Research outputs:

A 10 MHz GaN FET Based Isolated High Step-Down DC-DC Converter: Design and Magnetics Investigation
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Multi-physic Analysis for GaN Transistor PCB Layout
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

Partial Parallel Dual Active Bridge Converter with Variable Voltage Gain for SOEC/SOFC System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2019 › Research › peer-review

A 10 MHz GaN FET Based Isolated High Step-Down DC-DC Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Analysis and Comparison of dc/dc Topologies in Partial Power Processing Configuration for Energy Storage Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Analysis and Design of a dc-dc Converter Using Visual Aid
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

An improved partially interleaved transformer structure for high-voltage high-frequency multiple-output applications
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Higher power density amplifiers
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

High Frequency LLC Resonant Converter with Magnetic Shunt Integrated Planar Transformer
High Frequency LLC Resonant Converter with Magnetic Shunt Integrated Planar Transformer

High Frequency Wide Output Range Boost-Flyback Converter with Zero Voltage Switching

High Voltage Gain Dual Active Bridge Converter with an Extended Operation Range for Renewable Energy Systems

Improved Analysis and Modelling of Leakage Inductance for Planar Transformers

Power Flow Models of GaN Based Partial Parallel Dual Active Bridge (P2DAB) DC-DC Converter

Loss Analysis of GaN Based Partial Parallel Isolated Bidirectional Full Bridge Boost Converter

Multilevel tracking power supply for switch-mode audio power amplifiers

Optimal control of a high-frequency class-D amplifier

PCB Embedded Inductor for High-Frequency ZVS SEPIC Converter
Analytical Comparison of Dual-Input Isolated dc-dc Converter with an ac or dc Inductor for Renewable Energy Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

An improved partially interleaved transformer structure for high-voltage high-frequency multiple-output applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Construction of Lightweight Loudspeaker Enclosures
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Optimum phase shift in the self-oscillating loop for piezoelectric transformer-based power converters
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Piezoelectric transformers: Control
Zsurzsan, T-G., Andersen, M. A. E., Andersen, N. A. & Zhang, Z., 2017
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2017 › Research › peer-review

Review of High Efficiency Bidirectional dc-dc Topologies with High Voltage Gain
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Accelerometer Based Motional Feedback Integrated in a 2 3/4" Loudspeaker
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Analysis of bi-directional piezoelectric-based converters for zero-voltage switching operation
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Class-D amplifier design and performance for driving a Piezo Actuator Drive servomotor.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Comparative Evaluation of the Loss and Thermal Performance of Advanced Three Level Inverter Topologies
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review
Comparative Evaluation of the Loss and Thermal Performance of Advanced Three Level Inverter Topologies
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Comparison of Simple Self-Oscillating PWM Modulators
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Design of Efficient Sound Systems for Low Voltage Battery Driven Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Digital Control of a High Voltage (2.5 kV) Bidirectional Flyback DC-DC Converter for Driving a Capacitive Incremental Actuator
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Digitized self-oscillating loop for piezoelectric transformer-based power converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Dynamic optimum dead time in piezoelectric transformer-based switch-mode power supplies
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Efficiency of Switch-Mode Power Audio Amplifiers - Test Signals and Measurement Techniques
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Efficiency Study of Vertical Distance Variations in Wireless Power Transfer for E-Mobility
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

EMC Investigation of a Very High Frequency Self-oscillating Resonant Power Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Grid-connected Photovoltaic Micro-inverter with New Hybrid Control LLC Resonant Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review
High Dynamic Performance Nonlinear Source Emulator
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

High Frequency AC Inductor Analysis and Design for Dual Active Bridge (DAB) Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Integrated Three-Port DC-DC Converter for Photovoltaic (PV) Battery Stand-alone Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Investigation of Transformer Winding Architectures for High Voltage (2.5 kV) Capacitor Charging and Discharging Applications
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Loss Distribution Analysis of a Three-Port Converter for Low-Power Stand-Alone Light-to-Light Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

New Incremental Actuators based on Electro-active Polymer: Conceptual, Control, and Driver Design Considerations.
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Power enhancement of piezoelectric transformers for power supplies.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Relationship between voice coil fill factor and loudspeaker efficiency
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Teaching Power Electronics with a Design-Oriented and Project-Based Learning Method at the Technical University of Denmark
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

The Benefits of SiC MOSFETs in a T-Type Inverter for Grid-Tie Applications
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Ultrasonic lubrication: concept and application
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2016 › Research › peer-review
US Mains Stacked Very High Frequency Self-oscillating Resonant Power Converter with Unified Rectifier
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Wide Input Range Power Converters Using a Variable Turns Ratio Transformer
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2016 › Research › peer-review

A Comparison between Boundary and Continuous Conduction Modes in Single Phase PFC Using 600V Range Devices
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Analytical Switching Cycle Modeling of Bidirectional High Voltage Flyback Converter for Capacitive Load Considering Core Loss Effect
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Bidirectional Flyback Converter with Multiple Series Connected Outputs for High Voltage Capacitive Charge and Discharge Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Characterization and Evaluation of 600 V Range Devices for Active Power Factor Correction in Boundary and Continuous Conduction Modes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Comparison of a state of the art Si IGBT and next generation fast switching devices in a 4 kW boost converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Control and sensor techniques for PAD servo motor drive
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Design and Evaluation of Accelerometer based Motional Feedback
Design of a 300-Watt Isolated Power Supply for Ultra-Fast Tracking Converters

Efficiency Evaluation on a CoolMos Switching and IGBT Conducting Multilevel Inverter

Efficiency Investigation of Switch Mode Power Amplifier Driving Low Impedance Transducers

Efficiency Optimization by Considering the High Voltage Flyback Transformer Parasitics using an Automatic Winding Layout Technique

Efficiency Optimization in Class-D Audio Amplifiers

Electronics drivers for high voltage dielectric electro active polymer (DEAP) applications

Input-output rearrangement of isolated converters

Investigation of Current Driven Loudspeakers

Investigation of Energy Consumption and Sound Quality for Class-D Audio Amplifiers using Tracking Power Supplies
Low Impedance Voice Coils for Improved Loudspeaker Efficiency
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

