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This index covers all technical items — papers, correspondence, reviews, etc. — that appeared in this periodical during 2014, and items from previous years that were commented upon or corrected in 2014. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

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Du, W., Jiang, Q., Erickson, M. J., and Lasseter, R. H., Voltage-Source Control of PV Inverter in a CERTS Microgrid; TPWRD Aug. 2014 1726-1734

Duan, S., see Dai, Q., TPWRD Aug. 2014 1909-1917

Duque, C. A., see Schettino, B. M., TPWRD Aug. 2014 1760-1767

Dutta, P., Esmaeilian, A., and Kezunovic, M., Transmission-Line Fault Analysis Using Synchronized Sampling; TPWRD April 2014 942-950

Duval, M., see Martin, D., TPWRD Oct. 2014 2369-2374

Dysko, A., see Abdulhadi, I., TPWRD Oct. 2014 2206-2214

Dysko, A., see Ji, L., TPWRD Dec. 2014 2430-2438

E

Edlebeck, J. E., and Beske, B., Identifying and Quantifying Material Properties That Impact Aggregate Resistivity of Electrical Substation Surface Material; TPWRD Oct. 2014 2248-2253

Egrot, P., see Bergna, G., TPWRD Feb. 2014 386-394

Ehsan, M., see Ghofrani-Jahromi, Z., TPWRD Feb. 2014 72-80

El Dein, A. Z., Calculation of the Electric Field Around the Tower of the Overhead Transmission Lines; TPWRD April 2014 899-907

El Moursi, M. S., Goweily, K., Kirtley, J. L., and Abdel-Rahman, M., Application of Series Voltage Boosting Schemes for Enhanced Fault Ridethrough Performance of Fixed Speed Wind Turbines; TPWRD Feb. 2014 61-71

El Moursi, M. S., Zeineldin, H. H., Kirtley, J. L., and Alobeidli, K., A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation; TPWRD June 2014 1157-1167

El-Hag, A. H., see Sallabi, F. M., TPWRD Feb. 2014 13-20

El-Shatshat, R., see Ghunem, R. A., TPWRD June 2014 1120-1126

Elbuluk, M. E., see Elrayyah, A., TPWRD Aug. 2014 1709-1717

Elg, A.-P., see Wright, P. S., TPWRD Feb. 2014 472-479

Elphick, S., see Milanovic, J. V., TPWRD April 2014 934-941

Elrayyah, A., Sozer, Y., and Elbuluk, M. E., A Novel Load-Flow Analysis for Stable and Optimized Microgrid Operation; *TPWRD Aug.* 2014 1709-1717

Elsamahy, M., Faried, S. O., and Sidhu, T. S., Impact of Midpoint STATCOM on Generator Loss of Excitation Protection; TPWRD April 2014 724-732

Elserougi, A. A., Massoud, A. M., Abdel-Khalik, A. S., and Ahmed, S., Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults; TPWRD June 2014 1249-1261

Elserougi, A. A., Abdel-Khalik, A. S., Massoud, A. M., and Ahmed, S., A New Protection Scheme for HVDC Converters Against DC-Side Faults With Current Suppression Capability; TPWRD Aug. 2014 1569-1577

Eltom, A., see Abdelwahid, S., TPWRD Dec. 2014 2664-2673

Erickson, M. J., see Du, W., TPWRD Aug. 2014 1726-1734

Ericsson, G. N., see Chenine, M., TPWRD April 2014 633-641

Eriksson, R., Beerten, J., Ghandhari, M., and Belmans, R., Optimizing DC Voltage Droop Settings for AC/DC System Interactions; TPWRD Feb. 2014

Eriksson, R., see Samadi, A., TPWRD June 2014 1454-1464

Eriksson, R., Coordinated Control of Multiterminal DC Grid Power Injections for Improved Rotor-Angle Stability Based on Lyapunov Theory; TPWRD Aug. 2014 1789-1797

Erlich, I., Feltes, Ch., and Shewarega, F., Enhanced Voltage Drop Control by VSC-HVDC Systems for Improving Wind Farm Fault Ridethrough Capability; TPWRD Feb. 2014 378-385

Escarela-Perez, R., see Magdaleno-Adame, S., TPWRD Dec. 2014 2648-2655

Eskandari-Nasab, M., see Jafari, R., TPWRD June 2014 1192-1202

Esmaeilian, A., see Dutta, P., TPWRD April 2014 942-950

Espino-Cortes, F. P., see Gomez, P., TPWRD Aug. 2014 2034-2036

Espino-Cortes, F. P., see Nuricumbo-Guillen, R., TPWRD Oct. 2014 2385-

F

Fadul, J. E., Hopkinson, K. M., Andel, T. R., and Sheffield, C. A., A Trust-Management Toolkit for Smart-Grid Protection Systems; TPWRD Aug. 2014 1768-1779

Falk, H., see Kim, D.-K., TPWRD April 2014 598-606

Fan, C., see Ren, X., TPWRD June 2014 1184-1191

Fan, C., see Huang, W., TPWRD Aug. 2014 1591-1602

Fan, S., see Zhou, J. Z., TPWRD Oct. 2014 2287-2296

Farazmand, A., see de Leon, F., TPWRD Feb. 2014 294-296

Farazmand, A., de Leon, F., Zhang, K., and Jazebi, S., Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents; TPWRD Aug. 2014 1918-1926

Fardanesh, B., see Babaei, S., TPWRD Oct. 2014 2124-2135

Faried, S. O., see Rai, D., TPWRD Feb. 2014 224-234

Faried, S. O., see Elsamahy, M., TPWRD April 2014 724-732

Farjah, E., see Ghanbari, T., TPWRD April 2014 525-533

Faruque, M. O., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Feltes, Ch., see Erlich, I., TPWRD Feb. 2014 378-385

Feng, D., Wang, Z., and Jarman, P., Evaluation of Power Transformers' Effective Hot-Spot Factors by Thermal Modeling of Scrapped Units; TPWRD Oct. 2014 2077-2085

Feng, W., Le Tuan, A., Tjernberg, L. B., Mannikoff, A., and Bergman, A., A New Approach for Benefit Evaluation of Multiterminal VSC-HVDC Using A Proposed Mixed AC/DC Optimal Power Flow; TPWRD Feb. 2014

Fernandes, B. G., see Surendra Babu, N. N. V., TPWRD June 2014 993-1001

Fernandes, D., see Dantas, K. M. C., TPWRD June 2014 1203-1211

Fernandes, D., Costa, F., and Vitorino, M., A Method for Averting Saturation From Series Transformers of Dynamic Voltage Restorers; TPWRD Oct. 2014 2239-2247

Filizadeh, S., see Daryabak, M., TPWRD Aug. 2014 1989-1998

Finney, S. J., see Wood, T. B., TPWRD April 2014 926-933

Flood, M., see Wright, P. S., TPWRD Feb. 2014 472-479

Fotuhi-Firuzabad, M., see Aminifar, F., TPWRD Feb. 2014 345-352

Fotuhi-Firuzabad, M., see Safdarian, A., TPWRD April 2014 733-741

Fox, D., see Hamzehbahmani, H., TPWRD April 2014 651-659

Fox, D., see Hamzehbahmani, H., TPWRD April 2014 642-650

Franck, C., see Andersson, G., TPWRD Feb. 2014 307-309

Franck, C. M., see Bucher, M. K., TPWRD Feb. 2014 406-413

Franck, C. M., see Akhmatov, V., TPWRD Feb. 2014 327-335

Franck, C. M., see Walter, M. M., TPWRD April 2014 580-588

Franck, C. M., see Walter, M. M., TPWRD Aug. 2014 1798-1805 Franck, C. M., see Guillod, T., TPWRD Dec. 2014 2493-2501

Freitas, W., see Trindade, F. C. L., TPWRD Feb. 2014 251-260

Fuchs, A., see Mariethoz, S., TPWRD Feb. 2014 462-471

Fuchs, A., Imhof, M., Demiray, T., and Morari, M., Stabilization of Large Power Systems Using VSC-HVDC and Model Predictive Control; TPWRD Feb. 2014 480-488

Fumi, A., see Cinieri, E., TPWRD Dec. 2014 2580-2587

G

Galloway, S., see Stephen, B., TPWRD Feb. 2014 88-96

Ganguly, S., Impact of Unified Power-Quality Conditioner Allocation on Line Loading, Losses, and Voltage Stability of Radial Distribution Systems; TPWRD Aug. 2014 1859-1867

Gao, C., see Xiong, R., TPWRD Aug. 2014 1744-1751

Gao, J., see Zhang, Q., TPWRD April 2014 884-889

Gao, S., see Hu, H., TPWRD April 2014 969-971

Gao, S., see He, Z., TPWRD Aug. 2014 1735-1743

Gao, W., Ding, D., Liu, W., and Huang, X., Investigation of the Evaluation of the PD Severity and Verification of the Sensitivity of Partial-Discharge Detection Using the UHF Method in GIS; TPWRD Feb. 2014 38-47

Gao, W., Ding, D., Zhao, D., and Liu, W., Propagation Properties of High-Frequency Electromagnetic Wave Through Typical In-Field GIS Structures; TPWRD Dec. 2014 2476-2484

Gaouda, A. M., see Sallabi, F. M., TPWRD Feb. 2014 13-20

Garces, A., see Bergna, G., TPWRD Feb. 2014 386-394

Garcez, T. V., and de Almeida, A. T., Multidimensional Risk Assessment of Manhole Events as a Decision Tool for Ranking the Vaults of an Underground Electricity Distribution System; TPWRD April 2014 624-632

Garcia, B., see Villarroel, R., TPWRD Aug. 2014 1894-1900

Garcia, D. F., see Villarroel, R., TPWRD Aug. 2014 1894-1900

Garnacho, F., Khamlichi, A., Valladolid, A., Simon, P., and Valcarcel, M., k-factor Test Voltage Function for Oscillating Lightning Impulses in Nonhomogenous Air Gaps; TPWRD Oct. 2014 2254-2260

Gazalet, M. G., see Khalil, K., TPWRD Aug. 2014 1561-1568

Gentle, J. P., see Greenwood, D. M., TPWRD Aug. 2014 1849-1858

Gezegin, C., see Dirik, H., TPWRD June 2014 1074-1082

Ghanbari, T., and Farjah, E., A Multiagent-Based Fault-Current Limiting Scheme for the Microgrids; TPWRD April 2014 525-533

Ghandhari, M., see Eriksson, R., TPWRD Feb. 2014 362-369

Ghanizadeh, A. J., see Shabestary, M. M., TPWRD Feb. 2014 108-117

Gharbi, M., see Khalil, K., TPWRD Aug. 2014 1561-1568

Gharehpetian, G. B., see Shabestary, M. M., TPWRD Feb. 2014 108-117

Gharehpetian, G. B., see Jafari, R., TPWRD June 2014 1192-1202

Ghofrani-Jahromi, Z., Mahmoodzadeh, Z., and Ehsan, M., Distribution Loss Allocation for Radial Systems Including DGs; TPWRD Feb. 2014 72-80

Ghorbani, H., Jeroense, M., Olsson, C.-O., and Saltzer, M., HVDC Cable Systems—Highlighting Extruded Technology; TPWRD Feb. 2014 414-421

Ghunem, R. A., El-Shatshat, R., and Ozgonenel, O., A Novel Selection Algorithm of a Wavelet-Based Transformer Differential Current Features; TPWRD June 2014 1120-1126

Gianaroli, F., Pancaldi, F., and Vitetta, G. M., The Impact of Statistical Noise Modeling on the Error-Rate Performance of OFDM Power-Line Communications; TPWRD Dec. 2014 2622-2630

Giannakis, G. B., see Dall'Anese, E., TPWRD June 2014 1417-1426

Giappino, S., see Diana, G., TPWRD June 2014 1311-1317

Giappino, S., see Diana, G., TPWRD June 2014 1273-1283

Gokaraju, R., see Rai, D., TPWRD Feb. 2014 224-234

Goldsworthy, D., see Martinez, J. A., TPWRD Dec. 2014 2502-2509

Gole, A. M., see Zhou, J. Z., TPWRD Oct. 2014 2287-2296

Gomez, P., de Leon, F., and Espino-Cortes, F. P., Improved Computation of Core Inductance for Fast Transient Analysis of Transformers; TPWRD Aug. 2014 2034-2036

Gomez, P., see Nuricumbo-Guillen, R., TPWRD Oct. 2014 2385-2393

Gomez-Exposito, A., Mauricio, J. M., and Maza-Ortega, J. M., VSC-Based MVDC Railway Electrification System; TPWRD Feb. 2014 422-431

Gomez-Luna, E., Aponte Mayor, G., and Pleite Guerra, J., Application of Wavelet Transform to Obtain the Frequency Response of a Transformer From Transient Signals—Part II: Practical Assessment and Validation; TPWRD Oct. 2014 2231-2238

Gonzales Arispe, J. C., and Mombello, E. E., Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition; TPWRD June 2014 1127-1137

Gonzalez-Molina, F., see Corea-Araujo, J. A., TPWRD Dec. 2014 2543-2551

Gou, B., see Liu, S., TPWRD Aug. 2014 1701-1708

Goweily, K., see El Moursi, M. S., TPWRD Feb. 2014 61-71

Green, T. C., see Merlin, M. M. C., TPWRD Feb. 2014 310-317

Green, T. C., see Rogers, D. J., TPWRD April 2014 860-869

Greenwood, D. M., Gentle, J. P., Myers, K. S., Davison, P. J., West, I. J., Bush, J. W., Ingram, G. L., and Troffaes, M. C. M., A Comparison of Real-Time Thermal Rating Systems in the U.S. and the U.K.; TPWRD Aug. 2014 1849-

Griffiths, H., see Clark, D., TPWRD June 2014 1240-1248

Griffiths, H., see Guo, D., TPWRD June 2014 1231-1239

Griffiths, H., see Robson, S., TPWRD Aug. 2014 1955-1963

Guasch-Pesquer, L., see Corea-Araujo, J. A., TPWRD Dec. 2014 2543-2551 Gudmundsdottir, U. S., see Jensen, C. F., TPWRD June 2014 1028-1035

Guillaud, X., see Saad, H., TPWRD June 2014 1481-1489

Guillod, T., Pfeiffer, M., and Franck, C. M., Improved Coupled Ion-Flow Field Calculation Method for AC/DC Hybrid Overhead Power Lines; TPWRD Dec. 2014 2493-2501

Guillon, S., see Zheng, K., TPWRD April 2014 890-898

Guo, D., see Clark, D., TPWRD June 2014 1240-1248

Guo, D., Clark, D., Lathi, D., Harid, N., Griffiths, H., Ainsley, A., and Haddad, A., Controlled Large-Scale Tests of Practical Grounding Electrodes—Part I: Test Facility and Measurement of Site Parameters; TPWRD June 2014 1231-1239

Guo, F., see Li, B., TPWRD April 2014 825-833

Guo, J., see Xu, X., TPWRD June 2014 1103-1110

Guo, Q., see Juwono, F. H., TPWRD June 2014 1335-1343

Gurusinghe, D. R., Rajapakse, A. D., and Narendra, K., Testing and Enhancement of the Dynamic Performance of a Phasor Measurement Unit; TPWRD Aug. 2014 1551-1560

Gustafsson, M., see Gustafsson, S., TPWRD Dec. 2014 2439-2447

Gustafsson, S., Biro, T., Cinar, G., Gustafsson, M., Karlsson, A., Nilsson, B., Nordebo, S., and Sjoberg, M., Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables; TPWRD Dec. 2014 2439-2447

Gustavsen, B., Rational Modeling of Multiport Systems via a Symmetry and Passivity Preserving Mode-Revealing Transformation; TPWRD Feb. 2014 199-206

Gustavsen, B., see Holdyk, A., TPWRD June 2014 1446-1453

Gustavsen, B., see Chiesa, N., TPWRD June 2014 1511-1513

Gustavsen, B., see Patel, U. R., TPWRD Oct. 2014 2101-2109

Gustavsen, B., and Portillo, A., Interfacing k-Factor Based White-Box Transformer Models With Electromagnetic Transients Programs; TPWRD Dec. 2014 2534-2542

H

Haakana, J., Kaipia, T., Lassila, J., and Partanen, J., Reserve Power Arrangements in Rural Area Underground Cable Networks; TPWRD April 2014 589-597

Hably, A., see Turker, H., TPWRD June 2014 1012-1019

Haddad, A., see Clark, D., TPWRD June 2014 1240-1248

Haddad, A., see Guo, D., TPWRD June 2014 1231-1239

Haddad, A., see Robson, S., TPWRD Aug. 2014 1955-1963

Haddadi, A., Yazdani, A., Joos, G., and Boulet, B., A Gain-Scheduled Decoupling Control Strategy for Enhanced Transient Performance and Stability of an Islanded Active Distribution Network; TPWRD April 2014 560-569

Hagar, A. A., and Lehn, P. W., Comparative Evaluation of a New Family of Transformerless Modular DC–DC Converters for High-Power Applications; TPWRD Feb. 2014 444-452

Hagh, M. T., see Hashemi, S. M., TPWRD April 2014 699-707

Hagh, M. T., see Jalilian, A., TPWRD Dec. 2014 2640-2647

Haghifam, M.-R., see Ameli, A., TPWRD Aug. 2014 1831-1840

Hall, J., see Hamzehbahmani, H., TPWRD April 2014 651-659

Hall, J., see Hamzehbahmani, H., TPWRD April 2014 642-650

Hamzehbahmani, H., Anderson, P., Hall, J., and Fox, D., Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results; TPWRD April 2014 651-659

Hamzehbahmani, H., Anderson, P., Hall, J., and Fox, D., Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part I: Fundamental Concepts and FEM Modeling; TPWRD April 2014 642-650

Han, B., see Choi, J., TPWRD June 2014 1514-1515

Han, B. M., see Lee, J. Y., TPWRD Feb. 2014 299-301

Hao, Z., see Kong, F., TPWRD Oct. 2014 2270-2278

Harid, N., see Clark, D., TPWRD June 2014 1240-1248

Harid, N., see Guo, D., TPWRD June 2014 1231-1239

Harnefors, L., see Mitra, P., TPWRD Feb. 2014 453-461

Harrison, R. G., see Zirka, S. E., TPWRD April 2014 552-559

Hashemi, S. M., Hagh, M. T., and Seyedi, H., A Novel Backup Distance Protection Scheme for Series-Compensated Transmission Lines; TPWRD April 2014 699-707

Hashemi, S. M., see Jalilian, A., TPWRD Dec. 2014 2640-2647 Hassan, F., see Merlin, M. M. C., TPWRD Feb. 2014 310-317 Hassani, A., see Azizi, S., TPWRD Dec. 2014 2552-2560

He, J., see Zhang, B., TPWRD Aug. 2014 1752-1759

He, J., see Wang, X., TPWRD Oct. 2014 2394-2401

He, L., Liu, C.-C., Pitto, A., and Cirio, D., Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators; TPWRD April 2014 493-501

He, Z., see Hu, H., TPWRD April 2014 969-971

He, Z., see Wang, H., TPWRD June 2014 1262-1272

He, Z., Hu, H., Zhang, Y., and Gao, S., Harmonic Resonance Assessment to Traction Power-Supply System Considering Train Model in China High-Speed Railway; TPWRD Aug. 2014 1735-1743

He, Z.-Y., Liao, K., Li, X.-P., Lin, S., Yang, J.-W., and Mai, R.-K., Natural Frequency-Based Line Fault Location in HVDC Lines; *TPWRD April 2014*

Herman, L., Papic, I., and Blazic, B., A Proportional-Resonant Current Controller for Selective Harmonic Compensation in a Hybrid Active Power Filter; TPWRD Oct. 2014 2055-2065

Hertzberg, K., see Wright, P. S., TPWRD Feb. 2014 472-479

Hikita, M., see Ishibe, S., TPWRD April 2014 677-682

Hinrichsen, V., see Tuczek, M. N., TPWRD Oct. 2014 2197-2205

Hiskens, I. A., see Kundu, S., TPWRD June 2014 1147-1156

Holaus, W., see Smajic, J., TPWRD Dec. 2014 2528-2533

Holboell, J., see Holdyk, A., TPWRD June 2014 1446-1453

Holdyk, A., Gustavsen, B., Arana, I., and Holboell, J., Wideband Modeling of Power Transformers Using Commercial sFRA Equipment; TPWRD June 2014 1446-1453

Homaei, M., Moosavian, S. M., and Illias, H. A., Partial Discharge Localization in Power Transformers Using Neuro-Fuzzy Technique; TPWRD Oct. 2014 2066-2076

Hong, D., see Kim, D.-K., TPWRD April 2014 598-606

Hong, Y.-Y., Lin, F.-J., Lin, Y.-C., and Hsu, F.-Y., Chaotic PSO-Based VAR Control Considering Renewables Using Fast Probabilistic Power Flow; TPWRD Aug. 2014 1666-1674

Hopkinson, K. M., see Fadul, J. E., TPWRD Aug. 2014 1768-1779

Horton, R., see Martinez, J. A., TPWRD Dec. 2014 2502-2509

Hossain, M. J., see Mahmud, M. A., TPWRD June 2014 1221-1230

Hou, Z., see Zhang, W., TPWRD April 2014 972-973

Howe, W., see Milanovic, J. V., TPWRD April 2014 934-941

Hsaio, H.-H., see Wu, J.-C., TPWRD Aug. 2014 1525-1532

Hsu, F.-Y., see Hong, Y.-Y., TPWRD Aug. 2014 1666-1674

Hsu, Y.-J., and Lu, C.-N., Statistical Analyses of $P_{\rm st}$ and ΔV_{10} Recorded at Electric Arc Furnaces; *TPWRD June 2014 1508-1510*

Hu, H., He, Z., Zhang, Y., and Gao, S., Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix; TPWRD April 2014 969-971

Hu, H., see He, Z., TPWRD Aug. 2014 1735-1743

Hu, J., see Jiang, X., TPWRD Aug. 2014 1659-1665

Hu, Q., see Jiang, X., TPWRD Aug. 2014 1659-1665

Huang, D., see Juwono, F. H., TPWRD June 2014 1335-1343

Huang, S., Luo, L., and Cao, K., A Novel Method of Ground Fault Phase Selection in Weak-Infeed Side; TPWRD Oct. 2014 2215-2222

Huang, S.-C., see Lo, Y.-L., TPWRD April 2014 742-750

Huang, W., Nengling, T., Zheng, X., Fan, C., Yang, X., and Kirby, B. J., An Impedance Protection Scheme for Feeders of Active Distribution Networks; TPWRD Aug. 2014 1591-1602

Huang, X., see Gao, W., TPWRD Feb. 2014 38-47

Huang, Z., see Liu, Y., TPWRD April 2014 615-623

Hurley, D. J., see Bouford, J. D., TPWRD Feb. 2014 48-51

Hwang, J. K., Reduction of Noise in Measurements of Phasor Angles by Using Two Digital Filters; TPWRD Feb. 2014 52-60

Hwang, J. K., and Liu, Y., Noise Analysis of Power System Frequency Estimated From Angle Difference of Discrete Fourier Transform Coefficient; TPWRD Aug. 2014 1533-1541

Hyvonen, P., see Degefa, M. Z., TPWRD April 2014 786-793

Hyvonen, P., see Taklaja, P., TPWRD Oct. 2014 2402-2409

I

Idemaru, T., see Ito, H., TPWRD Oct. 2014 2375-2384 Illias, H. A., see Homaei, M., TPWRD Oct. 2014 2066-2076 Im, E. G., see Yang, Y., TPWRD June 2014 1092-1102 Imhof, M., see Fuchs, A., TPWRD Feb. 2014 480-488 Ingram, D. M. E., Schaub, P., Taylor, R. R., and Campbell, D. A., System-Level Tests of Transformer Differential Protection Using an IEC 61850 Process Bus; TPWRD June 2014 1382-1389

Ingram, G. L., see Greenwood, D. M., TPWRD Aug. 2014 1849-1858

Iravani, R., see Ramirez, A., TPWRD Dec. 2014 2614-2621

Ise, T., see Shintai, T., TPWRD April 2014 668-676

Ishibe, S., Mori, M., Kozako, M., and Hikita, M., A New Concept Varistor With Epoxy/Microvaristor Composite; TPWRD April 2014 677-682

Isobe, T., see Jafar, M., TPWRD Feb. 2014 353-361

Ito, H., Kajino, H., Yamagata, Y., Kamei, K., Idemaru, T., and Shinkai, H., Study on Transient Recovery Voltages for Transformer-Limited Faults; TPWRD Oct. 2014 2375-2384

Iwata, M., Tanaka, S.-I., Miyagi, T., Amakawa, T., and Pietsch, G. J., Influence of Perforated Metal Plate on Pressure Rise and Energy Flow due to Internal Arcing in a Container With a Pressure-Relief Opening; TPWRD June 2014 1292-1300

Jones, D., see Deakin, A. G., TPWRD Feb. 2014 207-214

Jones, G. R., see Deakin, A. G., TPWRD Feb. 2014 207-214

Jonsson, E., Aanensen, N. S., and Runde, M., Current Interruption in Air for a Medium-Voltage Load Break Switch; TPWRD April 2014 870-875

Joos, G., see Haddadi, A., TPWRD April 2014 560-569

Joshi, K., see Paramane, S. B., TPWRD Dec. 2014 2596-2604

Jothibasu, S., and Mishra, M. K., A Control Scheme for Storageless DVR Based on Characterization of Voltage Sags; TPWRD Oct. 2014 2261-2269

Jou, H.-L., see Wu, J.-C., TPWRD Aug. 2014 1525-1532

Jovcic, D., and Lin, W., Multiport High-Power LCL DC Hub for Use in DC Transmission Grids; TPWRD April 2014 760-768

Jovcic, D., see Lin, W., TPWRD Oct. 2014 2359-2368

Jun, Z., see Wen, H., TPWRD April 2014 794-801

Juwono, F. H., Guo, Q., Huang, D., and Wong, K. P., Deep Clipping for Impulsive Noise Mitigation in OFDM-Based Power-Line Communications; TPWRD June 2014 1335-1343

K

J

Jafar, M., Molinas, M., Isobe, T., and Shimada, R., Transformer-Less Series Reactive/Harmonic Compensation of Line-Commutated HVDC for Offshore Wind Power Integration; TPWRD Feb. 2014 353-361

Jafari, R., Moaddabi, N., Eskandari-Nasab, M., Gharehpetian, G. B., and Naderi, M. S., A Novel Power Swing Detection Scheme Independent of the Rate of Change of Power System Parameters; TPWRD June 2014

Jalilian, A., Hagh, M. T., and Hashemi, S. M., An Innovative Directional Relaying Scheme Based on Postfault Current; TPWRD Dec. 2014 2640-2647

Jang, H., see Kim, D.-K., TPWRD April 2014 598-606

Janssen, A., Makareinis, D., and Solver, C.-E., International Surveys on Circuit-Breaker Reliability Data for Substation and System Studies; TPWRD April 2014 808-814

Jardini, J. A., see dos Santos, M. L., TPWRD April 2014 502-509

Jarman, P., see Zhou, D., TPWRD Feb. 2014 154-160

Jarman, P., see Feng, D., TPWRD Oct. 2014 2077-2085

Jarventausta, P., see Stephen, B., TPWRD Feb. 2014 88-96

Jatskevich, J., see Daryabak, M., TPWRD Aug. 2014 1989-1998

Jatskevich, J., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Jatskevich, J., see Cano, J. M., TPWRD Dec. 2014 2458-2466

Jazebi, S., see de Leon, F., TPWRD Feb. 2014 294-296 Jazebi, S., see Farazmand, A., TPWRD Aug. 2014 1918-1926

Jensen, C. F., Gudmundsdottir, U. S., Bak, C. L., and Abur, A., Field Test and Theoretical Analysis of Electromagnetic Pulse Propagation Velocity on Crossbonded Cable Systems; TPWRD June 2014 1028-1035

Jeroense, M., see Ghorbani, H., TPWRD Feb. 2014 414-421

Jewell, W. T., see Paul, S., TPWRD Aug. 2014 1999-2007

Ji, L., Booth, C., Dysko, A., Kawano, F., and Beaumont, P., Improved Fault Location Through Analysis of System Parameters During Autoreclose Operations on Transmission Lines; TPWRD Dec. 2014 2430-2438

