

COMPLETED M.S. THESES SUPERVISED

1. Anirudh Pise, Fall 2017.
Ultra-Efficient Cascaded Buck-Boost Converter
2. Siddhesh Shinde, Fall 2016.
AC Battery with frequency regulation and grid tied applications.
3. Utsav Somani, Summer 2013
Design optimization of LLC topology and phase skipping Control of three phase inverter for PV applications
4. Anna Grishina, Summer 2012
A New Quasi Resonant DC-Link For Photovoltaic Micro-inverters
Co-advisor: Dr. John Shen
5. Christopher Hamilton, Fall 2010
Control Strategy for Maximizing Power Conversion Efficiency and Effectiveness of Three Port Solar Charging Station for Electric Vehicles
6. Souhib Harb, Summer 2010
Analysis and Design of Inverter Topologies for Photovoltaic Application
7. Michael Islas, Fall 2009
Efficiency Improvement Techniques for High Voltage Capacitor Charging
8. Gustavo Gamboa, Summer 2009
Realization of Power Factor Correction and Maximum Power Point Tracking for Low Power Wind Turbines
9. Michael Pepper, Spring 2009
Bi-Directional Dc-Dc Converter for Hybrid Electric Vehicles
10. David Bills, Fall 2007
Analysis and Design of Forward Resonant Converters
11. Keith Mansfield, Fall 2007
Grid-Connected PV Inverters
12. John Elms, M.S. Summer, 2007
Maximum Energy Harvesting for Oscillating Energy Harvesting Systems
13. Justin Reese, Summer 2007
Design, Modeling, and Control of Three-Port Converters for Solar Power Applications
14. Majd Batarseh, Fall 2006
A Non-Isolated Half Bridge Buck- Based Converter for VRM Application and Small Signal Modeling of a Non-Conventional Two Phase Buck
15. Wissam Al-Hoor, Spring 2006
Unified Computer Aided Steady State Model for Soft-Switching Cell
16. Osamah Abdel Rahman, Spring 2006
High Frequency Two-stage DC-DC Conversion

17. Ehab Shoubaki, Summer 2005
Small Signal Modeling of Power Electronic Converters
18. Liangbin Yao, Summer 2005
Digital Control of Half-Bridge DC-DC Converters with Current Doubler Rectification
19. Husam Al-Atrash, Spring 2005
Multi-channel Solar Inputs with DSP Control Analysis and Design of a Modular Solar-Fed Fault-Tolerant Power System with Maximum Power Point Tracking
20. Feng Tian, Spring 2005
Solar-Based Single-Stage High-Efficiency Grid-Connected Inverter
21. Yangyang Wen, Fall 2004
Design and Implementation of a Digital Controller with DSP for Half-Bridge DC-DC Converters
22. Todd Edward Persen, Fall 2004
FPGA-based Design of a Maximum-Power-Point Tracking System for Space Applications (co-advisor).
23. Shilpa R. Kaluvala, Fall 2003
High Frequency Link Inverters for Fuel Cell-Based Systems
24. Khalid Rustom, Spring 2002
Maximum Tracking Control in Photo-Voltaic Based Systems
25. Abel Halim Al-Sharaqawi, Spring 2002
Small-Signal Modeling of Megamp Converters
26. Joy Mazumdar, Summer 2002
Design and Analysis of High-Frequency Inverters for Solar System Applications
27. Mansi Soundalgekar, Summer 2001
Dynamic Modeling of Low-Voltage Converters for New Generation of Computer Systems
28. Basset Yacoub, Spring 2001
Analysis and Design of High-Order Parallel Resonant Converters
29. Syed Raihan, Spring 2001
Evaluation and Improvement of an Internet Based Circuit Design Package
30. Smitha Ridy, Fall 2000
Internet Based Circuit Design Package
31. Jaber Abu Qahouq, Spring 2000
Generalized Analysis of Soft-Switching DC-DC Converter Families
32. Qiong Zhang, Spring 2000
Design and Evaluation of an Internet-Based Circuit Design Package used in an Undergraduate Engineering Circuit Course
33. Chris Iannello, Summer 1999

Dynamic Modeling of Power Converters Using A Unified Approach

34. Robert Eriksson, Fall 1999
The Development of a Circuit Markup Language using XML and a Corresponding editor/browser in Java (co-advisor)
35. Faouzi El Filali, Summer 1998
Analysis and Design of Soft-Switching DC-to-DC Converters
36. Hsiao-Ping Lin, Summer 1998
Soft-Switching Resonant Converters
37. Loutfella Elkaldi, Fall 1997
A Study of Power Factor Correction and Total Harmonic Distortion in Power Electronic Systems
38. Allam Hatoum, Spring 1996
Steady-state Analysis and Small-Signal Modeling of Switch Mode Power Converters
39. John Evans, Spring 1995
Harmonics Analysis of three-phase systems
40. Jinrong Qian, Summer 1994
Classification and Generalization of ZVS and ZCS of Resonant Power Factor Correction Circuits
41. Aslam Khan, Summer 1994
Analysis and Design of Resonant Power Factor Correction Techniques
42. Audry Bonsall, Summer 1994
Design and Simulation of Parallel-Series Resonant Converters
43. Zaki Moussaoui, Spring 1994
Steady State Analysis and Control Characteristic Curves for Resonant Converters
44. Christos Megalemos, Summer 1993
Small Signal Modeling of the LCC-Type Parallel Resonant Converters