MOSFET Loss Evaluation for a Low-Power Stand-Alone Photovoltaic-LED System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Outphasing control of gallium nitride based very high frequency resonant converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Power Flow Control of a Dual-Input Interleaved Buck/Boost Converter with Galvanic Isolation for Renewable Energy Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Priletsch model of hysteresis for the Piezoelectric Actuator Drive
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Self-oscillating Galvanic Isolated Bidirectional Very High Frequency DC-DC Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Using squeeze-film effect to reduce surface friction in electrostatic actuators
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Validation of Power Requirement Model for Active Loudspeakers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

A Direct Driver for Electrostatic Transducers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

A High Power Boost Converter for PV Systems Operating up to 300 kHz using SiC Devices.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review
A High-Voltage Class D Audio Amplifier for Dielectric Elastomer Transducers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Analysis and Comparison Based on Component Stress Factor of Dual Active Bridge and Isolated Full Bridge Boost Converters for Bidirectional Fuel Cells Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Analysis and Comparison of Magnetic Structures in a Tapped Boost Converter for LED Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Analysis and Comparison of Si and SiC Power Devices on a Grid-Tie Fuel Cell Energy Storage System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

A Review on the Implementation of Nonlinear Source Emulators
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

A Three-Port Topology Comparison for a Low Power Stand-Alone Photovoltaic System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

A VHF Interleaved Self-Oscillating Resonant SEPIC Converter with Phase-Shift Burst-Mode Control
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Bi-directional high-side current sense circuit for switch mode power supplies
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Characterization of Dielectric Electroactive Polymer transducers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Class D audio amplifier with 4th order output filter and self-oscillating full-state hysteresis based feedback driving capacitive transducers

Comparative Study of Si and SiC MOSFETs for High Voltage Class D Audio Amplifiers

Comprehensive Loss Evaluation of Neutral-Point-Clamped (NPC) and T-Type Three-Level Inverters based on a Circuit Level Decoupling Modulation.

Constant Switching Frequency Self-Oscillating Controlled Class-D Amplifiers

DEAP actuator and its high voltage driver for heating valve application

Design and Development of Autonomous High Voltage Driving System for DEAP Actuator in Radiator Thermostat

Design and Implementation of Power Flow Control for a novel Dual Input DC-DC Converter

Design Comparison of Autonomous High Voltage Driving System for DEAP Actuator

Design of a 300-Watt Isolated Power Supply with Minimized Circuit Input-to-Output Parasitic Capacitance

Design of a High Voltage Bidirectional DC-DC Converter for Driving Capacitive Incremental Actuators usable in Electric Vehicles (EVs)
Digital control of a high-voltage (2.5 kV) bidirectional DC-DC converter for driving a dielectric electro active polymer (DEAP) based capacitive actuator
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Efficiency Investigations of a 3 kW T-Type Inverter for Switching Frequencies up to 100 kHz
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Evaluation of 600V Superjunction Devices in Single Phase PFC Applications under CCM Operation
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Frequency dependent loss analysis and minimization of system losses in switchmode audio power amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

High Current Planar Magnetics for High Efficiency Bidirectional DC-DC Converters for Fuel Cell Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

High Current Planar Transformer for Very High Efficiency Isolated Boost DC-DC Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Integrated magnetic transformer assembly

Investigating the Electromechanical Coupling in Piezoelectric Actuator Drive Motor Under Heavy Load
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Investigation of Heat Sink Efficiency for Electronic Component Cooling Applications
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Investigation of Transformer Winding Architectures for High Voltage Capacitor Charging Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review
Leakage Inductance Calculation for Planar Transformers with a Magnetic Shunt
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Loss Performance Analysis of an Isolated Power Supply for Ultrafast Tracking Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Low Capacitive Inductors for Fast Switching Devices in Active Power Factor Correction Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Low Power Very High Frequency Switch-Mode Power Supply with 50 V Input and 5 V Output
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Minimization of the transformer inter-winding parasitic capacitance for modular stacking power supply applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Multilevel inverter based class D audio amplifier for capacitive transducers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Optimization of Bi-Directional Flyback Converter for a High Voltage Capacitor Charging Application
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Overview of Planar Magnetic Technology — Fundamental Properties
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Parallel input parallel output high voltage bi-directional converters for driving dielectric electro active polymer actuators
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Piezoelectric power converter with bi-directional power transfer

Piezoelectric stack actuator parameter extraction with hysteresis compensation
Power Cycling and Thermal Stresses Analysis for High Efficiency DC/DC Converter (IFBBC) in Repetitive Avalanche Conditions
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Practical investigation of the gate bias effect on the reverse recovery behavior of the body diode in power MOSFETs
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Predistortion of a Bidirectional Cuk Audio Amplifier.
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Primary Parallel Secondary Series Flyback Converter (PPSSFC) with Multiple Transformers for Very High Step-Up Ratio in Capacitive Load Charging Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Requirements Specification for Amplifiers and Power Supplies in Active Loudspeakers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Self-Oscillating Resonant Gate Drive for Resonant Inverters and Rectifiers Composed Solely of Passive Components
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

State-of-the-art piezoelectric transformer-based switch mode power supplies
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Switching Investigations on a SiC MOSFET in a TO-247 Package
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Thermal Modeling and Design of On-board DC-DC Power Converter using Finite Element Method
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review
Thermal Modelling and Design of On-board DC-DC Power Converter using Finite Element Method
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Three-port DC-DC converter with new integrated transformer for DC Distribution Systems
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Ultrafast Switching Superjunction MOSFETs for Single Phase PFC Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Very High Frequency Half Bridge DC/DC Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Wide Operating Voltage Range Fuel Cell Battery Charger
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Analysis and Design of Fully Integrated Planar Magnetics for Primary-Parallel Isolated Boost Converter
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Analysis of DC/DC Converter Efficiency for Energy Storage System Based on Bidirectional Fuel Cells
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

An integrated magnetics component
Research output: Patent › Patent – Annual report year: 2013 › Research