Ji, T. Y., see Zhang, L. L., TPWRD June 2014 1518-1520

Ji, T. Y., see Zhang, L. L., TPWRD Oct. 2014 2162-2171

Ji, T. Y., see Zhang, Z. W., TPWRD Oct. 2014 2297-2305

Jiang, C., Torquato, R., Salles, D., and Xu, W., Method to Assess the Power-Quality Impact of Plug-in Electric Vehicles; TPWRD April 2014 958-965

Jiang, L., see Zhang, L. L., TPWRD June 2014 1518-1520

Jiang, L., see Zhang, L. L., TPWRD Oct. 2014 2162-2171

Jiang, Q., see Du, W., TPWRD Aug. 2014 1726-1734

Jiang, Q., Wang, B., and Li, X., An Efficient PMU-Based Fault-Location Technique for Multiterminal Transmission Lines; TPWRD Aug. 2014 1675-1682

Jiang, W., see Tang, Z., TPWRD April 2014 951-957

Jiang, X., Xiang, Z., Zhang, Z., Hu, J., Hu, Q., and Shu, L., Predictive Model for Equivalent Ice Thickness Load on Overhead Transmission Lines Based on Measured Insulator String Deviations; TPWRD Aug. 2014 1659-1665

Jiang, Y., see Zhang, B., TPWRD Aug. 2014 1752-1759

Jiang, Z., Miao, S., and Liu, P., A Modified Empirical Mode Decomposition Filtering-Based Adaptive Phasor Estimation Algorithm for Removal of Exponentially Decaying DC Offset; TPWRD June 2014 1326-1334

Jiao, Z., see Zhong, Y., TPWRD Aug. 2014 1718-1725

Jing, X., see Tang, Z., TPWRD April 2014 951-957

Johnson, N., see Deakin, A. G., TPWRD Feb. 2014 207-214

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Jirutitijaroen, P., see Abeygunawardane, S. K., TPWRD Feb. 2014 178-186

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Kamwa, I., see Chakir, M., TPWRD June 2014 1465-1480

Kang, X., see Zhong, Y., TPWRD Aug. 2014 1718-1725

Karaagac, U., see Kocar, I., TPWRD April 2014 908-915

Karami Mohammadi, R., and Pourkashani Tehrani, A., An Investigation on Seismic Behavior of Three Interconnected Pieces of Substation Equipment; TPWRD Aug. 2014 1613-1620

Karlsson, A., see Gustafsson, S., TPWRD Dec. 2014 2439-2447

Kavasseri, R., see Liu, S., TPWRD Aug. 2014 1701-1708

Kavousi-Fard, A., and Niknam, T., Optimal Distribution Feeder Reconfiguration for Reliability Improvement Considering Uncertainty; TPWRD June 2014 1344-1353

Kawano, F., see Ji, L., TPWRD Dec. 2014 2430-2438

Kazemi, R., see Sheshyekani, K., TPWRD Aug. 2014 1868-1876

Kazemi, S., Millar, R. J., and Lehtonen, M., Criticality Analysis of Failure to Communicate in Automated Fault-Management Schemes; TPWRD June 2014 1083-1091

Keshtkar, H., Khushalani Solanki, S., and Solanki, J. M., Improving the Accuracy of Impedance Calculation for Distribution Power System; TPWRD April 2014 570-579

Kezunovic, M., see Dutta, P., TPWRD April 2014 942-950

Khadkikar, V., see Ambati, B. B., TPWRD June 2014 1490-1498

Khalil, K., Gazalet, M. G., Corlay, P., Coudoux, F.-X., and Gharbi, M., An MIMO Random Channel Generator for Indoor Power-Line Communication; TPWRD Aug. 2014 1561-1568

Khamlichi, A., see Garnacho, F., TPWRD Oct. 2014 2254-2260

Khan, U. N., and Sidhu, T. S., A Phase-Shifting Transformer Protection Technique Based on Directional Comparison Approach; TPWRD Oct. 2014 2315-2323

Khazaeli, F., see Ameli, A., TPWRD Aug. 2014 1831-1840

Khederzadeh, M., see Moravej, Z., TPWRD Feb. 2014 261-268

Khushalani Solanki, S., see Keshtkar, H., TPWRD April 2014 570-579

Kim, D., see Choi, J., TPWRD June 2014 1514-1515

Kim, D.-K., Lee, B., Kim, S., Yang, H., Jang, H., Hong, D., and Falk, H., QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970; TPWRD April 2014 598-606

Kim, H., see Choi, J., TPWRD June 2014 1514-1515

Kim, S., see Kim, D.-K., TPWRD April 2014 598-606

Kim, Y.-H., see Lee, J.-H., TPWRD June 2014 1301-1310

Kirby, B. J., see Huang, W., TPWRD Aug. 2014 1591-1602

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Kluss, J. V., see Taklaja, P., TPWRD Oct. 2014 2402-2409

Kobet, G., see Abdelwahid, S., TPWRD Dec. 2014 2664-2673

Kocar, I., Mahseredjian, J., Karaagac, U., Soykan, G., and Saad, O., Multiphase Load-Flow Solution for Large-Scale Distribution Systems Using MANA; TPWRD April 2014 908-915

Kohler, W., see Burow, S., TPWRD Oct. 2014 2332-2339

Kong, F., Hao, Z., Zhang, S., and Zhang, B., Development of a Novel Protection Device for Bipolar HVDC Transmission Lines; TPWRD Oct. 2014 2270-2278

Kornatowski, E., and Banaszak, S., Diagnostics of a Transformer's Active Part With Complementary FRA and VM Measurements; TPWRD June 2014 1398-1406

Koutoula, S. G., see Mikropoulos, P. N., TPWRD Dec. 2014 2570-2579

Kozako, M., see Ishibe, S., TPWRD April 2014 677-682

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Kuffel, J., see Cherney, E. A., TPWRD Feb. 2014 275-282

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Kulkarni, S. V., see Bakshi, A., TPWRD Feb. 2014 235-240 Kulkarni, S. V., see Bakshi, A., TPWRD Feb. 2014 241-245

Kumar, C., and Mishra, M. K., A Voltage-Controlled DSTATCOM for Power-Quality Improvement; TPWRD June 2014 1499-1507

Kundu, P., and Pradhan, A. K., Synchrophasor-Assisted Zone 3 Operation; TPWRD April 2014 660-667

Kundu, S., and Hiskens, I. A., Overvoltages due to Synchronous Tripping of Plug-in Electric-Vehicle Chargers Following Voltage Dips; TPWRD June 2014 1147-1156

L

Lambert, M., Martinez-Duro, M., Mahseredjian, J., de Leon, F., and Sirois, F., Transformer Leakage Flux Models for Electromagnetic Transients: Critical Review and Validation of a New Model; TPWRD Oct. 2014 2180-2188

Lan, J., see Zhang, J., TPWRD Feb. 2014 81-87

Langlois, S., Legeron, F., and Levesque, F., Time History Modeling of Vibrations on Overhead Conductors With Variable Bending Stiffness; TPWRD April 2014 607-614

Langlois, S., and Legeron, F., Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part II: Conductor and Damper Model; TPWRD June 2014 1176-1183

Langlois, S., and Legeron, F., Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part I: Damper Model; TPWRD June 2014 1168-1175

Lasseter, R. H., see Du, W., TPWRD Aug. 2014 1726-1734

Lassila, J., see Haakana, J., TPWRD April 2014 589-597

Lathi, D., see Clark, D., TPWRD June 2014 1240-1248

Lathi, D., see Guo, D., TPWRD June 2014 1231-1239

Lauria, D., Mazzanti, G., and Quaia, S., The Loadability of Overhead Transmission Lines—Part I: Analysis of Single Circuits; TPWRD Feb. 2014 29-37

Lauria, D., Mazzanti, G., and Quaia, S., The Loadability of Overhead Transmission Lines—Part II: Analysis of Double-Circuits and Overall Comparison; TPWRD April 2014 518-524

Lauria, S., and Palone, F., Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta-Sicily Interconnector; TPWRD June 2014 1036-1044

Le Huy, H., see Chakir, M., TPWRD June 2014 1465-1480

Le Tuan, A., see Feng, W., TPWRD Feb. 2014 432-443

Leake, H. C., Kozo, E., and Attarian, G. E., A Simplified Method to Predict Post-Trip Switchyard Voltage at Nuclear Generating Stations; *TPWRD Aug.* 2014 1964-1969

Leblanc, P., see Metwally, I. A., TPWRD Feb. 2014 168-177

Ledwich, G., see Pezeshki, H., TPWRD June 2014 1212-1220

Lee, B., see Kim, D.-K., TPWRD April 2014 598-606

Lee, J. Y., Yoon, Y. D., and Han, B. M., New Intelligent Semiconductor Transformer With Bidirectional Power-Flow Capability; TPWRD Feb. 2014 299-301

Lee, J.-H., and Kim, Y.-H., Diversity Relaying for Parallel Use of Power-Line and Wireless Communication Networks; *TPWRD June 2014 1301-1310*

Legeron, F., see Langlois, S., TPWRD April 2014 607-614

Legeron, F., see Langlois, S., TPWRD June 2014 1176-1183

Legeron, F., see Langlois, S., TPWRD June 2014 1168-1175

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Lehtonen, M., see Razi-Kazemi, A. A., TPWRD Feb. 2014 283-290

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Lehtonen, M., see Degefa, M. Z., TPWRD April 2014 786-793

Lehtonen, M., see Kazemi, S., TPWRD June 2014 1083-1091

Leibfried, T., see Suriyah-Jaya, M., TPWRD Oct. 2014 2095-2100

Leite, H., see Silva, B., TPWRD Feb. 2014 395-405

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Lepich, M., see Wolny, S., TPWRD Feb. 2014 246-250

Lesani, H., see Sharifzadeh, M., TPWRD Aug. 2014 1639-1647

Leterme, W., Tielens, P., De Boeck, S., and Van Hertem, D., Overview of Grounding and Configuration Options for Meshed HVDC Grids; *TPWRD Dec.* 2014 2467-2475

Leung, H., see Xu, X., TPWRD June 2014 1103-1110

Levesque, F., see Langlois, S., TPWRD April 2014 607-614

Li, B., Guo, F., Li, X., and Bo, Z., Circulating Unbalanced Currents of EHV/UHV Untransposed Double-Circuit Lines and Their Influence on Pilot Protection; TPWRD April 2014 825-833

Li, B., Yang, J., Qi, B., Sun, Y., Yan, H., and Chen, S., Application of p-Cycle Protection for the Substation Communication Network Under SRLG Constraints; TPWRD Dec. 2014 2510-2518

Li, C., see Zhou, D., TPWRD Feb. 2014 154-160

Li, C., Savulak, J., and Reinmuller, R., Unintentional Islanding of Distributed Generation—Operating Experiences From Naturally Occurred Events; TPWRD Feb. 2014 269-274

Li, C.-R., see Ma, G.-M., TPWRD Oct. 2014 2410-2416

Li, F., see Xu, Y., TPWRD June 2014 1002-1011

Li, H., see Liu, S., TPWRD Aug. 2014 1701-1708

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Li, M. S., see Zhang, L. L., TPWRD Oct. 2014 2162-2171

Li, Q., Cong, H., Sun, Q., Xing, J., and Chen, Q., Characteristics of Secondary AC Arc Column Motion Near Power Transmission-Line Insulator String; TPWRD Oct. 2014 2324-2331

Li, X., see Li, B., TPWRD April 2014 825-833

Li, X., see Wang, J., TPWRD June 2014 1054-1062

Li, X., see Jiang, Q., TPWRD Aug. 2014 1675-1682

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Li, Y., see Liang, J., TPWRD Oct. 2014 2223-2230

Li, Y. W., see Yazdanpanahi, H., TPWRD April 2014 542-551

Li, Z., and Zeng, R., Comparison of the Characteristics of Upward Leader Emerging From the Ground Wire and Conductor; TPWRD April 2014 708-715

Li, Z.-B., see Ma, G.-M., TPWRD Oct. 2014 2410-2416

Liang, J., Zhang, L., Li, J., and Li, Y., Study on Oscillating Switching Impulse Voltage Generation for Power Transformer Onsite Test; TPWRD Oct. 2014 2222 2220

Liang, Y.-J., see Chang, G. W., TPWRD April 2014 815-824

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Lin, F.-J., see Hong, Y.-Y., TPWRD Aug. 2014 1666-1674

Lin, S., see He, Z.-Y., TPWRD April 2014 851-859

Lin, W., see Jovcic, D., TPWRD April 2014 760-768

Lin, W., and Jovcic, D., LCL and L-VSC Converters With DC Fault Current-Limiting Property and Minimal Power Losses; TPWRD Oct. 2014 2359-2368

Lin, Y.-C., see Hong, Y.-Y., TPWRD Aug. 2014 1666-1674

Ling, W., Liu, D., Lu, Y., Du, P., and Pan, F., IEC 61850 Model Expansion Toward Distributed Fault Localization, Isolation, and Supply Restoration; TPWRD June 2014 977-984

Littler, T., see Yang, Y., TPWRD June 2014 1092-1102

Liu, C., Bose, A., and Tian, P., Modeling and Analysis of HVDC Converter by Three-Phase Dynamic Phasor; TPWRD Feb. 2014 3-12

Liu, C., see Zhang, W., TPWRD April 2014 972-973

Liu, C.-C., see He, L., TPWRD April 2014 493-501

Liu, D., see Ling, W., TPWRD June 2014 977-984

Liu, L. G., see Zheng, K., TPWRD April 2014 890-898

Liu, P., see Jiang, Z., TPWRD June 2014 1326-1334

Liu, S., Gou, B., Li, H., and Kavasseri, R., Power-Line Communication Channel Characteristics Under Transient Model; TPWRD Aug. 2014 1701-1708

Liu, W., see Gao, W., TPWRD Feb. 2014 38-47

Liu, W., see Gao, W., TPWRD Dec. 2014 2476-2484

Liu, X. S., Pang, J. W., Zhang, L., and Xu, D. G., A High-Reliability and Determinacy Architecture for Smart Substation Process-Level Network Based on Cobweb Topology; TPWRD April 2014 842-850

Liu, Y., Zhu, L., Lu, F., and Huang, Z., Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area; TPWRD April 2014 615-623

Liu, Y., see Ren, X., TPWRD June 2014 1184-1191

Liu, Y., see Hwang, J. K., TPWRD Aug. 2014 1533-1541

Lo, Y.-L., Huang, S.-C., and Lu, C.-N., Transformational Benefits of AMI Data in Transformer Load Modeling and Management; TPWRD April 2014 742-750

Lodi, Z., see Cherney, E. A., TPWRD Feb. 2014 275-282

Lu, C.-N., see Lo, Y.-L., TPWRD April 2014 742-750

Lu, C.-N., see Hsu, Y.-J., TPWRD June 2014 1508-1510 Lu, F., see Liu, Y., TPWRD April 2014 615-623 Lu, Y., see Ling, W., TPWRD June 2014 977-984 Luo, L., see Huang, S., TPWRD Oct. 2014 2215-2222

M

Ma, G.-M., Li, C.-R., Chen, W.-J., Chen, M., Sun, Z.-L., Ding, W.-D., and Li, Z.-B., Very Fast Transient Overvoltage Measurement With Dielectric Window; TPWRD Oct. 2014 2410-2416

Ma, H., see Chan, J. C., TPWRD Aug. 2014 1927-1938

Ma, N., see Zhang, W., TPWRD April 2014 972-973

Macpherson, D. E., see Wood, T. B., TPWRD April 2014 926-933

Macwan, R., see Sandraz, J., TPWRD Aug. 2014 1692-1700

Magdaleno-Adame, S., Escarela-Perez, R., Olivares-Galvan, J. C., Campero-Littlewood, E., and Ocon-Valdez, R., Temperature Reduction in the Clamping Bolt Zone of Shunt Reactors: Design Enhancements; TPWRD Dec. 2014 2648-2655

Mahamedi, B., and Zhu, J. G., Unsynchronized Fault Location Based on the Negative-Sequence Voltage Magnitude for Double-Circuit Transmission Lines; TPWRD Aug. 2014 1901-1908

Mahmoodzadeh, Z., see Ghofrani-Jahromi, Z., TPWRD Feb. 2014 72-80

Mahmud, M. A., Hossain, M. J., Pota, H. R., and Roy, N. K., Robust Nonlinear Controller Design for Three-Phase Grid-Connected Photovoltaic Systems Under Structured Uncertainties; TPWRD June 2014 1221-1230

Mahseredjian, J., see Kocar, I., TPWRD April 2014 908-915

Mahseredjian, J., see Saad, H., TPWRD June 2014 1481-1489

Mahseredjian, J., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Mahseredjian, J., see Lambert, M., TPWRD Oct. 2014 2180-2188

Mai, R.-K., see He, Z.-Y., TPWRD April 2014 851-859

Makareinis, D., see Janssen, A., TPWRD April 2014 808-814

Manenti, A., see Diana, G., TPWRD June 2014 1311-1317

Manenti, A., see Diana, G., TPWRD June 2014 1273-1283

Mannikoff, A., see Feng, W., TPWRD Feb. 2014 432-443

Mariethoz, S., Fuchs, A., and Morari, M., A VSC-HVDC Decentralized Model Predictive Control Scheme for Fast Power Tracking; TPWRD Feb. 2014 462-471

Marjanovic, O., see Wang, W., TPWRD Aug. 2014 1978-1988

Marti, L., see Zheng, K., TPWRD April 2014 890-898

Marti, L., Rezaei-Zare, A., and Boteler, D., Calculation of Induced Electric Field During a Geomagnetic Storm Using Recursive Convolution; TPWRD April 2014 802-807

Marti, L., Effects of Series Compensation Capacitors on Geomagnetically Induced Currents; TPWRD Aug. 2014 2032-2033

Marti, L., Yiu, C., Rezaei-Zare, A., and Boteler, D., Simulation of Geomagnetically Induced Currents With Piecewise Layered-Earth Models; TPWRD Aug. 2014 1886-1893

Martin, D., Lelekakis, N., Wijaya, J., Duval, M., and Saha, T., Investigations Into the Stray Gassing of Oils in the Fault Diagnosis of Transformers; TPWRD Oct. 2014 2369-2374

Martinez, J. A., see Daryabak, M., TPWRD Aug. 2014 1989-1998

Martinez, J. A., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Martinez, J. A., see Cano, J. M., TPWRD Dec. 2014 2458-2466

Martinez, J. A., Goldsworthy, D., and Horton, R., Switching Overvoltage Measurements and Simulations-Part I: Field Test Overvoltage Measurements; TPWRD Dec. 2014 2502-2509

Martinez, J. A., see Corea-Araujo, J. A., TPWRD Dec. 2014 2543-2551

Martinez Garcia, S., see Cagigal Olay, C., TPWRD Dec. 2014 2519-2527

Martinez-Duro, M., see Lambert, M., TPWRD Oct. 2014 2180-2188

Maruvada, P. S., Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines; TPWRD April 2014 691-698

Maruvada, P. S., Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines; TPWRD Dec. 2014 2561-2569

Massoud, A. M., see Elserougi, A. A., TPWRD June 2014 1249-1261

Massoud, A. M., see Elserougi, A. A., TPWRD Aug. 2014 1569-1577

Mauricio, J. M., see Gomez-Exposito, A., TPWRD Feb. 2014 422-431

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Mazzanti, G., see Lauria, D., TPWRD Feb. 2014 29-37

Mazzanti, G., see Lauria, D., TPWRD April 2014 518-524

Mazzola, L., see Diana, G., TPWRD June 2014 1311-1317

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McClelland, J., see Sandraz, J., TPWRD Aug. 2014 1692-1700

McLaughlin, K., see Yang, Y., TPWRD June 2014 1092-1102

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Mei, S., see Xu, Y., TPWRD Feb. 2014 291-293

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Merlin, M. M. C., Green, T. C., Mitcheson, P. D., Trainer, D. R., Critchley, R., Crookes, W., and Hassan, F., The Alternate Arm Converter: A New Hybrid Multilevel Converter With DC-Fault Blocking Capability; TPWRD Feb. 2014 310-317

Mestas, P., and Tavares, M. C., Relevant Parameters in a Statistical Analysis—Application to Transmission-Line Energization; TPWRD Dec. 2014 2605-2613

Metwally, I. A., Leblanc, P., and Paillat, T., Streaming Electrification Dynamics in the Multilayer Sensor; TPWRD Feb. 2014 168-177

Meyer, J., see Milanovic, J. V., TPWRD April 2014 934-941

Miao, S., see Jiang, Z., TPWRD June 2014 1326-1334

Miguel, P. M., Comparison of Surge Arrester Models; TPWRD Feb. 2014 21-28 Mikropoulos, P. N., Tsovilis, T. E., and Koutoula, S. G., Lightning Performance of Distribution Transformer Feeding GSM Base Station; TPWRD Dec. 2014 2570-2579

Milanovic, J. V., see Preece, R., TPWRD Feb. 2014 318-326

Milanovic, J. V., Meyer, J., Ball, R. F., Howe, W., Preece, R., Bollen, M. H. J., Elphick, S., and Cukalevski, N., International Industry Practice on Power-Quality Monitoring; TPWRD April 2014 934-941

Millar, R. J., see Degefa, M. Z., TPWRD April 2014 786-793

Millar, R. J., see Kazemi, S., TPWRD June 2014 1083-1091

Mishra, M. K., see Kumar, C., TPWRD June 2014 1499-1507

Mishra, M. K., see Jothibasu, S., TPWRD Oct. 2014 2261-2269

Mitcheson, P. D., see Merlin, M. M. C., TPWRD Feb. 2014 310-317

Mitra, P., Zhang, L., and Harnefors, L., Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study; TPWRD Feb. 2014 453-461

Miura, Y., see Shintai, T., TPWRD April 2014 668-676

Miyagi, T., see Iwata, M., TPWRD June 2014 1292-1300

Moaddabi, N., see Jafari, R., TPWRD June 2014 1192-1202

Mohapatra, A., Bijwe, P. R., and Panigrahi, B. K., An Efficient Hybrid Approach for Volt/Var Control in Distribution Systems; TPWRD Aug. 2014

Molina, J., and Sainz, L., Model of Electronic Ballast Compact Fluorescent Lamps; TPWRD June 2014 1363-1371

Molinas, M., see Bergna, G., TPWRD Feb. 2014 386-394

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Mombello, E. E., see Gonzales Arispe, J. C., TPWRD June 2014 1127-1137

Monteso Fernandez, S., see Cagigal Olay, C., TPWRD Dec. 2014 2519-2527

Moosavian, S. M., see Homaei, M., TPWRD Oct. 2014 2066-2076

Morales, J., Orduna, E. A., and Rehtanz, C., Identification of Lightning Stroke Due to Shielding Failure and Backflashover for Ultra-High-Speed Transmission-Line Protection; TPWRD Aug. 2014 2008-2017

Morari, M., see Mariethoz, S., TPWRD Feb. 2014 462-471

Morari, M., see Fuchs, A., TPWRD Feb. 2014 480-488

Moravej, Z., Pazoki, M., and Khederzadeh, M., Impact of UPFC on Power Swing Characteristic and Distance Relay Behavior; TPWRD Feb. 2014 261-268

Moreira, C. L., see Silva, B., TPWRD Feb. 2014 395-405

Mori, M., see Ishibe, S., TPWRD April 2014 677-682

Moroz, Y. I., see Zirka, S. E., TPWRD April 2014 552-559

Moroz, Y. I., see Zirka, S. E., TPWRD Oct. 2014 2172-2179

Mossad, M. I., Azab, M., and Abu-Siada, A., Transformer Parameters Estimation From Nameplate Data Using Evolutionary Programming Techniques; TPWRD Oct. 2014 2118-2123

Muggiasca, S., see Diana, G., TPWRD June 2014 1311-1317

Muggiasca, S., see Diana, G., TPWRD June 2014 1273-1283

Muller, H., see Akhmatov, V., TPWRD Feb. 2014 327-335

Mutanen, A. J., see Stephen, B., TPWRD Feb. 2014 88-96

Muttaqi, K. M., see Alam, M. R., TPWRD Oct. 2014 2349-2358

Myers, K. S., see Greenwood, D. M., TPWRD Aug. 2014 1849-1858

Naderi, M. S., see Jafari, R., TPWRD June 2014 1192-1202

Narendra, K., see Gurusinghe, D. R., TPWRD Aug. 2014 1551-1560

Nayak, P. K., Pradhan, A. K., and Bajpai, P., Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation; TPWRD Aug. 2014 1970-1977

Nengling, T., see Huang, W., TPWRD Aug. 2014 1591-1602

Neves, W. L. A., see Dantas, K. M. C., TPWRD June 2014 1203-1211

Nguefeu, S., see Saad, H., TPWRD June 2014 1481-1489

Niayesh, K., see Razi-Kazemi, A. A., TPWRD Feb. 2014 283-290

Niayesh, K., see Abbasi, A., TPWRD Aug. 2014 1814-1821

Nicola, G. L. C., see dos Santos, M. L., TPWRD April 2014 502-509

Niitsoo, J., see Taklaja, P., TPWRD Oct. 2014 2402-2409

Niknam, T., see Kavousi-Fard, A., TPWRD June 2014 1344-1353

Nilsson, B., see Gustafsson, S., TPWRD Dec. 2014 2439-2447

Noel, A., see Bokhari, A., TPWRD June 2014 1372-1381

Nordebo, S., see Gustafsson, S., TPWRD Dec. 2014 2439-2447

Nordstrom, L., see Chenine, M., TPWRD April 2014 633-641 Norniella, J. G., see Cano, J. M., TPWRD Dec. 2014 2458-2466

Nuricumbo-Guillen, R., Gomez, P., Espino-Cortes, F. P., and Uribe, F. A., Accurate Computation of Transient Profiles Along Multiconductor Transmission Systems by Means of the Numerical Laplace Transform; TPWRD Oct. 2014 2385-2393

Nursebo, S., Chen, P., Carlson, O., and Tjernberg, L. B., Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis; TPWRD June 2014 1436-1445

 \mathbf{o}

Ocon-Valdez, R., see Magdaleno-Adame, S., TPWRD Dec. 2014 2648-2655 Olivares-Galvan, J. C., see Magdaleno-Adame, S., TPWRD Dec. 2014 2648-2655

Olsson, C.-O., see Ghorbani, H., TPWRD Feb. 2014 414-421

Onyewuchi, U. P., see Shafieezadeh, A., TPWRD Feb. 2014 131-139

Orduna, E. A., see Morales, J., TPWRD Aug. 2014 2008-2017

Ozdemir, M., see Dirik, H., TPWRD June 2014 1074-1082

Ozgonenel, O., see Ghunem, R. A., TPWRD June 2014 1120-1126

P

Paillat, T., see Metwally, I. A., TPWRD Feb. 2014 168-177

Pal, A., Sanchez-Ayala, G. A., Centeno, V. A., and Thorp, J. S., A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network; TPWRD April 2014 510-517

Palone, F., see Lauria, S., TPWRD June 2014 1036-1044

Palu, I., see Taklaja, P., TPWRD Oct. 2014 2402-2409 **Pan, F.**, see Ling, W., TPWRD June 2014 977-984

Pancaldi, F., see Gianaroli, F., TPWRD Dec. 2014 2622-2630

Pang, J. W., see Liu, X. S., TPWRD April 2014 842-850

Panigrahi, B. K., see Mohapatra, A., TPWRD Aug. 2014 1780-1788

Panousis, E., Bujotzek, M., and Christen, T., Arc Cooling Mechanisms in a Model Circuit Breaker; TPWRD Aug. 2014 1806-1813

Papadopoulos, T. A., see Chrysochos, A. I., TPWRD Aug. 2014 1621-1629 Papagiannis, G. K., see Chrysochos, A. I., TPWRD Aug. 2014 1621-1629

Papic, I., see Herman, L., TPWRD Oct. 2014 2055-2065

Paramane, S. B., Joshi, K., Van der Veken, W., and Sharma, A., CFD Study on Thermal Performance of Radiators in a Power Transformer: Effect of Blowing Direction and Offset of Fans; TPWRD Dec. 2014 2596-2604

Partanen, J., see Haakana, J., TPWRD April 2014 589-597

Pasdar, A. M., Cavdar, I. H., and Sozer, Y., Power-Line Impedance Estimation at FCC Band Based on Intelligent Home Appliances Status Detection Algorithm Through Their Individual Energy and Impedance Signatures; TPWRD June 2014 1407-1416

