SPIS TREŚCI

nr 1

1 Sensorless Control of a Permanent Magnet Synchronous Motor Using Artificial Neural Network Based Estimator-An Application of the Four-Switch Three-Phase Inverter / Syed Abdul Rahman Kashif and Muhammad Asghar Saqib

13 Congestion Management Considering Optimal Placement of Distributed Generator in Deregulated Power System Networks / Kanwardeep Singh, Vinod Kumar Yadav, Narayana Prasad Padhy and Jaydev Sharma

23 Staircase Control of Hybrid Cascaded Multi-level Inverter / Zixia Sang, Chengxiong Mao and Dan Wang

35 Current Tracking Error Analysis for Shunt Active Power Filters / Gui-Ping Yi and Ren-Jie Hu


60 Identification of Partial Discharge Location Using Probabilistic Neural Networks and the Fuzzy C-means Clustering Approach / Ju-Chu Hsieh, Cheng-Chi Tai, Ming-Shou Su and Yu-Hsun Lin

70 Control of Electronic Power Transformer with Star Configuration under Unbalanced Load Conditions / Jie Tian, Chengxiong Mao, Jiawei Yang, Dan Wang, Jiming Lu, Jun Qiu and Yuping Duan

83 Evaluation of the Generating Capacity Adequacy of the Saudi Arabian Central Operating Area / Abdulaziz Almutairi, Mohamed Hassan Ahmed and M.M.A. Salama

91 Practical Wide-speed-range Sensorless Control System for Permanent Magnet Reluctance Synchronous Motor Drives via Active Flux Model / Mihaela Codruta Ancuti, Lucian Tutelea, Gheorghe-Daniel Andreescu, Frede Blaabjerg, Cristian Lascu and Ion Boldea

Application of Improved Bridgeless Power Factor Correction Based on One-cycle Control in Electric Vehicle Charging System / Yong Chen, Jun Zhou, Wen-Ping Dai and Eric Hu

Investigation of Multi-phase Tubular Permanent Magnet Linear Generator for Wave Energy Converters / N.P. Gargov, A.F. Zobaa and I. Pisica

Frequency Regulation in Hybrid Power System Using Iterative Proportional-Integral-Derivative H∞ Controller / Shashi Kant Pandey, Nand Kishor and Soumya R. Mohanty

Reliability-constrained Based Optimal Placement and Sizing of Multiple Distributed Generators in Power Distribution Network Using Cat Swarm Optimization / Deepak Kumar, S.R. Samantaray, I. Kamwa and N.C. Sahoo


A Hybrid Support Vector Fuzzy Inference System for the Classification of Leakage Current Waveforms Portraying Discharges / Konstantinos Theofilatos, Dionisios Pylarinos, Spiros Likothanassis, Damianos Melidis, Kiriakos Siderakis, Emmanuel Thalassinakis and Seferina Mavroudi


An Investigation into Thyristor-based Seven-level Multi-level Current Reinjection Current Source Converter / Bhaba P. Das, Neville R. Watson and Yonghe Liu

Development of a New Bus Zone Identification Algorithm Based on Phase Angle Comparison Using Sequence Components of Currents / N.G. Chothani and B.R. Bhalja

A Switching Flux-linkage Reference-based Sensorless Method for Switched Reluctance Motor Drives / Jun Cai and Zhiquan Deng
The Smart Grid—State-of-the-art and Future Trends / Mohamed E. El-Hawary

Recent Advancements on Smart Grids in China / Zhao Xu, Yusheng Xue and Kit Po Wong

Letter to the Editor: Smart Grid Initiatives in India / S.R. Samantaray

Development of a Smart Grid Roadmap for Kentucky / Yuan Liao, Matthew Turner and Yan Du

A Review of Active Management for Distribution Networks: Current Status and Future Development Trends / Junhui Zhao, Caisheng Wang, Bo Zhao, Feng Lin, Quan Zhou and Yang Wang

Smart Home Activities: A Literature Review / Ameena Saad Al-Sumaiti, Mohammed Hassan Ahmed and Magdy M.A. Salama

