19-27, 7, 2019.
- 12. T Chinnadurai, S Saravanan, MK Pandian, N **Prabaharan**, "Weld Strength Analysis of Ultrasonic Polymer Welding Using Adaptive Neuro-Fuzzy Inference System", Advances in Industrial and Production Engineering, 771-779, 1, 2019.
- 13. S Saravanan, **N Prabaharan**, NR Babu, "DC–DC Converters for Renewable Energy Applications", Smart Grid Systems: Modeling and Control, 107, 2018.
- 14. H Fathima, **N Prabaharan**, K Palanisamy, A Kalam, S Mekhilef, JJ Justo, "Hybrid-Renewable Energy Systems in Microgrids: Integration, Developments and Control", Woodhead Publishing, 4, 2018.
- 15. T Chinnadurai, **N Prabaharan**, NM Raj, MK Pandian, "Ultrasonically welded and non-welded polypropylene and PC-ABS blend thermal analysis", Journal of Thermal Analysis and Calorimetry 132 (3), 1813-1824, 2, 2018.
- 16. V Arun, **N Prabaharan**, "Microcontroller based asymmetrical multilevel inverter", International Journal of Robotics and Automation (IJRA) 8 (1), 18-25, 2018.
- 17. **N Prabaharan**, V Arun, T Chinnadurai, K Arulkumar, A Rini ann Jerin, "Analysis of Symmetric Multilevel Inverter Using Unipolar Pulse Width Modulation For Photovoltaic Application", Comptes rendus de l'Acad'emie bulgare des Sciences 71 (2), 252-260, 5, 2018.
- 18. T Chinnadurai, S Saravanan, **N Prabaharan**, MK Pandian, S Deebika, "Analyzing the weld strength of ultrasonic polymer welding using Artificial Neural Networks", Materials Today: Proceedings 5 (14), 28320-28327, 2, 2018.

- 19. **N Prabaharan**, V Arun, P Sanjeevikumar, L Mihet-Popa, F Blaabjerg, "Reconfiguration of a Multilevel Inverter with Trapezoidal Pulse Width Modulation", Energies 11 (8), 1-18, 3, 2018.
- 20. ARA Jerin, **N Prabaharan**, NM Kumar, K Palanisamy, S Umashankar, "Smart grid and power quality issues", Hybrid-Renewable Energy Systems in Microgrids, 195-202, 4, 2018.
- 21. **N Prabaharan**, ARA Jerin, E Najafi, K Palanisamy, "An overview of control techniques and technical challenge for inverters in micro grid", Hybrid-Renewable Energy Systems in Microgrids, 97-107, 2, 2018.
- 22. E Najafi, **N Prabaharan**, "Multilevel inverters for photovoltaic energy systems in hybrid-renewable energy systems", Hybrid-Renewable Energy Systems in Microgrids, 81-96, 2018.
- 23. **N Prabaharan**, V Arun, K Palanisamy, P Sanjeevikumar, "A New Pulse Width Modulation Technique with Hybrid Carrier Arrangement for Multilevel Inverter Topology", Advances in Electronics, Communication and Computing, 2018.
- 24. **N Prabaharan**, ARA Jerin, K Palanisamy, S Umashankar, "Integration of single phase reduced switch multilevel inverter topology for grid connected photovoltaic system", Energy Procedia 138, 1177-1183, 58, 2017.
- 25. ARA Jerin, **N Prabaharan**, K Palanisamy, S Umashankar, "FRT Capability in DFIG based wind turbines using DVR with Combined Feed-Forward and Feed-Back Control", Energy Procedia 138, 1184-1189, 8, 2017.
- 26. "A comprehensive review on reduced switch multilevel inverter topologies, modulation techniques and applications", **N Prabaharan**, K Palanisamy Renewable and Sustainable Energy Reviews 76, 1248-1282, 115, 2017.
- 27. **N Prabaharan**, K Palanisamy, "Analysis of Cascaded H-Bridge Multilevel Inverter Configuration with Double Level Circuit", IET Power Electronics 10 (9), 1023-1033, 40, 2017.
- 28. **N Prabaharan**, S Saravanan, ARA Jerin, K Palanisamy, "A reduced switch asymmetric multilevel inverter topology using unipolar pulse width modulation strategies for photovoltaic application", Recent Developments on Power Inv rters, 29-48, 2, 2017.

- 29. **N Prabaharan**, Z Salam, K Palanisamy, "A hybrid multilevel inverter with reduced power electronic components with unipolar trapezoidal pulse width modulation", 2017 IEEE Conference on Energy Conversion (CENCON), 283-287, 2, 2017.
- 30. **N Prabaharan**, K Palanisamy, "Modeling and Analysis of a Quasi-linear Multilevel Inverter for Photovoltaic Application", Energy Procedia 103 (C), 256-261, 7, 2016.
- 31. **N Prabaharan**, K Palanisamy, "A single phase grid connected hybrid multilevel inverter for interfacing photo-voltaic system", Energy Procedia 103 (C), 250-255, 71, 2016.
- 32. **N Prabaharan**, K Palanisamy, "A new hybrid asymmetric multilevel inverter with reduced number of switches", IEEE International Conference on Power Electronics, Drives and Energy, 5, 2016.
- 33. **N Prabaharan**, K Palanisamy, "Comparative analysis of symmetric and asymmetric reduced switch multilevel inverter topologies using unipolar pulse width modulation strategies", IET Power Electronics 9 (15), 2808 –2823, 38, 2016.
- 34. **N Prabaharan**, K Palanisamy, "Analysis and integration of multilevel inverter configuration with boost converters in a photovoltaic system", Energy Conversion and Management 128 (C), 327-342, 66, 2016.
- 35. AH Fathima, **N Prabaharan**, K Palanisamy, "Sizing of a VRB battery based on max-min method of power dispatch in a wind-PV hybrid system", 2015 IEEE Conference on Energy Conversion (CENCON), 221-226, 3, 2015.
- 36. **N Prabaharan**, AH Fathima, K Palanisamy, "New hybrid multilevel inverter topology with reduced switch count using carrier based pulse width modulation technique", IEEE conference on energy conversion (CENCON), 176-180, 15, 2015.
- 37. **N Prabaharan**, K Palanisamy, "Investigation of single phase reduced switch count asymmetric multilevel inverter using advanced pulse width modulation technique", International Journal of Renewable Energy Research (IJRER) 5 (3), 879-890, 76, 2015.
- 38. A Rini Ann Jerin, J Jayakumar, **N Prabaharan**, K Palanisamy, "Frequency control of a standalone hybrid wind and solar based distributed generation system through an optimized energy storage", International Journal of Applied Engineering Research 10 (10), 9983-9988, 2015.

- 39. **N Prabaharan**, A Rini ann jerin, K Palanisamy, "Asymmetric multilevel inverter structure with hybrid PWM strategy", International Journal of Applied Engineering Research 10 (55), 2672-2676, 11, 2015.
- 40. V Arun, **N Prabaharan**, K Raja, B Shanthi, "Unipolar PWM using TAR reference for improved performance of new structure MLI", International Journal of Advanced Research in Electrical, Electronics and 1,2014.
- 41. V Arun, **N Prabaharan**, B Shanthi, "Investigation on single phase asymmetric reduced switch inverter with hybrid PWM techniques", International Journal of Science, Engineering and Technology Research, 3, 2014.
- 42. **N Prabaharan**, V Arun, B Shanthi, "Comparative analysis of various multicarrier PWM methods for binary DC source inverter", International Journal of Innovative Research & Development 3 (2), 24-32, 2014.