

PUBLICATIONS OF Dr.K.PALANISAMY

1. Ramesh. P, Palanisamy K, Paramasivam. S, “Effects of Current Distortion on DC Link Inductor and Capacitor Lifetime in Variable Frequency Drive connected to Grid with Active Harmonic Filter” accepted for Publication in IEEE Transactions on Industry Applications.
2. Rini Ann Jerin Amalorpavaraj Prabaharan Natarajan Mohamed El-Moursi Marc A. Rosen Palanisamy Kaliannan Umashankar Subramaniam, “An outlook on endangering grid security in India due to implementation challenges of low voltage ride through protection in wind turbines” International Transactions on Electrical Energy Systems, October 2020.
3. Gajendra Singh Chawda, Abdul Gafoor Shaik1, Mahmood Shaik, P. Sanjeevikumar, Jens Bo Holm-Nielsen, Om Prakash Mahela And K Palanisamy, “Comprehensive Review on Detection and Classification of Power Quality Disturbances in Utility Grid with Renewable Energy Penetration” in IEEE ACCESS, vol. 8, pp. 146807-146830, 2020.
4. KS Ratnam, K Palanisamy, G Yang, “Future low-inertia power systems: Requirements, issues, and solutions-A review” Renewable and Sustainable Energy Reviews 124, 109773.
5. Kumar, G.V.B.; Kaliannan, P.; Padmanaban, S.; Holm-Nielsen, J.B.; Blaabjerg, F. Effective Management System for Solar PV Using Real-Time Data with Hybrid Energy Storage System. Applied Sciences. 2020, 10, 1108.
6. N Dutta, K Palanisamy, U Subramaniam, S Padmanaban, Jens Bo Holm-Nielsen, Frede Blaabjerg, Dhafer Jaber Almakhlles, “Identification of Water Hammering for Centrifugal Pump Drive Systems” Applied Sciences 10 (8), 2683.
7. R SAROJINI, K Palanisamy, S Padmanaban, JBH Nielsen, “Inertia emulation control technique-Based frequency control of grid-connected single-phase rooftop photovoltaic system with battery and super-capacitor” IET Renewable Power Generation, Volume: 14, Issue: 7, 5 18 2020.
8. N. Prabaharan, Z. Salam, C. Cecati and K. Palanisamy, "Design and Implementation of New Multilevel Inverter Topology for Trinary Sequence Using

- Unipolar Pulsewidth Modulation," in *IEEE Transactions on Industrial Electronics*, vol. 67, no. 5, pp. 3573-3582, May 2020.
9. Amjed Hina Fathima, Kaliannan Palanisamy, Integration and energy management of a hybrid Li-VRB battery for renewable applications, **Renewable Energy Focus**, Volume 30, 2019, Pages 13-20.
 10. Kumar, G.V.B.; Sarojini, R.K.; Palanisamy, K.; Padmanaban, S.; Holm-Nielsen, J.B. Large Scale Renewable Energy Integration: Issues and Solutions. *Energies* **2019**, *12*, 1996.
 11. Rajagopal, R., Palanisamy, K. & Paramasivam, S. Shunt Active Filter Based on 7-Level Cascaded Multilevel Inverter for Harmonic and Reactive Power Compensation, *J. Electr. Eng. Technol.* (2019).
 12. Amalorpavaraj Rini Ann Jerin, Palanisamy Kaliannan, Umashankar Subramaniam, Mohammed Shawky El Moursi, "Review on FRT solutions for improving transient stability in DFIG-WTs", **IET Renewable Power Generation**, 2018, 12,15, 1786-1799.
 13. A Fathima, Kaliannan Palanisamy, Sanjeevikumar Padmanaban, Umashankar Subramaniam, "Intelligence-Based Battery Management and Economic Analysis of an Optimized Dual-Vanadium Redox Battery (VRB) for a Wind-PV Hybrid System", **Energies**, 2018, 11,10, 2785-2804.
 14. Popavath, L.N, Kaliannan, P. Photovoltaic-STATCOM with Low Voltage Ride through Strategy and Power Quality Enhancement in a Grid Integrated Wind-PV System. **Electronics** 2018, 7, 51.
 15. Prabaharan, N., Arun, V., Chinnadurai, T., Arulkumar, K., Jerin, A.R.A., Palanisamy, K. Analysis of symmetric multilevel inverter using unipolar pulse width modulation for photovoltaic application (2018) **Comptes Rendus de L'Academie Bulgare des Sciences**, 71 (2), pp. 252-260.
 16. Rini Ann Jerin, A., Thomas, M., Palanisamy, K., Umashankar, S. Enhancing low voltage ride through capability in utility grid connected single phase solar photovoltaic system (2018) *Journal of Engineering Science and Technology*, 13 (4), pp. 1016-1033.