Letter to the Editor: A Brief Overview of Nanotechnology Applications in Smart Power Grid / Hany A. Abdelsalam and Almoataz Y. Abdelaziz

Real-time Energy Control Approach for Smart Home Energy Management System / Suyang Zhou, Zhi Wu, Jianing Li and Xiao-Ping Zhang

Multi-stage Stochastic Optimal Operation of Energy-efficient Building with Combined Heat and Power System / Ping Liu, Yong Fu and Amin Kargarian Marvasti

Energy Management and Control of Electric Vehicle Charging Stations / Shuhui Li, Ke Bao, Xingang Fu and Huiying Zheng

A Dual-loop Model Predictive Voltage Control/Sliding-mode Current Control for Voltage Source Inverter Operation in Smart Microgrids / Khaled M. Abo-Al-Ez, Ahmed Elaiw and Xiaohua Xia

Permutation-based Power System Restoration in Smart Grid Considering Load Prioritization / Jia Hou, Zhao Xu, Zhao Yang Dong and Kit Po Wong

A Joint Smart Generation Scheduling Approach for Wind Thermal Pumped Storage Systems / Bo Yuan, Ming Zhou, Xiao-Ping Zhang and Gengyin Li

Robust Data Transmission upon Compressive Sensing for Smart Grid / Guangwei Yan and Peipei Wu

A Statistical Data-fusion-based Framework for Wide-area Oscillation Monitoring / Arturo R. Messina, Noe Reyes, Ismael Moreno and Marco A. Pérez G.

Vulnerability Analysis of Satellite-based Synchronized Smart Grids Monitoring Systems / Alfredo Vaccaro, Ahmed Faheem Zobaa and Giuseppina Formato

Letter to the Editor: Stability Concerns in Smart Grid with Emerging Renewable Energy Technologies / Pathirikkat Gopakumar, M. Jaya Bharata Reddy, Dusmanta Kumar Mohanta
Artificial Bee Colony Algorithm to Allocate Fixed and Switched Static Shunt Capacitors in Radial Distribution Networks / Attia A. El-Fergany, Almoataz Y. Abdelaziz

Adaptive Power System Stabilizer Design Using Optimal Support Vector Machines Based on Harmony Search Algorithm / Jonglak Pahasa, Issarachai Ngamroo


State of Charge Prediction for Lithium-ion Batteries / Bo Fan, Jiexin Pu

Effective Suppression of Conducted Electro Magnetic Interference in DC-DC Boost Converter Using Field Programmable Gate Array Based Chaotic Pulse Width Modulation Switching / Sudhakar Natarajan, Rajasekar Natarajan

Integration of a Photovoltaic Panel with an Electric City Car / Ritesh Keshri, Manuele Bertoluzzo, Giuseppe Buja

Effect of Accelerated Laboratory Aging on Selected Electrical Properties of Medium-voltage Heat Shrink Cable Joints / Mohammad Iqbal Qureshi, Abdulrhman Al-Arainy, Nazar H. Malik

Pattern Discovery Based Preventive Control Strategy for Voltage Source Inverter Based Microgrids Against Islanding / M.J. Sanjari, G.B. Gharehpetian

A Robust Extended Complex Kalman Filter and Sliding-mode Control Based Shunt Active Power Filter / Rakhee Panigrahi, Prafulla Chandra Panda, and Bidyadhar Subudhi
533 Hybrid Control Robust Using Logic Fuzzy Applied to the Position Loop for Vector Control to Induction Motors Antonio Barbosa de Souza Junior, Eber de Castro Diniz, Dalton de Araujo Honorio / Luiz Henrique Silva Colado Barreto, Laurinda Lucia Nogueira dos Reis


554 Investigation for Improved Artificial Intelligence Techniques for Thyristor-controlled Series-compensated Transmission Line Fault Classification with Discrete Wavelet Packet Entropy Measures / Bhargav Vyas, Rudra Prakash Maheshwari, Biswarup Das

567 Multi-resolution Wavelet Analysis for Ferroresonance Phenomena in Power Systems / Sezen Yildirim Unnu, Serhat Seker

576 Optimal Distributed Generation Allocation and Load Shedding for Improving Distribution System Reliability / Ahmed S.A. Awad, Tarek H.M. El-Fouly, Magdy M.A. Salama