Patel, U. R., Gustavsen, B., and Triverio, P., Proximity-Aware Calculation of Cable Series Impedance for Systems of Solid and Hollow Conductors; TPWRD Oct. 2014 2101-2109

Paul, S., and Jewell, W. T., Importance of Voltage Reduction and Optimal Voltage Setting During Reactive Power Compensation; TPWRD Aug. 2014 1999, 2007

Pazoki, M., see Moravej, Z., TPWRD Feb. 2014 261-268

Pecas Lopes, J. A., see Silva, B., TPWRD Feb. 2014 395-405

Peng, X., see Wang, J., TPWRD June 2014 1054-1062

Peralta, J., see Saad, H., TPWRD June 2014 1481-1489

Pezeshki, H., Wolfs, P. J., and Ledwich, G., Impact of High PV Penetration on Distribution Transformer Insulation Life; TPWRD June 2014 1212-1220

Pfeiffer, M., see Guillod, T., TPWRD Dec. 2014 2493-2501

Phillips, A., see Cherney, E. A., TPWRD Feb. 2014 275-282

Phillips, A. J., see Carreira, A. J., TPWRD Feb. 2014 126-130

Pietsch, G. J., see Iwata, M., TPWRD June 2014 1292-1300

Pihler, J., see Ribic, J., TPWRD June 2014 985-992

Pires, V. M. F., see Santos, N. M. R., TPWRD Aug. 2014 1542-1550

Pirjola, R. J., see Zheng, K., TPWRD April 2014 890-898

Pitto, A., see He, L., TPWRD April 2014 493-501

Pleite Guerra, J., see Gomez-Luna, E., TPWRD Oct. 2014 2231-2238

Polevoy, A., Impact of Data Errors on Sag Calculation Accuracy for Overhead Transmission Line; TPWRD Oct. 2014 2040-2045

Portillo, A., see Gustavsen, B., TPWRD Dec. 2014 2534-2542

Pota, H. R., see Mahmud, M. A., TPWRD June 2014 1221-1230

Pourkashani Tehrani, A., see Karami Mohammadi, R., TPWRD Aug. 2014 1613-1620

Powell, D. G., see Cherney, E. A., TPWRD Feb. 2014 275-282

Pradhan, A. K., see Kundu, P., TPWRD April 2014 660-667

Pradhan, A. K., see Nayak, P. K., TPWRD Aug. 2014 1970-1977

Pramanik, S., and Satish, L., Correction to "Estimation of Series Capacitance of a Transformer Winding Based on Frequency-Response Data: An Indirect Measurement Approach" [Oct 11 2870-2878]; TPWRD Feb. 2014 302-303

Pramanik, S., and Satish, L., Time-Domain Approach to Estimate Series Capacitance of an Isolated Phase Winding of a Transformer; TPWRD Aug. 2014 1939-1945

Pranggono, B., see Yang, Y., TPWRD June 2014 1092-1102

Preece, R., and Milanovic, J. V., Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method; TPWRD Feb. 2014 318-326

Preece, R., see Milanovic, J. V., TPWRD April 2014 934-941

0

Qi, B., see Li, B., TPWRD Dec. 2014 2510-2518

Qi, Z., see Zheng, T., TPWRD Oct. 2014 2146-2153

Qu, C., see Wu, X., TPWRD Dec. 2014 2448-2457

Quaia, S., see Lauria, D., TPWRD Feb. 2014 29-37

Quaia, S., see Lauria, D., TPWRD April 2014 518-524

R

Rabie, K. M., and Alsusa, E., Preprocessing-Based Impulsive Noise Reduction for Power-Line Communications; *TPWRD Aug. 2014 1648-1658*

Rabie, K. M., and Alsusa, E., Quantized Peak-Based Impulsive Noise Blanking in Power-Line Communications; TPWRD Aug. 2014 1630-1638

Rabie, K. M., and Alsusa, E., Effective Noise Cancellation Using Single-Carrier FDMA Transmission in Power-Line Channels; TPWRD Oct. 2014 2110-2117

Rabiee, A., and Soroudi, A., Stochastic Multiperiod OPF Model of Power Systems With HVDC-Connected Intermittent Wind Power Generation; TPWRD Feb. 2014 336-344

Rahmati, A., and Adhami, R., An Accurate Filtering Technique to Mitigate Transient Decaying DC Offset; TPWRD April 2014 966-968

Rai, D., Gokaraju, R., and Faried, S. O., Adaptive Control Using Constrained RLS and Dynamic Pole-Shift Technique for TCSCs; TPWRD Feb. 2014 224-234

Rajapakse, A. D., see Gurusinghe, D. R., TPWRD Aug. 2014 1551-1560

Ramirez, A., and Iravani, R., Enhanced Fitting to Obtain an Accurate DC Response of Transmission Lines in the Analysis of Electromagnetic Transients; TPWRD Dec. 2014 2614-2621

Rawn, B. G., see Samadi, A., TPWRD June 2014 1454-1464

Razi-Kazemi, A. A., Vakilian, M., Niayesh, K., and Lehtonen, M., Circuit-Breaker Automated Failure Tracking Based on Coil Current Signature; TPWRD Feb. 2014 283-290

Rehtanz, C., see Morales, J., TPWRD Aug. 2014 2008-2017

Reinmuller, R., see Li, C., TPWRD Feb. 2014 269-274

Ren, J., Venkata, S. S., and Sortomme, E., An Accurate Synchrophasor Based Fault Location Method for Emerging Distribution Systems; *TPWRD Feb.* 2014 297-298

Ren, X., Ding, W., Zhou, W., Fan, C., Wu, J., Liu, Y., Yan, M., and Zhang, G., The Moisture in SF₆ Insulated CTs Considering Current and Change of Ambient Temperature; *TPWRD June 2014 1184-1191*

Reza, M. S., Ciobotaru, M., and Agelidis, V. G., Accurate Estimation of Single-Phase Grid Voltage Parameters Under Distorted Conditions; TPWRD June 2014 1138-1146

Rezaei-Zare, A., see Marti, L., TPWRD April 2014 802-807

Rezaei-Zare, A., Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions; TPWRD April 2014 916-925 Rezaei-Zare, A., see Marti, L., TPWRD Aug. 2014 1886-1893

Ribeiro, P. F., see Schettino, B. M., TPWRD Aug. 2014 1760-1767

Ribic, J., Vorsic, J., and Pihler, J., Mathematical Model of a Gas Discharge Arrester Based on Physical Parameters; TPWRD June 2014 985-992

Riechert, U., see Smajic, J., TPWRD Dec. 2014 2528-2533

Robson, S., Haddad, A., and Griffiths, H., Fault Location on Branched Networks Using a Multiended Approach; TPWRD Aug. 2014 1955-1963

Rochette, D., Clain, S., and Touzani, R., Voltage Excitation in Coil Rings Using Magnetically Coupled Inductor/Load For Axisymmetric Geometry; TPWRD Feb. 2014 118-125

Rodriguez, J. C. C., see Cagigal Olay, C., TPWRD Dec. 2014 2519-2527

Rogers, D. J., Green, T. C., and Silversides, R. W., A Low-Wear Onload Tap Changer Diverter Switch for Frequent Voltage Control on Distribution Networks; TPWRD April 2014 860-869

Roy, N. K., see Mahmud, M. A., TPWRD June 2014 1221-1230

Rubeena, R., Dadash Zadeh, M. R., and Bains, T. P. S., An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines; TPWRD April 2014 876-883

Runde, M., see Jonsson, E., TPWRD April 2014 870-875 Rye, S. E., see Akhmatov, V., TPWRD Feb. 2014 327-335

 \mathbf{S}

Saad, H., Dennetiere, S., Mahseredjian, J., Delarue, P., Guillaud, X., Peralta, J., and Nguefeu, S., Modular Multilevel Converter Models for Electromagnetic Transients; TPWRD June 2014 1481-1489

Saad, O., see Kocar, I., TPWRD April 2014 908-915

Saeedifard, M., see Daryabak, M., TPWRD Aug. 2014 1989-1998

Saeedifard, M., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Saeedifard, M., see Cano, J. M., TPWRD Dec. 2014 2458-2466

Safdarian, A., see Aminifar, F., TPWRD Feb. 2014 345-352

Safdarian, A., Fotuhi-Firuzabad, M., and Lehtonen, M., Impacts of Time-Varying Electricity Rates on Forward Contract Scheduling of DisCos; TPWRD April 2014 733-741

Saha, T., see Martin, D., TPWRD Oct. 2014 2369-2374

Saha, T. K., see Chan, J. C., TPWRD Aug. 2014 1927-1938

Saiki, G. Y., see dos Santos, M. L., TPWRD April 2014 502-509

Sainz, L., see Molina, J., TPWRD June 2014 1363-1371

Salama, M. M. A., see Sallabi, F. M., TPWRD Feb. 2014 13-20

Salama, M. M. A., see Aldhubaib, H. A., TPWRD Aug. 2014 1603-1612

Salari, J. C., A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part II: Application Examples; TPWRD Aug. 2014 1586-1590

Salari, J. C., A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part I: Methodological Aspects; TPWRD Aug. 2014 1578-1585

Sallabi, F. M., Gaouda, A. M., El-Hag, A. H., and Salama, M. M. A., Evaluation of ZigBee Wireless Sensor Networks Under High Power Disturbances; TPWRD Feb. 2014 13-20

Salles, D., see Jiang, C., TPWRD April 2014 958-965

Saltzer, M., see Ghorbani, H., TPWRD Feb. 2014 414-421

Samadi, A., Eriksson, R., Soder, L., Rawn, B. G., and Boemer, J. C., Coordinated Active Power-Dependent Voltage Regulation in Distribution Grids With PV Systems; TPWRD June 2014 1454-1464

Samantaray, S. R., see Tripathy, L. N., TPWRD Aug. 2014 1822-1830

Sanaye-Pasand, M., see Dashti, H., TPWRD April 2014 777-785

Sanaye-Pasand, M., see Sharifzadeh, M., TPWRD Aug. 2014 1639-1647

Sanaye-Pasand, M., see Azizi, S., TPWRD Dec. 2014 2552-2560

Sanchez-Ayala, G. A., see Pal, A., TPWRD April 2014 510-517

Sandraz, J., Macwan, R., Diaz-Aguilo, M., McClelland, J., de Leon, F., Czarkowski, D., and Comack, C., Energy and Economic Impacts of the Application of CVR in Heavily Meshed Secondary Distribution Networks; TPWRD Aug. 2014 1692-1700

Santos, N. M. R., Silva, J. F., Verveckken, J., Pires, V. M. F., and Castro, R. M. G., Enhancing the Ride-Through Capability of DC-Link Voltage in NPC Multilevel Unified Power-Flow Controllers; TPWRD Aug. 2014 1542-1550

Sarafi, A. M., Voulkidis, A. C., and Cottis, P. G., Optimal TDMA Scheduling in Tree-Based Power-Line Communication Networks; TPWRD Oct. 2014 2189-2196

Satish, L., see Pramanik, S., TPWRD Feb. 2014 302-303

Satish, L., see Pramanik, S., TPWRD Aug. 2014 1939-1945

Savulak, J., see Li, C., TPWRD Feb. 2014 269-274

Schaub, P., see Ingram, D. M. E., TPWRD June 2014 1382-1389

Schettino, B. M., Duque, C. A., Silveira, P. M., Ribeiro, P. F., and Cerqueira, A. S., A New Method of Current-Transformer Saturation Detection in the Presence of Noise; TPWRD Aug. 2014 1760-1767

Schettler, F., see Akhmatov, V., TPWRD Feb. 2014 327-335

Sedaghat, A., and de Leon, F., Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations; TPWRD Oct. 2014 2306-2314

Seyedi, H., see Hashemi, S. M., TPWRD April 2014 699-707

Sezer, S., see Yang, Y., TPWRD June 2014 1092-1102

Shabestary, M. M., Ghanizadeh, A. J., Gharehpetian, G. B., and Agha-Mirsalim, M., Ladder Network Parameters Determination Considering Nondominant Resonances of the Transformer Winding; TPWRD Feb. 2014

Shafieezadeh, A., Onyewuchi, U. P., Begovic, M. M., and DesRoches, R., Age-Dependent Fragility Models of Utility Wood Poles in Power Distribution Networks Against Extreme Wind Hazards; TPWRD Feb. 2014 131-139

Shah, D. G., and Crow, M. L., Stability Design Criteria for Distribution Systems With Solid-State Transformers; TPWRD Dec. 2014 2588-2595

Shahidehpour, M., see Aminifar, F., TPWRD Feb. 2014 345-352

Shan, X., see Wei, P., TPWRD Dec. 2014 2656-2663

Sharifzadeh, M., Lesani, H., and Sanaye-Pasand, M., A New Algorithm to Stabilize Distance Relay Operation During Voltage-Degraded Conditions; TPWRD Aug. 2014 1639-1647

Sharma, A., see Paramane, S. B., TPWRD Dec. 2014 2596-2604

Shayegani, A., see Abbasi, A., TPWRD Aug. 2014 1814-1821

Sheffield, C. A., see Fadul, J. E., TPWRD Aug. 2014 1768-1779

Sheng, B., see Tang, Z., TPWRD April 2014 951-957

Sheshyekani, K., and Akbari, M., Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground; TPWRD April 2014 683-690

Sheshyekani, K., Akbari, M., Tabei, B., and Kazemi, R., Wideband Modeling of Large Grounding Systems to Interface With Electromagnetic Transient Solvers; TPWRD Aug. 2014 1868-1876

Sheshyekani, K., and Tabei, B., Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method; TPWRD Oct. 2014 2340-2348

Shewarega, F., see Erlich, I., TPWRD Feb. 2014 378-385

Shi, D., see Zhu, L., TPWRD Feb. 2014 97-107

Shih, M.-F., see Chang, G. W., TPWRD April 2014 815-824

Shimada, R., see Jafar, M., TPWRD Feb. 2014 353-361

Shinkai, H., see Ito, H., TPWRD Oct. 2014 2375-2384

Shintai, T., Miura, Y., and Ise, T., Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator; TPWRD April 2014 668-676

Shoory, A., see Smajic, J., TPWRD Dec. 2014 2528-2533

Shu, L., see Jiang, X., TPWRD Aug. 2014 1659-1665

Sidhu, T. S., see Elsamahy, M., TPWRD April 2014 724-732

Sidhu, T. S., see Khan, U. N., TPWRD Oct. 2014 2315-2323

Sidhu, T. S., see Bejmert, D., TPWRD Dec. 2014 2485-2492

Silva, B., Moreira, C. L., Leite, H., and Pecas Lopes, J. A., Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids; TPWRD Feb. 2014 395-405

Silva, J. F., see Santos, N. M. R., TPWRD Aug. 2014 1542-1550

Silveira, P. M., see Schettino, B. M., TPWRD Aug. 2014 1760-1767

Silversides, R. W., see Rogers, D. J., TPWRD April 2014 860-869

Simon, P., see Garnacho, F., TPWRD Oct. 2014 2254-2260

Sirois, F., see Lambert, M., TPWRD Oct. 2014 2180-2188

Sjoberg, M., see Gustafsson, S., TPWRD Dec. 2014 2439-2447

Smajic, J., Shoory, A., Burow, S., Holaus, W., Riechert, U., and Tenbohlen, S.,

Simulation-Based Design of HF Resonators for Damping Very Fast Transients in GIS; TPWRD Dec. 2014 2528-2533

Smith, D. H., see Deakin, A. G., TPWRD Feb. 2014 207-214

Soder, L., see Samadi, A., TPWRD June 2014 1454-1464

Solanki, J. M., see Keshtkar, H., TPWRD April 2014 570-579

Solver, C.-E., see Janssen, A., TPWRD April 2014 808-814

Song, Y., Wang, H., and Zhang, J., A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot; TPWRD Oct. 2014 2154-

Sood, V., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Sood, V. K., see Daryabak, M., TPWRD Aug. 2014 1989-1998

Soong, T., and Lehn, P. W., Evaluation of Emerging Modular Multilevel Converters for BESS Applications; TPWRD Oct. 2014 2086-2094

Soroudi, A., see Rabiee, A., TPWRD Feb. 2014 336-344

Sorrentino, E., Nontraditional Relay Curves for the Coordination of the Ground Overcurrent Function With Downstream Fuses; TPWRD June 2014 1284-1291

Sortomme, E., see Ren, J., TPWRD Feb. 2014 297-298

Sousa, T., see dos Santos, M. L., TPWRD April 2014 502-509

Soykan, G., see Kocar, I., TPWRD April 2014 908-915

Sozer, Y., see Pasdar, A. M., TPWRD June 2014 1407-1416

Sozer, Y., see Elrayyah, A., TPWRD Aug. 2014 1709-1717

Spencer, J. W., see Deakin, A. G., TPWRD Feb. 2014 207-214

Stephen, B., Mutanen, A. J., Galloway, S., Burt, G., and Jarventausta, P., Enhanced Load Profiling for Residential Network Customers; TPWRD Feb. 2014 88-96

Stewart, G. A., see Cherney, E. A., TPWRD Feb. 2014 275-282

Straumann, U., see Burow, S., TPWRD Oct. 2014 2332-2339

Strunz, K., see Atighechi, H., TPWRD Oct. 2014 2046-2054

Su, Z. P., see Xu, Z. Y., TPWRD April 2014 834-841 **Sun, Q.**, see Li, Q., TPWRD Oct. 2014 2324-2331

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Sun, Y., see Li, B., TPWRD Dec. 2014 2510-2518

Sun, Z.-L., see Ma, G.-M., TPWRD Oct. 2014 2410-2416

Suonan, J., see Zhong, Y., TPWRD Aug. 2014 1718-1725

Surendra Babu, N. N. V., and Fernandes, B. G., Cascaded Two-Level Inverter-Based Multilevel STATCOM for High-Power Applications; TPWRD June 2014 993-1001

Suriyah-Jaya, M., and Leibfried, T., Accelerating Dielectric Response Measurements on Power Transformers—Part II: A Regression Approach; TPWRD Oct. 2014 2095-2100

Svensson, S., see Bergman, A., TPWRD Feb. 2014 370-377

Т

Tabei, B., see Sheshyekani, K., TPWRD Aug. 2014 1868-1876

Tabei, B., see Sheshyekani, K., TPWRD Oct. 2014 2340-2348

Taklaja, P., Hyvonen, P., Kluss, J. V., Niitsoo, J., and Palu, I., Preventing Bird Streamer Outages Using Alternative Tower Configurations; TPWRD Oct. 2014 2402-2409

Tanaka, S.-I., see Iwata, M., TPWRD June 2014 1292-1300

Tang, G., see Xue, Y., TPWRD Feb. 2014 187-198

Tang, G., see Wang, H., TPWRD June 2014 1262-1272 Tang, G., see Xu, F., TPWRD Aug. 2014 1683-1691

Tang, W. H., see Zhang, Z. W., TPWRD Oct. 2014 2297-2305

Tang, X., see Zhang, Q., TPWRD April 2014 884-889

Tang, Z., Zhou, C., Jiang, W., Zhou, W., Jing, X., Yu, J., Alkali, B., and Sheng, B., Analysis of Significant Factors on Cable Failure Using the Cox Proportional Hazard Model; TPWRD April 2014 951-957

Tavares, M. C., see Mestas, P., TPWRD Dec. 2014 2605-2613

Taylor, R. R., see Ingram, D. M. E., TPWRD June 2014 1382-1389

Tenbohlen, S., see Burow, S., TPWRD Oct. 2014 2332-2339

Tenbohlen, S., see Smajic, J., TPWRD Dec. 2014 2528-2533

Terzija, V., see Wall, P., *TPWRD Aug. 2014 2018-2031* **Terzija, V.**, see Zheng, T., *TPWRD Oct. 2014 2146-2153*

Thiringer, T., see Abdulahovic, T., TPWRD Aug. 2014 1946-1954

Thorp, J. S., see Pal, A., TPWRD April 2014 510-517

Tian, L., see Zhang, J., TPWRD Feb. 2014 81-87

Tian, P., see Liu, C., TPWRD Feb. 2014 3-12

Tielens, P., see Leterme, W., TPWRD Dec. 2014 2467-2475

Tjernberg, L. B., see Feng, W., TPWRD Feb. 2014 432-443

Tjernberg, L. B., see Nursebo, S., TPWRD June 2014 1436-1445

Todorovski, M., and Ackovski, R., Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults; TPWRD April 2014 751-759

Todorovski, M., Transformer Voltage Regulation—Compact Expression Dependent on Tap Position and Primary/Secondary Voltage; *TPWRD June* 2014 1516-1517

Torquato, R., see Jiang, C., TPWRD April 2014 958-965

Touzani, R., see Rochette, D., TPWRD Feb. 2014 118-125

Trainer, D. R., see Merlin, M. M. C., TPWRD Feb. 2014 310-317

Trindade, F. C. L., Freitas, W., and Vieira, J. C. M., Fault Location in Distribution Systems Based on Smart Feeder Meters, TPWRD Feb. 2014 251-260

Tripathy, L. N., Dash, P. K., and Samantaray, S. R., A New Cross-Differential Protection Scheme for Parallel Transmission Lines Including UPFC; TPWRD Aug. 2014 1822-1830 Triverio, P., see Patel, U. R., TPWRD Oct. 2014 2101-2109

Troffaes, M. C. M., see Greenwood, D. M., TPWRD Aug. 2014 1849-1858

Tsovilis, T. E., see Mikropoulos, P. N., TPWRD Dec. 2014 2570-2579

Tuczek, M. N., and Hinrichsen, V., Recent Experimental Findings on the Single and Multi-Impulse Energy Handling Capability of Metal—Oxide Varistors for Use in High-Voltage Surge Arresters; TPWRD Oct. 2014 2197-2205
 Turkey, H. Bosh, S. and Hakk, A. Bulla Based Charging of Physics Deltains

Turker, H., Bacha, S., and Hably, A., Rule-Based Charging of Plug-in Electric Vehicles (PEVs): Impacts on the Aging Rate of Low-Voltage Transformers; TPWRD June 2014 1012-1019

Tylman, W., Wenerski, M., and Anders, G. J., Leak Detection in Slow Oscillation High-Pressure Fluid-Filled Circuits; TPWRD April 2014 769-776

U

Ullberg, J., see Chenine, M., TPWRD April 2014 633-641

Uosef, R. E., see Bokhari, A., TPWRD June 2014 1372-1381

Uribe, F. A., see Nuricumbo-Guillen, R., TPWRD Oct. 2014 2385-2393

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Vakilian, M., see Razi-Kazemi, A. A., TPWRD Feb. 2014 283-290

Valcarcel, M., see Garnacho, F., TPWRD Oct. 2014 2254-2260

Valladolid, A., see Garnacho, F., TPWRD Oct. 2014 2254-2260

Van der Veken, W., see Paramane, S. B., TPWRD Dec. 2014 2596-2604

Van Hertem, D., see Leterme, S. and Valence A. Marierra Allerent

Van Tu, D., Chaitusaney, S., and Yokoyama, A., Maximum-Allowable Distributed Generation Considering Fault Ride-Through Requirement And Reach Reduction of Utility Relay; TPWRD April 2014 534-541

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 \mathbf{C}

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Cable shielding

Comparison of the Characteristics of Upward Leader Emerging From the Ground Wire and Conductor. Li, Z., +, TPWRD April 2014 708-715

Evaluation of Whole Span Lightning Shielding Flashover Risk Based on 3-D Laser Scanning Technology. Wen, H., +, TPWRD April 2014 794-801 Identification of Lightning Stroke Due to Shielding Failure and Backflashover for Ultra-High-Speed Transmission-Line Protection. Morales, J., +, TPWRD Aug. 2014 2008-2017

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Cantilevers

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Time-Domain Approach to Estimate Series Capacitance of an Isolated Phase Winding of a Transformer. *Pramanik, S., +, TPWRD Aug. 2014 1939-1945*

Capacitance measurement

Correction to "Estimation of Series Capacitance of a Transformer Winding Based on Frequency-Response Data: An Indirect Measurement Approach" [Oct 11 2870-2878]. *Pramanik*, S., +, TPWRD Feb. 2014 302-303

Capacitor switching

Investigation Into Islanding Detection With Capacitor Insertion-Based Method. Bejmert, D., +, TPWRD Dec. 2014 2485-2492

Capacitors

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Carbon compounds

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Carrier transmission on power lines

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Deep Clipping for Impulsive Noise Mitigation in OFDM-Based Power-Line Communications. *Juwono, F. H.,* +, *TPWRD June 2014 1335-1343*

Diversity Relaying for Parallel Use of Power-Line and Wireless Communication Networks. *Lee, J.-H., +, TPWRD June 2014 1301-1310*

Effective Noise Cancellation Using Single-Carrier FDMA Transmission in Power-Line Channels. *Rabie, K. M.,* +, *TPWRD Oct. 2014 2110-2117*

Optimal TDMA Scheduling in Tree-Based Power-Line Communication Networks. Sarafi, A. M., +, TPWRD Oct. 2014 2189-2196

Power-Line Communication Channel Characteristics Under Transient Model. Liu, S., +, TPWRD Aug. 2014 1701-1708

Power-Line Impedance Estimation at FCC Band Based on Intelligent Home Appliances Status Detection Algorithm Through Their Individual Energy and Impedance Signatures. *Pasdar, A. M., +, TPWRD June 2014 1407-1416* Preprocessing-Based Impulsive Noise Reduction for Power-Line Communications. *Rabie, K. M., +, TPWRD Aug. 2014 1648-1658*

Quantized Peak-Based Impulsive Noise Blanking in Power-Line Communications. *Rabie*, K. M., +, TPWRD Aug. 2014 1630-1638

The Impact of Statistical Noise Modeling on the Error-Rate Performance of OFDM Power-Line Communications. *Gianaroli, F.,* +, *TPWRD Dec. 2014* 2622-2630

Cellular radio

Lightning Performance of Distribution Transformer Feeding GSM Base Station. Mikropoulos, P. N., +, TPWRD Dec. 2014 2570-2579

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Channel bank filters

Extended C37.118.1 PMU Algorithms for Joint Tracking of Fundamental and Harmonic Phasors in Stressed Power Systems and Microgrids. *Chakir, M., +, TPWRD June 2014 1465-1480*

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Circuit breakers

Arc Cooling Mechanisms in a Model Circuit Breaker. Panousis, E., +, TPWRD Aug. 2014 1806-1813

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Current Interruption in Air for a Medium-Voltage Load Break Switch. *Jonsson, E., +, TPWRD April 2014 870-875*

Influence of DC Component of Short-Circuit Current on Arc Characteristics During the Arcing Period. Zhang, J., +, TPWRD Feb. 2014 81-87

International Surveys on Circuit-Breaker Reliability Data for Substation and System Studies. *Janssen*, A., +, TPWRD April 2014 808-814

LCL and L-VSC Converters With DC Fault Current-Limiting Property and Minimal Power Losses. *Lin, W., +, TPWRD Oct. 2014 2359-2368*

Optimal Test Current Shape for Accurate Arc Characteristic Determination. Walter, M. M., +, TPWRD Aug. 2014 1798-1805

Relevant Parameters in a Statistical Analysis—Application to Transmission-Line Energization. *Mestas, P., +, TPWRD Dec. 2014 2605-2613*

Soft Reclosing of an Industrial Power Network Using an Inverter-Controlled Energy-Storage System. *Anwar*, *A.*, +, *TPWRD June 2014 1111-1119*

System-Level Tests of Transformer Differential Protection Using an IEC 61850 Process Bus. *Ingram, D. M. E.,* +, *TPWRD June 2014 1382-1389* Transmission-Line Fault Analysis Using Synchronized Sampling. *Dutta, P.,*

+, TPWRD April 2014 942-950 Circuit oscillations

Leak Detection in Slow Oscillation High-Pressure Fluid-Filled Circuits. Tylman, W., +, TPWRD April 2014 769-776

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Optimal Test Current Shape for Accurate Arc Characteristic Determination. Walter, M. M., +, TPWRD Aug. 2014 1798-1805

Circuit simulation

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Circuit-breaking arcs

Improved Method for Direct Black-Box Arc Parameter Determination and Model Validation. *Walter, M. M., +, TPWRD April 2014 580-588*Influence of DC Component of Short-Circuit Current on Arc Characteristics During the Arcing Period. *Zhang, J., +, TPWRD Feb. 2014 81-87*Optimal Test Current Shape for Accurate Arc Characteristic Determination. *Walter, M. M., +, TPWRD Aug. 2014 1798-1805*

