

<b>Session Title</b>	<b>[PD-M2] Novel Computational Methods for Machines and Devices 2</b>
<b>Date and Time</b>	<b>June 22 (Thursday) / 11:00-12:50</b>
<b>Place</b>	<b>Rm. 102 (1F)</b>
<b>Session Chair</b>	<b>Bai Baodong (Shenyang Univ. of Tech., China)</b>

**PD-M2-1**

**Digest ID: 390**

**A Fast Solution of Rotor Harmonic Losses in Cage Induction Motors by Time-Stepping Finite Element Method**

Zhan, Yang; Li, Bing; Zhao, Haisen; Xu, Guorui  
North China Electric Power University, China, People's Republic of

**PD-M2-2**

**Digest ID: 252**

**A Torque Compensation Control Scheme of PMSM considering a Wide Variation of Permanent Magnet Temperature**

Cho, Suyeon (1); Jung, Hochang (1); Lee, Ju (2)  
1: Korea Automotive Technology Institute, Korea, Republic of (South Korea); 2: Hanyang University, Electrical Engineering, Korea, Republic of (South Korea)

**PD-M2-3**

**Digest ID: 475**

**Double-Circulatory Thermal Analyses of a Water-Cooled Permanent Magnet Motor Based on a Modified Finite Formulation Model**

Zhu, Gaojia (1); Zhu, Yinghao (1); Zhu, Jianguo (2); Tong, Wenming (1); Han, Xueyan (1)  
1: Shenyang University of Technology, China, People's Republic of; 2: University of Technology Sydney, Australia

**PD-M2-4**

**Withdrawn**

**PD-M2-5**

**Digest ID: 578**

**Development of a Simplified Transformer Model for Transient Studies**

Favela, Carlos (1); Hernandez, Coni (1); Gonzalez Dominguez, Jesus (1); Arjona, Marco A (1); Escalera-Perez, Rafael (2)  
1: Instituto Tecnológico de La Laguna, Mexico; 2: Universidad Autónoma Metropolitana

**PD-M2-6**

**Digest ID: 614**

**Calculation of Temperature Variation Effects on AC losses in HTS coils**

Kim, Yungil (1); Lee, Ji-Young (2); Lee, Seyeon (1); Park, Sang Ho (1); Kim, Woo-Seok (1); Lee, Ji-Kwang (3); Choi, Kyeongdal (1)  
1: Korea Polytechnic University, Korea, Republic of (South Korea); 2: Institute for Basic Science, Korea, Republic of (South Korea); 3: Woosuk University, Korea, Republic of (South Korea)

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**PD-M2-7**

**Digest ID: 361**

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**Transient Behaviour of Large Transformer Windings Taking Capacitances and Eddy Currents into Account**

Preis, Kurt (1); Rabel, Alexander (2); Renhart, Werner (1); Biro, Oszkar (1)  
1: IGTE TU Graz, Austria; 2: Transformers Weiz, Siemens Inc, Austria

**PD-M2-8**

**Digest ID: 697**

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**Inverse Updating Method of High-frequency Equivalent Circuit Model in Transformer for Winding Deformation Diagnosis**

Zhang, Haijun (1); Wang, Shuhong (2)  
1: Hubei university of Arts and Science, China, People's Republic of; 2: Faculty of Electrical Engineering, Xi'an Jiaotong University, China, People's Republic of

**PD-M2-9**

**Digest ID: 729**

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**A Novel Method for Calculating Airgap Permeance of PM Machines Based on Equivalent Electrostatic FEA**

Zou, Tianjie; Li, Dawei; Qu, Ronghai; Jiang, Dong  
Huazhong University of Science and Technology, China, People's Republic of

**PD-M2-10**

**Digest ID: 50**

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**Design and Analysis of a Brushless DC Machine for a Miniature Battery Electric Vehicle**

Sun, Xiaodong (1,2); Shi, Zhou (1); Xu, Xing (1,2); Yang, Zebin (3); Li, Ke (3); Zhu, Jianguo (4); Guo, Youguang (4)  
1: School of Automobile and Traffic Engineering, Jiangsu University, China, People's Republic of; 2: Automotive Engineering Research Institute, Jiangsu University, China, People's Republic of; 3: School of Electrical and Information Engineering, Jiangsu U

**PD-M2-11**

**Digest ID: 799**

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**Rapid Electromagnetic Analysis and Design using Flux Tubes**

STUIKYS, ALEKSAS (1); MOHAMMADI, MOHAMMAD HOSSAIN (2); LOWTHER, DAVID ALISTER (2); SYKULSKI, JAN (1)  
1: UNIVERSITY OF SOUTHAMPTON, United Kingdom; 2: MCGILL UNIVERSITY, Canada