585 A Comparison of Microgrid Topologies Considering Both Market Operations and Reliability / Minh Y. Nguyen and Yong Tae Yoon

595 Two-stage Control Strategy for Structure Optimization of Faulted Distribution System with Distributed Generation / Yue Xiang, Junyong Liu, Maozhen Li, Wei Wang

605 Detection of Winding Radial Deformation in Power Transformers by Confocal Microwave Imaging / Raziyeah Mosayebi, Hamid Sheikhzadeh, Mohammad Sadegh Golsorkhi, Maryam Sadat Akhavan Hejazi, Gevorg B. Gharehpetian

612 Modal Analysis of Induction Generator Based Wind Farm Connected to Series-compensated Transmission Line and Line Commutated Converter High-Voltage DC Transmission Line / Akshaya Moharana, Rajiv K. Varma, Ravi Seethapathy

629 Control Optimization of a Slotted Switched Reluctance Generator for High-torque Applications / Luc Moreau, Mohamed El Hadi Zai'm, Mohamed Machmoum

639 A Rapid Prototyping Scenario for Power Factor Control in Permanent Magnet Synchronous Motor Drives: Control Solutions for Interleaved Boost Converters / Gionata Cimini, Maria Letizia Corradini, Gianluca Ippoliti, Giuseppe Orlando, Matteo Pirro

650 A New Distance Relaying Algorithm for Single-phase-to-ground Faults on Series-compensated Parallel Lines without the Parameter Requirement of Mutual Coupling and Series Capacitor Device / Zhenyu Xu, Jinhu Zhang, Zhipeng Su, Xu Zhang, Muhammad Javed Iqbal, An Wen, and Qixun Yang

658 Improved Torque and Flux Performance of Type-2 Fuzzy-based Direct Torque Control Induction Motor Using Space Vector Pulse-width Modulation / N. Venkataramana Naik, S.P. Singh
nr 7

671 A Robust Regularized Hybrid State Estimator for Power Systems / Sanjeev Kumar Mallik, Saikat Chakrabarti, Sri Niwas Singh


693 Small-signal Modeling and Modal Analysis of Wind Turbine Based on Three-mass Shaft Model / Yanchi Zhang, Da Xie, Junqi Feng, Ruilin Wan

703 Optimal Reconfiguration in Radial Distribution System Using Gravitational Search Algorithm / Y. Mohamed Shuaib, M. Surya Kalavathi, C. Christober Asir Rajan

716 Fast Assessment of Available Transfer Capability Using Synchrophasor Measurements / Ch.V.V.S. Bhaskara Reddy, S.C. Srivastava, and Saikat Chakrabarti


746 A Fixed-frequency Series-parallel Resonant Converter with Capacitive Output Filter: Analysis, Design, Simulation, and Experimental Results / Xiaodong Li, Ashoka K.S. Bhat

755 Multi-pulse Rectifiers Feeding H-bridge Inverter / Dmitry Baimel, Raul Rabinovici, Saad Tapuchi

768 A Cascaded Multi-level Inverter Topology with Improved Modulation Scheme / Charles Ikechukwu Odeh

788 A Framework for Economic Load Frequency Control Design Using Modified Multi-objective Genetic Algorithm / Hemin Golpira, Hassan Bevran

798 Adaptive Fuzzy Speed Control for Permanent Magnet Synchronous Motor Servo Systems / Ren Hui Du, Yi Fei Wu, Wei Chen, QingWei Chen

808 Operation Region of Doubly Fed Induction Generators Based on Rotor Slip under Maximum Power Point Tracking Control and Power-Dispatch / Shenghu Li

818 Coordinated Adaptive Control of Multiple Flexible AC Transmission Systems using Multiple-input-Multiple-output Neuro-fuzzy Damping Control Paradigms / Rabiah Badar, Laiq Khan

831 Functional Predictive Control for Voltage Stability Improvements of Autonomous Hybrid Wind-Diesel Power System / Ahmed M. Kassem, Almoataz Y. Abdelaziz

