Graduated Masters Students



1. Anirudh Pise, Fall 2017

*Ultra-Efficient Cascaded Buck-Boost Converter*

1. Siddhesh Shinde, Fall 2016

*AC Battery with frequency regulation and grid tied applications.*

1. Utsav Somani, Summer 2013

*Design optimization of LLC topology and phase skipping Control of three phase inverter for PV applications*

1. Anna Grishina, Summer 2012

*A New Quasi Resonant DC-Link For Photovoltaic Micro-inverters*

*Co-advisor: Dr. John Shen*

1. Christopher Hamilton, Fall 2010

*Control Strategy for Maximizing Power Conversion Efficiency and Effectiveness of Three Port Solar Charging Station for Electric Vehicles*

1. Souhib Harb, Summer 2010

*Analysis and Design of Inverter Topologies for Photovoltaic Application*

1. Michael Islas, Fall 2009

*Efficiency Improvement Techniques for High Voltage Capacitor Charging*

1. Gustavo Gamboa, Summer 2009

*Realization of Power Factor Correction and Maximum Power Point Tracking for Low Power Wind Turbines*

1. Michael Pepper, Spring 2009

*Bi-Directional DC-DC Converter for Hybrid Electric Vehicles*

1. David Bills, Fall 2007
*Analysis and Design of Forward Resonant Converters*
2. Keith Mansfield, Fall 2007

*Grid-Connected PV Inverters*

1. John Elms, M.S. Summer, 2007

*Maximum Energy Harvesting for Oscillating Energy Harvesting Systems*

1. Justin Reese, Summer 2007

*Design, Modeling, and Control of Three-Port Converters for Solar Power Applications*

1. 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*

1. Wissam Al-Hoor, Spring 2006

*Unified Computer Aided Steady State Model for Soft-Switching Cell*

1. Osamah Abdel Rahman, Spring 2006

*High Frequency Two-stage DC-DC Conversion*

1. Ehab Shoubaki, Summer 2005
*Small Signal Modeling of Power Electronic Converters*
2. Liangbin Yao, Summer 2005

*Digital Control of Half-Bridge DC-DC Converters with Current Doubler Rectification*

1. 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*
2. Feng Tian, Spring 2005

*Solar-Based Single-Stage High-Efficiency Grid-Connected Inverter*

1. Yangyang Wen, Fall 2004

*Design and Implementation of a Digital Controller with DSP for Half-Bridge DC-DC Converters*

1. Todd Edward Persen, Fall 2004

*FPGA-based Design of a Maximum-Power-Point Tracking System for Space Applications (co-advisor).*

1. Shilpa R. Kaluvala, Fall 2003

*High Frequency Link Inverters for Fuel Cell-Based Systems*

1. Khalid Rustom, Spring 2002

*Maximum Tracking Control in Photo-Voltaic Based Systems*

1. Abel Halim Al-Sharaqawi, Spring 2002

*Small-Signal Modeling of Megamp Converters*

1. Joy Mazumdar, Summer 2002

*Design and Analysis of High-Frequency Inverters for Solar System Applications*

1. Mansi Soundalgekar, Summer 2001

*Dynamic Modeling of Low-Voltage Converters for New Generation of Computer Systems*

1. Basset Yacoub, Spring 2001

Analysis and Design of High-Order Parallel Resonant Converters

1. Syed Raihan, Spring 2001

*Evaluation and Improvement of an Internet Based Circuit Design Package*

1. Smitha Ridy, Fall 2000

*Internet Based Circuit Design Package*

1. Jaber Abu Qahouq, Spring 2000

*Generalized Analysis of Soft-Switching DC-DC Converter Families*

1. Qiong Zhang, Spring 2000

*Design and Evaluation of an Internet-Based Circuit Design Package used in an Undergraduate Engineering*

*Circuit Course*

1. Chris Iannello, Summer 1999

###### Dynamic Modeling of Power Converters Using A Unified Approach

1. Robert Eriksson, Fall 1999

The Development of a Circuit Markup Language using XML and a Corresponding editor/browser in Java (co-advisor)

1. Faouzi El Filali, Summer 1998

Analysis and Design of Soft-Switching DC-to-DC Converters

1. Hsiao-Ping Lin, Summer 1998

*Soft-Switching Resonant Converters*

1. Loutfella Elkaldi, Fall 1997

*A Study of Power Factor Correction and Total Harmonic Distortion in Power Electronic Systems*

1. Allam Hatoum, Spring 1996

Steady-state Analysis and Small-Signal Modeling of Switch Mode Power Converters

1. John Evans, Spring 1995

*Harmonics Analysis of three-phase systems*

1. Jinrong Qian, Summer 1994

*Classification and Generalization of ZVS and ZCS of Resonant Power Factor Correction Circuits*

1. Aslam Khan, Summer 1994

*Analysis and Design of Resonant Power Factor Correction Techniques*

1. Audry Bonsall, Summer 1994

*Design and Simulation of Parallel-Series Resonant Converters*

1. Zaki Moussaoui, Spring 1994

*Steady State Analysis and Control Characteristic Curves for Resonant Converters*

1. Christos Megalemos, Summer 1993

*Small Signal Modeling of the LCC-Type Parallel Resonant Converters*

# Zaki Moussaoui, Spring 2003

*New Designs of High Frequency Resonant Ballasts*

 *(Apple, San Francisco Bay Area, CA)*

1. Wei Gu, Fall 2001

*Hysteretic Control in the design of Low Voltage Converters for new Generation of Microprocessors*

*(Dell, Austin, Texas)*

1. Christopher Iannello, Summer 2001

###### Dynamic Modeling of Power Converters Using A Unified Approach

*(NASA, Kennedy Space Center)*

1. Shiguo Luo, Summer 2001

###### Front-End Converter Design And System Integration Techniques In Distributed Power Systems

*(Dell, Austin, Texas)*

1. Guangyong Zhu, Fall 1999

Dynamic Modeling of Power Factor Correction Circuits

*(Dell, Austin, Texas)*

1. Wei Huai, Fall 1999

Single-Stage Single-Switch Power Factor Correction Circuits: Analysis, Design and Implementation

*(CTO, NetPower Technologies, Dallas, Texas)*

1. Aslam Khan, Spring 1999

Analysis and Design of Resonant Power Factor Correction Techniques

*(Bassett Healthcare Network, Cooperstown, New York)*