

The 23rd International Conference on Electrical Machines and Systems ICEMS 2020 Paper Award Nov. 27th 2020

1. **ICEMS 2020 Outstanding Paper Award**
(One paper)
2. **ICEMS 2020 Excellent Paper Award**
(Fifteen papers)
3. **ICEMS 2020 Student Paper Award**
(Five papers)

Presenters are indicated by **BLUE**.

The certificate of commendation will be mailed to the corresponding author from the secretariat at a later date.

ICEMS 2020 Technical Program Committee



ICEMS 2020 Student Paper Award

Hybrid Parallel FEM on PC Cluster with Multi-Core Processor

Tadashi Yamaguchi, Yoshihiro Kawase, [Takaaki Murase](#)

Calculation and Analysis of Total Supply Capability of AC/DC Hybrid Distribution Network Considering Load Balance

[Shizhong Zhang](#), Wei Pei, Yanhong Yang, Hao Xiao, and Li Kong

Research on Fault Diagnosis and Fault Tolerant Control of Bridge Converter for Doubly Salient Electro-Magnetic Motor

[Xiaobao Feng](#), Bo Zhou, Kaimiao Wang, Yijun Zhang, and Lei Xiong

Hierarchical MPC Scheme for Ground Motion of Four-Wheel Independently Driven Electric Vehicles

[Yiyan Su](#), Deliang Liang, and Peng Kou

Detection of Broken Rotor Bars in Induction Machines Using Machine Learning Methods

[Stefan Quabeck](#), Wenbo Shanguan, Daniel Scharfenstein, and Rik W. De Doncker

ICEMS 2020 Excellent Paper Award (1/3)

Magnetic Levitation Force and Torque Analysis of a Diamagnetic Material Using Nodal Force Method

Tadashi Yamaguchi, Yoshihiro Kawase, [Wataru Onogi](#), Tomohiro Ota, and Yasuyoshi Asai

Conductive Noise Suppression with Canceling for Miniaturization of EMI Filters in PFC Converter

[Ryuji Yamada](#), Ryunosuke Araumi, Satoru Fujita, and Keiji Wada

Examination of Current Sensor Fail-Safe of PMSM Current Control System which Using Current and Position State Estimation Techniques

[Shota Hori](#) and Shinji Doki

Loss Evaluation Based on Experiment on Compact and High-Speed IPMSM Using Strong Magnet and Low-Iron-Loss Material

[Yuki Nishio](#), Masayuki Sanada, Shigeo Morimoto, and Yukinori Inoue

Analysis of Rotational Hysteresis Property in a Transformer Core Based on an Inverse Jiles-Atherton Hysteresis Model Coupled with Finite Element Method

[Juan Li](#), Yanli Zhang, Dianhai Zhang, Ziyang Ren, and Chang Seop Koh

ICEMS 2020 Excellent Paper Award (2/3)

Magnetic Characterization of 4 μm -thick Steel Made by Continuous Rolling Process for Power Electronic Applications in High Frequency

Nguyen Gia Minh Thao, [Keisuke Fujisaki](#), Hiroaki Mamiya, Syuji Kuroda, Yoko Mitarai, and Norie Motohashi

Positioning Vibration Suppression for Two-Axis Servo System Based on Drive Control

[Kaining Liu](#), Ming Yang, and Dianguo Xu

Analysis of In-Plane Eddy-Current Loss in Electrical Steel Sheets of 6-Pole 36-Slot Permanent-Magnet Synchronous Machines

[Hideki Ohguchi](#), Kotaro Kawakami, Takehisa Hirayama, Satoshi Imamori, and Katsumi Yamazaki

Design and Manufacture of a High-Speed Rotor in a Flywheel Demonstrator

[Xing Li](#), Jeongki An, Nicolas Erd, Daniel Dietz, Yves Gemeinder, and Andreas Binder

Real-Time Model-Based Demonstrator Control of an Electrical-Mechanical Power-Split Hybrid Drive for Diesel-Powered Commuter Trains

[Daniel Scharfenstein](#), Stefan Gerken, Stephan Schüller, Markus Nießen, and Rik W. De Doncker

ICEMS 2020 Excellent Paper Award (3/3)

Comparison of Slotted and Slotless PM Machines for High kW/kg Aerospace Applications

[Nisarg Dave](#), Gaurang Vakil, Zeyuan Xu, Chris Gerada, He Zhang, and David Gerada

Development and Testing of Soft Magnetic Rotor for a Switched Reluctance Motor Built Through Additive Manufacturing Technology

L. Gargalis, [V. Madonna](#), P. Giangrande, R. Rocca, I. Ashcroft, R. Hague, and M. Galea

Reduction of Current and Voltage Distortions under Overmodulation for Matrix Converters

[Paiboon Kiatsookkanatorn](#) and Somboon Sangwongwanich

Basic Studies on Power Fluctuation Smoothing of Series-Connected Wind Power Plant

[Fujio Tatsuta](#), Ken-ichiro Yamashita, Hiroya Sugimoto, and Shoji Nishikata

Design of a SiC-Based LLC Resonant Converter for On-Board Chargers Considering Parasitic Capacitance of Planar Transformer

Sangjoon Ann, Won-Jin Son, Jae Han Lee, Jongeun Byun, and [Byoung Kuk Lee](#)

ICEMS 2020 Outstanding Paper Award

Design of Axial-Flux Integrated Starter Generator Drive System for Hybrid Electric Vehicles

[Zhenwei Wang](#), Jian Li, Junquan Lai, Yang Lu,
and Hu Cheng

Congratulations!!