17. Arulkumar, K., Vijayakumar, D., Palanisamy, K. Design of optimal LLCL filter with an improved control strategy for single phase grid connected PV inverter (2018) *International Journal of Power Electronics and Drive Systems*, 9 (1), pp. 114-125.
18. Popavath, L.N., Palanisamy, K. A DSTATCOM for enhancement of power quality in distribution systems (2018) *International Journal of Pure and Applied Mathematics*, 119 (12), pp. 363-373.
19. Prabaharan, N., Arun, V., Palanisamy, K., Sanjeevikumar, P. A new pulse width modulation technique with hybrid carrier arrangement for multilevel inverter topology (2018) *Lecture Notes in Electrical Engineering*, 443, pp. 37-44.
20. Rameshkumar, K., Indragandhi, V., Sakthivel, A., Palanisamy, K. FPGA implementation and analysis of model predictive current control for three-phase voltage source inverter (2018) *International Journal of Power Electronics*, 9 (1), pp. 29-51.
21. Rini Ann A. Jerin and Palanisamy Kaliannan and Umashankar Subramaniam, "Improved Fault Ride Through Capability in DFIG based Wind Turbines using Dynamic Voltage Restorer with Combined Feed-Forward and Feed-Back Control", 5,8030991, pp. 20494-20503, **IEEE Access**, 2017.
22. Rini Ann A. Jerin and Palanisamy Kaliannan and Umashankar Subramaniam, "Improved Fault Ride Through Capability of DFIG based Wind Turbines using Synchronous Reference Frame Control based Dynamic Voltage Restorer", Vol-70, **ISA Transactions**, pp - 465-474, 2017.
23. Rini Ann A. Jerin and Palanisamy Kaliannan and Umashankar Subramaniam, "Testing of Low Voltage Ride Through Capability Compliance of Wind Turbines- A Review", **International Journal of Ambient Energy**, Pp: 1-20, 2017
24. Prabaharan, N., Palanisamy, K. Analysis of cascaded H-bridge multilevel inverter configuration with double level circuit. **IET Power Electronics** (2017);
25. Prabaharan, N., Palanisamy, K. A comprehensive review on reduced switch multilevel inverter topologies, modulation techniques and applications (2017) **Renewable and Sustainable Energy Reviews**, 76, pp. 1248-1282.

26. Lakshman Naik, P., Palanisamy, K. Design and performance of a PV-STATCOM for enhancement of power quality in micro grid applications (2017) *International Journal of Power Electronics and Drive Systems*, 8 (3), pp. 1408-1415.
27. Prabaharan N, Palanisamy K. Analysis and integration of multilevel inverter configuration with boost converters in a photovoltaic system. **Energy Conversion and Management** (2016); 128(C):327-342. DOI:10.1016/j.enconman. 2016. 09088.
28. Prabaharan N, Palanisamy K. Comparative analysis of symmetric and asymmetric reduced switch MLI topologies using unipolar pulse width modulation strategies. **IET Power Electronics** (2016); DOI:10.1049/iet-pel.2016.0283.
29. N. Prabaharan, K. Palanisamy, A Single Phase Grid Connected Hybrid Multilevel Inverter for Interfacing Photo-voltaic System, *Energy Procedia*, Volume 103, December 2016, Pages 250-255, ISSN 1876-6102.
30. N. Prabaharan, K. Palanisamy, Modeling and Analysis of a Quasi-linear Multilevel Inverter for Photovoltaic Application, *Energy Procedia*, Volume 103, December 2016, Pages 256-261, ISSN 1876-6102.
31. Rini Ann Jerin, A., Palanisamy, K., Umashankar, S., Thirumoorthy, A.D. Power quality improvement of grid connected wind farms through voltage restoration using dynamic voltage restorer (2016) **International Journal of Renewable Energy Research**, 6 (1), pp. 53-60.
32. K. Arulkumar, K. Palanisamy, D. Vijayakumar “Recent Advances and Control Techniques in Grid Connected Pv System – A Review,” **International Journal of Renewable Energy Research**, Vol.6,No.3,pp. 1037-1049,2016.
33. Lakshman naik popavath, K Palanisamy, A Dual Operation of PV-Statcom as Reactive Power Compensator and Active Power Injector in Grid Tie System: Power Quality, (2015) **International Journal of Renewable Energy Research**, 5 (4), pp. 973-982.
34. Hina Fathima and K. Palanisamy, “Optimized Sizing, Selection, and Economic Analysis of Battery Energy Storage for Grid-Connected Wind-PV Hybrid

