

# CES Transactions on Electrical Machines and Systems

March 2020 Volume 4 Number 1 (ISSN 2096-3564)

## Content

01 ..... Message from Editors

### **Special Section on Optimization Design and Robust Control of Electrical Machines**

03 Robustness Criteria for Concurrent Evaluation of the Impact of Tolerances in Multiobjective Electric Machine Design Optimization.....*G. Bramerdorfer*

13 Optimal Design of Electrical Machines Assisted by Hybrid Surrogate Model Based Algorithm  
..... *Z. Y. Ren, Y. Sun, B. Y. Peng, B. Xia, X. Li*

20 Optimization Design of Halbach Permanent Magnet Motor Based on Multi-objective Sensitivity  
.....*S. S. Zhang, W. Zhang, R. Wang, X. Zhang, X. T. Zhang*

27 Four-quadrant Force Control with Minimal Ripple for Linear Switched Reluctance Machines  
.....*X. R. Huang, Z. C. Lin, X. Xiao*

35 Predictive Current Control for Voltage Source Inverters Considering Dead-Time Effect  
.....*Y. Li, Z. B. Zhang, K. J. Li, P. J. Zhang, F. Gao*

### **Regular paper**

43 Electromagnetic Performance Analysis of Flux-Switching Permanent Magnet Tubular Machine with Hybrid Cores ..... *S. P. Wang, C. C. Liu, Y. H Wang, G. Lei, Y. G. Guo, J. G. Zhu*

53 Series-Type Switched-Inductor Z-Source Inverter.....*X. P. Fang, Y. Y. Tian, X. K. Ding, B. L. Ma*

61 High Speed SRM Using Vector Control for Electric Vehicle ..... *K. Aiso, K. Akatsu*