

Agnel Charities

Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai, Maharashtra

Publications of Dr. Mini Rajeev

List of Journal Papers:

1. Mini Rajeev et al, "Small Scale Implementation of Smart Farming using Internet of Things", accepted for publication in SAMRIDDHI, A Journal for Physical Sciences, Engineering and Technology (S-JPSET), vol.13, Special Issue 2, pp.174-181, Dec. 2021, Online ISSN: 2454-5767.
2. Mini Rajeev and V. Agarwal, "Low Voltage Ride-Through Capability of a Novel Grid Connected Inverter Suitable for Transformer-Less Solar PV-Grid Interface," in IEEE Transactions on Industry Applications, vol. 56, no. 3, pp. 2799-2806, May-June 2020. <https://doi.org/10.1109/TIA.2020.2979134>. **Won K. Shankar Meritorious paper award in Journal category from IEEE Bombay section.**
3. Mini Rajeev and V. Agarwal, "Analysis and Control of a Novel Transformer-Less Micro-inverter for PV-Grid Interface," IEEE Journal of Photovoltaics, vol. 8, no. 4, pp. 1110-1118, July 2018. <https://doi.org/10.1109/TIA.2017.2788414>
4. Mini Rajeev and V. Agarwal, "Single Phase Current Source Inverter with Multi loop Control for Transformer-less Grid-PV Interface," IEEE Transactions on Industry Applications, vol. 54, no. 3, pp. 2416-2424, May-June 2018. <https://doi.org/10.1109/JPHOTOV.2018.2825298>
5. F. Khan, Mini Rajeev, "A Multi-Port Half Bridge DC-DC Converter for PV Application", Int. Journal of Electrical Electronics & Computer Science Engineering Volume 4, Issue 6, Dec.2017.
6. Ramkumar L Maurya, Mini Rajeev, "Introduction to Multilevel DC-Link Inverter and Comparison of Switching Strategies for Cascaded Half Bridge Multilevel DC-Link Inverter", International Journal of Global Technology Initiatives, vol.5, no.1, B8-B16,2016.
7. Ramkumar L Maurya, Mini Rajeev, "Comparative Evaluation of Cascaded Half-Bridge Multilevel DC-Link Inverter and Conventional H Bridge Multilevel Inverter", Int. Journal for Research in Applied Science & Engineering Technology, vol.3, no.10, 460-467,Oct.2015.
8. Pratik D. Rahate, Mini Rajeev, "Single Phase Transformer-less Inverter and its Closed Loop Control for Grid Connected PV Applications", Int. journal of Electrical, Electronics and Computer Systems, vol.3, no.5,33-37,2015.

9. Parimal Patil, Mini Rajeev “Comparison of three different topologies of a five level Multi level inverter”, Int. Journal of Engineering Research & Technology (IJERT), ICNTE – 2015, vol. 3, issue 01.
10. Sangita R Nandurkar, Mini Rajeev, “Modeling Simulation and Design of Photovoltaic Array with MPPT Control Techniques”, Int. Journal of Applied Power Engineering, vol.3, no.1, 41-50, 2014.
11. Sreedevi S. Nair, Mini Rajeev, “Effect of luminaries and Heat sink on the performance of PV powered HPLED lighting for Indoor Applications”, Int. Journal of Current Engineering and Technology, vol.6, no.2, June 2013.
12. Mini Rajeev, Shiva. B, Varun. B, Hiten. M, “The implementation of a microcontroller based boost converter for Photovoltaic interface”, Int. Journal on Recent trends in Engineering and Technology, vol.6, no.2, ACEEE, Nov.2011, USA.

Conference Papers:

1. Mini Rajeev, “An input current shaper with Boost and Flyback converter using Integrated Magnetics”, Fifth International IEEE conference on Power Electronics & Drives Systems (PEDS 2003), Singapore, Nov. 17-21, 2003. <https://doi.org/10.1109/PEDS.2003.1282824>
2. Mini Rajeev, Seema Jadhav, Kirtish, “Design and Implementation of MPPT System for Battery Charging Application using Solar Panel”, International Conference, Renewable Energy Asia-2008 (REA 2008), IITDelhi,11-13, Dec. 2008. **Proceedings published as a book.**
3. Mini Rajeev, Divya .M, Ruchi .H “A comparative study of Boost and Buck Converter Topologies for Solar Photovoltaic Standalone Systems”, presented in National Conference on Alternate Energy Sources”, Pune,31st Jan. 2009.
4. Mini Rajeev, Divya .M, Ruchi .H “A study of replacing CFL by LED light for Solar Powered Street Light in Standalone Systems NCNTE 2010, Fr.C.R.I.T., Vashi , Feb.25-26, 2010. **Won third best paper award.**
5. Mini Rajeev, Sreedevi.S.Nair, Seema Jadhav, “Design Considerations of a Solar Powered Street Light for Standalone PV Systems”, CCPE 2010, Chennai, 28-29, July, 2010.
6. Mini Rajeev, Sreedevi Sanjeev Nair, “Economic Feasibility of solar powered street light using high power LED –A case study”, Int. conference ICREU-2012, Coimbatore, Jan.2012.
7. Sreedevi S. Nair, Mini Rajeev, “Performance of solar powered HPLED lamp for indoor lighting-A Case Study”, presented at an international conference ISG-2012, Pune.
8. Sangita R Nandurkar, Mini Rajeev, “Design and Simulation of three phase Inverter for grid connected Photovoltaic systems”, national conference NCNTE-2012, Fr.C.R.I.T., Vashi.