An interface board for developing control loops in power electronics based on microcontrollers and DSPs Cores -Arduino /ChipKit /dsPIC /DSP /TI Piccolo
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Boost converter with combined control loop for a stand-alone photovoltaic battery charge system
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Design Optimization of Printed Circuit Board Embedded Inductors through Genetic Algorithms with Verification by COMSOL
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

**Detailed Behavior Analysis for High Voltage Bidirectional Flyback Converter Driving DEAP Actuator**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

**Dielectric Electro Active Polymer Incremental Actuator Driven by Multiple High-Voltage Bi-directional DC-DC Converters**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

**Discontinuous PWM Modulation Strategy with Circuit-Level Decoupling Concept of Three-Level Neutral-Point Clamped (NPC) Inverter**
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

**Driving electrostatic transducers**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

**Estimation of Transformer Parameters and Loss Analysis for High Voltage Capacitor Charging Application**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

**Evolution of Very High Frequency Power Supplies**
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

**Forward Conduction Mode Controlled Piezoelectric Transformer-Based PFC LED Drive**
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

**Fuel Cell and Battery Powered Forklifts**
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

**High Voltage Bidirectional Flyback Converter Driving DEAP Actuator for Automotive Applications**
High Voltage Bi-directional Flyback Converter for Capacitive Actuator

Hybrid winding concept for toroids

Hysteretic self-oscillating bandpass current mode control for Class D audio amplifiers driving capacitive transducers

Interleaved Boost-Half-Bridge Dual-Input DC-DC Converter with a PWM plus Phase-Shift Control for Fuel Cell Applications

Investigation of a Hybrid Winding Concept for Toroidal Inductors using 3D Finite Element Modeling

Isolated Boost Converter with Bidirectional Operation for Supercapacitor Applications

Isolated Full Bridge Boost DC-DC Converter Designed for Bidirectional Operation of Fuel Cells/Electrolyzer Cells in Grid-Tie Applications

Leakage Inductance Calculation for Planar Transformers with a Magnetic Shunt

Low power very high frequency resonant converter with high step down ratio

Modular space-vector pulse-width modulation for nine-switch converters
On the Ongoing Evolution of Very High Frequency Power Supplies
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Optimizing dc-resistance of a foil wounded toroidal inductor combining matlab and comsol
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Optimizing Inductor Winding Geometry for Lowest DC-Resistance using LiveLink between COMSOL and MATLAB
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Printed Circuit Board Embedded Inductors for Very High Frequency Switch-Mode Power Supplies
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Self-oscillating loop based piezoelectric power converter
Research output: Patent › Patent – Annual report year: 2013 › Research

SiC JFET Cascode Loss Dependency on the MOSFET Output Capacitance and Performance Comparison with Trench IGBTs
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Soft-Switched Dual-Input DC-DC Converter Combining a Boost-Half-Bridge Cell and a Voltage-Fed Full-Bridge Cell
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Switching Performance Evaluation of Commercial SiC Power Devices (SiC JFET and SiC MOSFET) in Relation to the Gate Driver Complexity
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review

Very High Frequency Interleaved Self-Oscillating Resonant SEPIC Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Very High Frequency Resonant DC/DC Converters for LED Lighting
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2013 › Research › peer-review
VHF Series-Input Parallel-Output Interleaved Self-Oscillating Resonant SEPIC Converter
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2013 > Research > peer-review

A capacitive level shifter for high voltage (2.5kV)
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review

Active Match Load Circuit Intended for Testing Piezoelectric Transformers
Andersen, T., Rødgaard, M. S. & Andersen, M. A. E., 2012, 6th IET International Conference on Power Electronics, Machines and Drives. Institution of Engineering and Technology
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review

A Fast-Processing Modulation Strategy for Three-Phase Four-Leg Neutral-Point-Clamped Inverter Based on the Circuit-Level Decoupling Concept
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review

A Fault-Tolerant Modulation Method to Counteract the Double Open-Switch Fault in Matrix Converter Drive Systems without Redundant Power Devices
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review

A high voltage DC-DC converter driving a Dielectric Electro Active Polymer actuator for wind turbine flaps
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review

Analysis and Design of a Bidirectional Isolated DC-DC Converter for Fuel Cell and Super-Capacitor Hybrid System
Research output: Contribution to journal > Journal article – Annual report year: 2011 > Research > peer-review

Analysis of Dielectric Electro Active Polymer Actuator and its High Voltage Driving Circuits
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review

Analysis of Planar E+H and ER+H Transformers for Low-Voltage High-Current DC/DC Converters with Focus on Winding Losses and Leakage Inductance
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2012 > Research > peer-review
A New Method for Start-up of Isolated Boost Converters Using Magnetic- and Winding-Integration
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

A review and design of power electronics converters for fuel cell hybrid system applications
Research output: Contribution to journal › Conference article – Annual report year: 2011 › Research › peer-review

A Review of High Voltage Drive Amplifiers for Capacitive Actuators
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Battery powered high output voltage bidirectional flyback converter for cylindrical DEAP actuator
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Current-Driven Switch-Mode Audio Power Amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Decoupled Power Solution for Dual-input Isolated DC-DC Converters Using Four Quadrants Integrated Transformers (FQIT)
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Design Considerations of Very Low Profile Coupled Inductors for Flexible Photovoltaic Module
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Design of Interleaved Interdigitated Electrode Multilayer Piezoelectric Transformer utilizing Longitudinal and Thickness Mode Vibrations
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Design of interleaved multilayer rosen type piezoelectric transformer for high voltage dc/dc applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Dual-Input Isolated Full-Bridge Boost DC-DC Converter Based on the Distributed Transformers
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review
Efficiency of Capacitively Loaded Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Empiric analysis of zero voltage switching in piezoelectric transformer based resonant converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Four Quadrants Integrated Transformers for Dual-input Isolated DC-DC Converters
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Integrated high voltage power supply utilizing burst mode control and its performance impact on dielectric electro active polymer actuators
Research output: Contribution to conference › Paper – Annual report year: 2012 › Research › peer-review