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Directed Oil Flow Cooling of Disk Windings Using Graph Theory. Del Vecchio, R. M., TPWRD Oct. 2014 2279-2286 Voltage Excitation in Coil Rings Using Magnetically Coupled Inductor/Load For Axisymmetric Geometry. *Rochette*, D., +, TPWRD Feb. 2014 118-125

Commutation

Modeling and Analysis of HVDC Converter by Three-Phase Dynamic Phasor. *Liu*, C., +, *TPWRD Feb. 2014 3-12*

Modeling of LCC-HVDC Systems Using Dynamic Phasors. *Daryabak, M.,* +, *TPWRD Aug. 2014 1989-1998*

Compensation

A Hybrid Wavelet Transform and Neural-Network-Based Approach for Modelling Dynamic Voltage-Current Characteristics of Electric Arc Furnace. Chang, G. W., +, TPWRD April 2014 815-824

A Method for Averting Saturation From Series Transformers of Dynamic Voltage Restorers. Fernandes, D., +, TPWRD Oct. 2014 2239-2247

Importance of Voltage Reduction and Optimal Voltage Setting During Reactive Power Compensation. Paul, S., +, TPWRD Aug. 2014 1999-2007

Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo, S., +, TPWRD June 2014 1436-1445*

Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C., +, TPWRD Dec.* 2014 2519-2527

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. Nayak, P. K., +, TPWRD Aug. 2014 1970-1977

Composite insulators

Breakdown Process Experiments of 110- to 500-kV Insulator Strings Under Short Tail Lightning Impulse. Wang, X., +, TPWRD Oct. 2014 2394-2401

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A New Concept Varistor With Epoxy/Microvaristor Composite. *Ishibe, S.,* +, *TPWRD April 2014 677-682*

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Computational fluid dynamics

CFD Study on Thermal Performance of Radiators in a Power Transformer: Effect of Blowing Direction and Offset of Fans. *Paramane, S. B.*, +, *TPWRD Dec. 2014 2596-2604*

Influence of Perforated Metal Plate on Pressure Rise and Energy Flow due to Internal Arcing in a Container With a Pressure-Relief Opening. *Iwata, M., +, TPWRD June 2014 1292-1300*

Concave programming

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Condition monitoring

Chromatic Optoacoustic Monitoring of Transformers and Their Onload Tap Changers. Deakin, A. G., +, TPWRD Feb. 2014 207-214

Circuit-Breaker Automated Failure Tracking Based on Coil Current Signature. Razi-Kazemi, A. A., +, TPWRD Feb. 2014 283-290

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A Numerical Approach to Reproduce Subspan Oscillations and Comparison With Experimental Data. *Diana, G., +, TPWRD June 2014 1311-1317*

An Improved Technique for Online PD Detection on Covered Conductor Lines. Zhang, W., +, TPWRD April 2014 972-973

An Investigation on Seismic Behavior of Three Interconnected Pieces of Substation Equipment. *Karami Mohammadi, R., +, TPWRD Aug. 2014* 1613-1620

Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area. *Liu, Y., +, TPWRD April 2014 615-623*

Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi*, *A.*, +, *TPWRD Feb.* 2014 235-240

Effects of System Characteristics on Geomagnetically Induced Currents. Zheng, K., +, TPWRD April 2014 890-898

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines. *Maruvada, P. S., TPWRD April 2014 691-698*

Influence of Perforated Metal Plate on Pressure Rise and Energy Flow due to Internal Arcing in a Container With a Pressure-Relief Opening. *Iwata, M., +, TPWRD June 2014 1292-1300*

Optimized Programs for Shaped Conductive Backfill Material of Grounding Systems Based on the FDTD Simulations. *Xiong, R.,* +, *TPWRD Aug. 2014* 1744-1751

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part II: Conductor and Damper Model. *Langlois*, S., +, TPWRD June 2014 1176-1183

Proximity-Aware Calculation of Cable Series Impedance for Systems of Solid and Hollow Conductors. *Patel, U. R.*, +, *TPWRD Oct. 2014 2101-2109*

Constant current sources

Optimal Test Current Shape for Accurate Arc Characteristic Determination. Walter, M. M., +, TPWRD Aug. 2014 1798-1805

Containers

Influence of Perforated Metal Plate on Pressure Rise and Energy Flow due to Internal Arcing in a Container With a Pressure-Relief Opening. *Iwata, M., +, TPWRD June 2014 1292-1300*

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Robust Calculation of Frequency-Dependent Transmission-Line Transformation Matrices Using the Levenberg–Marquardt Method. *Chrysochos, A. I.*, +, *TPWRD Aug. 2014 1621-1629*

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Arc Cooling Mechanisms in a Model Circuit Breaker. *Panousis, E.*, +, *TPWRD Aug. 2014 1806-1813*

Directed Oil Flow Cooling of Disk Windings Using Graph Theory. Del Vecchio, R. M., TPWRD Oct. 2014 2279-2286

Dynamic Thermal Modeling of MV/LV Prefabricated Substations. *Degefa*, M. Z., +, TPWRD April 2014 786-793

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. Wang, H., +, TPWRD June 2014 1262-1272

Evaluation of Power Transformers' Effective Hot-Spot Factors by Thermal Modeling of Scrapped Units. *Feng, D., +, TPWRD Oct. 2014 2077-2085* Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations. *Sedaghat, A., +, TPWRD Oct.*

Cores

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Guidelines for Establishing Diagnostic Procedures for Live-Line Working of Nonceramic Insulators. *Carreira*, A. J., +, TPWRD Feb. 2014 126-130

Coron

Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area. *Liu, Y., +, TPWRD April 2014 615-623*

Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines. *Maruvada, P. S., TPWRD April 2014 691-698*

Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines. *Maruvada, P. S., TPWRD Dec. 2014 2561-2569*

Cost-benefit analysis

A New Approach for Benefit Evaluation of Multiterminal VSC-HVDC Using A Proposed Mixed AC/DC Optimal Power Flow. Feng, W., +, TPWRD Feb. 2014 432-443

Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo, S., +, TPWRD June 2014 1436-1445*

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Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines. *Maruvada, P. S., TPWRD April 2014 691-698*

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Power Transformer Protection Using a Multiregion Adaptive Differential Relay. *Dashti*, H., +, TPWRD April 2014 777-785

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Unsynchronized Fault Location Based on the Negative-Sequence Voltage Magnitude for Double-Circuit Transmission Lines. *Mahamedi, B., +, TPWRD Aug. 2014 1901-1908*

Curve fitting

A Novel Parameter Identification Method for Single-Phase Transformers by Using Real-Time Data. *Dirik, H., +, TPWRD June 2014 1074-1082* Inverse Hysteresis Models for Transient Simulation. *Zirka, S. E., +, TPWRD April 2014 552-559*

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Damping

New Methods of Damping Very Fast Transient Overvoltages in Gas-Insulated Switchgear. Burow, S., +, TPWRD Oct. 2014 2332-2339

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part II: Conductor and Damper Model. *Langlois, S., +, TPWRD June 2014 1176-1183*

Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method. *Preece, R., +, TPWRD Feb. 2014* 318-326

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A High-Reliability and Determinacy Architecture for Smart Substation Process-Level Network Based on Cobweb Topology. *Liu, X. S., +, TPWRD April 2014 842-850*

International Industry Practice on Power-Quality Monitoring. *Milanovic, J. V., +, TPWRD April 2014 934-941*

DC transmission networks

Multiport High-Power LCL DC Hub for Use in DC Transmission Grids. *Jovcic*, D., +, *TPWRD April 2014 760-768*

Observability of Hybrid AC/DC Power Systems With Variable-Cost PMUs. Aminifar, F., +, TPWRD Feb. 2014 345-352

DC-AC power converters

Evaluation of Emerging Modular Multilevel Converters for BESS Applications. *Soong, T.,* +, *TPWRD Oct. 2014 2086-2094*

New Intelligent Semiconductor Transformer With Bidirectional Power-Flow Capability. Lee, J. Y., +, TPWRD Feb. 2014 299-301

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DC-DC power converters

A Transformerless DC–DC Converter With Large Voltage Ratio for MV DC Grids. *Athab, H.*, +, *TPWRD Aug. 2014 1877-1885*

Comparative Evaluation of a New Family of Transformerless Modular DC–DC Converters for High-Power Applications. *Hagar, A. A.*, +, *TPWRD Feb. 2014 444-452*

New Intelligent Semiconductor Transformer With Bidirectional Power-Flow Capability. Lee, J. Y., +, TPWRD Feb. 2014 299-301

Ripple Current Propagation in Bipole HVDC Cables and Applications to DC Grids. Wood, T. B., +, TPWRD April 2014 926-933

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De-icing

Deicing of The Contact Lines of the High-Speed Electric Railways: Deicing Configurations. Experimental Test Results. *Cinieri, E., +, TPWRD Dec. 2014 2580-2587*

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A VSC-HVDC Decentralized Model Predictive Control Scheme for Fast Power Tracking. *Mariethoz, S., +, TPWRD Feb. 2014 462-471*

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Multidimensional Risk Assessment of Manhole Events as a Decision Tool for Ranking the Vaults of an Underground Electricity Distribution System. *Garcez, T. V.*, +, *TPWRD April 2014 624-632*

Decomposition

Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix. Hu, H., +, TPWRD April 2014 969-971

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Finite-Element Modeling for Analysis of Radial Deformations Within Transformer Windings. Zhang, Z. W., +, TPWRD Oct. 2014 2297-2305

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A High-Reliability and Determinacy Architecture for Smart Substation Process-Level Network Based on Cobweb Topology. *Liu*, X. S., +, TPWRD April 2014 842-850

Hardware Implementation of an Automatic Adaptive Centralized Underfrequency Load Shedding Scheme. *Abdelwahid, S., +, TPWRD Dec. 2014* 2664-2673

Demand side management

Impacts of Time-Varying Electricity Rates on Forward Contract Scheduling of DisCos. Safdarian, A., +, TPWRD April 2014 733-741

Demodulation

New Measures of Power-Grid Voltage Variation. Wetula, A., +, TPWRD June 2014 1020-1027

Dielectric measurement

Accelerating Dielectric Response Measurements on Power Transformers—Part II: A Regression Approach. Suriyah-Jaya, M., +, TPWRD Oct. 2014 2095-2100

Dielectric properties

Very Fast Transient Overvoltage Measurement With Dielectric Window. Ma, G.-M., +, TPWRD Oct. 2014 2410-2416

Differential equations

A Novel Distance Protection Algorithm for the Phase-Ground Fault. *Zhong*, *Y.*, +, *TPWRD Aug. 2014 1718-1725*

A Novel Parameter Identification Method for Single-Phase Transformers by Using Real-Time Data. *Dirik, H., +, TPWRD June 2014 1074-1082*

Differential transformers

A Novel Selection Algorithm of a Wavelet-Based Transformer Differential Current Features. Ghunem, R. A., +, TPWRD June 2014 1120-1126

A Phase-Shifting Transformer Protection Technique Based on Directional Comparison Approach. *Khan, U. N., +, TPWRD Oct. 2014 2315-2323*System-Level Tests of Transformer Differential Protection Using an IEC 61850 Process Bus. *Ingram, D. M. E., +, TPWRD June 2014 1382-1389*

Digital filters

Leak Detection in Slow Oscillation High-Pressure Fluid-Filled Circuits. Tylman, W., +, TPWRD April 2014 769-776 Reduction of Noise in Measurements of Phasor Angles by Using Two Digital Filters. Hwang, J. K., TPWRD Feb. 2014 52-60

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A Control Scheme for Storageless DVR Based on Characterization of Voltage Sags. *Jothibasu*, S., +, TPWRD Oct. 2014 2261-2269

Cascaded Two-Level Inverter-Based Multilevel STATCOM for High-Power Applications. Surendra Babu, N. N. V., +, TPWRD June 2014 993-1001

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A Novel Parameter Identification Method for Single-Phase Transformers by Using Real-Time Data. *Dirik*, H., +, TPWRD June 2014 1074-1082

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A Modified Empirical Mode Decomposition Filtering-Based Adaptive Phasor Estimation Algorithm for Removal of Exponentially Decaying DC Offset. *Jiang, Z., +, TPWRD June 2014 1326-1334*

Accurate Estimation of Single-Phase Grid Voltage Parameters Under Distorted Conditions. Reza, M. S., +, TPWRD June 2014 1138-1146

An Accurate Filtering Technique to Mitigate Transient Decaying DC Offset. Rahmati, A., +, TPWRD April 2014 966-968

An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines. *Rubeena*, R., +, TPWRD April 2014 876-883

Noise Analysis of Power System Frequency Estimated From Angle Difference of Discrete Fourier Transform Coefficient. *Hwang, J. K.,* +, *TPWRD Aug. 2014 1533-1541*

Shifting Window Average Method for Phasor Measurement at Offnominal Frequencies. Zhang, P., +, TPWRD June 2014 1063-1073

Discrete wavelet transforms

A Hybrid Wavelet Transform and Neural-Network-Based Approach for Modelling Dynamic Voltage-Current Characteristics of Electric Arc Furnace. Chang, G. W., +, TPWRD April 2014 815-824

Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition. *Gonzales Arispe, J. C.,* +, *TPWRD June 2014 1127-1137* Fault-Induced Transient Detection Based on Real-Time Analysis of the Wavelet Coefficient Energy. *Costa, F. B., TPWRD Feb. 2014 140-153*

Dispersion (wave)

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. Gustafsson, S., +, TPWRD Dec. 2014 2439-2447

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Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K., +, TPWRD April 2014 683-690*

Distributed parameter systems

Accounting for the Influence of the Tank Walls in the Zero-Sequence Topological Model of a Three-Phase, Three-Limb Transformer. *Zirka, S. E.*, +, *TPWRD Oct. 2014 2172-2179*

Distributed power generation

A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation. *El Moursi, M. S.,* +, *TPWRD June 2014*

A Gain-Scheduled Decoupling Control Strategy for Enhanced Transient Performance and Stability of an Islanded Active Distribution Network. *Haddadi*, A., +, TPWRD April 2014 560-569

A Hierarchical Framework for Generation Scheduling of Microgrids. Wu, X., +, TPWRD Dec. 2014 2448-2457

A Multiagent-Based Fault-Current Limiting Scheme for the Microgrids. Ghanbari, T., +, TPWRD April 2014 525-533

A Multifeature-Based Approach for Islanding Detection of DG in the Subcritical Region of Vector Surge Relays. *Alam, M. R.*, +, *TPWRD Oct. 2014* 2349-2358

A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

A Novel Fault Current Control Scheme to Reduce Synchronous DG's Impact on Protection Coordination. *Yazdanpanahi, H.,* +, *TPWRD April 2014* 542-551

A Novel Load-Flow Analysis for Stable and Optimized Microgrid Operation. Elrayyah, A., +, TPWRD Aug. 2014 1709-1717

Chaotic PSO-Based VAR Control Considering Renewables Using Fast Probabilistic Power Flow. *Hong, Y.-Y., +, TPWRD Aug. 2014 1666-1674*

Corrections to "A Novel Method for Evaluating Future Power Distribution System Reliability" [Oct 13 2264-2272]. TPWRD June 2014 1521

Distribution Loss Allocation for Radial Systems Including DGs. *Ghofrani-Jahromi*, Z., +, TPWRD Feb. 2014 72-80

Extended C37.118.1 PMU Algorithms for Joint Tracking of Fundamental and Harmonic Phasors in Stressed Power Systems and Microgrids. *Chakir, M., +, TPWRD June 2014 1465-1480*

Investigation Into Islanding Detection With Capacitor Insertion-Based Method. Bejmert, D., +, TPWRD Dec. 2014 2485-2492

Maximum-Allowable Distributed Generation Considering Fault Ride-Through Requirement And Reach Reduction of Utility Relay. Van Tu, D., +, TPWRD April 2014 534-541

Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo, S.,* +, *TPWRD June 2014 1436-1445*

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Sparsity-Leveraging Reconfiguration of Smart Distribution Systems. Dall'Anese, E., +, TPWRD June 2014 1417-1426

The Energy Management and Optimized Operation of Electric Vehicles Based on Microgrid. Zhang, M., +, TPWRD June 2014 1427-1435

Unintentional Islanding of Distributed Generation—Operating Experiences From Naturally Occurred Events. *Li, C., +, TPWRD Feb. 2014 269-274*

Voltage-Source Control of PV Inverter in a CERTS Microgrid. Du, W., +, TPWRD Aug. 2014 1726-1734

VSC Pased MVDC Pailway Electrification System. General Expeditor, 4, +

VSC-Based MVDC Railway Electrification System. *Gomez-Exposito*, A., +, TPWRD Feb. 2014 422-431

Distribution networks

A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

A New Hybrid Power Conditioner for Suppressing Harmonics and Neutral-Line Current in Three-Phase Four-Wire Distribution Power Systems. *Wu*, *J.-C.*, +, *TPWRD Aug. 2014 1525-1532*

An Efficient Hybrid Approach for Volt/Var Control in Distribution Systems. Mohapatra, A., +, TPWRD Aug. 2014 1780-1788

Enhanced Load Profiling for Residential Network Customers. Stephen, B., +. TPWRD Feb. 2014 88-96

Fault Location in Distribution Systems Based on Smart Feeder Meters. Trindade, F. C. L., +, TPWRD Feb. 2014 251-260

Impact of Unified Power-Quality Conditioner Allocation on Line Loading, Losses, and Voltage Stability of Radial Distribution Systems. *Ganguly, S., TPWRD Aug. 2014 1859-1867*

Improving the Accuracy of Impedance Calculation for Distribution Power System. Keshtkar, H., +, TPWRD April 2014 570-579

Lightning Performance of Distribution Transformer Feeding GSM Base Station. *Mikropoulos, P. N.*, +, *TPWRD Dec. 2014 2570-2579*

Multiphase Load-Flow Solution for Large-Scale Distribution Systems Using MANA. Kocar, I., +, TPWRD April 2014 908-915

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. *Sheshyekani*, K., +, TPWRD Oct. 2014 2340-2348

Soft Reclosing of an Industrial Power Network Using an Inverter-Controlled Energy-Storage System. *Anwar, A., +, TPWRD June 2014 1111-1119*

Stability Design Criteria for Distribution Systems With Solid-State Transformers. Shah, D. G., +, TPWRD Dec. 2014 2588-2595

Stochastic Modeling and Forecasting of Load Demand for Electric Bus Battery-Swap Station. Dai, O., +, TPWRD Aug. 2014 1909-1917

Transformational Benefits of AMI Data in Transformer Load Modeling and Management. Lo, Y.-L., +, TPWRD April 2014 742-750

Diversity reception

Diversity Relaying for Parallel Use of Power-Line and Wireless Communication Networks. *Lee, J.-H., +, TPWRD June 2014 1301-1310*

Diverter

A Low-Wear Onload Tap Changer Diverter Switch for Frequent Voltage Control on Distribution Networks. *Rogers, D. J., +, TPWRD April 2014* 860-869

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Experimental Determination of the ZIP Coefficients for Modern Residential, Commercial, and Industrial Loads. *Bokhari, A., +, TPWRD June 2014* 1372-1381

Power-Line Impedance Estimation at FCC Band Based on Intelligent Home Appliances Status Detection Algorithm Through Their Individual Energy and Impedance Signatures. *Pasdar, A. M., +, TPWRD June 2014 1407-1416*

Drying

Assessing the Use of Natural Esters for Transformer Field Drying. *Villarroel, R., +, TPWRD Aug. 2014 1894-1900*

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Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area. *Liu, Y., +, TPWRD April 2014 615-623*

 \mathbf{E}

Earth electrodes

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part I: Test Facility and Measurement of Site Parameters. Guo, D., +, TPWRD June 2014 1231-1239

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part II: Comparison of Analytical and Numerical Predictions With Experimental Results. Clark, D., +, TPWRD June 2014 1240-1248

Impulse Efficiency of Grounding Electrodes: Effect of Frequency-Dependent Soil Parameters. *Alipio, R., +, TPWRD April 2014 716-723*

Earthing

A Novel Method of Ground Fault Phase Selection in Weak-Infeed Side. Huang, S., +, TPWRD Oct. 2014 2215-2222

A Recommended Standard for Voltages Appearing Across Publicly Accessible Surfaces. Bouford, J. D., +, TPWRD Feb. 2014 48-51

An Approximate Formula for Estimating the Peak Value of Lightning-Induced Overvoltage Considering the Stratified Conducting Ground. *Zhang*, *Q.*, +, *TPWRD April 2014 884-889*

Development of a Novel Protection Device for Bipolar HVDC Transmission Lines. *Kong, F., +, TPWRD Oct. 2014 2270-2278*

Effects of System Characteristics on Geomagnetically Induced Currents. Zheng, K., +, TPWRD April 2014 890-898

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. Wang, H., +, TPWRD June 2014 1262-1272

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K.,* +, *TPWRD April 2014 683-690*

Identifying and Quantifying Material Properties That Impact Aggregate Resistivity of Electrical Substation Surface Material. *Edlebeck, J. E., +, TPWRD Oct. 2014 2248-2253*

Induced Voltage of Overhead Ground Wires in 50 0-kV Single-Circuit Transmission Lines. Wang, J., +, TPWRD June 2014 1054-1062

Influence of Potential Difference Within Large Grounding Grid on Fault Current Division Factor. *Zhang, B., +, TPWRD Aug. 2014 1752-1759*

Lightning Performance of Distribution Transformer Feeding GSM Base Station. Mikropoulos, P. N., +, TPWRD Dec. 2014 2570-2579

Nontraditional Relay Curves for the Coordination of the Ground Overcurrent Function With Downstream Fuses. *Sorrentino, E., TPWRD June 2014* 1284-1291

Optimized Programs for Shaped Conductive Backfill Material of Grounding Systems Based on the FDTD Simulations. *Xiong, R., +, TPWRD Aug. 2014* 1744-1751

Overview of Grounding and Configuration Options for Meshed HVDC Grids. Leterme, W., +, TPWRD Dec. 2014 2467-2475

Wideband Modeling of Large Grounding Systems to Interface With Electromagnetic Transient Solvers. *Sheshyekani, K.,* +, *TPWRD Aug. 2014 1868-1876*

Earthquakes

An Investigation on Seismic Behavior of Three Interconnected Pieces of Substation Equipment. *Karami Mohammadi, R., +, TPWRD Aug. 2014* 1613-1620

Eddy current losses

Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part I: Fundamental Concepts and FEM Modeling. *Hamzehbahmani*, *H.*, +, *TPWRD April 2014 642-650* Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani*, *H.*, +, *TPWRD April 2014 651-659*

Eddy currents

Voltage Excitation in Coil Rings Using Magnetically Coupled Inductor/Load For Axisymmetric Geometry. *Rochette*, D., +, TPWRD Feb. 2014 118-125

Eigenvalues and eigenfunctions

A Gain-Scheduled Decoupling Control Strategy for Enhanced Transient Performance and Stability of an Islanded Active Distribution Network. *Haddadi*, A., +, TPWRD April 2014 560-569

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. *Sheshyekani*, K., +, TPWRD Oct. 2014 2340-2348

Rational Modeling of Multiport Systems via a Symmetry and Passivity Preserving Mode-Revealing Transformation. *Gustavsen, B., TPWRD Feb.* 2014 199-206

Robust Calculation of Frequency-Dependent Transmission-Line Transformation Matrices Using the Levenberg–Marquardt Method. *Chrysochos, A. I., +, TPWRD Aug. 2014 1621-1629*

Simulation-Based Design of HF Resonators for Damping Very Fast Transients in GIS. Smajic, J., +, TPWRD Dec. 2014 2528-2533

Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method. *Preece*, R., +, TPWRD Feb. 2014 318-326

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Impact of Data Errors on Sag Calculation Accuracy for Overhead Transmission Line. *Polevoy, A., TPWRD Oct. 2014 2040-2045*

Elasticit

Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi*, *A.*, +, *TPWRD Feb.* 2014 235-240

Impact of Data Errors on Sag Calculation Accuracy for Overhead Transmission Line. Polevoy, A., TPWRD Oct. 2014 2040-2045

Time History Modeling of Vibrations on Overhead Conductors With Variable Bending Stiffness. *Langlois*, S., +, TPWRD April 2014 607-614

Electric admittance

A Novel Power Swing Detection Scheme Independent of the Rate of Change of Power System Parameters. *Jafari*, R., +, *TPWRD June 2014 1192-1202* Optimal Test Current Shape for Accurate Arc Characteristic Determination. *Walter*, M. M., +, *TPWRD Aug. 2014 1798-1805*

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Rational Modeling of Multiport Systems via a Symmetry and Passivity Preserving Mode-Revealing Transformation. *Gustavsen, B., TPWRD Feb.* 2014 199-206

Electric current

Experimental Determination of the ZIP Coefficients for Modern Residential, Commercial, and Industrial Loads. *Bokhari, A.,* +, *TPWRD June 2014* 1372-1381

Electric current control

A Novel Fault Current Control Scheme to Reduce Synchronous DG's Impact on Protection Coordination. *Yazdanpanahi*, H., +, TPWRD April 2014 542-551

A Proportional-Resonant Current Controller for Selective Harmonic Compensation in a Hybrid Active Power Filter. *Herman, L., +, TPWRD Oct.* 2014 2055-2065

Analysis of Active Power Control for VSC-HVDC. Wang, W., +, TPWRD Aug. 2014 1978-1988

Vector Definitions for Control of Single-Phase and Unbalanced Three-Phase Systems. Darji, P. B., +, TPWRD Oct. 2014 2136-2145

Electric current measurement

A Hybrid Wavelet Transform and Neural-Network-Based Approach for Modelling Dynamic Voltage-Current Characteristics of Electric Arc Furnace. Chang, G. W., +, TPWRD April 2014 815-824

Optimal Test Current Shape for Accurate Arc Characteristic Determination. Walter, M. M., +, TPWRD Aug. 2014 1798-1805

Electric drives

A Low-Wear Onload Tap Changer Diverter Switch for Frequent Voltage Control on Distribution Networks. *Rogers, D. J., +, TPWRD April 2014* 860-869

Electric fields

A New Concept Varistor With Epoxy/Microvaristor Composite. *Ishibe, S.,* +, TPWRD April 2014 677-682

Calculation of Induced Electric Field During a Geomagnetic Storm Using Recursive Convolution. *Marti, L.*, +, *TPWRD April 2014 802-807*

Calculation of the Electric Field Around the Tower of the Overhead Transmission Lines. El Dein, A. Z., TPWRD April 2014 899-907

Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area. *Liu, Y., +, TPWRD April 2014* 615-623

Effects of System Characteristics on Geomagnetically Induced Currents. Zheng, K., +, TPWRD April 2014 890-898

Improved Coupled Ion-Flow Field Calculation Method for AC/DC Hybrid Overhead Power Lines. *Guillod, T.,* +, *TPWRD Dec. 2014 2493-2501*

Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines. *Maruvada, P. S., TPWRD April 2014 691-698*

Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines. *Maruvada, P. S., TPWRD Dec. 2014 2561-2569*

Simulation of Geomagnetically Induced Currents With Piecewise Layered-Earth Models. *Marti, L., +, TPWRD Aug. 2014 1886-1893*

Electric fuses

Nontraditional Relay Curves for the Coordination of the Ground Overcurrent Function With Downstream Fuses. *Sorrentino, E., TPWRD June 2014* 1284-1291

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Voltage Excitation in Coil Rings Using Magnetically Coupled Inductor/Load For Axisymmetric Geometry. *Rochette*, D., +, TPWRD Feb. 2014 118-125

Electric impedance

A Novel Power Swing Detection Scheme Independent of the Rate of Change of Power System Parameters. *Jafari*, R., +, *TPWRD June 2014 1192-1202* Experimental Determination of the ZIP Coefficients for Modern Residential, Commercial, and Industrial Loads. *Bokhari*, A., +, *TPWRD June 2014 1372-1381*

Power-Line Impedance Estimation at FCC Band Based on Intelligent Home Appliances Status Detection Algorithm Through Their Individual Energy and Impedance Signatures. *Pasdar, A. M.*, +, *TPWRD June 2014 1407-1416*

Electric impedance measurement

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part II: Comparison of Analytical and Numerical Predictions With Experimental Results. Clark, D., +, TPWRD June 2014 1240-1248