845 Study Apparent Grounding Resistivity in Vertical-layer Soil / Mohamed Nayel

852 Affine Arithmetic-based DC Power Flow for Automatic Contingency Selection with Consideration of Load and Generation Uncertainties / Shouxiang Wang, Liang Han, Peng Zhang

861 A Radial Path Building Algorithm for Optimal Feeder Planning of Primary Distribution Networks Considering Reliability Assessment / Deepak Kumar, S.R. Samantaray, Innocent Kamwa
Probability Model and Simulation Method of Electric Vehicle Charging Load on Distribution Network / Niancheng Zhou, Xicong Xiong and Qianggang Wang

Wavelet Modulus Maxima for Single Switch Open Fault in Multi-level Inverter / Rashmi A. Keswani, Hiralal M. Suryawanshi and Mohan M. Renge


Load Frequency Control of Multi-source Multi-area Hydro Thermal System Using Flexible Alternating Current Transmission System Devices / Vijaya Chandrakala, Balamurugan Sukumar and Krishnamoorthy Sankaranarayanan

Contribution Factors Based Optimal Selection of Wide-area Signals for Power System Damping Control / Jing Ma, Shangxing Wang, Xiang Gao and Zengping Wang

A Lexicographic Optimization and Augmented $\mu$-constraint Technique for Short-term Environmental/Economic Combined Heat and Power Scheduling / Abdollah Ahmadi, Mohammad Reza Ahmadi and Ali Esmaeel Nezhad

Tuning and Assessment of Proportional–Integral–Derivative Controller for an Automatic Voltage Regulator System Employing Local Unimodal Sampling Algorithm / Pradeep K. Mohanty, Binod K. Sahu and Sidhartha Panda

Study of a Distribution Line Overload Control Strategy Considering the Demand Response / Lijuan Chen, Xiaohui Xu, Liangzhong Yao and Qingshan Xu

Integration of Distributed Generation in Power Networks Considering Constraints on Discrete Size of Distributed Generation Units / Idris Musa, Shady Gadoue and Bashar Zahawi
995 Design and Implementation of a Dynamic Evolution Controller for Single-phase Inverters with Large Load Changes / Ehsan Najafi, Abdul Halim Mohamed Yatim and Ahmad Saudi Samosir

1004 Immersion and Invariance-based Non-linear Coordinated Control for Generator Excitation and Static Synchronous Compensator of Power Systems / Adirak Kanchanaharuthai

1016 Performance Enhancement of Power System Stabilizer Through Colony of Foraging Ants / Rameth Sheeba, Madhavan Jayaraju and Kinattingal Sundareswaran

1029 Improved Model Predictive Control of Three-level Voltage Source Converter / Tingna Shi, Ce Zhang, Qiang Geng and Changliang Xia

1039 Sensorless Vector Control of Five-phase Induction Motor under Open-phases Fault / Wubin Kong, Jin Huang, Bingnan Li and LiHang Zhao

1048 Model and Performance of Current Sensor Observers for a Doubly Fed Induction Generator / Hui Li, Chao Yang, Yaogang Hu, Meng Zhao, Bin Zhao, Zhe Chen, Shengquan Liu and Dong Yang

1059 Model Predictive Torque Ripple Reduction with Weighting Factor Optimization Fed by an Indirect Matrix Converter / Muslem Uddin, Saad Mekhilef, Marizan Mubin, Marco Rivera and Jose Rodriguez


1087 Wide Frequency Operation of the Inductive Current Transformer with Ni80Fe20 Toroidal Core / Michal Kaczmarek

1095 Stability Control of Smart Power Grids with Artificial Intelligence and Wide-area Synchrophasor Measurements / Pathrikkat Gopakumar, M. Jaya Bharata Reddy and Dusmanta Kumar Mohanta

1121  A New Five-level Single-phase Inverter Employing a Space Vector Current Control / Ammar Masaoud, Hew Wooi Ping, Saad Mekhilef and Hamza Omar Belkamel

1131  Optimal Sizing and Siting of Distributed Generators by a Weighted Exhaustive Search / Mahmoud Pesaran, Abdullah Asuaimi Mohd Zin, Azhar Khairuddin and Omid Shariati

