

PUBLICATIONS
(JOURNAL)

1. Anirban Pal, **Basu Kaushik**, "A Unidirectional Single-Stage Three-Phase Soft-switched Isolated DC-AC Converter" *Accepted for publication in IEEE Transactions Power Electronics*, 2018.
2. Rohit Baranwal, Kartik Ayer, **Basu Kaushik**, Gysler Castellino, Ned Mohan, "A Reduced Switch Count Single Stage Three-Phase Bidirectional Rectifier with High Frequency Isolation" *IEEE Transactions Power Electronics*, 2018.
3. Rohit Baranwal, Kartik Ayer, Gysler Castellino, **Basu Kaushik**, Ned Mohan, "A Dual Active Bridge Based Single Phase AC to DC Power Electronic Transformer With Advanced Features" *IEEE Transactions Power Electronics*, 2018.
4. Asish Kumar Sahoo, **Basu Kaushik**, Ned Mohan "Systematic Input Filter Design of Matrix Converter by Analytical Estimation of RMS Current Ripple", *IEEE Transactions Industrial Electronics.*, 2015.
5. **Basu Kaushik**, Shahani Arushi, Ashish Kumar Sahoo, Ned Mohan "A Single Stage Solid State Transformer for PWM AC Drive with Source based Commutation of Leakage Energy", *IEEE Transactions Power Electronics*, 2015.
6. Baranwal Rohit, **Basu Kaushik**, Ned Mohan "Carrier based implementation of SVPWM for dual two level VSIs and dual matrix converters with zero common mode voltage", *IEEE Transactions Power Electronics*, 2015.
7. **Basu Kaushik**, Mohan Ned "A High Frequency link Single Stage PWM Inverter with Common-mode Voltage suppression and Source based Commutation of Leakage Energy", *IEEE Transactions Power Electronics*, 2014.
8. **Basu Kaushik**, Mohan Ned "A Single Stage Power Electronic Transformer for Three Phase PWM AC/AC Drive with Source based Commutation of Leakage Energy and Common-mode Voltage Suppression", *IEEE Transactions Industrial Electronics*, 2014.
9. **Basu Kaushik**, Asish Kumar Sahoo, V Chandrasekaran, Ned Mohan "Grid-Side AC line Filter Design of a Current Source Rectifier with Analytical Estimation of Input Current Ripple", *IEEE Transactions Power Electronics*, 2014.
10. Nathan D Wiese, Gysler Castellino, **Basu Kaushik**, Ned Mohan "A Single-Stage Dual-Active-Bridge-Based Soft Switched ACDC Converter With Open-Loop Power Factor Correction and Other Advanced Features", *IEEE Transactions Power Electronics*, 2014.
11. **Basu Kaushik**; Prasad J; Narayanan G; Krishnamurthy H.K; Ayyanar R; "Reduction of Torque Ripple in Induction Motor Drives Using an Advanced Hybrid PWM Technique", *IEEE Transactions Industrial Electronics*, 2010.
12. **Basu Kaushik**; Prasad J; Narayanan G; "Minimization of torque ripple in PWM ac drives", *IEEE Transactions Industrial Electronics*, 2009.
13. Krushna Keshab Mohapatra, Ranjan Gupta, Satish Thuta, Apurva Somani, Amod Umarikar, **Basu Kaushik**, Ned Mohan "New Research on AC-AC Converters without Intermediate Storage and Their Applications in Power-Electronic Transformers and AC Drives", *IEEE Transactions on Electrical and Electronic Engineering*, 2009.

PUBLICATIONS
(CONFERENCE)

1. Mahapatra Manmohan, Anirban Pal, **Kaushik Basu** "Soft Switched Multilevel Unidirectional High Frequency Link DC/AC converter for Medium Voltage Grid Integration". *IEEE IESES, Februray*, 2018.
2. Dutta Soham, **Kaushik Basu** "Real-time AC Transmission Line Emulation With Power Electronic Converters". *IEEE NPEC, December*, 2017.
3. Anirban Pal, **Kaushik Basu** "A Novel Modulation Strategy for Active Rectification of A Snubber Less Soft-switched Single Stage 3phase High Frequency Link DC-AC Converter". *IEEE APPEEC, November*, 2017.
4. Anirban Pal, **Kaushik Basu** "A Unidirectional Soft-switched Isolated Three Level Inverter for Grid Integration of Renewable Energy Sources". *IEEE SPICES, August*, 2017.
5. Anirban Pal, **Kaushik Basu** "A Unidirectional Snubber Less Fully Soft-switched Single Stage Three Phase High Frequency Link DC/AC Converter". *IEEE ECCE-Asia, June*, 2017.