Electric locomotives

VSC-Based MVDC Railway Electrification System. Gomez-Exposito, A., +, TPWRD Feb. 2014 422-431

Electric potential

Impact of Midpoint STATCOM on Generator Loss of Excitation Protection. Elsamahy, M., +, TPWRD April 2014 724-732

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta-Sicily Interconnector. *Lauria*, S., +, TPWRD June 2014 1036-1044

Electric resistance

Effects of System Characteristics on Geomagnetically Induced Currents. Zheng, K., +, TPWRD April 2014 890-898

Electric resistance measurement

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part I: Test Facility and Measurement of Site Parameters. Guo, D., +, TPWRD June 2014 1231-1239

Electric sensing devices

Very Fast Transient Overvoltage Measurement With Dielectric Window. Ma, G.-M., +, TPWRD Oct. 2014 2410-2416

Electric vehicles

Method to Assess the Power-Quality Impact of Plug-in Electric Vehicles. Jiang, C., +, TPWRD April 2014 958-965

Overvoltages due to Synchronous Tripping of Plug-in Electric-Vehicle Chargers Following Voltage Dips. Kundu, S., +, TPWRD June 2014 1147-1156

The Energy Management and Optimized Operation of Electric Vehicles Based on Microgrid. Zhang, M., +, TPWRD June 2014 1427-1435

Electrical conductivity

HVDC Cable Systems—Highlighting Extruded Technology. *Ghorbani, H.,* +. *TPWRD Feb. 2014 414-421*

Electrical contacts

A Low-Wear Onload Tap Changer Diverter Switch for Frequent Voltage Control on Distribution Networks. *Rogers, D. J., +, TPWRD April 2014* 860-869

Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. Zhang, H., +, TPWRD June 2014 1318-1325

Electrical faults

A Novel Selection Algorithm of a Wavelet-Based Transformer Differential Current Features. *Ghunem, R. A.*, +, *TPWRD June 2014 1120-1126* Modeling and Analysis of HVDC Converter by Three-Phase Dynamic

Phasor. Liu, C., +, TPWRD Feb. 2014 3-12

Electrical maintenance

Preventing Bird Streamer Outages Using Alternative Tower Configurations. Taklaja, P., +, TPWRD Oct. 2014 2402-2409

Electrical resistivity

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part I: Test Facility and Measurement of Site Parameters. Guo, D., +, TPWRD June 2014 1231-1239

Impulse Efficiency of Grounding Electrodes: Effect of Frequency-Dependent Soil Parameters. *Alipio, R.,* +, *TPWRD April 2014 716-723*

Electrical safety

Dynamic Thermal Modeling of MV/LV Prefabricated Substations. *Degefa*, M. Z., +, TPWRD April 2014 786-793

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A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

Experimental Determination of the ZIP Coefficients for Modern Residential, Commercial, and Industrial Loads. *Bokhari, A., +, TPWRD June 2014* 1372-1381

Electro-optical devices

A High-Performance Hybrid Current Transformer Based on a Fast Variable Optical Attenuator. *Wei*, *P.*, +, *TPWRD Dec. 2014 2656-2663*

Electromagnetic coupling

Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi, A., +, TPWRD Feb.* 2014 235-240

Electromagnetic devices

Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi, A., +, TPWRD Feb.* 2014 235-240

Electromagnetic fields

Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K., +, TPWRD April 2014 683-690*

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Electromagnetic induction

Voltage Excitation in Coil Rings Using Magnetically Coupled Inductor/Load For Axisymmetric Geometry. *Rochette, D., +, TPWRD Feb. 2014 118-125*

Electromagnetic interference

Harmonic Resonance Assessment to Traction Power-Supply System Considering Train Model in China High-Speed Railway. *He, Z., +, TPWRD Aug. 2014 1735-1743*

Electromagnetic wave absorption

Propagation Properties of High-Frequency Electromagnetic Wave Through Typical In-Field GIS Structures. *Gao, W., +, TPWRD Dec. 2014 2476-2484*

Electromagnetic wave propagation

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. *Gustafsson, S., +, TPWRD Dec. 2014 2439-2447*

Field Test and Theoretical Analysis of Electromagnetic Pulse Propagation Velocity on Crossbonded Cable Systems. *Jensen, C. F.*, +, *TPWRD June* 2014 1028-1035

Propagation Properties of High-Frequency Electromagnetic Wave Through Typical In-Field GIS Structures. *Gao*, W., +, TPWRD Dec. 2014 2476-2484

Electromagnetic wave scattering

Propagation Properties of High-Frequency Electromagnetic Wave Through Typical In-Field GIS Structures. *Gao, W.*, +, *TPWRD Dec. 2014 2476-2484*

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Accounting for the Influence of the Tank Walls in the Zero-Sequence Topological Model of a Three-Phase, Three-Limb Transformer. Zirka, S. E., +, TPWRD Oct. 2014 2172-2179

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QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. *Kim, D.-K.*, +, *TPWRD April 2014 598-606*

Electrostatic discharge

Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines. *Maruvada, P. S., TPWRD Dec. 2014 2561-2569*

Emergency power supply

A Simplified Method to Predict Post-Trip Switchyard Voltage at Nuclear Generating Stations. Leake, H. C., +, TPWRD Aug. 2014 1964-1969

EMTP

A Novel Distance Protection Algorithm for the Phase-Ground Fault. *Zhong*, Y., +, TPWRD Aug. 2014 1718-1725

Accounting for the Influence of the Tank Walls in the Zero-Sequence Topological Model of a Three-Phase, Three-Limb Transformer. Zirka, S. E., +, TPWRD Oct. 2014 2172-2179

An Approach for Controlled Reclosing of Shunt-Compensated Transmission Lines. *Dantas, K. M. C.*, +, *TPWRD June 2014 1203-1211*

Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents. *Farazmand*, A., +, *TPWRD Aug.* 2014 1918-1926

Circulating Unbalanced Currents of EHV/UHV Untransposed Double-Circuit Lines and Their Influence on Pilot Protection. *Li, B., +, TPWRD April* 2014 825-833

Dynamic Average-Value Modeling of CIGRE HVDC Benchmark System. Atighechi, H., +, TPWRD Oct. 2014 2046-2054

Frequency-Dependent Modeling of Transformer Winding Impedance From $R(\omega)/L$ Measurements. *Chiesa, N.*, +, *TPWRD June 2014 1511-1513*

Integrating an Improved Averaged Model for PWM Converters Into EMTP. Xu, Y., +, TPWRD Feb. 2014 291-293

Interfacing k-Factor Based White-Box Transformer Models With Electromagnetic Transients Programs. *Gustavsen, B., +, TPWRD Dec. 2014 2534-2542*

Inverse Hysteresis Models for Transient Simulation. Zirka, S. E., +, TPWRD April 2014 552-559

Modular Multilevel Converter Models for Electromagnetic Transients. Saad, H., +, TPWRD June 2014 1481-1489

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. Sheshyekani, K., +, TPWRD Oct. 2014 2340-2348

Overview of Grounding and Configuration Options for Meshed HVDC Grids. Leterme, W., +, TPWRD Dec. 2014 2467-2475

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Tools for Characterization and Assessment of Ferroresonance Using 3-D Bifurcation Diagrams. *Corea-Araujo, J. A.*, +, *TPWRD Dec. 2014 2543*-2551

Wideband Modeling of Large Grounding Systems to Interface With Electromagnetic Transient Solvers. *Sheshyekani, K.,* +, *TPWRD Aug. 2014 1868-1876*

Energy consumption

A High-Performance Hybrid Current Transformer Based on a Fast Variable Optical Attenuator. Wei, P., +, TPWRD Dec. 2014 2656-2663

Energy and Economic Impacts of the Application of CVR in Heavily Meshed Secondary Distribution Networks. *Sandraz, J., +, TPWRD Aug.* 2014 1692-1700

Model of Electronic Ballast Compact Fluorescent Lamps. *Molina, J., +, TPWRD June 2014 1363-1371*

Energy management systems

The Energy Management and Optimized Operation of Electric Vehicles Based on Microgrid. Zhang, M., +, TPWRD June 2014 1427-1435

Energy storage

Evaluation of Emerging Modular Multilevel Converters for BESS Applications. Soong, T., +, TPWRD Oct. 2014 2086-2094

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Soft Reclosing of an Industrial Power Network Using an Inverter-Controlled Energy-Storage System. *Anwar, A., +, TPWRD June 2014 1111-1119*

Entropy

Morphology Singular Entropy-Based Phase Selector Using Short Data Window for Transmission Lines. Zhang, L. L., +, TPWRD Oct. 2014 2162-2171

Equivalent circuits

A Novel Parameter Identification Method for Single-Phase Transformers by Using Real-Time Data. *Dirik, H., +, TPWRD June 2014 1074-1082*

Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani, H., +, TPWRD April* 2014 651-659

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Frequency-Dependent Modeling of Transformer Winding Impedance From $R(\omega)/L$ Measurements. *Chiesa, N.*, +, *TPWRD June 2014 1511-1513*

Influence of Temperature and Moisture Level in Paper-Oil Insulation on the Parameters of the Cole-Cole Model. *Wolny, S.,* +, *TPWRD Feb. 2014* 246-250

On the Bipolar MMC-HVDC Topology Suitable for Bulk Power Overhead Line Transmission: Configuration, Control, and DC Fault Analysis. *Xue, Y., +, TPWRD Dec. 2014 2420-2429*

Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations. *Sedaghat, A., +, TPWRD Oct.* 2014 2306-2314

Transformer Parameters Estimation From Nameplate Data Using Evolutionary Programming Techniques. *Mossad, M. I.*, +, *TPWRD Oct. 2014* 2118-2123

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Impact of Data Errors on Sag Calculation Accuracy for Overhead Transmission Line. *Polevoy, A., TPWRD Oct.* 2014 2040-2045

Shifting Window Average Method for Phasor Measurement at Offnominal Frequencies. Zhang, P., +, TPWRD June 2014 1063-1073

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Quantized Peak-Based Impulsive Noise Blanking in Power-Line Communications. *Rabie, K. M.*, +, *TPWRD Aug. 2014 1630-1638*

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Model of Electronic Ballast Compact Fluorescent Lamps. *Molina, J., +, TPWRD June 2014 1363-1371*

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Failure analysis

Analysis of Significant Factors on Cable Failure Using the Cox Proportional Hazard Model. *Tang, Z., +, TPWRD April 2014 951-957*

Bayes Monte-Carlo Assessment Method of Protection Systems Reliability Based on Small Failure Sample Data. *Dai, Z.,* +, *TPWRD Aug. 2014 1841-1848*

Comparison of the Characteristics of Upward Leader Emerging From the Ground Wire and Conductor. *Li*, *Z*., +, *TPWRD April 2014 708-715*

Data Requisites for Transformer Statistical Lifetime Modelling—Part II: Combination of Random and Aging-Related Failures. *Zhou, D., +, TPWRD Feb. 2014 154-160*

International Surveys on Circuit-Breaker Reliability Data for Substation and System Studies. *Janssen, A., +, TPWRD April 2014 808-814*

Fans

CFD Study on Thermal Performance of Radiators in a Power Transformer: Effect of Blowing Direction and Offset of Fans. *Paramane, S. B.*, +, *TPWRD Dec. 2014 2596-2604*

Fast Fourier transforms

Calculation of Induced Electric Field During a Geomagnetic Storm Using Recursive Convolution. *Marti*, L., +, TPWRD April 2014 802-807

Extended C37.118.1 PMU Algorithms for Joint Tracking of Fundamental and Harmonic Phasors in Stressed Power Systems and Microgrids. *Chakir, M., +, TPWRD June 2014 1465-1480*

Fatigue

Time History Modeling of Vibrations on Overhead Conductors With Variable Bending Stiffness. *Langlois*, S., +, *TPWRD April 2014 607-614*

Fault current limiters

LCL and L-VSC Converters With DC Fault Current-Limiting Property and Minimal Power Losses. *Lin, W., +, TPWRD Oct. 2014 2359-2368*

Fault currents

A New Protection Scheme for HVDC Converters Against DC-Side Faults With Current Suppression Capability. *Elserougi, A. A., +, TPWRD Aug.* 2014, 1560, 1577

An Innovative Directional Relaying Scheme Based on Postfault Current. Jalilian, A., +, TPWRD Dec. 2014 2640-2647 Fault Location in Distribution Systems Based on Smart Feeder Meters. Trindade, F. C. L., +, TPWRD Feb. 2014 251-260

Improved Method for Direct Black-Box Arc Parameter Determination and Model Validation. Walter, M. M., +, TPWRD April 2014 580-588

Influence of Potential Difference Within Large Grounding Grid on Fault Current Division Factor. Zhang, B., +, TPWRD Aug. 2014 1752-1759

Multiport High-Power LCL DC Hub for Use in DC Transmission Grids. Jovcic, D., +, TPWRD April 2014 760-768

Multiterminal HVDC Networks—What is the Preferred Topology?. *Bucher, M. K.*, +, *TPWRD Feb. 2014 406-413*

Optimal Test Current Shape for Accurate Arc Characteristic Determination. Walter, M. M., +, TPWRD Aug. 2014 1798-1805

Synchrophasor-Assisted Zone 3 Operation. Kundu, P., +, TPWRD April 2014 660-667

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A New Cross-Differential Protection Scheme for Parallel Transmission Lines Including UPFC. *Tripathy, L. N.,* +, *TPWRD Aug. 2014 1822-1830*

A Phase-Shifting Transformer Protection Technique Based on Directional Comparison Approach. *Khan, U. N.,* +, *TPWRD Oct. 2014 2315-2323*

An Innovative Directional Relaying Scheme Based on Postfault Current. Jalilian, A., +, TPWRD Dec. 2014 2640-2647

Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. *Elserougi, A. A., +, TPWRD June 2014 1249-1261*

Circuit-Breaker Automated Failure Tracking Based on Coil Current Signature. Razi-Kazemi, A. A., +, TPWRD Feb. 2014 283-290

Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition. *Gonzales Arispe, J. C.,* +, *TPWRD June 2014 1127-1137* Development of a Novel Protection Device for Bipolar HVDC Transmission Lines. *Kong, F.,* +, *TPWRD Oct. 2014 2270-2278*

Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. Zhang, H., +, TPWRD June 2014 1318-1325

Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators. He, L., +, TPWRD April 2014 493-501

Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part I: Fundamental Concepts and FEM Modeling. *Hamzehbahmani*, *H.*, +, *TPWRD April 2014 642-650* Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani*, *H.*, +, *TPWRD April 2014 651-659*

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. Wang, H., +, TPWRD June 2014 1262-1272

Investigations Into the Stray Gassing of Oils in the Fault Diagnosis of Transformers. Martin, D., +, TPWRD Oct. 2014 2369-2374

On the Bipolar MMC-HVDC Topology Suitable for Bulk Power Overhead Line Transmission: Configuration, Control, and DC Fault Analysis. *Xue*, *Y*., +, *TPWRD Dec. 2014 2420-2429*

Power Transformer Protection Using a Multiregion Adaptive Differential Relay. *Dashti*, H., +, TPWRD April 2014 777-785

Study on Transient Recovery Voltages for Transformer-Limited Faults. *Ito*, H., +, TPWRD Oct. 2014 2375-2384

Fault location

A Multiagent-Based Fault-Current Limiting Scheme for the Microgrids. Ghanbari, T., +, TPWRD April 2014 525-533

A Traveling-Wave-Based Methodology for Wide-Area Fault Location in Multiterminal DC Systems. *Azizi*, S., +, *TPWRD Dec. 2014 2552-2560*

An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines. Rubeena, R., +, TPWRD April 2014 876-883

An Accurate Synchrophasor Based Fault Location Method for Emerging Distribution Systems. Ren, J., +, TPWRD Feb. 2014 297-298

An Efficient PMU-Based Fault-Location Technique for Multiterminal Transmission Lines. *Jiang, Q., +, TPWRD Aug. 2014 1675-1682*

Criticality Analysis of Failure to Communicate in Automated Fault-Management Schemes. Kazemi, S., +, TPWRD June 2014 1083-1091

Fault Location in Distribution Systems Based on Smart Feeder Meters. Trindade, F. C. L., +, TPWRD Feb. 2014 251-260

Fault Location on Branched Networks Using a Multiended Approach. Robson, S., +, TPWRD Aug. 2014 1955-1963

Fault-Induced Transient Detection Based on Real-Time Analysis of the Wavelet Coefficient Energy. Costa, F. B., TPWRD Feb. 2014 140-153

Field Test and Theoretical Analysis of Electromagnetic Pulse Propagation Velocity on Crossbonded Cable Systems. *Jensen, C. F.*, +, *TPWRD June* 2014 1028-1035

Improved Fault Location Through Analysis of System Parameters During Autoreclose Operations on Transmission Lines. *Ji, L.,* +, *TPWRD Dec.* 2014 2430-2438

Natural Frequency-Based Line Fault Location in HVDC Lines. *He, Z.-Y.*, +, *TPWRD April 2014 851-859*

Reserve Power Arrangements in Rural Area Underground Cable Networks. *Haakana, J., +, TPWRD April 2014 589-597*

Transmission-Line Fault Analysis Using Synchronized Sampling. *Dutta*, *P.*, +, *TPWRD April 2014 942-950*

Fault tolerance

LCL and L-VSC Converters With DC Fault Current-Limiting Property and Minimal Power Losses. *Lin, W., +, TPWRD Oct. 2014 2359-2368*

Fault trees

A High-Reliability and Determinacy Architecture for Smart Substation Process-Level Network Based on Cobweb Topology. *Liu, X. S.,* +, *TPWRD April 2014 842-850*

Feature extraction

A Multifeature-Based Approach for Islanding Detection of DG in the Subcritical Region of Vector Surge Relays. *Alam, M. R.*, +, *TPWRD Oct. 2014* 2349-2358

Comprehensive Clustering of Disturbance Events Recorded by Phasor Measurement Units. *Dahal, O. P.*, +, *TPWRD June 2014 1390-1397*

Morphology Singular Entropy-Based Phase Selector Using Short Data Window for Transmission Lines. Zhang, L. L., +, TPWRD Oct. 2014 2162-2171

Feedback

A High-Performance Hybrid Current Transformer Based on a Fast Variable Optical Attenuator. Wei, P., +, TPWRD Dec. 2014 2656-2663

Robust Nonlinear Controller Design for Three-Phase Grid-Connected Photovoltaic Systems Under Structured Uncertainties. *Mahmud, M. A.*, +, *TPWRD June 2014 1221-1230*

Ferroresonance

Tools for Characterization and Assessment of Ferroresonance Using 3-D Bifurcation Diagrams. *Corea-Araujo, J. A.*, +, *TPWRD Dec. 2014 2543-2551*

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Models of Ferroresonant Transformers. Zhilichev, Y., TPWRD Dec. 2014 2631-2639

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Temperature Reduction in the Clamping Bolt Zone of Shunt Reactors: Design Enhancements. *Magdaleno-Adame, S.*, +, *TPWRD Dec. 2014 2648-2655*

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Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Filtering theory

An Accurate Filtering Technique to Mitigate Transient Decaying DC Offset. Rahmati, A., +, TPWRD April 2014 966-968

Application of Wavelet Transform to Obtain the Frequency Response of a Transformer From Transient Signals—Part II: Practical Assessment and Validation. *Gomez-Luna, E., +, TPWRD Oct. 2014 2231-2238*

Morphology Singular Entropy-Based Phase Selector Using Short Data Window for Transmission Lines. *Zhang, L. L., +, TPWRD Oct. 2014* 2162-2171

Financial management

Impacts of Time-Varying Electricity Rates on Forward Contract Scheduling of DisCos. Safdarian, A., +, TPWRD April 2014 733-741

Finite difference time-domain analysis

An Approximate Formula for Estimating the Peak Value of Lightning-Induced Overvoltage Considering the Stratified Conducting Ground. *Zhang*, *Q.*, +, *TPWRD April 2014 884-889*

Optimized Programs for Shaped Conductive Backfill Material of Grounding Systems Based on the FDTD Simulations. *Xiong, R., +, TPWRD Aug. 2014* 1744-1751

Finite element analysis

Analysis of Buckling Strength of Inner Windings in Transformers Under Radial Short-Circuit Forces. *Bakshi*, A., +, *TPWRD Feb. 2014 241-245*

Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents. *Farazmand*, A., +, *TPWRD Aug.* 2014 1918-1926

Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi, A., +, TPWRD Feb.* 2014 235-240

Dynamic Thermal Modeling of MV/LV Prefabricated Substations. *Degefa*, M. Z., +, TPWRD April 2014 786-793

Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part I: Fundamental Concepts and FEM Modeling. *Hamzehbahmani, H., +, TPWRD April 2014 642-650* Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani, H., +, TPWRD April 2014 651-659*

Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K., +, TPWRD April 2014 683-690*

Finite-Element Modeling for Analysis of Radial Deformations Within Transformer Windings. Zhang, Z. W., +, TPWRD Oct. 2014 2297-2305

Improved Computation of Core Inductance for Fast Transient Analysis of Transformers. *Gomez, P., +, TPWRD Aug. 2014 2034-2036*

Mathematical Model of a Gas Discharge Arrester Based on Physical Parameters. *Ribic, J., +, TPWRD June 2014 985-992*

Models of Ferroresonant Transformers. Zhilichev, Y., TPWRD Dec. 2014 2631-2639

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part I: Damper Model. *Langlois*, S., +, *TPWRD June 2014 1168-1175*

Ripple Current Propagation in Bipole HVDC Cables and Applications to DC Grids. Wood, T. B., +, TPWRD April 2014 926-933

Temperature Reduction in the Clamping Bolt Zone of Shunt Reactors: Design Enhancements. *Magdaleno-Adame*, S., +, TPWRD Dec. 2014 2648-2655

Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations. *Sedaghat, A., +, TPWRD Oct.* 2014 2306-2314

Time History Modeling of Vibrations on Overhead Conductors With Variable Bending Stiffness. *Langlois*, S., +, *TPWRD April 2014 607-614*

Flashover

Breakdown Process Experiments of 110- to 500-kV Insulator Strings Under Short Tail Lightning Impulse. *Wang, X., +, TPWRD Oct. 2014 2394-2401* Contribution of Design Parameters of SiR Insulators to Their DC Pollution Flashover Performance. *Abbasi, A., +, TPWRD Aug. 2014 1814-1821* Evaluation of Whole Span Lightning Shielding Flashover Risk Based on 3-D Laser Scanning Technology. *Wen, H., +, TPWRD April 2014 794-801* Identification of Lightning Stroke Due to Shielding Failure and Backflashover for Ultra-High-Speed Transmission-Line Protection. *Morales, J., +, TPWRD Aug. 2014 2008-2017*

Flexible AC transmission systems

Adaptive Control Using Constrained RLS and Dynamic Pole-Shift Technique for TCSCs. Rai, D., +, TPWRD Feb. 2014 224-234

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Fluorine compounds

The Moisture in SF₆ Insulated CTs Considering Current and Change of Ambient Temperature. *Ren, X., +, TPWRD June 2014 1184-1191*

Fourier analysis

Models of Ferroresonant Transformers. Zhilichev, Y., TPWRD Dec. 2014 2631-2639

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Reduction of Noise in Measurements of Phasor Angles by Using Two Digital Filters. Hwang, J. K., TPWRD Feb. 2014 52-60

Frequency control

Simultaneous Estimation of the Time of Disturbance and Inertia in Power Systems. Wall, P., +, TPWRD Aug. 2014 2018-2031

Voltage-Source Control of PV Inverter in a CERTS Microgrid. Du, W., +, TPWRD Aug. 2014 1726-1734

Frequency division multiple access

Effective Noise Cancellation Using Single-Carrier FDMA Transmission in Power-Line Channels. *Rabie, K. M.,* +, *TPWRD Oct. 2014 2110-2117*

Frequency estimation

Noise Analysis of Power System Frequency Estimated From Angle Difference of Discrete Fourier Transform Coefficient. *Hwang, J. K., +, TPWRD Aug. 2014 1533-1541*

Frequency locked loops

Accurate Estimation of Single-Phase Grid Voltage Parameters Under Distorted Conditions. Reza, M. S., +, TPWRD June 2014 1138-1146

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Shifting Window Average Method for Phasor Measurement at Offnominal Frequencies. *Zhang, P., +, TPWRD June 2014 1063-1073*

Frequency response

Accelerating Dielectric Response Measurements on Power Transformers—Part II: A Regression Approach. Suriyah-Jaya, M., +, TPWRD Oct. 2014 2095-2100

Analysis of Active Power Control for VSC-HVDC. Wang, W., +, TPWRD Aug. 2014 1978-1988

Application of Wavelet Transform to Obtain the Frequency Response of a Transformer From Transient Signals—Part II: Practical Assessment and Validation. *Gomez-Luna*, E., +, TPWRD Oct. 2014 2231-2238

Correction to "Estimation of Series Capacitance of a Transformer Winding Based on Frequency-Response Data: An Indirect Measurement Approach" [Oct 11 2870-2878]. *Pramanik*, S., +, TPWRD Feb. 2014 302-303

Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition. *Gonzales Arispe, J. C.*, +, *TPWRD June 2014 1127-1137*

Diagnostics of a Transformer's Active Part With Complementary FRA and VM Measurements. *Kornatowski, E., +, TPWRD June 2014 1398-1406*

Finite-Element Modeling for Analysis of Radial Deformations Within Transformer Windings. Zhang, Z. W., +, TPWRD Oct. 2014 2297-2305

Power-Line Communication Channel Characteristics Under Transient Model. Liu, S., +, TPWRD Aug. 2014 1701-1708

Study on Transient Recovery Voltages for Transformer-Limited Faults. *Ito*, *H.*, +, *TPWRD Oct. 2014 2375-2384*

Wideband Modeling of Power Transformers Using Commercial sFRA Equipment. *Holdyk, A., +, TPWRD June 2014 1446-1453*

Frequency-domain analysis

Calculation of Induced Electric Field During a Geomagnetic Storm Using Recursive Convolution. *Marti, L., +, TPWRD April 2014 802-807*

Chromatic Optoacoustic Monitoring of Transformers and Their Onload Tap Changers. *Deakin, A. G., +, TPWRD Feb. 2014 207-214*

Enhanced Fitting to Obtain an Accurate DC Response of Transmission Lines in the Analysis of Electromagnetic Transients. *Ramirez, A., +, TPWRD Dec.* 2014 2614-2621

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. *Sheshyekani*, K., +, TPWRD Oct. 2014 2340-2348

Fuzzy control

The Energy Management and Optimized Operation of Electric Vehicles Based on Microgrid. *Zhang, M., +, TPWRD June 2014 1427-1435*

Fuzzy set theory

Partial Discharge Localization in Power Transformers Using Neuro-Fuzzy Technique. *Homaei, M., +, TPWRD Oct. 2014 2066-2076*

G

Gas insulated switchgear

Investigation of the Evaluation of the PD Severity and Verification of the Sensitivity of Partial-Discharge Detection Using the UHF Method in GIS. *Gao, W., +, TPWRD Feb. 2014 38-47*

New Methods of Damping Very Fast Transient Overvoltages in Gas-Insulated Switchgear. Burow, S., +, TPWRD Oct. 2014 2332-2339

Propagation Properties of High-Frequency Electromagnetic Wave Through Typical In-Field GIS Structures. *Gao, W., +, TPWRD Dec. 2014 2476-2484* Simulation-Based Design of HF Resonators for Damping Very Fast Transients in GIS. *Smajic, J., +, TPWRD Dec. 2014 2528-2533*

Very Fast Transient Overvoltage Measurement With Dielectric Window. *Ma, G.-M.*, +, *TPWRD Oct. 2014 2410-2416*

Gaussian noise

A New Method of Current-Transformer Saturation Detection in the Presence of Noise. *Schettino, B. M.,* +, *TPWRD Aug. 2014 1760-1767*

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Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method. *Preece, R., +, TPWRD Feb. 2014* 318-326

Genetic algorithms

A Hierarchical Framework for Generation Scheduling of Microgrids. Wu, X., +, TPWRD Dec. 2014 2448-2457

A Novel Approach to Investigate the Effect of Maintenance on the Replacement Time for Transformers. *Aldhubaib, H. A.*, +, *TPWRD Aug. 2014* 1603-1612