1143  A Contribution to the Frequency Analysis and Transient Response of Power Transformer Windings / Mohamed Mostafa Saied

1152  Youla Parameterization Robust Control Strategy Considering Power System Uncertainties / Jing Ma, Shangxing Wang, Xiang Gao, Xiangsheng Zhu, Yang Qiu and Zengping Wang

1158  Vector Control of Two-motor Single-inverter Induction Machine Drives / Bhakti M. Joshi and Mukul C. Chandorkar

1172  A New Rate of Change of Impedance-based Islanding Detection Scheme in Presence of Distributed Generation / Pragnesh H. Shah and Bhavesh R. Bhalja

1181  Adaptive Distance Relaying Scheme for Transmission Network Connecting Wind Farms / Rahul K. Dubey, Subhransu Ranjan Samantaray and Bijay Ketan Panigrahi

1194  Balancing Switching Losses in Three-phase, Five-level Pulse-width Modulation Switched Voltage Source Inverter Using Hybrid Modulation Techniques / Charles Ikechukwu Odeh

1201  Normal Behavior Models for the Condition Assessment of Wind Turbine Generator Systems / Jian Li, Xiao Lei, Hui Li and Li Ran

1213  Novel Pulse-width Modulation Strategy to Minimize the Switching Losses of Z-Source Inverters / Seonghwan Kim, Janghyun Park, Kwangwoon Lee and Taehyung Kim
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1227</td>
<td>Distance Relaying Algorithm for a Line-to-ground Fault on Single Infeed Lines</td>
<td>Vijay H. Makwana and Bhavesh Bhalja</td>
</tr>
<tr>
<td>1239</td>
<td>Cogging Torque Reduction and Optimization in Surface-mounted Permanent Magnet Motor Using Magnet Segmentation Method</td>
<td>Abolhassan Ghasemi</td>
</tr>
<tr>
<td>1249</td>
<td>Design and Implementation of Three-phase Resonant DC-DC Power Converter for Low-voltage High-current Applications</td>
<td>Rakesh Maurya, Satya Prakash Srivastava and Pramod Agarwal</td>
</tr>
<tr>
<td>1266</td>
<td>Prediction-based Deadbeat Control for Grid-connected Inverter with L-filter and LCL-filter</td>
<td>Abousoufiane Benyoucef, Kamel Kara, Aissa Chouder and Santigo Silvestre</td>
</tr>
<tr>
<td>1278</td>
<td>Power Sharing Improvement in Standalone Microgrids with Decentralized Control Strategy</td>
<td>Hadi Saghafi and Hamid Reza Karshenas</td>
</tr>
<tr>
<td>1289</td>
<td>Single-diode Model Based Photovoltaic Module: Analysis and Comparison Approach</td>
<td>Ahmad H. Besheer, Ahmed M. Kassem and Almoataz Y. Abdelaziz</td>
</tr>
<tr>
<td>1301</td>
<td>Modal Estimation of Low-frequency Oscillation Using Perturbation Sensitivity Matrix with Multiple Parameters</td>
<td>Tong Wang, Zengping Wang and Yuan Yang</td>
</tr>
<tr>
<td>1313</td>
<td>Development of Economic and Stable Power-Sharing Scheme in an Autonomous Microgrid with Volatile Wind Power Generation</td>
<td>Bingke Yan, Bo Wang, Fei Tang, Dichen Liu, Zhihao Ma and Yaning Shao</td>
</tr>
<tr>
<td>1324</td>
<td>Phase-shifted Discontinuous Pulse-Width Modulation Methods for Multi-level Inverters Operated in Over-modulation Range</td>
<td>Dmitry Baimel, Raul Rabinovici, Saad Tapuchi and Nina Baimel</td>
</tr>
<tr>
<td>1334</td>
<td>Grid Connection Using a High-frequency Isolated DC/AC Module for Hybrid Power Systems</td>
<td>Xiaodong Li and Ashoka K.S. Bhat</td>
</tr>
</tbody>
</table>
Identification of the Critical Characteristics of Different Types of Voltage Sags for Synchronous Machine Torque Oscillations / Jaber Alipoor, Aref Doroudi and Seyed Hossein Hosseini