9. Sreedevi S. Nair, Mini Rajeev “Design and Implementation of driver circuit for high power LED”, a national conference NCNTE-2012, Fr.C.R.I.T., Vashi.
10. Jisha Satheesh, Mini Rajeev, “Fuel Cell based Power supply system for Residential Applications”, National Conference NIRMAN 2013, A. C. P.C.E, Navi Mumbai.
11. Sreedevi.S.Nair, Mini Rajeev “Design and implementation of PMBLDC motor for solar powered pumps”, RACEM-2013, V.I.T, Mumbai.
12. Mini Rajeev and V. Agarwal, “Novel transformer-less inverter topology for single-phase grid connected photovoltaic system,” IEEE 42nd Photovoltaic Specialist Conference (PVSC), New Orleans, USA, pp. 1-5, Jun. 2015. <https://doi.org/10.1109/PVSC.2015.7356271>
13. C. Phani Kumar, Mini Rajeev and V. Agarwal, “A novel single stage zero leakage current transformer-less inverter for grid connected PV systems,” 42nd PVSC 2015, New Orleans, USA, pp. 1-5, Jun. 2015. <https://doi.org/10.1109/PVSC.2015.7356292>
14. Mini Rajeev and V. Agarwal, “Closed loop Control of Novel Transformer-less Inverter Topology for Single Phase Grid Connected Photovoltaic system,” IEEE Peci 2016, Illinois, pp.1-7, Feb.2016. <https://doi.org/10.1109/PECI.2016.7459232>
15. Mini Rajeev and Vivek Agarwal, “Current Source Inverter with reduced leakage current for Transformer-less Grid -PV interface”, 7th Power India Int. Conference IEEE PIICON 2016, Bikaner,25-27, Nov. 2016. <https://doi.org/10.1109/POWERI.2016.8077369>
16. Ram kumar L Maurya, Mini Rajeev, “Implementation of multilevel DC-link inverter for standalone application”, Int. conference, ICNTE-2017, Fr.C.R.I.T.,Vashi, Jan 2017.
17. Shahbaz G. Shaikh and Mini Rajeev, “Active Power Decoupling method using active buffer in a single phase Photovoltaic (PV) inverter”, International Conference, EIT-2017, New Delhi, June 2017.
18. Mini Rajeev and Vivek Agarwal, “Realization of a novel transformer-less grid-PV interfaced inverter”, IEEE Int. conference, CCUBE-2017, Bangalore, 15-17, Dec.2017. <https://doi.org/10.1109/CCUBE.2017.8394158> , Won “Best Paper of the conference” award.
19. S. Salvi, A. Antony, A. Parab, T. Pokale and Mini Rajeev, “Renewable Energy Application of Push Pull Converter”, all India seminar on Recent Trends in Renewable Energy Application & Research, The Institution of Engineers (India), Gujarat State Centre,16-17th Feb.2018.
20. Mini Rajeev, Vivek Agarwal, “Low Voltage Ride-Through Capability of a Novel Grid Connected Inverter Suitable for Transformer-less solar PV grid interface”,8th IEEE Int. conference IICPE-2018, MNIT, Jaipur,13-15th Dec.2018. <https://doi.org/10.1109/IICPE.2018.8709514>