Interleaved Self-Oscillating Class E Derived Resonant DC/DC Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Method and device for current driven electric energy conversion
Research output: Patent › Patent – Annual report year: 2012 › Research

Modeling and Control of a Dual-Input Isolated Full-Bridge Boost Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Modeling and Control of Primary Parallel Isolated Boost Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Nonlinear Effects in Piezoelectric Transformers Explained by Thermal-Electric Model Based on a Hypothesis of Self-Heating
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Optimal Design and Tradeoff Analysis of Planar Transformer in High-Power DC–DC Converters
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review
Analysis of current-bidirectional buck-boost based switch-mode audio amplifier
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

A Novel Bridgeless Power Factor Correction with Interleaved Boost Stages in Continuous Current Mode
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

A Self-Oscillating Control Scheme for a Boost Converter Providing a Controlled Output Current
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

A VHF Class E DC-DC Converter with Self-Oscillating Gate Driver
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Comparison of Current Balancing Configurations for Primary Parallel Isolated Boost Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Fully Integrated Planar Magnetics for Primary-Parallel Isolated Boost Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Integrated Current Balancing Transformer for Primary Parallel Isolated Boost Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Isolated Bidirectional DC–DC Converter for SuperCapacitor Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Low profile, low cost, new geometry integrated inductors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Low voltage driven dielectric electro active polymer actuator with integrated piezoelectric transformer based driver
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review
One-shot Design of Radial Mode Piezoelectric Transformer for Magneticless Power Conversion
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Planar Integrated Magnetics (PIM) Module in Hybrid Bidirectional DC-DC Converter for Fuel Cell Application
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Preliminary investigations of piezoelectric based LED luminary
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Research on Power Factor Correction Boost Inductor Design Optimization – Efficiency vs. Power Density
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

The Circuit-Level Decoupling Modulation Strategy for Three-Level Neutral-Point-Clamped (TL-NPC) Inverter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Improvement of out-of-band Behaviour in Switch-Mode Amplifiers and Power Supplies by their Modulation Topology
Knott, A. & Andersen, M. A. E., Sep 2010

A high efficient integrated planar transformer for primary-parallel isolated boost converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research

A Novel Dual-input Isolated Current-Fed DC-DC Converter for Renewable Energy System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

A review of module inverter topologies suitable for photovoltaic system
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Energy harvesting from an exercise bike using a switch-mode converter controlled generator
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review
Full Space Vectors Modulation for Nine-Switch Converters Including CF & DF Modes

High-Efficiency Isolated Boost DCDC Converter for High-Power Low-Voltage Fuel-Cell Applications

Modeling Distortion Effects in Class-D Amplifier Filter Inductors

New Geometry Integrated Inductors in Two-channel Interleaved Bidirectional Converter

Optimal Design and Tradeoffs Analysis for Planar Transformer in High Power DC-DC Converters

Planar integrated magnets design in wide input range DC-DC converter for fuel cell application

Active Electromagnetic Interference Cancelation for Automotive Switch-Mode Audio Power Amplifiers

A DC-DC Converter with Wide Input Voltage Range for Fuel Cell and Supercapacitor Application

Analysis and Design of Bi-Directional DC-DC Converter in the Extended Run Time DC UPS System Based on Fuel Cell and Supercapacitor

Analysis and design of PPFHB bidirectional DC-DC converter with coupled inductors
A New Very-High-Efficiency R4 Converter for High-Power Fuel Cell Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

A Novel PPFHB Bidirectional DC-DC Converter for Supercapacitor Application
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

A Two-stage DC-DC Converter for the Fuel Cell-Supercapacitor Hybrid System
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Carrier Distortion in Hysteretic Self-Oscillating Class-D Audio Power Amplifiers: Analysis and Optimization
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Conduction Losses and Common Mode EMI Analysis on Bridgeless Power Factor Correction
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

DOUBLE-BOOST DC-AC CONVERTER WITH SLIDING-MODE CONTROL FOR PORTABLE AUDIO
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Evaluation of Single Phase Transformerless Inverter Topology for Photovoltaic Systems

Investigation of Switching Frequency Variations and EMI Properties in Self-Oscillating Class D Amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Investigation of Switching Frequency Variations in Self-Oscillating Class D Amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Multi Carrier Modulation Audio Power Amplifier with Programmable Logic
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review
New Primary-Parallel Boost Converter for High-Power High-Gain Applications
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

On the Myth of Pulse Width Modulated Spectrum in Theory and Practice
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Reducing AC-Winding Losses in High-Current High-Power Inductors
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

TEDS Base Station Power Amplifier using Low-Noise Envelope Tracking Power Supply
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

The Analysis and Comparison of Leakage Inductance in Different Winding Arrangements for Planar Transformer
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

What is the Best Converter for Low Voltage Fuel Cell Applications- A Buck or Boost?
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

A New Approach to High Efficiency in Isolated Boost Converters for High-Power Low-Voltage Fuel Cell Applications
Nyman, M. & Andersen, M. A. E., 2008, 13th Power Electronics and Motion Control Conference. IEEE, p. 577
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

A novel Modulation Topology for Power Converters utilizing Multiple Carrier Signals
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

A Versatile Discrete-Time Approach for Modeling Switch-Mode Controllers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

Comparison of State-of-the-Art Digital Control and Analogue Control for High Bandwidth Point of Load Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review
Comparison of three different Modulators for Power Converters with Respect to EMI Optimization
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2008 > Research > peer-review

Interleaved Buck Converter with Variable Number of Active Phases and a Predictive Current Sharing Scheme
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2008 > Research > peer-review

Multi Carrier Modulator for Switch-Mode Audio Power Amplifiers
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2008 > Research > peer-review

Optimized Envelope Tracking Power Supply for Tetra2 Base Station RF Power Amplifier
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2008 > Research > peer-review

Parameterized Analysis of Zero Voltage Switching in Resonant Converters for Optimal Electrode Layout of Piezoelectric Transformers
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2008 > Research > peer-review