Experimental Verification of Photovoltaic-based Three-phase Four-wire Series Hybrid Active Power Filter / Vijayakumar Madhaiyan and Vijayan Subramaniam

Fault Location in Neutral Non-effectively Grounded Distribution Systems Using Phase Current and Line-to-line Voltage / Jinrui Tang, Xianggen Yin, Minghao Wen and Zhe Zhang


Application of Firefly Algorithm for Load Frequency Control of Multi-area Interconnected Power System / Saroj Padhan, Rabindra Kumar Sahu and Sidhartha Panda

Application of the New Fast Multi-pole Boundary Element Method for Calculation of Electric Field / Zhanlong Zhang, Hui Ma, Lin Li, Xuemei Xie, Dongping Xiao and Wei He

Field-programmable Gate Array Based Fuzzy Sliding-mode Controller for a Permanent Magnet Synchronous Motor Drive / Lixin Zhan and Kai Zhou

Residential Load Management Under Stochastic Weather Condition in Developing Countries / Ameena Saad Al-Sumaiti, Mohammed Hassan Ahmed and Magdy Salama

A Dynamic Harmonic Regression Approach to Power System Modal Identification and Prediction / Armando Jiménez Zavala and Arturo R. Messina
Fuzzy Self-tuning PID Controller for Speedtronic Governor Controlled Heavy Duty Gas Turbine Power Plants / Mustafa Mohamed Iqbal and Rayappan Joseph Xavier

Power Quality Improvement in a Four-Phase Switched Reluctance Motor Drive using Twelve-Pulse AC/DC Converter / Mutharath Rajesh and Bhim Singh

Hardware Implementation of Direct Load Angle Controlled Induction Motor Drive / Thippiripati Vinay Kumar and Sandepudi Srinivasa Rao

Optimization Design and Direct Torque Control of a Flux Concentrating Axial Flux Permanent Magnet Motor for Direct Driving System / Shengdun Zhao, Jintao Liang and Yongqiang Zhao

An Active Power Allocation Method for Wind-solar-batteries Hybrid Power System / Jianxiao Zou, Jun Shu, Zhenzhen Zhang and Wuqiao Luo

Optimal Location of Thyristor-controlled Series Capacitor to Enhance Power Transfer Capability Using Firefly Algorithm / Venkateswara Rao Bathina and Venkata Nagesh Kumar Gundavarapu

Control Design of a Dynamic Voltage Restorer for Wind-Driven Induction Generators during a Low Voltage Fault at Grid Bus / Woei-Luen Chen and Meng-Jie Wang

Optimal C-Type Filter Design to Maximize Transformer's Loading Capability under Non-sinusoidal Conditions / Murat Erhan Balci

Analysis and Improvement of Modeling of Electromagnetic Actuator for Medium Voltage Gas Insulated Switchgear / Kuo-Hsiung Tseng, Yong-Fong Shiao, Pei-Yu Cheng and Zon-Zhi Xu

Seamless Transfer Control Strategy for Grid-Interactive Inverters / Bing Tian, Chengxiong Mao, Jiming Lu, Dan Wang, Yu He, Binqian Zhou, Junfeng Zhang and Xun Chen

Direct Torque Control of Induction Motors Based on Discrete Space Vector Modulation Using Adaptive Sliding Mode Control / Fatma Ben Salem and Nabil Derbel

Support Vector Machine-based Denoising Technique for Removal of White Noise in Partial Discharge Signal / Maheswari Ramasamy Velayutham, Subburaj Perumal, Vigneshwaran Basharan and Willjuice Iruthayarajan Maria Silluvairaj

A Simple Control Scheme for the High Performance Z-Source Inverter / Mostafa I. Marei, Mahmoud A. Allam and Ahmed Abd El-Sattar
Three-level Inverter-fed Induction Motor Drive Performance Improvement with Neuro-fuzzy Space Vector Modulation / Durga Sukumar, Jayachandranath Jithendranath and Suman Saranu

Hybrid Chemical Reaction Optimization Approach for Combined Economic Emission Short-term Hydrothermal Scheduling / Provas Kumar Roy