21. Mini Rajeev, Divya S., “Harmonic Compensation by Transformer-less Grid- tied PV inverter using Conservative Power Theory”,5th IEEE Int. conference for Convergence in Technology, I2CT2019, Pune, 29th-31st Mar.2019. <https://doi.org/10.1109/I2CT45611.2019.9033657>
22. Omkar P., Mini Rajeev, “A Single Phase Inverter with Improved Gain Suitable for Transformer-Less PV Grid Interface”, Int. Conference, ICATE-2019, DMCE, Navi-Mumbai, 4-5th April 2019.
23. Omkar P., Mini Rajeev, “Experimental Validation of a Transformer-less Inverter with improved gain for Grid-PV Interface”, NPEC-2019, NIT Trichi,13-15th Dec. 2019. <https://doi.org/10.1109/NPEC47332.2019.9034810>
24. Mini Rajeev et al, “Implementation of Bidirectional DC Converter and Inverter for Drive Application”, ICESD-2020, Jadavpur University, Kolkata, 14-15th Feb. 2020.
25. E. Jennifer Isaac, Mini Rajeev, “A survey of Current Source Inverter Topologies and Control Schemes for Grid connected PV Systems”, Int. Conference, ICATE-2020, DMCE, Navi Mumbai, 3rd April 2020.
26. Mini Rajeev, “Solar Photovoltaic Systems”, Article in IEI Souvenir, Jan. 2020.
27. Utkarsh Mishra, Mini Rajeev, “An Investigation in to the Parasitic Influence on the Performance of Buck-Boost converter”, ICNTE-2021, 15-16th, Jan.2021. <https://doi.org/10.1109/ICNTE51185.2021.9487664>
28. Chaitanya T., Bhavesh S., Govind C., Tejas J., Rahul K., Mini Rajeev, “Design and Implementation of a Compact DC-DC Converter for powering FPGAs”, IEEE CONECCT, IEEE Bangalore section, 9-11th July 2021. <https://doi.org/10.1109/CONECCT52877.2021.9622674>
29. Mini Rajeev et al, “Compact Power Supply for Induction Heating in Shrink Fitting”, accepted for publication in EPREC 2022, 26-27th May 2022, NIT Jamshedpur, to be published in “Lecture Notes in Electrical Engineering”, Springer. https://doi.org/10.1007/978-981-19-7728-2_2
30. Sreedevi S. Nair and Mini Rajeev, “Exploration of Three port converters and its multidisciplinary applications”, IEEE-2022 3rd Global Conference for Advancement in Technology (GCAT), IEEE Bangalore section, 7-9th October 2022. <https://doi.org/10.1109/GCAT55367.2022.9972214>
31. Jennifer Isaac, Mini Rajeev, “Improved Current Source Inverter with Lesser Input Inductor for PV-Grid Interface”, IEEE ICETEMS 2022, Nagpur, 18-19th Nov. 2022. <https://doi.org/10.1109/ICETEMS56252.2022.10093272>
32. Mini Rajeev et al, “Design and development of a small scale EMU model with motorman cabin emulation”, IEEE & IAS conf., ICNTE-2023, Fr. C.R.I.T., Vashi, 20-21st, Jan.2023. <https://doi.org/10.1109/ICNTE56631.2023.10146617>. **Won Best paper award.**

33. Pooja C, Kartik E, Hitesh M, Prathamesh P., Mini Rajeev, “Smart Gas Stove with inbuilt Safety Features”, IEEE & IAS conf., ICNTE-2023, Fr. C.R.I.T., Vashi, 20-21st, Jan.2023. <https://doi.org/10.1109/ICNTE56631.2023.10146668>
34. Sreedevi S. Nair and Mini Rajeev, A Novel High Gain Non-Isolated Three-port Converter for Stand-Alone PV Applications, IEEE-IC2E3, NIT Uttarakand,8-9 June 2023. <https://doi.org/10.1109/IC2E357697.2023.10262587>
35. Rishabh M, Komal P, Shivani S, Mini Rajeev, “Power Factor Improvement using PWM Rectifier in Shrink Fitting”, 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA), NIT Manipur, 29-30 Sept. 2023. <http://dx.doi.org/10.1109/ICIDeA59866.2023.10295198>
36. Divya Sajeesh and Mini Rajeev, “Investigation of Right Half Plane Zero in Voltage Regulated Non-Ideal Boost Converter”, IEEE- ICPEICES 2024, DTU, Delhi, April 2024.
37. Sushant K., Ganesh J., Baljot K., Trupti G., Mini Rajeev, “Closed Loop operation of Transformer-less Inverter in Voltage and Current Control mode”, IEEE-GIEST 2024, NIT Manipur, Oct.2024.
38. Shubham Pawar, Yash Prajapati and Mini Rajeev, “Power Flow and Performance Analysis of Three Port Converter in Street Light”, IEEE-GIEST 2024, NIT Manipur, Oct.2024.

Book Chapter

Book chapter titled “Power Electronic Converters and its FPGA based control applicable to Electric Vehicles”, published in the book “Power Electronics for Electric Vehicles and Energy Storage: Emerging Technologies and Developments”, by CRC press, Taylor & Francis Group, March 2023. <https://doi.org/10.1201/9781003248484>