- System,” **Modelling and Simulation in Engineering**, vol. 2015, Article ID 713530, 1-16 pages, 2015. doi:10.1155/2015/713530.
35. Meikandasivam, S., Vijayakumar, D., Palanisamy, K., Umashankar, S. Performance of D-STATCOM and DVR on system voltage regulation by SVPWM technique (2015) *International Journal of Applied Engineering Research*, 10 (10), pp. 9678-9881.
 36. A. Hina Fathima, K. Palanisamy, Optimization in microgrids with hybrid energy systems – A review, **Renewable and Sustainable Energy Reviews**, Volume 45, May 2015, Pages 431-446, ISSN 1364-0321.
 37. Prabaharan, N., Palanisamy, K. Investigation of single phase reduced switch count asymmetric Multilevel Inverter using Advanced Pulse Width Modulation Technique (2015) *International Journal of Renewable Energy Research*, 5 (3), pp. 879-890.
 38. Arulkumar, K., Vijayakumar, D., Palanisamy, K. Modeling and control strategy of three phase neutral point clamped multilevel PV inverter connected to the grid (2015) *Journal of Building Engineering*, 3, pp. 195-202.
 39. Rini Ann Jerin, A., Jayakumar, J., Prabaharan, N., Palanisamy, K., Umashankar, S., Thirumoorthy, A.D. Frequency control of a stand alone hybrid wind and solar based distributed generation system through an optimized energy storage (2015) *International Journal of Applied Engineering Research*, 10 (10), art. no. A9982, pp. 9982-9988.
 40. Prabaharan, N., Palanisamy, K., Rini Ann Jerin, A. Asymmetric multilevel inverter structure with hybrid PWM strategy (2015) *International Journal of Applied Engineering Research*, 10 (55), pp. 2672-2676.
 41. Arulkumar, K., Vijayakumar, D., Palanisamy, K. Estimating future site of grid PV system with optimal shade analysis (2015) **International Journal of Renewable Energy Research**, 5 (1), pp. 308-316.
 42. K. Palanisamy, D. P. Kothari, M. K. Mishra, S. Meikandasivam and I. J. Raglend, “Power Quality Improvement and PV Modules Interconnection using UPQC”, **Australian Journal of Electrical & Electronics Engineering**, Vol. 10, No. 2. 2013.