Ultra-Fast Tracking Power Supply with 4th order Output Filter and Fixed-Frequency Hysteretic Control
Research output: Contribution to journal > Journal article – Annual report year: 2008 > Research > peer-review

A 0.35μm 50V CMOS Sliding-Mode Control IC for Buck Converters
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2007 > Research > peer-review

Accurate Sliding-Mode Control System Modeling for Buck Converters
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2007 > Research > peer-review

A Comparative Study of Analog Voltage-mode Control Methods for Ultra-Fast Tracking Power Supplies
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2007 > Research > peer-review

Digitally Controlled Envelope Tracking Power Supply for an RF Power Amplifier
Research output: Chapter in Book/Report/Conference proceeding > Article in proceedings – Annual report year: 2007 > Research > peer-review

Ultra-Fast Tracking Power Supply with 4th order Output Filter and Fixed-Frequency Hysteretic Control
Digitally Controlled Offline Converter with Galvanic Isolation Based on an 8-bit Microcontroller
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

Digitally Controlled Point of Load Converter with Very Fast Transient Response
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

DIGITAL SELF-OscILLATING MODULATOR

Isolated EWiRaC: A New Low-Stress Single-Stage Isolated PFC Converter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

Self-Oscillating Soft Switching Envelope Tracking Power Supply for Tetra2 Base Station
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

Two-Phase Interleaved Buck Converter with a new Digital Self-Oscillating Modulator
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2007 › Research › peer-review

A 500-W Transformer-Less Efficient Universal Wide-Range Power Factor Pre regulator
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

A small-signal model of the hysteretic comparator in linear-carrier self-oscillating switch-mode controllers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

Comparison of two different high performance mixed signal controllers for DC/DC converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

Efficient Wide Range Converters (EWiRaC): A new family of high efficient AC-DC Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

Envelope Tracking Power Supply with fully controlled 4th order Output Filter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review
High performance mixed signal controllers for DC/DC converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review

TBD
Research output: Patent › Patent – Annual report year: 2006 › Research

Derivation and Analysis of a Low-Cost, High-performance Analogue BPCM Control Scheme for Class-D Audio Power Amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Direct-conversion switching-mode audio power amplifier with active capacitive voltage clamp
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Efficient Audio Power Amplification - Challenges
Andersen, M. A. E., 2005, AES 27th International Conference "Efficient Audio Power Amplification". AES, p. 9-18
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Experimental Verification of the Thermal Droop Load Sharing Technique
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Four-quadrant flyback converter for direct audio power amplification
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

High-Bandwidth, High-Efficiency Envelope Tracking Power Supply for 40W RF Power Amplifier Using Paralleled Bandpass Current Sources
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Hybrid Control Method for a Single Phase PFC using a Low Cost Microcontroller
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Hysteresis controller with constant switching frequency
Research output: Contribution to journal › Journal article – Annual report year: 2005 › Research › peer-review

Integrated magnetics design for HF-link power converters
New active load voltage clamp for HF-link converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

New PWM method and commutation strategy for HF-link converters for fuel cells and photovoltaics
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Self-oscillating modulators for direct energy conversion audio power amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Simple single-phase HF-link UPS with new PWM approach
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Switching-mode Audio Power Amplifiers with Direct Energy Conversion
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2005 › Research › peer-review

Approaches to building single-stage AC/AC conversion switch-mode audio power amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Digitally-controlled PC-interfaced Boost Converter for Educational Purposes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Efficiency improvement in redundant power systems by means of thermal load sharing
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

High Bandwidth Automotive Power Supply for Low-cost PWM Audio Amplifiers
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review

Hysteresis Controller with constant switching frequency
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2004 › Research › peer-review
Integrating switch mode audio amplifiers and electro dynamic loudspeakers for a higher power efficiency

Optimized load sharing control by means of thermal reliability management

Practical considerations for integrating switch mode audio amplifiers and loudspeakers for a higher power efficiency

Safe-commutation principle for direct single-phase AC-AC converters for use in audio power amplification

Self oscillating PWM modulators, a topological comparison

Simple PWM modulator topology with excellent dynamic behavior

Single conversion audio amplifier and DC-AC converters with high performance and low complexity control scheme

Single conversion audio amplifier DC-AC converters with high performance and low complexity control scheme
PC-programs for Designing Snubber Circuits
Andersen, M. A. E., 1995, IMACS SAS'95. p. 791-794
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1995 › Research › peer-review

Possible Technical Solutions to Reduce Energy Consumption in Audio Products
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1995 › Research › peer-review

A New Application for Zero-Current-Switched Full-Wave Resonant Converters
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1993 › Research › peer-review

Comparison of three IGBT-Inverters, one Hard-Switched and two with Snubber Circuits using a Minimum Number of Components
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1993 › Research › peer-review

PC-Program with Graphic Presentation for Fast Interactive Design Decisions for Snubber Circuits
Andersen, M. A. E., 1993, IMACS-TC1. p. 513-518
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1993 › Research › peer-review

New Principle for Digital Audio Power Amplifiers
Andersen, M. A. E., 1992, 92nd Audio Engineering Society Convention. AES, p. 3226
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1992 › Research › peer-review

Novel Simple Lossless Snubber Circuit for an IGBT-Inverter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1992 › Research › peer-review

Special purpose PC-computer program as a design tool for optimizing snubber circuits for an IGBT-Inverter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1992 › Research › peer-review

Computer Program for Designing Snubber Circuit for an IGBT-Inverter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1991 › Research › peer-review

Computer Program with Supplementary Design Graphs for Designing Snubber Circuit for an IGBT-Inverter
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1991 › Research › peer-review

A Comparison of three Inverters with IGBTs, GTOs and Bipolar Transistors at 600V and 300A
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1990 › Research › peer-review
**Effektelektroniske kontaktelementer**

**GTO-Inverter with Computer Designed Optimal Values of the Snubber Components**
Andersen, M. A. E., 1989, UPEC. p. 111-114
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 1989 › Research › peer-review