Two-stage Combinatory Planning Method for Efficient Wind Power Integration in Smart Distribution Systems Considering Uncertainties / Bo Zeng, Jianhua Zhang, Shaojie Ouyang, Xu Yang, Jun Dong and Ming Zeng

Multiple-Input–Multiple-Output Linear-Quadratic Control of the Energy Production of a Synchronous Generator in a Nuclear Power Plant / Attila Fodor, Attila Magyar and Katalin M. Hangos

Optimal Power Flow Using Differential Search Algorithm / Houssem Rafik El-Hana Bouckekara and Mohamed Ali Abido

Two-stage Combinatory Planning Method for Efficient Wind Power Integration in Smart Distribution Systems Considering Uncertainties / Bo Zeng, Jianhua Zhang, Shaojie Ouyang, Xu Yang, Jun Dong and Ming Zeng

Multiple-Input–Multiple-Output Linear-Quadratic Control of the Energy Production of a Synchronous Generator in a Nuclear Power Plant / Attila Fodor, Attila Magyar and Katalin M. Hangos

Optimal Power Flow Using Differential Search Algorithm / Houssem Rafik El-Hana Bouckekara and Mohamed Ali Abido

An Improved Particle Swarm Optimization for the Combined Heat and Power Dynamic Economic Dispatch Problem / Yujiao Zeng and Yanguang Sun

Dual-stator Interior Permanent Magnet Vernier Machine Having Torque Density and Power Factor Improvement / Fei Zhao, Thomas A. Lipo and Byung-il Kwon

Contribution to the Fault Diagnosis of a Doubly Fed Induction Generator for a Closed-loop Controlled Wind Turbine System Associated with a Two-level Energy Storage System / Issam Attoui and Amar Omeiri

Full Capability of Harmonic Current Mitigation for a Wind Energy System / Mohamed Boutoubat, Lakhdar Mokrani and Mohamed Machmoum

Transposition and Voltage Unbalance in High Phase Order Power Transmission Systems / Brian J. Pierre and Gerald T. Heydt

Performance Evaluation of a Control Strategy Developed for a Hybrid Energy System Integrated in DC-AC Microgrids / Kumaravel Sundaramoorthy and Ashok Sankar
LETTER TO THE EDITOR: Simple Switching Technique Reduces Inrush Current in Transformers Connected in Parallel / Kartik P. Basu and Ali A. Fathollahi Fard

A Novel Delay-less Control of Unified Power Quality Conditioner to Enhance Power Quality in Power System / Mehdi Torabian Esfahani and Behrooz Vahidi

Step-up Transformerless Seven-level DC-AC Hybrid Topology for Interconnection of Renewable-based DC Sources to Microgrids / Juan Ramón Rodríguez, Edgar Lenimirko Moreno-Goytia, Vicente Venegas Rebollar, Luis Eduardo Ugalde and Nadia María Salgado-Herrera

Advance Compensated Mho Relay Algorithm for a Transmission System with Shunt Flexible AC Transmission System Device / Ashok Manori, Manoj Tripathy and Hari Om Gupta

A Low-cost Reconfigurable Field-programmable Gate Array Based Three-phase Shunt Active Power Filter for Current Harmonic Elimination and Power Factor Constraints / Charles Siluvaimuthu and Vivekanandan Chenniyappan

An Energy-efficient Switching Scheme with Reduced Switching Transients for a Wind-driven Induction Generator / Chellachi Kathiresan Aravind, Ganesan Saravana Ilango and Chilakapati Nagamani

Formation Characteristics of SF₆ Decomposition under Partial Discharge Induced by Metal Protrusions with Varying Degrees of Severity / Tao Lin, Dong Han, Guoqiang Zhang and Yilu Liu

Selection of Most Relevant Input Parameters Using Waikato Environment for Knowledge Analysis for Gene Expression Programming Based Power Transformer Fault Diagnosis / Hasmat Malik, Sukumar Mishra and Alok Prakash Mittal

Fault-location Observability Analysis on Power Distribution Systems / Wanjing Xiu and Yuan Liao

Oprac. BPK