43. K. Palanisamy, D. P. Kothari, M. K. Mishra, S. Meikandasivam and I. J. Raglend, "Effective Utilisation of UPQC for Interconnecting PV Modules to Grid Using Power Angle Control Method", **International Journal of Electrical Power & Energy Systems**, Volume 48, June 2013, Pages 131-138
44. Asish ranjan, S.Prabhakar Karthikeyan, Ankur Ahuja, K.Palanisamy , I.Jacob Raglend, D.P. Kothari, 2009. Impact of Reactive Power in Power Evacuation from Wind Turbines .Journal of Electro Magnetic Analysis and Applications (JEMAA) (www.Scirp.org/journal/jemaa) issue 1, Volume 1, 2009.Page No: 15-23.
45. S.Prabhakar karthikeyan, K.Palanisamy, C.Rani, I.Jacob Raglend, D.P.Kothari, 2009. "Security Constrained Unit Commitment Problem with Operational, Power Flow and Environmental Constraints", (www.wseas.org), wseas transactions on power systems, issue 2, Volume 4, February 2009, Page No 53- 66.
46. S.Prabhakar karthikeyan, K.Palanisamy, I. Jacob Raglend and D. P. Kothari, 2009. "Security Constrained UCP with Operational and Power Flow Constraints" International Journal of Recent Trends in Engineering (<http://www.academypublisher.com/ijrte/>), Volume 1, No 3, May 2009.Page No.106-114.
47. I. Jacob Raglend, S. Prabhakar Karthikeyan, K.Palanisamy & D. P. Kothari, "Security and Emission Constrained Unit Commitment Problem with Peak Load Variations". Scientific Engineering Research Corporation (SERC) publication, Emerging Journal of Engineering Science and Technology, ISSN 0974-2050 (www.serc.org.in)
48. Shanmuga Sundari A, Sudhakar N, Palanisamy K and Umashankar S, "Conducted EMI Suppression in DC-DC Boost Converter Using Labview" Global Journal of Pure and Applied Mathematics, Volume 10, Number 3 (2014), pp. 401-412.
49. Arutselvan, V., Viswanathan, A.S., Palanisamy, K. Effective sag/swell and unbalance supply voltage compensation using DVR (2015) International Journal of Applied Engineering Research, 10 (6), pp. 15059-15070.

50. Shanmuga Sundari, A., Sudhakar, N., Palanisamy, K., Umashankar, S. Conducted emi suppression in DC-DC boost converter using labview (2014) International Journal of Applied Engineering Research, 9 (21), pp. 9353-9364.
51. R. Rajaram, K. Palanisamy, Sudha Ramasamy and Prabhu Ramanathan, "Selective Harmonic Elimination in PWM Inverter Using Fire Fly and Fire Works Algorithm" International Journal of Innovative Research in Advanced Engineering (IJIRAE), Volume 1, Issue 8, September 2014, Pp. 55-62.

BOOK Chapters:

1. ARA Jerin, N Prabakaran, NM Kumar, K Palanisamy, S Umashankar, "Smart grid and power quality issues" Woodhead Publishing Series in Energy 2018, Pages 195-202. ISBN: 978-0-08-102493-5.
2. Natarajan Prabakaran, Amalorpavaraj Rini Ann Jerin, Ehsan Najafi, Kaliannan Palanisamy "An overview of control techniques and technical challenge for inverters in micro grid", Woodhead Publishing Series in Energy 2018, Pages 97-107. ISBN: 978-0-08-102493-5.
3. Amjed Hina Fathima, Kaliannan Palanisamy "Renewable systems and energy storages for hybrid systems, Woodhead Publishing Series in Energy 2018, Pages 147-164, ISBN: 978-0-08-102493-5.
4. Rini Ann Jerin, K. Palanisamy, and S. Umashankar, "Grid Integration of Wind Turbines: Issues and Solutions" Smart Grid Systems: Modeling and Control, 2018, Apple Academic press, ISBN hard: 978-1-77188-625-3.
5. Amjed Hina Fathima and Palanisamy Kaliannan, "Hybrid Energy Storage: Introduction and Management for Renewable Microgrids" Smart Grid Systems: Modeling and Control, 2018, Apple Academic press, ISBN hard: 978-1-77188-625-3.
6. Natarajan Prabakaran, Subramani Saravanan, Amalorpavaraj Rini Ann Jerin and Kaliannan Palanisamy, "A Reduced Switch Asymmetric Multilevel Inverter Topology Using Unipolar Pulse Width Modulation Strategies for Photovoltaic Application" Recent Developments on Power Inverters", book edited by Ali Saghafeinia, ISBN 978-953-51-3232-5, ISBN 978-953-51-3231-8, InTech - open science: June 21, 2017.

7. A. Hina Fathima, K. Palanisamy, “Energy Storage Systems for Energy Management of Renewables in Distributed Generation Systems” Energy Management of Distributed Generation Systems, InTech - open science.