Ladder Network Parameters Determination Considering Nondominant Resonances of the Transformer Winding. Shabestary, M. M., +, TPWRD Feb. 2014 108-117

Transformer Parameters Estimation From Nameplate Data Using Evolutionary Programming Techniques. *Mossad, M. I., +, TPWRD Oct. 2014 2118-2123*

Geomagnetism

Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

Effects of Series Compensation Capacitors on Geomagnetically Induced Currents. *Marti, L., TPWRD Aug. 2014 2032-2033*

Simulation of Geomagnetically Induced Currents With Piecewise Layered-Earth Models. *Marti, L., +, TPWRD Aug. 2014 1886-1893*

Gradient methods

A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot. Song, Y., +, TPWRD Oct. 2014 2154-2161

Graph theory

A Traveling-Wave-Based Methodology for Wide-Area Fault Location in Multiterminal DC Systems. *Azizi*, *S.*, +, *TPWRD Dec. 2014 2552-2560* Directed Oil Flow Cooling of Disk Windings Using Graph Theory. *Del Vecchio*, *R. M., TPWRD Oct. 2014 2279-2286*

Graphics processing units

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Н

Harmonic analysis

Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix. Hu, H., +, TPWRD April 2014 969-971

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Model of Electronic Ballast Compact Fluorescent Lamps. *Molina*, *J.*, +, *TPWRD June 2014 1363-1371*

Harmonics suppression

A Proportional-Resonant Current Controller for Selective Harmonic Compensation in a Hybrid Active Power Filter. *Herman, L., +, TPWRD Oct.* 2014 2055-2065

A Voltage-Controlled DSTATCOM for Power-Quality Improvement. Kumar, C., +, TPWRD June 2014 1499-1507

Extended C37.118.1 PMU Algorithms for Joint Tracking of Fundamental and Harmonic Phasors in Stressed Power Systems and Microgrids. *Chakir, M., +, TPWRD June 2014 1465-1480*

Transformer-Less Series Reactive/Harmonic Compensation of Line-Commutated HVDC for Offshore Wind Power Integration. *Jafar, M., +, TPWRD Feb. 2014 353-361*

Hazards

Age-Dependent Fragility Models of Utility Wood Poles in Power Distribution Networks Against Extreme Wind Hazards. *Shafieezadeh, A.*, +, *TPWRD Feb. 2014 131-139*

Analysis of Significant Factors on Cable Failure Using the Cox Proportional Hazard Model. *Tang, Z., +, TPWRD April 2014 951-957*

Heat conduction

Arc Cooling Mechanisms in a Model Circuit Breaker. *Panousis, E., +, TPWRD Aug. 2014 1806-1813*

Heat exchangers

CFD Study on Thermal Performance of Radiators in a Power Transformer: Effect of Blowing Direction and Offset of Fans. *Paramane*, S. B., +, TPWRD Dec. 2014 2596-2604

Heat radiation

Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations. *Sedaghat, A., +, TPWRD Oct.* 2014 2306-2314

Heat transfer

Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. Zhang, H., +, TPWRD June 2014 1318-1325

High-voltage techniques

k-factor Test Voltage Function for Oscillating Lightning Impulses in Non-homogenous Air Gaps. *Garnacho, F.,* +, *TPWRD Oct. 2014 2254-2260*A Numerical Approach to Reproduce Subspan Oscillations and Comparison With Experimental Data. *Diana, G.,* +, *TPWRD June 2014 1311-1317*

Current Interruption in Air for a Medium-Voltage Load Break Switch. *Jonsson, E., +, TPWRD April 2014 870-875*

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta–Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044* Skewness-Based Differential Protection Scheme for EHV/UHV Transmission Lines. *Zhang*, L. L., +, *TPWRD June 2014 1518-1520*

HVDC power converters

A Generalized Power Control Approach in ABC Frame for Modular Multilevel Converter HVDC Links Based on Mathematical Optimization. *Bergna, G., +, TPWRD Feb. 2014 386-394*

A New Approach for Benefit Evaluation of Multiterminal VSC-HVDC Using A Proposed Mixed AC/DC Optimal Power Flow. Feng, W., +, TPWRD Feb. 2014 432-443

A New Protection Scheme for HVDC Converters Against DC-Side Faults With Current Suppression Capability. *Elserougi, A. A., +, TPWRD Aug.* 2014 1569-1577

A Tripole HVDC System Based on Modular Multilevel Converters. *Xu*, *F.*, +, *TPWRD Aug*. 2014 1683-1691

A VSC-HVDC Decentralized Model Predictive Control Scheme for Fast Power Tracking. *Mariethoz, S., +, TPWRD Feb. 2014 462-471*

Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators. He, L., +, TPWRD April 2014 493-501

Dynamic Average-Value Modeling of CIGRE HVDC Benchmark System. Atighechi, H., +, TPWRD Oct. 2014 2046-2054

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. Wang, H., +, TPWRD June 2014 1262-1272

Enabling DC-Side Metering in HVDC Stations. Bergman, A., +, TPWRD Feb. 2014 370-377

Impact of Short-Circuit Ratio and Phase-Locked-Loop Parameters on the Small-Signal Behavior of a VSC-HVDC Converter. *Zhou, J. Z.*, +, *TPWRD Oct. 2014 2287-2296*

Modeling and Analysis of HVDC Converter by Three-Phase Dynamic Phasor. *Liu*, C., +, *TPWRD Feb. 2014 3-12*

Modeling of LCC-HVDC Systems Using Dynamic Phasors. *Daryabak, M.,* +, *TPWRD Aug. 2014 1989-1998*

Modular Multilevel Converter Models for Electromagnetic Transients. Saad, H., +, TPWRD June 2014 1481-1489

Multiterminal HVDC Networks—What is the Preferred Topology? *Bucher, M. K., +, TPWRD Feb. 2014 406-413*

Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study. *Mitra*, *P.*, +, *TPWRD Feb.* 2014 453-461

On the Bipolar MMC-HVDC Topology Suitable for Bulk Power Overhead Line Transmission: Configuration, Control, and DC Fault Analysis. *Xue*, *Y*., +, *TPWRD Dec. 2014 2420-2429*

Optimizing DC Voltage Droop Settings for AC/DC System Interactions. Eriksson, R., +, TPWRD Feb. 2014 362-369

Self-Start Control With Grouping Sequentially Precharge for the C-MMC-Based HVDC System. Xue, Y., +, TPWRD Feb. 2014 187-198

Stabilization of Large Power Systems Using VSC-HVDC and Model Predictive Control. Fuchs, A., +, TPWRD Feb. 2014 480-488

Stochastic Multiperiod OPF Model of Power Systems With HVDC-Connected Intermittent Wind Power Generation. *Rabiee, A., +, TPWRD Feb.* 2014 336-344

Technical Guidelines and Prestandardization Work for First HVDC Grids. Akhmatov, V., +, TPWRD Feb. 2014 327-335

The Alternate Arm Converter: A New Hybrid Multilevel Converter With DC-Fault Blocking Capability. *Merlin, M. M. C.,* +, *TPWRD Feb. 2014* 310-317

Transformer-Less Series Reactive/Harmonic Compensation of Line-Commutated HVDC for Offshore Wind Power Integration. *Jafar, M., +, TPWRD Feb. 2014 353-361*

Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method. *Preece, R., +, TPWRD Feb. 2014* 318-326

Valve Losses Evaluation Based on Piecewise Analytical Method for MMC-HVDC Links. Zhang, Z., +, TPWRD June 2014 1354-1362

HVDC power transmission

A Traveling-Wave-Based Methodology for Wide-Area Fault Location in Multiterminal DC Systems. *Azizi, S., +, TPWRD Dec. 2014 2552-2560*A VSC-HVDC Decentralized Model Predictive Control Scheme for Fast Power Tracking. *Mariethoz, S., +, TPWRD Feb. 2014 462-471*

Analysis of Active Power Control for VSC-HVDC. Wang, W., +, TPWRD Aug. 2014 1978-1988

Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. *Elserougi, A. A., +, TPWRD June 2014 1249-1261*

Contribution of Design Parameters of SiR Insulators to Their DC Pollution Flashover Performance. *Abbasi*, *A.*, +, *TPWRD Aug. 2014 1814-1821*

Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids. Silva, B., +, TPWRD Feb. 2014 395-405

Development of a Novel Protection Device for Bipolar HVDC Transmission Lines. *Kong, F., +, TPWRD Oct. 2014 2270-2278*

Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators. He, L., +, TPWRD April 2014 493-501

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. Wang, H., +, TPWRD June 2014 1262-1272

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. *Gustafsson, S., +, TPWRD Dec. 2014 2439-2447*

Enabling DC-Side Metering in HVDC Stations. Bergman, A., +, TPWRD Feb. 2014 370-377

Enhanced Voltage Drop Control by VSC-HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

HVDC Cable Systems—Highlighting Extruded Technology. *Ghorbani, H.,* +, TPWRD Feb. 2014 414-421

Impact of Short-Circuit Ratio and Phase-Locked-Loop Parameters on the Small-Signal Behavior of a VSC-HVDC Converter. *Zhou, J. Z.*, +, *TPWRD Oct. 2014 2287-2296*

Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines. *Maruvada, P. S., TPWRD April 2014 691-698*

Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines. *Maruvada, P. S., TPWRD Dec. 2014 2561-2569*

Modeling of LCC-HVDC Systems Using Dynamic Phasors. *Daryabak, M.,* +, *TPWRD Aug. 2014 1989-1998*

Modular Multilevel Converter Models for Electromagnetic Transients. Saad, H., +, TPWRD June 2014 1481-1489

Multiterminal HVDC Networks—What is the Preferred Topology?. *Bucher, M. K.*, +, *TPWRD Feb. 2014 406-413*

Natural Frequency-Based Line Fault Location in HVDC Lines. He, Z.-Y., +, TPWRD April 2014 851-859

Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study. *Mitra*, *P.*, +, *TPWRD Feb.* 2014 453-461

On the Bipolar MMC-HVDC Topology Suitable for Bulk Power Overhead Line Transmission: Configuration, Control, and DC Fault Analysis. *Xue, Y., +, TPWRD Dec. 2014 2420-2429*

Onsite Measurements for Power-Quality Estimation at the Sweden-Poland HVDC Link. Wright, P. S., +, TPWRD Feb. 2014 472-479

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta–Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044* Optimal Test Current Shape for Accurate Arc Characteristic Determination. *Walter*, M. M., +, *TPWRD Aug. 2014 1798-1805*

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2014 2306-2314 IEEE standards

k-factor Test Voltage Function for Oscillating Lightning Impulses in Nonhomogenous Air Gaps. *Garnacho*, F., +, TPWRD Oct. 2014 2254-2260 A Multiobjective Particle Swarm Optimization for Sizing and Placement of

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Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C., +, TPWRD Dec.* 2014 2519-2527

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Characteristics of Secondary AC Arc Column Motion Near Power Transmission-Line Insulator String. *Li*, *Q.*, +, *TPWRD Oct. 2014 2324-2331* Predictive Model for Equivalent Ice Thickness Load on Overhead Transmission Lines Based on Measured Insulator String Deviations. *Jiang*, *X.*, +, *TPWRD Aug*. 2014 1659-1665

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A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network. Pal, A., +, TPWRD April 2014 510-517

Application of *p*-Cycle Protection for the Substation Communication Network Under SRLG Constraints. *Li*, *B.*, +, *TPWRD Dec. 2014 2510-2518* Impacts of Time-Varying Electricity Rates on Forward Contract Scheduling of DisCos. *Safdarian*, *A.*, +, *TPWRD April 2014 733-741*

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A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation. *El Moursi, M. S.,* +, *TPWRD June 2014 1157-1167*

Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. *Elserougi, A. A., +, TPWRD June 2014 1249-1261*

Cascaded Two-Level Inverter-Based Multilevel STATCOM for High-Power Applications. Surendra Babu, N. N. V., +, TPWRD June 2014 993-1001

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Maximum-Allowable Distributed Generation Considering Fault Ride-Through Requirement And Reach Reduction of Utility Relay. Van Tu, D., +, TPWRD April 2014 534-541

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 \mathbf{L}

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A Method for Averting Saturation From Series Transformers of Dynamic Voltage Restorers. Fernandes, D., +, TPWRD Oct. 2014 2239-2247

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A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part I: Methodological Aspects. Salari, J. C., TPWRD Aug. 2014 1578-1585

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A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part II: Application Examples. Salari, J. C., TPWRD Aug. 2014 1586-1590

Breakdown Process Experiments of 110- to 500-kV Insulator Strings Under Short Tail Lightning Impulse. *Wang, X., +, TPWRD Oct. 2014 2394-2401* Comparison of the Characteristics of Upward Leader Emerging From the Ground Wire and Conductor. *Li, Z., +, TPWRD April 2014 708-715*

Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K., +, TPWRD April 2014 683-690*

Evaluation of Whole Span Lightning Shielding Flashover Risk Based on 3-D Laser Scanning Technology. Wen, H., +, TPWRD April 2014 794-801 Identification of Lightning Stroke Due to Shielding Failure and Backflashover for Ultra-High-Speed Transmission-Line Protection. Morales, J., +, TPWRD Aug. 2014 2008-2017

Impulse Efficiency of Grounding Electrodes: Effect of Frequency-Dependent Soil Parameters. *Alipio, R., +, TPWRD April 2014 716-723*

Lightning Performance of Distribution Transformer Feeding GSM Base Station. *Mikropoulos, P. N.*, +, *TPWRD Dec. 2014 2570-2579*

Wideband Modeling of Large Grounding Systems to Interface With Electromagnetic Transient Solvers. *Sheshyekani, K.,* +, *TPWRD Aug. 2014 1868-1876*

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Application of p-Cycle Protection for the Substation Communication Network Under SRLG Constraints. Li, B, +, TPWRD Dec. 2014 2510-2518 Impacts of Time-Varying Electricity Rates on Forward Contract Scheduling of DisCos. Safdarian, A, +, TPWRD April 2014 733-741

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A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

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A New Approach for Benefit Evaluation of Multiterminal VSC-HVDC Using A Proposed Mixed AC/DC Optimal Power Flow. Feng, W., +, TPWRD Feb. 2014 432-443

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Coordinated Active Power-Dependent Voltage Regulation in Distribution Grids With PV Systems. Samadi, A., +, TPWRD June 2014 1454-1464

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Dynamic Thermal Modeling of MV/LV Prefabricated Substations. *Degefa*, M. Z., +, TPWRD April 2014 786-793

Improving the Accuracy of Impedance Calculation for Distribution Power System. Keshtkar, H., +, TPWRD April 2014 570-579

Multiphase Load-Flow Solution for Large-Scale Distribution Systems Using MANA. Kocar, I., +, TPWRD April 2014 908-915

Multiterminal HVDC Networks—What is the Preferred Topology?. *Bucher, M. K.*, +, *TPWRD Feb. 2014 406-413*

New Intelligent Semiconductor Transformer With Bidirectional Power-Flow Capability. Lee, J. Y., +, TPWRD Feb. 2014 299-301

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta–Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044* Stochastic Multiperiod OPF Model of Power Systems With HVDC-Connected Intermittent Wind Power Generation. *Rabiee*, A., +, *TPWRD Feb. 2014 336-344*

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A Gain-Scheduled Decoupling Control Strategy for Enhanced Transient Performance and Stability of an Islanded Active Distribution Network. *Haddadi*, A., +, TPWRD April 2014 560-569

A New Cross-Differential Protection Scheme for Parallel Transmission Lines Including UPFC. *Tripathy, L. N.,* +, *TPWRD Aug. 2014 1822-1830* A Novel Load-Flow Analysis for Stable and Optimized Microgrid Operation. *Elrayyah, A.,* +, *TPWRD Aug. 2014 1709-1717*

Enhancing the Ride-Through Capability of DC-Link Voltage in NPC Multilevel Unified Power-Flow Controllers. *Santos, N. M. R.*, +, *TPWRD Aug.* 2014 1542-1550

Impact of UPFC on Power Swing Characteristic and Distance Relay Behavior. *Moravej, Z., +, TPWRD Feb. 2014 261-268*

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Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part I: Fundamental Concepts and FEM Modeling. *Hamzehbahmani*, H., +, TPWRD April 2014 642-650 Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani*, H., +, TPWRD April 2014 651-659

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Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents. *Farazmand, A., +, TPWRD Aug.* 2014 1918-1926

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Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi*, *A.*, +, *TPWRD Feb.* 2014 235-240

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Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani*, H., +, TPWRD April 2014 651-659

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Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

Eddy Current Loss Estimation of Edge Burr-Affected Magnetic Laminations Based on Equivalent Electrical Network—Part II: Analytical Modeling and Experimental Results. *Hamzehbahmani, H., +, TPWRD April* 2014 651-659

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Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi*, *A.*, +, *TPWRD Feb.* 2014 235-240

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A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot. Song, Y., +, TPWRD Oct. 2014 2154-2161

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Evaluation of and Replacement Strategies for Aged High Voltage Porcelain Suspension-Type Insulators. *Cherney, E. A., +, TPWRD Feb. 2014 275-282* Partial Discharge Localization in Power Transformers Using Neuro-Fuzzy Technique. *Homaei, M., +, TPWRD Oct. 2014 2066-2076*

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Corrections to "A Novel Method for Evaluating Future Power Distribution System Reliability" [Oct 13 2264-2272]. TPWRD June 2014 1521

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Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition. *Gonzales Arispe, J. C.,* +, *TPWRD June 2014 1127-1137* LCL and L-VSC Converters With DC Fault Current-Limiting Property and Minimal Power Losses. *Lin, W.,* +, *TPWRD Oct. 2014 2359-2368*

Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C.,* +, *TPWRD Dec.* 2014 2519-2527

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Coordinated Active Power-Dependent Voltage Regulation in Distribution Grids With PV Systems. *Samadi, A., +, TPWRD June 2014 1454-1464* Directed Oil Flow Cooling of Disk Windings Using Graph Theory. *Del Vecchio, R. M., TPWRD Oct. 2014 2279-2286*

Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix. Hu, H., +, TPWRD April 2014 969-971

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. Sheshyekani, K., +, TPWRD Oct. 2014 2340-2348

Robust Calculation of Frequency-Dependent Transmission-Line Transformation Matrices Using the Levenberg–Marquardt Method. *Chrysochos, A. I.*, +, TPWRD Aug. 2014 1621-1629

Wideband Modeling of Large Grounding Systems to Interface With Electromagnetic Transient Solvers. *Sheshyekani, K.,* +, *TPWRD Aug. 2014 1868-1876*

Wideband Modeling of Power Transformers Using Commercial sFRA Equipment. Holdyk, A., +, TPWRD June 2014 1446-1453

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Transformational Benefits of AMI Data in Transformer Load Modeling and Management. Lo, Y.-L., +, TPWRD April 2014 742-750

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An MIMO Random Channel Generator for Indoor Power-Line Communication. *Khalil, K., +, TPWRD Aug. 2014 1561-1568*

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A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot. Song, Y., +, TPWRD Oct. 2014 2154-2161

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Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix. Hu, H., +, TPWRD April 2014 969-971

Robust Calculation of Frequency-Dependent Transmission-Line Transformation Matrices Using the Levenberg–Marquardt Method. *Chrysochos, A. I., +, TPWRD Aug. 2014 1621-1629*

Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method. *Preece, R., +, TPWRD Feb. 2014* 318-326

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The Moisture in SF₆ Insulated CTs Considering Current and Change of Ambient Temperature. Ren, X., +, TPWRD June 2014 1184-1191

Monte Carlo methods

Bayes Monte-Carlo Assessment Method of Protection Systems Reliability Based on Small Failure Sample Data. *Dai*, *Z.*, +, *TPWRD Aug. 2014 1841-1848*

Data Requisites for Transformer Statistical Lifetime Modelling—Part II: Combination of Random and Aging-Related Failures. *Zhou, D.,* +, *TPWRD Feb. 2014 154-160*

Stochastic Modeling and Forecasting of Load Demand for Electric Bus Battery-Swap Station. Dai, Q., +, TPWRD Aug. 2014 1909-1917

Multi-agent systems

A Multiagent-Based Fault-Current Limiting Scheme for the Microgrids. Ghanbari, T., +, TPWRD April 2014 525-533

Multiconductor transmission lines

Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K.,* +, *TPWRD April 2014 683-690*

Multiphase flow

Multiphase Load-Flow Solution for Large-Scale Distribution Systems Using MANA. Kocar, I., +, TPWRD April 2014 908-915

Multiport networks

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. *Sheshyekani, K., +, TPWRD Oct. 2014 2340-2348*Rational Modeling of Multiport Systems via a Symmetry and Passivity Preserving Mode-Revealing Transformation. *Gustavsen, B., TPWRD Feb. 2014 199-206*

N

Natural convection

Dynamic Thermal Modeling of MV/LV Prefabricated Substations. *Degefa*, M. Z., +, TPWRD April 2014 786-793

Network topology

A Control Scheme for Storageless DVR Based on Characterization of Voltage Sags. *Jothibasu*, S., +, TPWRD Oct. 2014 2261-2269

Effects of System Characteristics on Geomagnetically Induced Currents. Zheng, K., +, TPWRD April 2014 890-898

Neural network

Contribution of Design Parameters of SiR Insulators to Their DC Pollution Flashover Performance. *Abbasi, A., +, TPWRD Aug. 2014 1814-1821* Identification of Lightning Stroke Due to Shielding Failure and Backflashover for Ultra-High-Speed Transmission-Line Protection. *Morales, J., +, TPWRD Aug. 2014 2008-2017*

Newton method

Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix. Hu, H., +, TPWRD April 2014 969-971

Newton-Raphson method

Robust Calculation of Frequency-Dependent Transmission-Line Transformation Matrices Using the Levenberg–Marquardt Method. *Chrysochos, A. I.*, +, *TPWRD Aug. 2014 1621-1629*

Nitrogen compounds

A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

Noise

Reduction of Noise in Measurements of Phasor Angles by Using Two Digital Filters. Hwang, J. K., TPWRD Feb. 2014 52-60

Noise measurement

Noise Analysis of Power System Frequency Estimated From Angle Difference of Discrete Fourier Transform Coefficient. *Hwang, J. K.,* +, *TPWRD Aug. 2014 1533-1541*

Nonlinear control systems

Robust Nonlinear Controller Design for Three-Phase Grid-Connected Photovoltaic Systems Under Structured Uncertainties. *Mahmud, M. A.,* +, *TPWRD June 2014 1221-1230*

Nonlinear differential equations

Models of Ferroresonant Transformers. Zhilichev, Y., TPWRD Dec. 2014 2631-2639

Nonlinear functions

Dynamic Average-Value Modeling of CIGRE HVDC Benchmark System. Atighechi, H., +, TPWRD Oct. 2014 2046-2054

Nozzle

Current Interruption in Air for a Medium-Voltage Load Break Switch. *Jonsson, E., +, TPWRD April 2014 870-875*

Nuclear power stations

A Simplified Method to Predict Post-Trip Switchyard Voltage at Nuclear Generating Stations. Leake, H. C., +, TPWRD Aug. 2014 1964-1969

Numerical analysis

A Numerical Approach to Reproduce Subspan Oscillations and Comparison With Experimental Data. *Diana, G., +, TPWRD June 2014 1311-1317*

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part II: Comparison of Analytical and Numerical Predictions With Experimental Results. Clark, D., +, TPWRD June 2014 1240-1248

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Harmonic Resonance Assessment to Traction Power-Supply System Considering Train Model in China High-Speed Railway. *He, Z.,* +, *TPWRD Aug. 2014 1735-1743*

Observability of Hybrid AC/DC Power Systems With Variable-Cost PMUs. Aminifar, F., +, TPWRD Feb. 2014 345-352

0

Observability

A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network. Pal, A., +, TPWRD April 2014 510-517

OFDM modulation

Deep Clipping for Impulsive Noise Mitigation in OFDM-Based Power-Line Communications. *Juwono, F. H.,* +, *TPWRD June 2014 1335-1343*

The Impact of Statistical Noise Modeling on the Error-Rate Performance of OFDM Power-Line Communications. *Gianaroli, F.,* +, *TPWRD Dec. 2014* 2622-2630

Offshore installations

Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. *Elserougi, A. A., +, TPWRD June 2014 1249-1261*

Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids. Silva, B., +, TPWRD Feb. 2014 395-405

Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study. *Mitra*, *P.*, +, *TPWRD Feb.* 2014 453-461

Ripple Current Propagation in Bipole HVDC Cables and Applications to DC Grids. Wood, T. B., +, TPWRD April 2014 926-933

Transformer-Less Series Reactive/Harmonic Compensation of Line-Commutated HVDC for Offshore Wind Power Integration. *Jafar, M., +, TPWRD Feb. 2014 353-361*

Oils

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On load tap changers

A Low-Wear Onload Tap Changer Diverter Switch for Frequent Voltage Control on Distribution Networks. *Rogers, D. J., +, TPWRD April 2014* 860-869

A Phase-Shifting Transformer Protection Technique Based on Directional Comparison Approach. *Khan, U. N.*, +, *TPWRD Oct. 2014 2315-2323*

Chromatic Optoacoustic Monitoring of Transformers and Their Onload Tap Changers. Deakin, A. G., +, TPWRD Feb. 2014 207-214

Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo*, S., +, *TPWRD June 2014 1436-1445*

Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C.,* +, *TPWRD Dec.* 2014 2519-2527

Open systems

A Framework for Wide-Area Monitoring and Control Systems Interoperability and Cybersecurity Analysis. *Chenine, M., +, TPWRD April 2014 633-641*

QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. *Kim, D.-K.*, +, *TPWRD April 2014 598-606*

Optical attenuators

A High-Performance Hybrid Current Transformer Based on a Fast Variable Optical Attenuator. Wei, P., +, TPWRD Dec. 2014 2656-2663

Optical fiber networks

Application of p-Cycle Protection for the Substation Communication Network Under SRLG Constraints. Li, B., +, TPWRD Dec. 2014 2510-2518

Optical fibers

A High-Performance Hybrid Current Transformer Based on a Fast Variable Optical Attenuator. Wei, P., +, TPWRD Dec. 2014 2656-2663

Optical scanners

Evaluation of Whole Span Lightning Shielding Flashover Risk Based on 3-D Laser Scanning Technology. Wen, H., +, TPWRD April 2014 794-801

Optimal control

Coordinated Control of Multiterminal DC Grid Power Injections for Improved Rotor-Angle Stability Based on Lyapunov Theory. *Eriksson, R., TPWRD Aug. 2014 1789-1797*

Optimization

Optimal Distribution Feeder Reconfiguration for Reliability Improvement Considering Uncertainty. *Kavousi-Fard, A., +, TPWRD June 2014 1344-1353*

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part II: Conductor and Damper Model. *Langlois*, S., +, TPWRD June 2014 1176-1183

Quantized Peak-Based Impulsive Noise Blanking in Power-Line Communications. *Rabie, K. M.*, +, *TPWRD Aug. 2014 1630-1638*

Reserve Power Arrangements in Rural Area Underground Cable Networks. *Haakana, J., +, TPWRD April 2014 589-597*

VSC-Based MVDC Railway Electrification System. Gomez-Exposito, A., +, TPWRD Feb. 2014 422-431

Organic insulating materials

Assessing the Use of Natural Esters for Transformer Field Drying. *Villarroel, R., +, TPWRD Aug. 2014 1894-1900*

Oscillations

A Numerical Approach to Reproduce Subspan Oscillations and Comparison With Experimental Data. *Diana, G.,* +, *TPWRD June 2014 1311-1317*

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Overcurrent protection

A Novel Fault Current Control Scheme to Reduce Synchronous DG's Impact on Protection Coordination. *Yazdanpanahi, H.,* +, *TPWRD April 2014* 542-551

Overhead line conductors

A Comparison of Real-Time Thermal Rating Systems in the U.S. and the U.K.. *Greenwood, D. M.*, +, *TPWRD Aug. 2014 1849-1858*

Impact of Data Errors on Sag Calculation Accuracy for Overhead Transmission Line. *Polevoy, A., TPWRD Oct. 2014 2040-2045*

Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines. *Maruvada, P. S., TPWRD Dec. 2014 2561-2569*

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part I: Damper Model. *Langlois*, S., +, *TPWRD June 2014 1168-1175*

Predictive Model for Equivalent Ice Thickness Load on Overhead Transmission Lines Based on Measured Insulator String Deviations. *Jiang, X.,* +, *TPWRD Aug. 2014 1659-1665*

