

IEEE TRANSACTIONS ON ENERGY CONVERSION



A PUBLICATION OF THE IEEE POWER & ENERGY SOCIETY

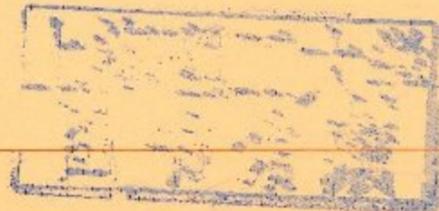
MARCH 2009

VOLUME 24

NUMBER 1

ITCNE4

(ISSN 0885-8969)



ELECTRIC MACHINERY

- Field Computation for an Axial Flux Permanent-Magnet Synchronous Generator *T. F. Chan, L. L. Lai, and S. Xie* 1
- Efficiency Optimization of Two-Asymmetrical-Winding Induction Motor Based on Swarm Intelligence
..... *A. M. A. Amin, M. I. El Korfally, A. A. Sayed, and O. T. M. Hegazy* 12
- Analysis and Real-Time Testing of a Controlled Single-Phase Wavelet-Modulated Inverter for Capacitor-Run Induction
Motors *S. A. Saleh and M.A. Rahman* 21
- Development of a Switched-Reluctance Motor Drive with PFC Front-End *J. Y. Chai and C. M. Liaw* 30
- Online Synchronous Machine Parameter Extraction From Small-Signal Injection Techniques
..... *J. Huang, K. A. Corzine, and M. Belkhat* 43
- Improved Resolution of the MCSA Method Via Hilbert Transform, Enabling the Diagnosis of Rotor Asymmetries at Very
Low Slip
..... *R. Puche-Panadero, M. Pineda-Sanchez, M. Riera-Guasp, J. Roger-Folch, E. Hurtado-Perez, and J. Perez-Cruz* 52
- Sensorless Slowdown Detection Method for Single-Phase Induction Motors
..... *F. Ferreyre, R. Goyet, G. Clerc, and T. Bouscasse* 60
- Behavior of the Three-Phase Induction Motor With Spiral Sheet Rotor
..... *R. Rosas, O. Boix Aragonès, X. Colom Fajula, and A. Rolán Blanco* 68
- Analysis of Flux Leakage in a Segmented Core Brushless Permanent Magnet Motor *M. F. Momen and S. Datta* 77
- Optimization of Multibrid Permanent-Magnet Wind Generator Systems *H. Li, Z. Chen, and H. Polinder* 82

ENERGY DEVELOPMENT & POWER GENERATION

- A Single-Stage Single-Phase Transformer-Less Doubly Grounded Grid-Connected PV Interface
..... *H. Patel and V. Agarwal* 93
- The Impact of Tower Shadow, Yaw Error, and Wind Shears on Power Quality in a Wind-Diesel System
..... *R. Fadaeinedjad, G. Moschopoulos, and M. Moallem* 102
- Numerical Modeling of Thermoelectric Generators With Varying Material Properties in a Circuit Simulator
..... *M. Chen, L. A. Rosendahl, T. J. Condra, and J. K. Pedersen* 112
- Short-Term Prediction of Wind Farm Power: A Data Mining Approach *A. Kusiak, H. Zheng, and Z. Song* 125

(Contents Continued on Back Cover)



Celebrating 125 Years
of Engineering the Future

请阅后放回:

排架号 **E190** 处

Microgrid Dynamic Performance Improvement Using a Doubly Fed Induction Wind Generator	<i>M. Shahabi, M. R. Haghifam, M. Mohamadian, and S. A. Nabavi-Niaki</i>	137
Laboratory Studies of a New Stator Slot Wedge Tester for HV Generators	<i>X. Peng, Z. Jia, S. Gao, L. Wang, Z. Guan, J. Yang, and T. Wang</i>	146
A Coordinated Control Method for Leveling PV Output Power Fluctuations of PV–Diesel Hybrid Systems Connected to Isolated Power Utility	<i>M. Datta, T. Senjyu, A. Yona, T. Funabashi, and C.-H. Kim</i>	153
Multicriteria Design of Hybrid Power Generation Systems Based on a Modified Particle Swarm Optimization Algorithm	<i>L. Wang and C. Singh</i>	163
Modulation and control of three phase paralleled Z-source inverters for distributed generation applications	<i>D. M. Vilathgamuwa, C. J. Gajanayake, and P. C. Loh</i>	173
A Synchronous Generator Internal Fault Model Based on the Voltage-Behind-Reactance Representation	<i>D. S. Vilchis-Rodriguez and E. Acha</i>	184
Development of a MATLAB/Simulink Model of a Single-Phase Grid-Connected Photovoltaic System	<i>M. E. Ropp and S. Gonzalez</i>	195
Novel Half-Bridge Inductive DC–DC Isolated Converters for Fuel Cell Applications	<i>Y. Lembeye, V. Dang Bang, G. Lefèvre, and J. Ferrieux</i>	203
Extending the Modeling Framework for Wind Generation Systems: RLS-Based Paradigm for Performance Under High Turbulence Inflow	<i>E. B. Muhando, T. Senjyu, H. Kinjo, and T. Funabashi</i>	211
A Developed Off-line Model for Optimal Operation of Combined Heating and Cooling and Power Systems	<i>Reza Hashemi</i>	222
Analysis of a Commercial Biogas Generation System Using a Gas Engine–Induction Generator Set	<i>L. Wang and P.-Y. Lin</i>	230
Operation of Grid-Connected DFIG Under Unbalanced Grid Voltage Condition	<i>Yi Zhou, P. Bauer, Jan A. Ferreira, and Jan Pier</i>	240
Analysis of Supercapacitor as Second Source Based on Fuel Cell Power Generation	<i>P. Thounthong, S. Raël, and B. Davat</i>	247
MPPT Scheme for a PV-Fed Single-Phase Single-Stage Grid-Connected Inverter Operating in CCM With Only One Current Sensor	<i>H. Patel and V. Agarwal</i>	256
Optimal Control of Matrix-Converter-Based WECS for Performance Enhancement and Efficiency Optimization	<i>V. Kumar, R. R. Joshi, and R. C. Bansal</i>	264
Guidelines for Protection Against Electric Shock in PV Generators	<i>J. C. Hernández and P. G. Vidal</i>	274
Modeling and Dynamic Characteristic Simulation of a Proton Exchange Membrane Fuel Cell	<i>J. Jia, Q. Li, Y. Wang, Y. T. Cham, and M. Han</i>	283
On Load–Frequency Regulation With Time Delays: Design and Real-Time Implementation	<i>H. Bevrani and T. Hiyama</i>	292

POWER ENGINEERING LETTERS

Control of the Reactive Power Supplied by a Matrix Converter	<i>R. Cárdenas, R. Peña, J. Clare, and P. Wheeler</i>	301
--------------------------------------------------------------------	-------------------------------------------------------	-----