**Projects:**

**High Efficiency High Density Power Converters for Wireless Rapid Charging System**
Liu, Y., Ouyang, Z. & Andersen, M. A. E.
01/12/2018 → 30/11/2021
Project: PhD

**Application Specific Integrated Circuit for New Generation of MEMS Acoustic Sensor**
Toft, J. K., Jørgensen, I. H. H., Andersen, M. A. E. & Shajaan, M.
01/09/2018 → 31/08/2021
Project: PhD

**High Efficiency and High Power Density AC-DC Power Converters**
Li, M., Ouyang, Z. & Andersen, M. A. E.
15/10/2018 → 14/10/2021
Project: PhD

**Advanced Power Converters for Wireless Rapid Charging System**
Dou, Y., Ouyang, Z. & Andersen, M. A. E.
15/10/2018 → 14/10/2021
Project: PhD

**Optimized Seamless Transfer System for DG Inverter**
Sun, B., Zhang, Z. & Andersen, M. A. E.
Stipendie fra udlandet
01/09/2017 → 31/08/2020
Project: PhD

**Next generation Power Supplies and their applications in mobility and electrolysis**
Jørgensen, K. L., Zhang, Z. & Andersen, M. A. E.
Samfinansieret - Andet
15/02/2017 → 14/02/2020
Project: PhD

**Moduler opbygning af effektelektroniske konvertere med galvanisk isolering i effektorrådet 1-10kW**
Nymand, M., Andersen, M. A. E., Thomsen, O. C., Kolar, J. W. & Smedley, K.
Ansat eksternt
01/09/2006 → 22/09/2010
Project: PhD

**Standby spændingsforsyninger**
Nielsen, N., Andersen, M. A. E. & Pedersen, J. K.
Samarbejdsaf tal-Finan-SU
01/03/1997 → 08/11/2000
Project: PhD
Højeffektive effektforstærkere
Nielsen, K., Andersen, M. A. E. & Sørensen, J. A.
Anden Forskningsrådsfinan.-SU
Project: PhD

Integrated off-line power converter using integrated inductors
Samfinansieret - Andet
15/02/2015 → 06/06/2018
Project: PhD

High Frequency Switch-Mode Audio Power Amplifiers
Iversen, N. E., Knott, A., Andersen, M. A. E., Zhang, Z., Angus, J. & Honda, J.
Technical University of Denmark
15/12/2014 → 06/06/2018
Project: PhD

Engineering passive electronic components for the world's smallest AC-DC power supply by nanofabrication
Lê Thanh, H., Jensen, F., Han, A., Knott, A., Ouyang, Z., Andersen, M. A. E., Niklaus, F. & Duffy, M.
Forskningsrådsfinansiering
15/12/2014 → 07/03/2018
Project: PhD

DC-DC converters for use of Li-Ion batteries in hearing aids
Larsen, D. Ø., Jørgensen, I. H. H., Knott, A., Vinter, M., Andersen, M. A. E., García, H. M. & Karadi, R.
Industrial PhD
01/04/2015 → 06/02/2019
Project: PhD

Electrical structure of future offshore wind turbine farms with a DC transmission connection
ErhvervsPhD-ordningen VTU
01/09/2008 → 16/01/2012
Project: PhD

Integrated Circuit Design of Switching Power Stages for Audio Power Amplification
Nyboe, F., Andreani, P., Risbo, L., Andersen, M. A. E., Berkhout, M. & Svensson, L.
ErhvervsPhD-ordningen VTU
01/08/2003 → 30/01/2007
Project: PhD

High performance low cost digital controlled power conversion technology
InnovationsPhD
01/10/2004 → 29/08/2008
Project: PhD

ACT- Active Transducer
Poulsen, S., Andersen, M. A. E., Hendriks, E., Frederiksen, T. M. & Veltman, A.
Blandet Finansiering - SU
01/05/2001 → 12/02/2005
Project: PhD

Energibesparende ensretter (ettrins konverter)
Offentlig finansiering
01/02/2000 → 12/01/2004
Project: PhD

**SICAM - Single Conversion Stage AMplifier**
Ljusev, P., Andersen, M. A. E., Petersen, L. P., Wolf, C., Maksimovic, D. & Vanderkooy, J.
Programbevilling
15/11/2002 → 26/06/2006
Project: PhD

**Powering the future data centre**
Zhang, Z., Thomsen, O. C., Andersen, M. A. E., Nielsen, H. R., Kjærgaard, C. & Sun, J.
1/3 DTU-stip, 2/3 FUR/andet
01/10/2007 → 19/01/2011
Project: PhD

**Ultra-fast Tracking Power Converters for RF power Amplifiers**
Høyerby, M. C. K., Andersen, M. A. E., Larsen, A., Johansen, T. K., Maksimovic, D. & Wolf, C.
ErhvervsPhD-ordningen VTU
01/01/2006 → 24/03/2010
Project: PhD

**New Technology-Driven Approaches in the Design of Preamplifiers for Condenser Microphones**
ErhvervsPhD-ordningen VTU
01/07/2005 → 19/08/2009
Project: PhD

**Improvement of out-of-band Behaviour in Switch Mode Amplifiers and Power Supplies by their Modulation Topology**
Knott, A., Andersen, M. A. E., Pfaffinger, G., Kjærgaard, C., Kyyrä, J. & Petersen, L. P.
Technical University of Denmark
01/04/2007 → 29/09/2010
Project: PhD

**Fejl tolerant powersystemer**
DTU-lønnet stipendie
01/02/2001 → 27/07/2004
Project: PhD

**Switch-Mode Power Amplifiers for Current Controlled Loudspeakers**
Schneider, H., Andersen, M. A. E., Knott, A., Bruun, E., Bard, D. & Risbo, L.
Technical University of Denmark
15/12/2011 → 20/08/2015
Project: PhD

**Galvanic isolated off-line VHF switch-mode power supplies**
Technical University of Denmark
15/12/2013 → 12/04/2017
Project: PhD

