

## Best Paper Award - Monday Sessions:

- **Oliver Knecht** - *Comparative Evaluation of a Triangular Current Mode (TCM) and Clamp-Switch TCM DC-DC Boost Converter*
- **Dong Jiang and Zewei Shen** - *Paralleled Inverters with Zero Common-Mode Voltage*
- **Ying Huang, Chun-Yuen Lai, Song Xiong, Siew-Chong Tan and Shu Yuen (Ron) Hui** - *Non-Isolated High-Step-Up Resonant DC/DC Converter*
- **Cristian Blanco, Francesco Tardelli, David Diaz, Pericle Zanchetta and Fernando Briz** - *Design of a Cooperative Voltage Harmonic Compensation Strategy for Islanded Microgrids Combining Virtual Admittances and Repetitive Controllers*
- **Christophe Cyusa, Simba and Yasutaka Fujimoto** - *Pre-Drive Test of an Implemented Novel Radial-Gap Helical ROTLIN Machine*
- **Ping-Heng Wu, Yuh-Tyng Chen and Po-Tai Cheng** - *The Delta-Connected Cascaded H-Bridge Converter Application in Distributed Energy Resources and Fault Ride Through Capability Analysis*

## Best Paper Award - Tuesday Sessions:

- **Harry C.P. Dymond** - *Reduction of oscillations in a GaN Bridge Leg Using Active Gate Driving with sub-ns Resolution Arbitrary Gate-Impedance Patterns*
- **Faizul Momen, Khwaja Rahman, Yochan Son, Bonho Bae and Peter Savagian** - *Electrical Propulsion System Design of Chevrolet Bolt Battery Electric Vehicle*
- **Xu She, Rajib Datta, Maja Harfman Todorovic, Gary Mandrusiak, Jian Dai, Tony Frangieh, Philip Cioffi, Brian Rowden and Frank Mueller** - *High Performance SiC Power Block for Industry Applications*
- **Nicola Bianchi, Alessandro Castagnini, Giulio Secondo and Pietro Savio Termini** - *Replacing SPM by PMARel Machines in Low-speed Hightorque Applications*
- **Dheeraj Bobba, Gerd Bramerdorfer, Yingjie Li, Timothy A. Burress and Bulent Sarlioglu** - *Stator Tooth and Rotor Pole Shaping for Low Pole Flux Switching Permanent Magnet Machines to Reduce Even Order Harmonics in Flux linkage*
- **Dennis Karwatzki and Axel Mertens** - *Control Approach for a Class of Modular Multilevel Converter Topologies*
- **Hironori Nagasaki, Pin-Yu Huang and Toshihisa Shimizu** - *Characterization of Power Capacitors on Practical Current Condition Using Capacitor Loss Analyzer*
- **Amol Deshpande and Fang Luo** - *Comprehensive Evaluation of a Silicon-WBG Hybrid Switch*
- **Chang Peng, Landon Mackey, Iqbal Husain, Alex Huang, Bruno Lequesne and Roger Briggs** - *Active Damping of Ultra-fast Mechanical Switches for Hybrid AC and DC Circuit Breakers*
- **Mahshid Amirabadi** - *Cuk-Based Universal Converters in Discontinuous Conduction Mode of Operation*
- **Ashraf Said Atalla, Mohammed Agamy, Mark Dame, Liwei Hao, Gary Dwayne Mandrusiak, Konrad Weeber and Yan Pan** - *Advancements in High Power High Frequency Transformer Design for Resonant Converter Circuits*

## Student Demonstration Winners:

**1<sup>st</sup> prize** - High Power Density Impedance Control Network DC-DC Converter Utilizing an Integrated Magnetic Structure.

**Student:** *Ashish Kumar, University of Colorado-Boulder*. Advisor: Khurram Afridi

**2<sup>nd</sup> prize** - Dynamic Matching System for Radio-Frequency Plasma Generation.

**Student:** *Anas Al Bastami, Massachusetts Institute of Technology*. Advisor: David Perreault

**3<sup>rd</sup> prize** - A 3D printed Fluid Filled Variable Elastance Electrostatic Machine Optimized with Conformal Mapping.

**Students:** *Baoyun Ge, Aditya Ghule, University of Wisconsin-Madison*. Advisor: Dan Ludois

## Best Paper Award – Wednesday Sessions:

- ***Kent Inoue*** - *Reduction on Radiation Noise Level for Inductive Power Transfer Systems with Spread Spectrum focusing on Combined Impedance of Coils and Capacitors*
- ***Tom Cox*** - *Vehicular Suspension and Propulsion Using Double Sided Linear Induction Machines*
- ***Zitao Liao*** - *A GaN-based Flying-Capacitor Multilevel Boost Converter for High Step-up Conversion*
- ***Wooyoung Choi*** - *New Configuration of Multi-Functional Grid-Connected Inverter to Improve Both Current-Based and Voltage-Based Power Quality*

## Best Paper Award – Thursday Sessions:

- **Maksim Sokolov** - *State-Space Flux-Linkage Control of Bearingless Synchronous Reluctance Motors*
- **Vandana Rallabandi** - *On the Feasibility of Carbon Nanotube Windings for Electrical Machines – Case Study for a Coreless Axial Flux Motor*
- **Shih-Chin Yang** – *High Speed Operation of Permanent Magnet Machine Position Sensorless Drive Using Discretized EMF Estimator*