Time History Modeling of Vibrations on Overhead Conductors With Variable Bending Stiffness. *Langlois*, S., +, *TPWRD April 2014 607-614*

Overhead line mechanical characteristics

Impact of Data Errors on Sag Calculation Accuracy for Overhead Transmission Line. *Polevoy, A., TPWRD Oct. 2014 2040-2045*

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part I: Damper Model. *Langlois, S., +, TPWRD June 2014 1168-1175*

Time History Modeling of Vibrations on Overhead Conductors With Variable Bending Stiffness. *Langlois*, S., +, *TPWRD April 2014 607-614*

Overvoltage

A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part I: Methodological Aspects. Salari, J. C., TPWRD Aug. 2014 1578-1585

An Approximate Formula for Estimating the Peak Value of Lightning-Induced Overvoltage Considering the Stratified Conducting Ground. *Zhang*, *Q.*, +, *TPWRD April 2014 884-889*

Switching Overvoltage Measurements and Simulations—Part I: Field Test Overvoltage Measurements. *Martinez, J. A.*, +, *TPWRD Dec. 2014 2502-2509*

Overvoltage protection

Mathematical Model of a Gas Discharge Arrester Based on Physical Parameters. *Ribic, J., +, TPWRD June 2014 985-992*

New Methods of Damping Very Fast Transient Overvoltages in Gas-Insulated Switchgear. Burow, S., +, TPWRD Oct. 2014 2332-2339

Overvoltages due to Synchronous Tripping of Plug-in Electric-Vehicle Chargers Following Voltage Dips. Kundu, S., +, TPWRD June 2014 1147-1156

Relevant Parameters in a Statistical Analysis—Application to Transmission-Line Energization. *Mestas, P., +, TPWRD Dec. 2014 2605-2613* Wideband Modeling of Large Grounding Systems to Interface With Electromagnetic Transient Solvers. *Sheshyekani, K.,* +, *TPWRD Aug. 2014 1868-1876*

Oxygen

Investigations Into the Stray Gassing of Oils in the Fault Diagnosis of Transformers. Martin, D., +, TPWRD Oct. 2014 2369-2374

P

Packaging

Guidelines for Establishing Diagnostic Procedures for Live-Line Working of Nonceramic Insulators. Carreira, A. J., +, TPWRD Feb. 2014 126-130

Paper

Accelerating Dielectric Response Measurements on Power Transformers—Part II: A Regression Approach. Suriyah-Jaya, M., +, TPWRD Oct. 2014 2095-2100

Evaluation of Power Transformers' Effective Hot-Spot Factors by Thermal Modeling of Scrapped Units. Feng. D., +, TPWRD Oct. 2014 2077-2085

Parallel architectures

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Parallel programming

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Parameter estimation

Accurate Estimation of Single-Phase Grid Voltage Parameters Under Distorted Conditions. Reza, M. S., +, TPWRD June 2014 1138-1146

Model of Electronic Ballast Compact Fluorescent Lamps. Molina, J., +, $TPWRD\ June\ 2014\ 1363-1371$

Transformer Parameters Estimation From Nameplate Data Using Evolutionary Programming Techniques. *Mossad, M. I.,* +, *TPWRD Oct. 2014* 2118-2123

Partial discharge measurement

Automatic Blind Equalization and Thresholding for Partial Discharge Measurement in Power Transformer. *Chan, J. C.,* +, *TPWRD Aug. 2014 1927-1938*

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. Gustafsson, S., +, TPWRD Dec. 2014 2439-2447

Investigation of the Evaluation of the PD Severity and Verification of the Sensitivity of Partial-Discharge Detection Using the UHF Method in GIS. *Gao, W., +, TPWRD Feb. 2014 38-47*

Partial Discharge Localization in Power Transformers Using Neuro-Fuzzy Technique. *Homaei, M., +, TPWRD Oct. 2014 2066-2076*

Partial discharges

An Improved Technique for Online PD Detection on Covered Conductor Lines. Zhang, W., +, TPWRD April 2014 972-973

Propagation Properties of High-Frequency Electromagnetic Wave Through Typical In-Field GIS Structures. *Gao, W., +, TPWRD Dec. 2014 2476-2484*

Particle filtering (numerical methods)

Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. *Zhang, H., +, TPWRD June 2014 1318-1325*

Particle size

Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area. *Liu, Y., +, TPWRD April 2014 615-623*

Identifying and Quantifying Material Properties That Impact Aggregate Resistivity of Electrical Substation Surface Material. *Edlebeck, J. E.*, +, *TPWRD Oct. 2014 2248-2253*

Particle swarm optimization

A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

A Novel Load-Flow Analysis for Stable and Optimized Microgrid Operation. *Elrayyah*, A., +, TPWRD Aug. 2014 1709-1717

Chaotic PSO-Based VAR Control Considering Renewables Using Fast Probabilistic Power Flow. *Hong, Y.-Y.*, +, *TPWRD Aug. 2014 1666-1674*

Transformer Parameters Estimation From Nameplate Data Using Evolutionary Programming Techniques. *Mossad, M. I.,* +, *TPWRD Oct. 2014* 2118-2123

Passive filters

A Proportional-Resonant Current Controller for Selective Harmonic Compensation in a Hybrid Active Power Filter. *Herman, L., +, TPWRD Oct.* 2014 2055-2065

Passive networks

Multiport High-Power LCL DC Hub for Use in DC Transmission Grids. *Jovcic, D., +, TPWRD April 2014 760-768*

Pattern classification

A Multifeature-Based Approach for Islanding Detection of DG in the Subcritical Region of Vector Surge Relays. *Alam, M. R.*, +, *TPWRD Oct. 2014* 2349-2358

Pattern clustering

Comprehensive Clustering of Disturbance Events Recorded by Phasor Measurement Units. *Dahal, O. P., +, TPWRD June 2014 1390-1397*

Pattern recognition

Partial Discharge Localization in Power Transformers Using Neuro-Fuzzy Technique. *Homaei, M., +, TPWRD Oct. 2014 2066-2076*

Performance evaluation

Testing and Enhancement of the Dynamic Performance of a Phasor Measurement Unit. Gurusinghe, D. R., +, TPWRD Aug. 2014 1551-1560

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A Low-Wear Onload Tap Changer Diverter Switch for Frequent Voltage Control on Distribution Networks. *Rogers, D. J., +, TPWRD April 2014* 860-869

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Accurate Estimation of Single-Phase Grid Voltage Parameters Under Distorted Conditions. Reza, M. S., +, TPWRD June 2014 1138-1146

Impact of Short-Circuit Ratio and Phase-Locked-Loop Parameters on the Small-Signal Behavior of a VSC-HVDC Converter. Zhou, J. Z., +, TPWRD Oct. 2014 2287-2296

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

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A Modified Empirical Mode Decomposition Filtering-Based Adaptive Phasor Estimation Algorithm for Removal of Exponentially Decaying DC Offset. *Jiang, Z., +, TPWRD June 2014 1326-1334*

A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network. Pal, A., +, TPWRD April 2014 510-517

An Accurate Filtering Technique to Mitigate Transient Decaying DC Offset. Rahmati, A., +, TPWRD April 2014 966-968

An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines. Rubeena, R., +, TPWRD April 2014 876-883

An Accurate Synchrophasor Based Fault Location Method for Emerging Distribution Systems. Ren, J., +, TPWRD Feb. 2014 297-298

An Efficient PMU-Based Fault-Location Technique for Multiterminal Transmission Lines. *Jiang, Q., +, TPWRD Aug. 2014 1675-1682*

Comprehensive Clustering of Disturbance Events Recorded by Phasor Measurement Units. *Dahal, O. P., +, TPWRD June 2014 1390-1397*

Extended C37.118.1 PMU Algorithms for Joint Tracking of Fundamental and Harmonic Phasors in Stressed Power Systems and Microgrids. *Chakir, M., +, TPWRD June 2014 1465-1480*

Hardware Implementation of an Automatic Adaptive Centralized Underfrequency Load Shedding Scheme. *Abdelwahid, S.,* +, *TPWRD Dec. 2014* 2664-2673

Modeling and Analysis of HVDC Converter by Three-Phase Dynamic Phasor. Liu, C., +, TPWRD Feb. 2014 3-12

Observability of Hybrid AC/DC Power Systems With Variable-Cost PMUs. Aminifar, F., +, TPWRD Feb. 2014 345-352

Reduction of Noise in Measurements of Phasor Angles by Using Two Digital Filters. Hwang, J. K., TPWRD Feb. 2014 52-60

Shifting Window Average Method for Phasor Measurement at Offnominal Frequencies. Zhang, P., +, TPWRD June 2014 1063-1073

Synchrophasor-Assisted Zone 3 Operation. Kundu, P., +, TPWRD April 2014 660-667

Testing and Enhancement of the Dynamic Performance of a Phasor Measurement Unit. Gurusinghe, D. R., +, TPWRD Aug. 2014 1551-1560

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. *Nayak, P. K.*, +, *TPWRD Aug. 2014 1970-1977*

Photovoltaic power systems

A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation. *El Moursi, M. S.,* +, *TPWRD June 2014* 1157-1167

Coordinated Active Power-Dependent Voltage Regulation in Distribution Grids With PV Systems. Samadi, A., +, TPWRD June 2014 1454-1464

DC Electric Arc-Flash Hazard-Risk Evaluations for Photovoltaic Systems. Yuventi, J., TPWRD Feb. 2014 161-167

Impact of High PV Penetration on Distribution Transformer Insulation Life. Pezeshki, H., +, TPWRD June 2014 1212-1220

Robust Nonlinear Controller Design for Three-Phase Grid-Connected Photovoltaic Systems Under Structured Uncertainties. *Mahmud, M. A.*, +, *TPWRD June 2014 1221-1230*

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Adaptive PI Control of STATCOM for Voltage Regulation. Xu, Y., +, TPWRD June 2014 1002-1011

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Valve Losses Evaluation Based on Piecewise Analytical Method for MMC–HVDC Links. Zhang, Z., +, TPWRD June 2014 1354-1362

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Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi, A., +, TPWRD Feb.* 2014 235-240

Poles and towers

Age-Dependent Fragility Models of Utility Wood Poles in Power Distribution Networks Against Extreme Wind Hazards. *Shafieezadeh, A.*, +, *TPWRD Feb. 2014 131-139*

Calculation of the Electric Field Around the Tower of the Overhead Transmission Lines. El Dein, A. Z., TPWRD April 2014 899-907

Circulating Unbalanced Currents of EHV/UHV Untransposed Double-Circuit Lines and Their Influence on Pilot Protection. *Li*, *B.*, +, *TPWRD April* 2014 825-833

Improved Coupled Ion-Flow Field Calculation Method for AC/DC Hybrid Overhead Power Lines. *Guillod, T.,* +, *TPWRD Dec. 2014 2493-2501*

Preventing Bird Streamer Outages Using Alternative Tower Configurations. Taklaja, P., +, TPWRD Oct. 2014 2402-2409

Polynomial approximation

A Modified Empirical Mode Decomposition Filtering-Based Adaptive Phasor Estimation Algorithm for Removal of Exponentially Decaying DC Offset. *Jiang, Z., +, TPWRD June 2014 1326-1334*

Porcelain insulators

Breakdown Process Experiments of 110- to 500-kV Insulator Strings Under Short Tail Lightning Impulse. *Wang, X., +, TPWRD Oct. 2014 2394-2401* Evaluation of and Replacement Strategies for Aged High Voltage Porcelain Suspension-Type Insulators. *Cherney, E. A., +, TPWRD Feb. 2014 275-282*

Potential transformers

A Novel Algorithm to Avoid the Maloperation of UHV Voltage-Regulating Transformers. Zheng, T., +, TPWRD Oct. 2014 2146-2153

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Inverse Hysteresis Models for Transient Simulation. Zirka, S. E., +, TPWRD April 2014 552-559

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A Novel Approach to Investigate the Effect of Maintenance on the Replacement Time for Transformers. *Aldhubaib, H. A., +, TPWRD Aug. 2014* 1603-1612

Application of Probabilistic Maintenance Models for Selecting Optimal Inspection Rates Considering Reliability and Cost Tradeoff. *Abeygunawardane, S. K.*, +, *TPWRD Feb. 2014 178-186*

Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. Zhang, H., +, TPWRD June 2014 1318-1325

Influence of Perforated Metal Plate on Pressure Rise and Energy Flow due to Internal Arcing in a Container With a Pressure-Relief Opening. *Iwata, M., +, TPWRD June 2014 1292-1300*

Power bipolar transistors

Modular Multilevel Converter Models for Electromagnetic Transients. Saad, H., +, TPWRD June 2014 1481-1489

Power cables

A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot. Song, Y., +, TPWRD Oct. 2014 2154-2161

Analysis of Significant Factors on Cable Failure Using the Cox Proportional Hazard Model. *Tang, Z., +, TPWRD April 2014 951-957*

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. Gustafsson, S., +, TPWRD Dec. 2014 2439-2447

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M., +, TPWRD April 2014 751-759*

Field Test and Theoretical Analysis of Electromagnetic Pulse Propagation Velocity on Crossbonded Cable Systems. *Jensen, C. F.*, +, *TPWRD June 2014 1028-1035*

HVDC Cable Systems—Highlighting Extruded Technology. *Ghorbani, H.,* +, TPWRD Feb. 2014 414-421

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta–Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044* Proximity-Aware Calculation of Cable Series Impedance for Systems of Solid and Hollow Conductors. *Patel*, U. R., +, *TPWRD Oct. 2014 2101-2109*

Ripple Current Propagation in Bipole HVDC Cables and Applications to DC Grids. Wood, T. B., +, TPWRD April 2014 926-933

Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations. *Sedaghat, A.,* +, *TPWRD Oct.* 2014 2306-2314

Power capacitors

An Interphase Distance Relaying Algorithm for Series-Compensated Transmission Lines. Xu, Z. Y., +, TPWRD April 2014 834-841

Effects of Series Compensation Capacitors on Geomagnetically Induced Currents. *Marti, L., TPWRD Aug. 2014 2032-2033*

Enhancing the Ride-Through Capability of DC-Link Voltage in NPC Multilevel Unified Power-Flow Controllers. *Santos, N. M. R.,* +, *TPWRD Aug.* 2014 1542-1550

Importance of Voltage Reduction and Optimal Voltage Setting During Reactive Power Compensation. Paul, S., +, TPWRD Aug. 2014 1999-2007

LCL and L-VSC Converters With DC Fault Current-Limiting Property and Minimal Power Losses. *Lin, W., +, TPWRD Oct. 2014 2359-2368*

Self-Start Control With Grouping Sequentially Precharge for the C-MMC-Based HVDC System. *Xue*, *Y.*, +, *TPWRD Feb. 2014 187-198*

Power consumption

CFD Study on Thermal Performance of Radiators in a Power Transformer: Effect of Blowing Direction and Offset of Fans. *Paramane, S. B.*, +, *TPWRD Dec. 2014 2596-2604*

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. Wang, H., +, TPWRD June 2014 1262-1272

Experimental Determination of the ZIP Coefficients for Modern Residential, Commercial, and Industrial Loads. *Bokhari, A., +, TPWRD June 2014* 1372-1381

Importance of Voltage Reduction and Optimal Voltage Setting During Reactive Power Compensation. Paul, S., +, TPWRD Aug. 2014 1999-2007

Power-Line Impedance Estimation at FCC Band Based on Intelligent Home Appliances Status Detection Algorithm Through Their Individual Energy and Impedance Signatures. *Pasdar, A. M.*, +, *TPWRD June 2014 1407-1416*

Power control

A Generalized Power Control Approach in ABC Frame for Modular Multilevel Converter HVDC Links Based on Mathematical Optimization. *Bergna, G., +, TPWRD Feb. 2014 386-394*

Analysis of Active Power Control for VSC-HVDC. Wang, W., +, TPWRD Aug. 2014 1978-1988

Dynamic Average-Value Modeling of Direct Power-Controlled Active Front-End Rectifiers. Cano, J. M., +, TPWRD Dec. 2014 2458-2466

Enhanced Voltage Drop Control by VSC-HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study. *Mitra*, *P.*, +, *TPWRD Feb.* 2014 453-461

Power converters

A New Hybrid Power Conditioner for Suppressing Harmonics and Neutral-Line Current in Three-Phase Four-Wire Distribution Power Systems. *Wu*, *J.-C.*, +, *TPWRD Aug. 2014 1525-1532*

A Proportional-Resonant Current Controller for Selective Harmonic Compensation in a Hybrid Active Power Filter. *Herman, L., +, TPWRD Oct.* 2014 2055-2065

Dynamic Average-Value Modeling of Direct Power-Controlled Active Front-End Rectifiers. Cano, J. M., +, TPWRD Dec. 2014 2458-2466

Enhanced Voltage Drop Control by VSC-HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

High-Efficiency Grid-Tied Power Converter for Battery Energy Storage. Choi, J., +, TPWRD June 2014 1514-1515

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Coordinated Active Power-Dependent Voltage Regulation in Distribution Grids With PV Systems. Samadi, A., +, TPWRD June 2014 1454-1464

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Power distribution faults

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Boundary Wavelet Coefficients for Real-Time Detection of Transients Induced by Faults and Power-Quality Disturbances. *Costa, F. B., TPWRD Dec. 2014 2674-2687*

Criticality Analysis of Failure to Communicate in Automated Fault-Management Schemes. Kazemi, S., +, TPWRD June 2014 1083-1091

IEC 61850 Model Expansion Toward Distributed Fault Localization, Isolation, and Supply Restoration. *Ling, W., +, TPWRD June 2014 977-984*

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An Impedance Protection Scheme for Feeders of Active Distribution Networks. *Huang, W., +, TPWRD Aug. 2014 1591-1602*

Evaluation of Lightning-Induced Voltages on Multiconductor Overhead Lines Located Above A Lossy Dispersive Ground. *Sheshyekani, K., +, TPWRD April 2014 683-690*

Nontraditional Relay Curves for the Coordination of the Ground Overcurrent Function With Downstream Fuses. *Sorrentino, E., TPWRD June 2014* 1284-1291

Reserve Power Arrangements in Rural Area Underground Cable Networks. *Haakana, J., +, TPWRD April 2014 589-597*

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. Nayak, P. K., +, TPWRD Aug. 2014 1970-1977

Power distribution reliability

Age-Dependent Fragility Models of Utility Wood Poles in Power Distribution Networks Against Extreme Wind Hazards. *Shafieezadeh, A., +, TPWRD Feb. 2014 131-139*

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Impact of High PV Penetration on Distribution Transformer Insulation Life. Pezeshki, H., +, TPWRD June 2014 1212-1220

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Reserve Power Arrangements in Rural Area Underground Cable Networks. Haakana, J., +, TPWRD April 2014 589-597

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Optimal Sizing of UPQC Considering VA Loading and Maximum Utilization of Power-Electronic Converters. *Ambati, B. B.,* +, *TPWRD June 2014*

Stability Design Criteria for Distribution Systems With Solid-State Transformers. Shah, D. G., +, TPWRD Dec. 2014 2588-2595

Vector Definitions for Control of Single-Phase and Unbalanced Three-Phase Systems. Darji, P. B., +, TPWRD Oct. 2014 2136-2145

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A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot. Song, Y., +, TPWRD Oct. 2014 2154-2161

Comprehensive Clustering of Disturbance Events Recorded by Phasor Measurement Units. *Dahal, O. P.*, +, *TPWRD June 2014 1390-1397*

surement Units. *Dahal, O. P.*, +, *TPWRD June 2014 1390-1397* Contribution of Design Parameters of SiR Insulators to Their DC Pollution

Flashover Performance. *Abbasi, A.,* +, *TPWRD Aug. 2014 1814-1821* Evaluation of ZigBee Wireless Sensor Networks Under High Power Disturbances. *Sallabi, F. M.,* +, *TPWRD Feb. 2014 13-20*

IEC 61850-Based Information Model and Configuration Description of Communication Network in Substation Automation. *Zhu*, *L.*, +, *TPWRD Feb. 2014 97-107*

Leak Detection in Slow Oscillation High-Pressure Fluid-Filled Circuits. Tylman, W., +, TPWRD April 2014 769-776

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QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. *Kim, D.-K.*, +, *TPWRD April 2014 598-606*

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Ripple Current Propagation in Bipole HVDC Cables and Applications to DC Grids. Wood, T. B., +, TPWRD April 2014 926-933

Testing and Enhancement of the Dynamic Performance of a Phasor Measurement Unit. Gurusinghe, D. R., +, TPWRD Aug. 2014 1551-1560

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A Novel Fault Current Control Scheme to Reduce Synchronous DG's Impact on Protection Coordination. *Yazdanpanahi*, H., +, TPWRD April 2014 542-551

Enhanced Voltage Drop Control by VSC-HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Robust Nonlinear Controller Design for Three-Phase Grid-Connected Photovoltaic Systems Under Structured Uncertainties. *Mahmud, M. A.*, +, *TPWRD June 2014 1221-1230*

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A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo, S.,* +, *TPWRD June 2014 1436-1445*

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A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation. *El Moursi, M. S.,* +, *TPWRD June 2014* 1157-1167

A Multiagent-Based Fault-Current Limiting Scheme for the Microgrids. Ghanbari, T., +, TPWRD April 2014 525-533

A Novel Fault Current Control Scheme to Reduce Synchronous DG's Impact on Protection Coordination. *Yazdanpanahi*, H., +, TPWRD April 2014 542-551

Application of Series Voltage Boosting Schemes for Enhanced Fault Ridethrough Performance of Fixed Speed Wind Turbines. *El Moursi, M. S.*, +, *TPWRD Feb. 2014 61-71*

Enhanced Voltage Drop Control by VSC–HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

Maximum-Allowable Distributed Generation Considering Fault Ride-Through Requirement And Reach Reduction of Utility Relay. Van Tu, D., +, TPWRD April 2014 534-541

Power generation planning

A Hierarchical Framework for Generation Scheduling of Microgrids. Wu, X., +, TPWRD Dec. 2014 2448-2457

Unintentional Islanding of Distributed Generation—Operating Experiences From Naturally Occurred Events. Li, C., +, TPWRD Feb. 2014 269-274

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A Multifeature-Based Approach for Islanding Detection of DG in the Subcritical Region of Vector Surge Relays. *Alam, M. R.*, +, *TPWRD Oct. 2014* 2349-2358

A Simplified Method to Predict Post-Trip Switchyard Voltage at Nuclear Generating Stations. Leake, H. C., +, TPWRD Aug. 2014 1964-1969

Impact of Midpoint STATCOM on Generator Loss of Excitation Protection. Elsamahy, M., +, TPWRD April 2014 724-732

Investigation Into Islanding Detection With Capacitor Insertion-Based Method. Bejmert, D., +, TPWRD Dec. 2014 2485-2492

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A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

Power generation scheduling

A Hierarchical Framework for Generation Scheduling of Microgrids. Wu, X., +, TPWRD Dec. 2014 2448-2457

Stochastic Multiperiod OPF Model of Power Systems With HVDC-Connected Intermittent Wind Power Generation. *Rabiee, A., +, TPWRD Feb.* 2014 336-344

Power grids

A Transformerless DC–DC Converter With Large Voltage Ratio for MV DC Grids. *Athab, H.,* +, *TPWRD Aug. 2014 1877-1885*

A Vision-Based Broken Strand Detection Method for a Power-Line Maintenance Robot. Song, Y., +, TPWRD Oct. 2014 2154-2161

Accurate Estimation of Single-Phase Grid Voltage Parameters Under Distorted Conditions. Reza, M. S., +, TPWRD June 2014 1138-1146

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Application of Series Voltage Boosting Schemes for Enhanced Fault Ridethrough Performance of Fixed Speed Wind Turbines. *El Moursi, M. S.*, +, TPWRD Feb. 2014 61-71

Controlled Large-Scale Tests of Practical Grounding Electrodes—Part I: Test Facility and Measurement of Site Parameters. Guo, D., +, TPWRD June 2014 1231-1239

Coordinated Active Power-Dependent Voltage Regulation in Distribution Grids With PV Systems. Samadi, A., +, TPWRD June 2014 1454-1464

Coordinated Control of Multiterminal DC Grid Power Injections for Improved Rotor-Angle Stability Based on Lyapunov Theory. *Eriksson, R., TPWRD Aug. 2014 1789-1797*

Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators. He, L., +, TPWRD April 2014 493-501

Dynamic Average-Value Modeling of CIGRE HVDC Benchmark System. Atighechi, H., +, TPWRD Oct. 2014 2046-2054

Extended C37.118.1 PMU Algorithms for Joint Tracking of Fundamental and Harmonic Phasors in Stressed Power Systems and Microgrids. *Chakir, M., +, TPWRD June 2014 1465-1480*

High-Efficiency Grid-Tied Power Converter for Battery Energy Storage. *Choi, J., +, TPWRD June 2014 1514-1515*

Influence of Potential Difference Within Large Grounding Grid on Fault Current Division Factor. Zhang, B., +, TPWRD Aug. 2014 1752-1759

Modular Multilevel Converter Models for Electromagnetic Transients. Saad, H., +, TPWRD June 2014 1481-1489

Multiphase Load-Flow Solution for Large-Scale Distribution Systems Using MANA. Kocar, I., +, TPWRD April 2014 908-915

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Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo, S., +, TPWRD June 2014 1436-1445*

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Overview of Grounding and Configuration Options for Meshed HVDC Grids. Leterme, W., +, TPWRD Dec. 2014 2467-2475

Overvoltages due to Synchronous Tripping of Plug-in Electric-Vehicle Chargers Following Voltage Dips. Kundu, S., +, TPWRD June 2014 1147-1156

Ripple Current Propagation in Bipole HVDC Cables and Applications to DC Grids. Wood, T. B., +, TPWRD April 2014 926-933

Robust Nonlinear Controller Design for Three-Phase Grid-Connected Photovoltaic Systems Under Structured Uncertainties. *Mahmud, M. A.*, +, *TPWRD June 2014 1221-1230*

Rule-Based Charging of Plug-in Electric Vehicles (PEVs): Impacts on the Aging Rate of Low-Voltage Transformers. *Turker*, *H.*, +, *TPWRD June* 2014 1012-1019

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Technical Guidelines and Prestandardization Work for First HVDC Grids. Akhmatov, V., +, TPWRD Feb. 2014 327-335

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A New Hybrid Power Conditioner for Suppressing Harmonics and Neutral-Line Current in Three-Phase Four-Wire Distribution Power Systems. *Wu*, *J.-C.*, +, *TPWRD Aug. 2014 1525-1532*

A Proportional-Resonant Current Controller for Selective Harmonic Compensation in a Hybrid Active Power Filter. *Herman, L., +, TPWRD Oct.* 2014 2055-2065

A Technique to Mitigate Zero-Sequence Harmonics in Power Distribution Systems. *Bagheri*, P., +, *TPWRD Feb. 2014 215-223*

Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids. Silva, B., +, TPWRD Feb. 2014 395-405

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A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

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Calculation of the Electric Field Around the Tower of the Overhead Transmission Lines. El Dein, A. Z., TPWRD April 2014 899-907

Deicing of The Contact Lines of the High-Speed Electric Railways: Deicing Configurations. Experimental Test Results. *Cinieri, E., +, TPWRD Dec. 2014 2580-2587*

Improved Coupled Ion-Flow Field Calculation Method for AC/DC Hybrid Overhead Power Lines. *Guillod, T.,* +, *TPWRD Dec. 2014 2493-2501*

On the Bipolar MMC-HVDC Topology Suitable for Bulk Power Overhead Line Transmission: Configuration, Control, and DC Fault Analysis. *Xue, Y., +, TPWRD Dec. 2014 2420-2429*

Predictive Model for Equivalent Ice Thickness Load on Overhead Transmission Lines Based on Measured Insulator String Deviations. *Jiang, X.*, +, *TPWRD Aug. 2014 1659-1665*

The Loadability of Overhead Transmission Lines—Part I: Analysis of Single Circuits. *Lauria*, D., +, *TPWRD Feb. 2014 29-37*

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A Method for Averting Saturation From Series Transformers of Dynamic Voltage Restorers. Fernandes, D., +, TPWRD Oct. 2014 2239-2247

A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

A Voltage-Controlled DSTATCOM for Power-Quality Improvement. Kumar, C., +, TPWRD June 2014 1499-1507

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Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents. *Farazmand, A., +, TPWRD Aug.* 2014 1918-1926