**High Performance Solar Array Simulator**
Technical University of Denmark
01/12/2011 → 07/05/2015
Project: PhD
Control and sensor techniques for PAD servo motor drives
Zsurzsan, T., Andersen, M. A. E., Andersen, N. A., Zhang, Z., Petersen, L. P., Uchino, K. & Radecker, M.
Technical University of Denmark
15/02/2013 → 04/05/2016
Project: PhD

High efficiency reversible fuel cell power converter
Technical University of Denmark
01/12/2011 → 27/02/2015
Project: PhD

High Power DEAP actuator drive for wind turbine flaps
Technical University of Denmark
15/11/2011 → 27/02/2015
Project: PhD

Multi-portBidirectional Current Controlled Power Supply
Mira Albert, M. D. C., Andersen, M. A. E., Knott, A., Ouyang, Z., Cobos, J. A. & Kazimierczuk, M. K.
Technical University of Denmark
01/12/2012 → 15/06/2016
Project: PhD

On the Integration of Wide Band-gap Semiconductors in Single Phase Boost PFC Converters
Technical University of Denmark
01/12/2012 → 20/04/2016
Project: PhD

PV Inverter and control
Technical University of Denmark
01/11/2012 → 20/01/2016
Project: PhD

Non-magnetic driver for piezo actuators
Ekhtiari, M., Andersen, M. A. E., Zhang, Z., Petersen, L. P., Foster, M. P. & Carazo, A. V.
Technical University of Denmark
01/11/2012 → 04/05/2016
Project: PhD

Very High Frequency Switch-Mode Power Supplies
Technical University of Denmark
01/06/2012 → 18/09/2015
Project: PhD

Radio frequency switch-mode power supplies
Kovacevic, M., Andersen, M. A. E., Knott, A., Zhang, Z., Foster, M. P. & Bertilsson, K.
Technical University of Denmark
01/11/2011 → 22/04/2015
Project: PhD

Low power DEAP actuator drive for heating valves
Huang, L., Andersen, M. A. E., Zhang, Z., Jørgensen, I. H. H., Sun, J. & Zhao, Z.
Piezoelectric transformer based LED lighting
Technical University of Denmark
01/08/2011 → 27/02/2015
Project: PhD

High efficiency PFC frontend for class-D amplifiers
1/3 DTU-stip, 2/3 FUR/andet
01/03/2009 → 20/09/2012
Project: PhD

Design of digital audio Class-D output stage with feedback - emphasis on hearing aid application
Pracný, P., Bruun, E., Andersen, M. A. E., Puthusserypady, S., Bogason, G. & Wisland, D. T.
Technical University of Denmark
01/07/2009 → 26/09/2013
Project: PhD

Controller IC-design for piezoelectric transformer based power supply
Rødgaard, M. S., Andersen, M. A. E., Bruun, E., Carazo, A. V. & Foster, M. P.
Technical University of Denmark
01/07/2009 → 25/01/2013
Project: PhD

Piezoelectric transformer based power supply for DEAP
Andersen, T., Andersen, M. A. E., Thomsen, O. C., Petersen, L. P., Carazo, A. V. & Álvarez, J. M. A.
Technical University of Denmark
15/05/2009 → 20/09/2012
Project: PhD

Planar Magnetics for High Grade Converters
Ouyang, Z., Andersen, M. A. E., Thomsen, O. C., Wolf, C., Sun, J. & Hurley, W. G.
Technical University of Denmark
15/12/2008 → 16/01/2012
Project: PhD

Flexible power module for fuel cell hybrid power system in a fork-lift
Sen, G., Andersen, M. A. E., Thomsen, O. C., Nymand, M., Ferreira, J. A. & Sun, J.
Technical University of Denmark
15/12/2008 → 27/09/2012
Project: PhD

Vertical Deflection in TV
Andersen, M. A. E. & Frederiksen, T. M.
Ukendt
01/08/1998 → 31/07/1999
Project: Research

Pulse Edge Delay Error Correction
Andersen, M. A. E., Christensen, F. S. & Nielsen, K.
Ukendt
01/08/1998 → 31/07/1999
Project: Research
Verification of power and energy measuring instruments
Andersen, M. A. E.
Ukendt
17/05/1999 → 02/08/1999
Project: Research

Standby Power Supply
Andersen, M. A. E.
Ukendt
01/03/1997 → 31/03/2000
Project: Research

Power Factor Converters
Andersen, M. A. E.
01/09/1995 → …
Project: Research

High Efficiency Audio Power Amplifiers
Andersen, M. A. E.
01/01/1992 → …
Project: Research

Activities:

Aalborg University (External organisation)
Michael A. E. Andersen (Member)
10 Apr 2019
Activity: Membership › Membership in review committee

University of Southern Denmark (External organisation)
Michael A. E. Andersen (Chairman)
14 Mar 2019
Activity: Membership › Membership in review committee

External examiner on PhD defense by PhD student Karsten Holm Andersen
Michael A. E. Andersen (External examiner)
5 Oct 2018
Activity: Examinations and supervision › External examination

Evaluation of PhD thesis by Juan Rodríguez Méndez
Michael A. E. Andersen (External examiner)
30 Sep 2018
Activity: Examinations and supervision › External examination

Chilean National Commision for Scientific and Technological Research (CONICYT) (External organisation)
Michael A. E. Andersen (Member)
22 Aug 2018
Activity: Membership › Membership in review committee

EUREKA expert (External organisation)
Michael A. E. Andersen (Member)
21 Mar 2018
Activity: Membership › Membership in review committee
Aalborg University (External organisation)
Michael A. E. Andersen (Member)
5 Feb 2018
Activity: Membership › Membership in review committee

Aalborg University (External organisation)
Michael A. E. Andersen (Member)
2 Feb 2018
Activity: Membership › Membership in review committee

External examiner on PhD defense by PhD student Farideh Javidi Niroumand
Michael A. E. Andersen (External examiner)
20 Nov 2017
Activity: Examinations and supervision › External examination

EUREKA expert (External organisation)
Michael A. E. Andersen (Member)
13 Oct 2017
Activity: Membership › Membership in review committee

