
Session Title	[PC-M1] Optimization and Design 6
Date and Time	June 21 (Wednesday) / 11:00-12:50
Place	Rm. 101 (1F)
Session Chair	Jang-young Choi (Chungnam Nat'l Univ., Korea)

PC-M1-1 **Digest ID: 28**

Losses Calculation of Brushless Doubly-fed Generator with Hybrid Rotor

Yu, Siyang; Zhang, Fengge; Wang, Hao; Wang, Yutao
Shenyang University of Technology, China, People's Republic of

PC-M1-2 **Digest ID: 247**

3-D Structural Design of Magnetic Actuator Using Hybrid Analysis-Based Design Optimization Method

Lim, Sunghoon (1); Min, Seungjae (2); Izui, Kazuhiro (1); Nishiwaki, Shinji (1)
1: Department of Mechanical Engineering and Science, Kyoto University, Kyoto, Japan; 2: Department of Automotive Engineering, Hanyang University, Seoul, Korea

PC-M1-3 **Digest ID: 458**

Acceleration Method of Magnetic Structure Optimization Using Deep Neural Networks

Yoshimoto, Takamichi (1); Ota, Tomohiro (1); Asai, Yasuyoshi (1); Hirata, Katsuhiro (2)
1: Panasonic Corporation, Japan; 2: Osaka University, Japan

PC-M1-4 **Digest ID: 463**

Design of Cryogenic Induction Motor Operating Submerged in the Liquid Nitrogen

Kim, Hui Min (1); Lee, Ki Wook (1); Kim, Do Gyun (2); Park, Jong Hoon (2); Park, Gwan Soo (1)
1: Pusan National University, Korea, Republic of (South Korea); 2: Taeyang Electric Corporation, Korea, Republic of (South Korea)

PC-M1-5 **Digest ID: 721**

Investigation of Optimal Split Ratio in Brushless Dual-Rotor Flux-Switching Permanent Magnet Machine Considering Power Allocation

Xiang, Zixuan; Zhu, Xiaoyong; Quan, Li
School of Electrical and Information Engineering, Jiangsu University, Zhenjiang 212013 China

PC-M1-6 **Digest ID: 422**

Designing Nonuniform Antenna Arrays by Adaptive Variable Differential Artificial Bee Colony Algorithm

Zhang, Xin (1,2); Zhang, Xiu (1,2)
1: Tianjin Normal University, China, People's Republic of; 2: Tianjin Key Laboratory of Wireless Mobile Communication and Wireless Power Transmission, Tianjin Normal University

PC-M1-7

Digest ID: 793

A Novel Hybrid Algorithm Using Shape and Topology Optimization for the Design of Electric Machines

Jung, Seok-Won (1); Ro, Jong-Suk (2); Jung, Hyun-Kyo (1)

1: Seoul National University, Seoul, Korea, Republic of (South Korea); 2: Chung-Ang University, Seoul, Korea, Republic of (South Korea)

PC-M1-8

Digest ID: 490

Sensitivity Based Optimal Shape Design of Pre-heating Inductor for Laser Welding

Karban, Pavel; Panek, David; Kotlan, Vaclav; Dolezel, Ivo

University of West Bohemia, Czech Republic

PC-M1-9

Withdrawn

PC-M1-10

Digest ID: 496

Multi-Domain Level-set Method for Design Optimization of Primary and Secondary Cores in Induction Heating Roll

Hirono, Kazuki (1); Hoshino, Reona (1); Kamiya, Tsuyoshi (1); Wakao, Shinji (1); Okamoto, Yoshifumi (2); Jeon, Woojin (3); Tsuburaya, Tomonori (4)

1: Department of Electrical Engineering and Bioscience, Waseda University; 2: Department of Electronics and Electrical Engineering, Hosei University; 3: Dongwonroll Co., Ltd.; 4: Department of Electrical Engineering, Fukuoka University

PC-M1-11

Digest ID: 501

Space-Time Kriging Surrogate Model to Consider Uncertainty of Time Interval of Torque Curve for Electric Power Steering Motor

Jang, Junyong (1); Lee, Jin Min (1); Cho, Su-gil (2); Kim, Saekyeol (1); Kim, Ji-Min (1); Hong, Jung-Pyo (1); Lee, Tae Hee (1)

1: Hanyang University, Korea; 2: Korea Research Institute Ships and Ocean Engineering, Korea

PC-M1-12

Digest ID: 502

Design of Synchronous Motor Using Advanced Inverse Cosine Function to Reduce Harmonics of Induced Voltage Under Load Condition

Lim, Myung-Seop; Jung, Kyung-Tae; Yoon, Myung-Hwan; Hong, Jung-Pyo

Hanyang University, Korea, Republic of (South Korea)

PC-M1-13

Digest ID: 506

Calculation of the Eddy Current Loss and Braking Characteristic Analysis of the Eddy Current Brake

Cho, Sooyoung (1); Lee, Ju (1); Kang, Dong-Woo (2); Lee, Hyungwoo (3)

1: Hanyang University, Korea, Republic of (South Korea); 2: Keimyung University, Korea, Republic of (South Korea); 3: Korea National University of Transportation, Korea, Republic of (South Korea)

PC-M1-14

Digest ID: 684

An Efficient Direct Search Methodology for Robust Optimizations of Electromagnetic Devices

Yang, Wenjia; Yang, Shiyu

Zhejiang University, China, People's Republic of