6. Anirban Pal, **Kaushik Basu** "A Unidirectional Snubber Less Partially Soft-switched High Frequency Link Three Phase Inverter". *IEEE APEC, March, 2017*.
7. Sanket Parashar, **Kaushik Basu** "A Gate driver for Synchronous Buck Converter with Normally on Semiconductor Switches", *PEDES-IEEE, 2016*.
8. Anirban Pal, **Kaushik Basu** "A Bidirectional Snubber Less Soft-switched High Frequency Link DC/AC Converter", *IICPE-IEEE, 2016*.
9. Anirban Pal, **Kaushik Basu** "A Partially Soft-Switched DC/AC High Frequency Link Unidirectional Converter for Medium Voltage Grid Integration", *NPEC, 2015*.
10. Saurabh Tiwari, **Basu Kaushik**, Apurva Somani "Analytical evaluation of the Peak to Peak Ripple Current in the Filter Inductor for a Space Vector modulated Grid tied VSI", *PEDES-IEEE, 2014*
11. Ashish Kumar Sahoo, Shahani Arushi, **Basu Kaushik**, Ned Mohan "LCL Filter Design for Grid-Connected Inverters by Analytical Estimation of PWM Ripple Voltage", *APEC-IEEE, 2014*.
12. Kartik Iyer; William P Robbins; **Basu Kaushik**; Mohan Ned "Transformer Winding Losses with Round Conductors for Duty-Cycle Regulated Square Waves.", *IPEC-IEEE, 2014*.
13. Kartik Iyer; **Basu Kaushik**; Mohan Ned; "Determination of optimal thickness of a multi-layer transformer.", *ECE-IEEE 2013*.
14. Ashish Shahoo; **Basu Kaushik**; Mohan Ned; "Comparison of Filter components of Back-to-Back and Matrix Converter by Analytical Estimation of Ripple quantities." *IECON-IEEE 2013*.
15. Castelino Gysler; **Basu Kaushik**; Wiese Nathan; Mohan Ned; "A Bi-directional, Isolated, Single-Stage, DAB-based AC-DC converter with Open-loop Power Factor Correction and Other Advanced Features", *ICIT-IEEE, 2012*.
16. Shahani Arushi; **Basu Kaushik**; Mohan Ned; "A power electronic transformer based on indirect matrix converter for PWM ac drives with lossless commutation of leakage energy", *PEMD-IEEE, 2012*.
17. Castelino Gysler; **Basu Kaushik**; Mohan Ned; "A Novel Three-Phase Bi-directional, Isolated, Single-Stage, DAB-based AC-DC converter with Open-loop Power Factor Correction.", *PEDES-IEEE 2012*.
18. Baranwal Rohit; **Basu Kaushik**; Mohan Ned; "Dual 2 level carrier based SVPWM with zero common mode voltage.", *PEDES-IEEE 2012*.
19. Ashish Shahoo; **Basu Kaushik**; Mohan Ned; "Analytical estimation of input RMS current ripple and input filter design of a Matrix converter.", *PEDES-IEEE 2012*.
20. **Basu Kaushik**; Nath S; Mohan Ned; "Input filter design of a current source inverter or a front end rectifier: Analysis and Simulation", *GCMS, 2011*.
21. Wiese Nathan; **Basu Kaushik**; Mohan Ned; "Advanced modulation strategy for a three-phase AC-DC dual active bridge for V2G", *VPPC-IEEE, 2011*.
22. Castelino Gysler; **Basu Kaushik**; Gupta Ranjan; Mohan Ned; "Power Electronic Transformer with Reduced Number of Switches: Analysis of Clamp Circuit for Leakage Energy Commutation", *PEDES-IEEE, 2010*.
23. **Basu Kaushik**; Mohan N; "A Power Electronic Transformer for PWM AC Drive with Lossless Commutation and Common-mode Voltage Suppression", *PEDES-IEEE, 2010*.
24. Prasad Rashmi; **Basu Kaushik**; Mohapatra Krushna K; Mohan Ned; "Ride-through study for matrix-converter adjustable-speed drives during voltage sags", *IECON-IEEE, 2010*.
25. Castelino Gysler; **Basu Kaushik**; Gupta Ranjan; Mohan Ned; "Power electronic transformer with reduced number of switches: Analysis of input clamp circuit and a modulation strategy to eliminate input snubber requirement", *IECON-IEEE, 2010*.
26. **Basu Kaushik**; Mohan N; "A Power electronic Transformer for three Phase PWM ac/ac drive with loss less commutation and common-mode voltage suppression ", *IECON-IEEE, 2010*.
27. **Basu Kaushik**; Gupta R.K; Nath S; Castelino G.F; Mohapatra K.K Mohan, N; "Research in matrix-converter based three-phase power-electronic transformers", *IPEC-IEEE, 2010*.
28. Nath S; Mohapatra K.K; **Basu Kaushik**; Mohan N; "Source based commutation in matrix converter fed power electronic transformer for power systems application", *SPEEDAM-IEEE, 2010*.

29. **Basu Kaushik**; Somani A; Mohapatra K.K; Mohan N; “A power electronic transformer-based three-phase PWM ac drive with lossless commutation of leakage energy”, *SPEEDAM-IEEE*, 2010.
30. **Basu Kaushik**; Somani A; Mohapatra K.K; Mohan N; “A three-phase ac/ac power electronic transformer-based PWM ac drive with lossless commutation of leakage energy”, *SPEEDAM-IEEE*, 2010.
31. Somani A; Gupta R K; Mohapatra K.K; **Basu Kaushik**; Mohan N, “Modulation Strategies for Direct-Link Drive for Open-End Winding AC Machines”, *IEMDC-IEEE*, 2009.
32. **Basu Kaushik**, Amod C Umarikar, Krushna K Mohapatra and Ned Mohan, “Loss Estimation in High Frequency AC Link Power Electronic Transformer by SABER Simulation”, *GCMS*, 2008.
33. **Basu Kaushik**; Umarikar A.C; Mohapatra K.K; Mohan N; “High-frequency transformer-link three-level inverter drive with common-mode voltage elimination”, *PESC-IEEE*, 2008.