Miniature converters
Michael A. E. Andersen (Invited speaker)
20 Sep 2017
Activity: Talks and presentations › Conference presentations

Dartmouth College (External organisation)
Michael A. E. Andersen (Participant)
22 Mar 2017
Activity: Membership › Membership in review committee

External examiner on PhD defense by PhD student Mark Caris
Michael A. E. Andersen (External examiner)
30 Nov 2016
Activity: Examinations and supervision › External examination

Head of committee at PhD defense by PhD student Juan Colmenares
Michael A. E. Andersen (Main supervisor)
14 Oct 2016
Activity: Examinations and supervision › External examination

External examiner on PhD thesis by PhD student Vita Lystianingrum
Michael A. E. Andersen (External examiner)
6 Oct 2016
Activity: Examinations and supervision › External examination

Committee member at PhD defense by PhD student Luyu Wang
Michael A. E. Andersen (External examiner)
19 Aug 2016
Activity: Examinations and supervision › External examination

Fundamentals of Electrical Energy Conversion
Michael A. E. Andersen (Guest lecturer)
10 Jun 2016
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities
Integrated and Very High Frequency Converter
Michael A. E. Andersen (Speaker)
20 May 2016
Activity: Talks and presentations › Talks and presentations in private or public companies and organisations

External examiner on PhD thesis by PhD student Xian Liang
Michael A. E. Andersen (External examiner)
3 Jan 2016
Activity: Examinations and supervision › External examination

External examiner on PhD thesis by PhD student Ishtiyaq Amhed Makda
Michael A. E. Andersen (External examiner)
21 May 2015
Activity: Examinations and supervision › External examination

External examiner on PhD thesis by PhD student Yi Wang
Michael A. E. Andersen (External examiner)
1 May 2015
Activity: Examinations and supervision › External examination

External examiner on PhD thesis by PhD student Ciaran Feeney
Michael A. E. Andersen (External examiner)
27 Apr 2015
Activity: Examinations and supervision › External examination

External examiner on Doctoral Thesis by PhD student Toke Meyer Andersen
Michael A. E. Andersen (External examiner)
13 Feb 2015
Activity: Examinations and supervision › External examination

Nordic Power Converters Aps (External organisation)
Michael A. E. Andersen (Participant)
Dec 2014 → ...
Activity: Membership › Board duties in companies, associations, or public organisations

Committee member at PhD defense by PhD student Jonas Ottosson
Michael A. E. Andersen (External examiner)
4 Dec 2013
Activity: Examinations and supervision › External examination

Committee member at PhD defense by PhD student Abdul Majid
Michael A. E. Andersen (External examiner)
20 Nov 2013
Activity: Examinations and supervision › External examination

Committee member of Doctoral Examination of PhD student Frank van der Pijl
Michael A. E. Andersen (External examiner)
15 Oct 2012
Activity: Examinations and supervision › External examination

External examiner on PhD thesis by PhD student Sri Susovon Samanta
Michael A. E. Andersen (External examiner)
Jul 2012
Activity: Examinations and supervision › External examination
Al-Balqa Applied University (External organisation)
Michael A. E. Andersen (Member)
23 Mar 2010
Activity: Membership › Membership in review committee

IEEE Transactions on Power Electronics (Journal)
Michael A. E. Andersen (Editor)
2010 → …
Activity: Editorial work and peer review › Journal editor › Research

External examiner on PhD thesis by PhD student Jelena Haas-Christensen
Michael A. E. Andersen (External examiner)
2009
Activity: Examinations and supervision › External examination

Opponent på Doctoral Thesis af PhD-studerende Konstantiv Kostov
Michael A. E. Andersen (External examiner)
2009
Activity: Examinations and supervision › External examination

External examiner on PhD thesis by PhD student Flemming Nyboe
Michael A. E. Andersen (External examiner)
2006
Activity: Examinations and supervision › External examination

Committee member at PhD defense by PhD student Bengt Johansson
Michael A. E. Andersen (External examiner)
12 Jan 2005
Activity: Examinations and supervision › External examination

Texas Tech University (External organisation)
Michael A. E. Andersen (Chairman)
2005 → 2007
Activity: Membership › Study administrative duties

Opponent on Doctoral Thesis by PhD student Vesa Touomainen
Michael A. E. Andersen (External examiner)
Mar 2004
Activity: Examinations and supervision › External examination

Center for Electrical Energy Systems (CEES) (External organisation)
Michael A. E. Andersen (Participant)
2001 → …
Activity: Membership › Board duties in companies, associations, or public organisations

Danish Energy Agency (External organisation)
Michael A. E. Andersen (Participant)
1991 → 1992
Activity: Membership › Membership in review committee

Prizes:

2013 IEEE ECCE Asia Downunder First Prize Paper
Michael A. E. Andersen (Recipient), 3 Jun 2013
Prize: Prizes, scholarships, distinctions
AEG Elektronprisen
Michael A. E. Andersen (Recipient), 31 Aug 2004
Prize: Prizes, scholarships, distinctions

A. R. Angelo's Grant
Michael A. E. Andersen (Recipient), 1990
Prize: Prizes, scholarships, distinctions

Best Poster Prize UPEC '91
Michael A. E. Andersen (Recipient), 19 Sep 1991
Prize: Prizes, scholarships, distinctions

DTU Innovation Prize
Michael A. E. Andersen (Recipient), 28 Apr 2006
Prize: Prizes, scholarships, distinctions

First Prize UTRC Best Student Paper at ECCE 2013
Michael A. E. Andersen (Recipient), 15 Sep 2013
Prize: Prizes, scholarships, distinctions

P. Gorm-Petersen's Memorial Grant
Michael A. E. Andersen (Recipient), 1991
Prize: Prizes, scholarships, distinctions

The Danish Royal Knight of the Order of Dannebrog
Michael A. E. Andersen (Recipient), 16 May 2017
Prize: Prizes, scholarships, distinctions

Press clippings:

Nye løsninger kan tage livet af den irriterende kloks på ledningen
Michael A. E. Andersen
25/04/2016
1 media contribution
Press/Media: Press / Media