Boundary Wavelet Coefficients for Real-Time Detection of Transients Induced by Faults and Power-Quality Disturbances. *Costa, F. B., TPWRD Dec. 2014 2674-2687*

Fault Location in Distribution Systems Based on Smart Feeder Meters. Trindade, F. C. L., +, TPWRD Feb. 2014 251-260

Impact of Unified Power-Quality Conditioner Allocation on Line Loading, Losses, and Voltage Stability of Radial Distribution Systems. *Ganguly, S., TPWRD Aug. 2014 1859-1867*

Improving the Accuracy of Impedance Calculation for Distribution Power System. Keshtkar, H., +, TPWRD April 2014 570-579

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Method to Assess the Power-Quality Impact of Plug-in Electric Vehicles. Jiang, C., +, TPWRD April 2014 958-965 Model of Electronic Ballast Compact Fluorescent Lamps. *Molina, J., +, TPWRD June 2014 1363-1371*

New Measures of Power-Grid Voltage Variation. Wetula, A., +, TPWRD June 2014 1020-1027

Onsite Measurements for Power-Quality Estimation at the Sweden-Poland HVDC Link. Wright, P. S., +, TPWRD Feb. 2014 472-479

Optimal Sizing of UPQC Considering VA Loading and Maximum Utilization of Power-Electronic Converters. *Ambati, B. B.,* +, *TPWRD June 2014* 1490-1498

Overvoltages due to Synchronous Tripping of Plug-in Electric-Vehicle Chargers Following Voltage Dips. Kundu, S., +, TPWRD June 2014 1147-1156

Statistical Analyses of $P_{\rm st}$ and ΔV_{10} Recorded at Electric Arc Furnaces. Hsu, Y.-J., +, TPWRD June 2014 1508-1510

Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C.,* +, *TPWRD Dec.* 2014 2519-2527

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Relevant Parameters in a Statistical Analysis—Application to Transmission-Line Energization. *Mestas, P., +, TPWRD Dec. 2014 2605-2613*

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. Nayak, P. K., +, TPWRD Aug. 2014 1970-1977

Power system control

A Control Scheme for Storageless DVR Based on Characterization of Voltage Sags. *Jothibasu*, S., +, TPWRD Oct. 2014 2261-2269

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A Novel Power Swing Detection Scheme Independent of the Rate of Change of Power System Parameters. *Jafari*, R., +, *TPWRD June 2014 1192-1202* A Recommended Standard for Voltages Appearing Across Publicly Acces-

sible Surfaces. *Bouford, J. D.,* +, *TPWRD Feb. 2014 48-51*Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. *Zhang, H.,* +, *TPWRD June 2014 1318-1325*

Equivalent Circuit of Single-Core Cable Lines Suitable for Grounding Systems Analysis Under Line-to-Ground Faults. *Todorovski, M.*, +, *TPWRD April 2014 751-759*

The Alternate Arm Converter: A New Hybrid Multilevel Converter With DC-Fault Blocking Capability. *Merlin, M. M. C.,* +, *TPWRD Feb. 2014* 310-317

The Moisture in SF $_6$ Insulated CTs Considering Current and Change of Ambient Temperature. Ren. X., +, TPWRD June 2014 1184-1191

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A Hybrid Wavelet Transform and Neural-Network-Based Approach for Modelling Dynamic Voltage-Current Characteristics of Electric Arc Furnace. Chang, G. W., +, TPWRD April 2014 815-824

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Method to Assess the Power-Quality Impact of Plug-in Electric Vehicles. Jiang, C., +, TPWRD April 2014 958-965

Modal Frequency Sensitivity Analysis and Application Using Complex Nodal Matrix. Hu, H., +, TPWRD April 2014 969-971

Model of Electronic Ballast Compact Fluorescent Lamps. *Molina, J., +, TPWRD June 2014 1363-1371*

Onsite Measurements for Power-Quality Estimation at the Sweden–Poland HVDC Link. Wright, P. S., +, TPWRD Feb. 2014 472-479

Shifting Window Average Method for Phasor Measurement at Offnominal Frequencies. Zhang, P., +, TPWRD June 2014 1063-1073

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Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta–Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044* Optimizing DC Voltage Droop Settings for AC/DC System Interactions. *Eriksson*, R., +, *TPWRD Feb. 2014 362-369*

Technical Guidelines and Prestandardization Work for First HVDC Grids. Akhmatov, V., +, TPWRD Feb. 2014 327-335

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A Multiobjective Particle Swarm Optimization for Sizing and Placement of DGs from DG Owner's and Distribution Company's Viewpoints. *Ameli, A.,* +, *TPWRD Aug. 2014 1831-1840*

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Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo, S., +, TPWRD June 2014 1436-1445*

QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. *Kim, D.-K.*, +, *TPWRD April 2014 598-606*

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A Hybrid Wavelet Transform and Neural-Network-Based Approach for Modelling Dynamic Voltage-Current Characteristics of Electric Arc Furnace. Chang, G. W., +, TPWRD April 2014 815-824

A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network. Pal, A., +, TPWRD April 2014 510-517

Application of p-Cycle Protection for the Substation Communication Network Under SRLG Constraints. Li, B., +, TPWRD Dec. 2014 2510-2518

Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. *Gustafsson, S.,* +, *TPWRD Dec. 2014 2439-2447*

Enhanced Load Profiling for Residential Network Customers. *Stephen, B.,* +, *TPWRD Feb. 2014 88-96*

Fault Location in Distribution Systems Based on Smart Feeder Meters. Trindade, F. C. L., +, TPWRD Feb. 2014 251-260

Frequency-Dependent Modeling of Transformer Winding Impedance From $R(\omega)/L$ Measurements. *Chiesa*, N., +, *TPWRD June 2014 1511-1513*

New Measures of Power-Grid Voltage Variation. Wetula, A., +, TPWRD June 2014 1020-1027

Onsite Measurements for Power-Quality Estimation at the Sweden-Poland HVDC Link. Wright, P. S., +, TPWRD Feb. 2014 472-479

QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. Kim, D.-K., +, TPWRD April 2014 598-606

Simultaneous Estimation of the Time of Disturbance and Inertia in Power Systems. Wall, P., +, TPWRD Aug. 2014 2018-2031

Statistical Analyses of $P_{\rm st}$ and $\Delta \bar{V}_{10}$ Recorded at Electric Arc Furnaces. Hsu, Y.-J., +, TPWRD June 2014 1508-1510

Switching Overvoltage Measurements and Simulations—Part I: Field Test Overvoltage Measurements. *Martinez, J. A.*, +, *TPWRD Dec. 2014 2502-2500*

Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C.,* +, *TPWRD Dec.* 2014 2519-2527

Power system parameter estimation

Shifting Window Average Method for Phasor Measurement at Offnominal Frequencies. Zhang, P., +, TPWRD June 2014 1063-1073

Power system protection

A Trust-Management Toolkit for Smart-Grid Protection Systems. *Fadul, J. E., +, TPWRD Aug. 2014 1768-1779*

Bayes Monte-Carlo Assessment Method of Protection Systems Reliability Based on Small Failure Sample Data. *Dai, Z.,* +, *TPWRD Aug. 2014 1841-1848*

Diagnostic System for Current-Carrying Fault: Modeling, Precaution, and Prediction. Zhang, H., +, TPWRD June 2014 1318-1325

Reachability Analysis for the Verification of Adaptive Protection Setting Selection Logic. *Abdulhadi, I., +, TPWRD Oct. 2014 2206-2214*

Power system relaying

A Novel Power Swing Detection Scheme Independent of the Rate of Change of Power System Parameters. *Jafari*, R., +, *TPWRD June 2014 1192-1202*

Power system reliability

A High-Reliability and Determinacy Architecture for Smart Substation Process-Level Network Based on Cobweb Topology. *Liu, X. S.,* +, *TPWRD April 2014 842-850*

A Novel Parameter Identification Method for Single-Phase Transformers by Using Real-Time Data. *Dirik, H., +, TPWRD June 2014 1074-1082*

A Novel Power Swing Detection Scheme Independent of the Rate of Change of Power System Parameters. *Jafari*, R., +, *TPWRD June 2014 1192-1202*Bayes Monte-Carlo Assessment Method of Protection Systems Reliability Based on Small Failure Sample Data. *Dai*, Z., +, *TPWRD Aug. 2014 1841-1848*

Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

Corrections to "A Novel Method for Evaluating Future Power Distribution System Reliability" [Oct 13 2264-2272]. TPWRD June 2014 1521

Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition. *Gonzales Arispe, J. C.,* +, *TPWRD June 2014 1127-1137* QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. *Kim, D.-K.,* +, *TPWRD April 2014 598-606*

Voltage-Source Control of PV Inverter in a CERTS Microgrid. Du, W., +, TPWRD Aug. 2014 1726-1734

Power system restoration

A Control Scheme for Storageless DVR Based on Characterization of Voltage Sags. *Jothibasu*, S., +, TPWRD Oct. 2014 2261-2269

IEC 61850 Model Expansion Toward Distributed Fault Localization, Isolation, and Supply Restoration. *Ling, W.,* +, *TPWRD June 2014 977-984* Reserve Power Arrangements in Rural Area Underground Cable Networks. *Haakana, J.,* +, *TPWRD April 2014 589-597*

Power system security

A Framework for Wide-Area Monitoring and Control Systems Interoperability and Cybersecurity Analysis. *Chenine, M., +, TPWRD April 2014* 633-641

Multiattribute SCADA-Specific Intrusion Detection System for Power Networks. *Yang*, Y., +, *TPWRD June 2014 1092-1102*

Reserve Power Arrangements in Rural Area Underground Cable Networks. Haakana, J., +, TPWRD April 2014 589-597

Power system simulation

A Hybrid Wavelet Transform and Neural-Network-Based Approach for Modelling Dynamic Voltage-Current Characteristics of Electric Arc Furnace. Chang, G. W., +, TPWRD April 2014 815-824

Frequency-Dependent Modeling of Transformer Winding Impedance From $R(\omega)/L$ Measurements. *Chiesa, N.*, +, *TPWRD June 2014 1511-1513*

IEC 61850-Based Information Model and Configuration Description of Communication Network in Substation Automation. *Zhu*, *L.*, +, *TPWRD Feb. 2014 97-107*

Influence of Potential Difference Within Large Grounding Grid on Fault Current Division Factor. Zhang, B., +, TPWRD Aug. 2014 1752-1759

Multiport Frequency-Dependent Network Equivalent Using a Modified Matrix Pencil Method. *Sheshyekani*, K., +, *TPWRD Oct. 2014 2340-2348*Parallel Massive-Thread Electromagnetic Transient Simulation on GPIL

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Switching Overvoltage Measurements and Simulations—Part I: Field Test Overvoltage Measurements. *Martinez, J. A.*, +, *TPWRD Dec. 2014 2502-2509*

Power system stability

A Gain-Scheduled Decoupling Control Strategy for Enhanced Transient Performance and Stability of an Islanded Active Distribution Network. *Haddadi*, A., +, TPWRD April 2014 560-569

A Method for Averting Saturation From Series Transformers of Dynamic Voltage Restorers. Fernandes, D., +, TPWRD Oct. 2014 2239-2247

A New Algorithm to Stabilize Distance Relay Operation During Voltage-Degraded Conditions. Sharifzadeh, M., +, TPWRD Aug. 2014 1639-1647 A Novel Load-Flow Analysis for Stable and Optimized Microgrid Operation. Elrayyah, A., +, TPWRD Aug. 2014 1709-1717

A VSC-HVDC Decentralized Model Predictive Control Scheme for Fast Power Tracking. *Mariethoz, S., +, TPWRD Feb. 2014 462-471*

Adaptive Control Using Constrained RLS and Dynamic Pole-Shift Technique for TCSCs. Rai, D., +, TPWRD Feb. 2014 224-234

Adaptive PI Control of STATCOM for Voltage Regulation. Xu, Y., +, TPWRD June 2014 1002-1011

Analysis of Active Power Control for VSC-HVDC. Wang, W., +, TPWRD Aug. 2014 1978-1988

Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Stability Design Criteria for Distribution Systems With Solid-State Transformers. Shah, D. G., +, TPWRD Dec. 2014 2588-2595

Stabilization of Large Power Systems Using VSC–HVDC and Model Predictive Control. Fuchs, A., +, TPWRD Feb. 2014 480-488

Power system transient stability

A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation. *El Moursi, M. S.,* +, *TPWRD June 2014* 1157-1167

A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network. *Pal, A., +, TPWRD April 2014 510-517*

Application of Series Voltage Boosting Schemes for Enhanced Fault Ridethrough Performance of Fixed Speed Wind Turbines. *El Moursi, M. S.*, +, *TPWRD Feb. 2014 61-71*

Coordinated Control of Multiterminal DC Grid Power Injections for Improved Rotor-Angle Stability Based on Lyapunov Theory. *Eriksson, R., TPWRD Aug. 2014 1789-1797*

Tools for Characterization and Assessment of Ferroresonance Using 3-D Bifurcation Diagrams. *Corea-Araujo, J. A.*, +, *TPWRD Dec. 2014 2543-2551*

Voltage-Source Control of PV Inverter in a CERTS Microgrid. Du, W., +, TPWRD Aug. 2014 1726-1734

Power system transients

Accurate Computation of Transient Profiles Along Multiconductor Transmission Systems by Means of the Numerical Laplace Transform. Nuricumbo-Guillen, R., +, TPWRD Oct. 2014 2385-2393

Application of Wavelet Transform to Obtain the Frequency Response of a Transformer From Transient Signals—Part II: Practical Assessment and Validation. *Gomez-Luna*, E., +, TPWRD Oct. 2014 2231-2238

Boundary Wavelet Coefficients for Real-Time Detection of Transients Induced by Faults and Power-Quality Disturbances. *Costa, F. B., TPWRD Dec. 2014 2674-2687*

Development of a Novel Protection Device for Bipolar HVDC Transmission Lines. Kong, F., +, TPWRD Oct. 2014 2270-2278

Enhanced Fitting to Obtain an Accurate DC Response of Transmission Lines in the Analysis of Electromagnetic Transients. *Ramirez, A., +, TPWRD Dec.* 2014 2614-2621

Morphology Singular Entropy-Based Phase Selector Using Short Data Window for Transmission Lines. Zhang, L. L., +, TPWRD Oct. 2014 2162-2171

Proximity-Aware Calculation of Cable Series Impedance for Systems of Solid and Hollow Conductors. *Patel, U. R.*, +, *TPWRD Oct. 2014 2101-2109*

Switching Overvoltage Measurements and Simulations—Part I: Field Test Overvoltage Measurements. *Martinez, J. A.*, +, *TPWRD Dec. 2014 2502-2509*

Voltage Stress in a Transformer Winding During Very Fast Transients Caused by Breaker Closing Event. *Abdulahovic, T.,* +, *TPWRD Aug. 2014* 1946-1954

Power systems

Noise Analysis of Power System Frequency Estimated From Angle Difference of Discrete Fourier Transform Coefficient. *Hwang, J. K.,* +, *TPWRD Aug, 2014 1533-1541*

Observability of Hybrid AC/DC Power Systems With Variable-Cost PMUs. Aminifar, F., +, TPWRD Feb. 2014 345-352

Power transformer insulation

Accelerating Dielectric Response Measurements on Power Transformers—Part II: A Regression Approach. Suriyah-Jaya, M., +, TPWRD Oct. 2014 2095-2100

Assessing the Use of Natural Esters for Transformer Field Drying. *Villarroel, R., +, TPWRD Aug. 2014 1894-1900*

Automatic Blind Equalization and Thresholding for Partial Discharge Measurement in Power Transformer. *Chan, J. C.,* +, *TPWRD Aug. 2014 1927-1938*

CFD Study on Thermal Performance of Radiators in a Power Transformer: Effect of Blowing Direction and Offset of Fans. *Paramane, S. B.*, +, *TPWRD Dec. 2014 2596-2604*

Evaluation of Power Transformers' Effective Hot-Spot Factors by Thermal Modeling of Scrapped Units. *Feng, D.,* +, *TPWRD Oct. 2014 2077-2085* Impact of High PV Penetration on Distribution Transformer Insulation Life.

Pezeshki, H., +, TPWRD June 2014 1212-1220

Investigations Into the Stray Gassing of Oils in the Fault Diagnosis of Transformers. Martin, D., +, TPWRD Oct. 2014 2369-2374

Partial Discharge Localization in Power Transformers Using Neuro-Fuzzy Technique. *Homaei, M.*, +, *TPWRD Oct. 2014 2066-2076*

Streaming Electrification Dynamics in the Multilayer Sensor. *Metwally, I. A., +, TPWRD Feb. 2014 168-177*

The Moisture in SF₆ Insulated CTs Considering Current and Change of Ambient Temperature. *Ren, X.*, +, *TPWRD June 2014 1184-1191*

Voltage Stress in a Transformer Winding During Very Fast Transients Caused by Breaker Closing Event. *Abdulahovic, T.,* +, *TPWRD Aug. 2014* 1946-1954

Power transformer protection

A Novel Algorithm to Avoid the Maloperation of UHV Voltage-Regulating Transformers. *Zheng, T., +, TPWRD Oct. 2014 2146-2153*

A Phase-Shifting Transformer Protection Technique Based on Directional Comparison Approach. *Khan, U. N.,* +, *TPWRD Oct. 2014 2315-2323*

Power Transformer Protection Using a Multiregion Adaptive Differential Relay. *Dashti*, H., +, TPWRD April 2014 777-785

Power transformer testing

Study on Oscillating Switching Impulse Voltage Generation for Power Transformer Onsite Test. *Liang, J., +, TPWRD Oct. 2014 2223-2230*

Synthesis and Evaluation of Fast Onload Multitap Changers for Flicker Compensation in AC Arc Furnaces. *Cagigal Olay, C.,* +, *TPWRD Dec.* 2014 2519-2527

Voltage Stress in a Transformer Winding During Very Fast Transients Caused by Breaker Closing Event. *Abdulahovic, T.,* +, *TPWRD Aug. 2014* 1946-1954

Power transformers

A Method for Averting Saturation From Series Transformers of Dynamic Voltage Restorers. Fernandes, D., +, TPWRD Oct. 2014 2239-2247

A Novel Approach to Investigate the Effect of Maintenance on the Replacement Time for Transformers. *Aldhubaib, H. A.*, +, *TPWRD Aug. 2014* 1603-1612

A Novel Parameter Identification Method for Single-Phase Transformers by Using Real-Time Data. *Dirik, H.,* +, *TPWRD June 2014 1074-1082*

A Technique to Mitigate Zero-Sequence Harmonics in Power Distribution Systems. *Bagheri, P., +, TPWRD Feb. 2014 215-223*

Accounting for the Influence of the Tank Walls in the Zero-Sequence Topological Model of a Three-Phase, Three-Limb Transformer. *Zirka, S. E.,* +, *TPWRD Oct. 2014 2172-2179*

Accurate Measurement of the Air-Core Inductance of Iron-Core Transformers With a Non-Ideal Low-Power Rectifier. *de Leon, F., +, TPWRD Feb. 2014 294-296*

Analysis of Buckling Strength of Inner Windings in Transformers Under Radial Short-Circuit Forces. *Bakshi*, A., +, *TPWRD Feb.* 2014 241-245

Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents. *Farazmand*, A., +, TPWRD Aug. 2014 1918-1926

Application of Wavelet Transform to Obtain the Frequency Response of a Transformer From Transient Signals—Part II: Practical Assessment and Validation. *Gomez-Luna, E., +, TPWRD Oct. 2014 2231-2238*

Coupled Electromagnetic-Structural Analysis of the Spiraling Phenomenon in a Helical Winding of a Power Transformer. *Bakshi*, *A.*, +, *TPWRD Feb.* 2014 235-240

Data Requisites for Transformer Statistical Lifetime Modelling—Part II: Combination of Random and Aging-Related Failures. *Zhou, D.,* +, *TPWRD Feb. 2014 154-160*

Detection of Failures Within Transformers by FRA Using Multiresolution Decomposition. *Gonzales Arispe, J. C.,* +, *TPWRD June 2014 1127-1137* Diagnostics of a Transformer's Active Part With Complementary FRA and VM Measurements. *Kornatowski, E.,* +, *TPWRD June 2014 1398-1406*

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. *Wang*, H., +, *TPWRD June 2014 1262-1272*

Improved Computation of Core Inductance for Fast Transient Analysis of Transformers. *Gomez, P., +, TPWRD Aug. 2014 2034-2036*

Interfacing k-Factor Based White-Box Transformer Models With Electromagnetic Transients Programs. *Gustavsen, B., +, TPWRD Dec. 2014 2534-2542*

Ladder Network Parameters Determination Considering Nondominant Resonances of the Transformer Winding. *Shabestary, M. M.*, +, *TPWRD Feb.* 2014 108-117

Lightning Performance of Distribution Transformer Feeding GSM Base Station. Mikropoulos, P. N., +, TPWRD Dec. 2014 2570-2579

Models of Ferroresonant Transformers. Zhilichev, Y., TPWRD Dec. 2014 2631-2639

New Intelligent Semiconductor Transformer With Bidirectional Power-Flow Capability. Lee, J. Y., +, TPWRD Feb. 2014 299-301

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta-Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044*

Optimal Sizing of UPQC Considering VA Loading and Maximum Utilization of Power-Electronic Converters. *Ambati, B. B.,* +, *TPWRD June 2014* 1490-1498

QVT-Based Model Transformation to Support Unification of IEC 61850 and IEC 61970. Kim, D.-K., +, TPWRD April 2014 598-606

Rational Modeling of Multiport Systems via a Symmetry and Passivity Preserving Mode-Revealing Transformation. *Gustavsen, B., TPWRD Feb.* 2014 199-206

Rule-Based Charging of Plug-in Electric Vehicles (PEVs): Impacts on the Aging Rate of Low-Voltage Transformers. *Turker, H., +, TPWRD June 2014 1012-1019*

Stability Design Criteria for Distribution Systems With Solid-State Transformers. Shah, D. G., +, TPWRD Dec. 2014 2588-2595

Study on Transient Recovery Voltages for Transformer-Limited Faults. *Ito*, H., +, TPWRD Oct. 2014 2375-2384

Transformational Benefits of AMI Data in Transformer Load Modeling and Management. Lo, Y.-L., +, TPWRD April 2014 742-750

Transformer Leakage Flux Models for Electromagnetic Transients: Critical Review and Validation of a New Model. *Lambert, M.,* +, *TPWRD Oct. 2014* 2180-2188

Transformer Parameters Estimation From Nameplate Data Using Evolutionary Programming Techniques. *Mossad, M. I.,* +, *TPWRD Oct. 2014* 2118-2123

Transformer Voltage Regulation—Compact Expression Dependent on Tap Position and Primary/Secondary Voltage. *Todorovski, M., TPWRD June* 2014 1516-1517

Wideband Modeling of Power Transformers Using Commercial sFRA Equipment. *Holdyk, A., +, TPWRD June 2014 1446-1453*

Power transmission

A PMU Placement Scheme Ensuring Real-Time Monitoring of Critical Buses of the Network. *Pal, A., +, TPWRD April 2014 510-517*

Power transmission control

A VSC-HVDC Decentralized Model Predictive Control Scheme for Fast Power Tracking. *Mariethoz*, S., +, TPWRD Feb. 2014 462-471

Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids. Silva, B., +, TPWRD Feb. 2014 395-405

Enhancing the Ride-Through Capability of DC-Link Voltage in NPC Multilevel Unified Power-Flow Controllers. *Santos, N. M. R.*, +, *TPWRD Aug.* 2014 1542-1550

High-Power VSC-Based Simultaneous Positive- and Negative-Sequence Voltage Regulator. *Babaei, S., +, TPWRD Oct. 2014 2124-2135*

On the Bipolar MMC-HVDC Topology Suitable for Bulk Power Overhead Line Transmission: Configuration, Control, and DC Fault Analysis. *Xue*, *Y*., +, *TPWRD Dec. 2014 2420-2429*

Optimal Operation of Long Inhomogeneous AC Cable Lines: The Malta–Sicily Interconnector. *Lauria*, S., +, *TPWRD June 2014 1036-1044* Self-Start Control With Grouping Sequentially Precharge for the C-MMC-Based HVDC System. *Xue*, Y., +, *TPWRD Feb. 2014 187-198*

Simultaneous Estimation of the Time of Disturbance and Inertia in Power Systems. Wall, P., +, TPWRD Aug. 2014 2018-2031

Stabilization of Large Power Systems Using VSC-HVDC and Model Predictive Control. Fuchs, A., +, TPWRD Feb. 2014 480-488

Power transmission economics

A New Approach for Benefit Evaluation of Multiterminal VSC–HVDC Using A Proposed Mixed AC/DC Optimal Power Flow. *Feng, W.,* +, *TPWRD Feb. 2014 432-443*

Power Transmission Over Long Distances: Economic Comparison Between HVDC and Half-Wavelength Line. dos Santos, M. L., +, TPWRD April 2014 502-509

Power transmission faults

A Novel Backup Distance Protection Scheme for Series-Compensated Transmission Lines. *Hashemi, S. M.*, +, *TPWRD April 2014 699-707*

A Novel Distance Protection Algorithm for the Phase-Ground Fault. *Zhong*, Y., +, TPWRD Aug. 2014 1718-1725

A Novel Method of Ground Fault Phase Selection in Weak-Infeed Side. *Huang, S., +, TPWRD Oct. 2014 2215-2222*

A Traveling-Wave-Based Methodology for Wide-Area Fault Location in Multiterminal DC Systems. Azizi, S., +, TPWRD Dec. 2014 2552-2560

An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines. *Rubeena*, R., +, TPWRD April 2014 876-883

An Approach for Controlled Reclosing of Shunt-Compensated Transmission Lines. *Dantas, K. M. C.*, +, *TPWRD June 2014 1203-1211*

An Efficient PMU-Based Fault-Location Technique for Multiterminal Transmission Lines. *Jiang, Q., +, TPWRD Aug. 2014 1675-1682*

An Interphase Distance Relaying Algorithm for Series-Compensated Transmission Lines. Xu, Z. Y., +, TPWRD April 2014 834-841

Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. *Elserougi, A. A., +, TPWRD June 2014 1249-1261*

Boundary Wavelet Coefficients for Real-Time Detection of Transients Induced by Faults and Power-Quality Disturbances. *Costa, F. B., TPWRD Dec. 2014 2674-2687*

Circulating Unbalanced Currents of EHV/UHV Untransposed Double-Circuit Lines and Their Influence on Pilot Protection. *Li, B., +, TPWRD April* 2014 825-833

Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids. Silva, B., +, TPWRD Feb. 2014 395-405

Development of a Novel Protection Device for Bipolar HVDC Transmission Lines. *Kong, F., +, TPWRD Oct. 2014 2270-2278*

Efficient Grounding for Modular Multilevel HVDC Converters (MMC) on the AC Side. *Wang, H., +, TPWRD June 2014 1262-1272*

Electromagnetic Dispersion Modeling and Measurements for HVDC Power Cables. *Gustafsson, S.,* +, *TPWRD Dec. 2014 2439-2447*

Fault-Induced Transient Detection Based on Real-Time Analysis of the Wavelet Coefficient Energy. Costa, F. B., TPWRD Feb. 2014 140-153

Impact of UPFC on Power Swing Characteristic and Distance Relay Behavior. *Moravej, Z., +, TPWRD Feb. 2014 261-268*

Improved Fault Location Through Analysis of System Parameters During Autoreclose Operations on Transmission Lines. *Ji, L., +, TPWRD Dec.* 2014 2430-2438

Morphology Singular Entropy-Based Phase Selector Using Short Data Window for Transmission Lines. *Zhang, L. L., +, TPWRD Oct.* 2014 2162-2171

Multiterminal HVDC Networks—What is the Preferred Topology?. *Bucher*, *M. K.*, +, *TPWRD Feb. 2014 406-413*

Natural Frequency-Based Line Fault Location in HVDC Lines. *He, Z.-Y.*, +, *TPWRD April 2014 851-859*

Overview of Grounding and Configuration Options for Meshed HVDC Grids. Leterme, W., +, TPWRD Dec. 2014 2467-2475

Transmission-Line Fault Analysis Using Synchronized Sampling. *Dutta*, *P.*, +, *TPWRD April 2014 942-950*

Unsynchronized Fault Location Based on the Negative-Sequence Voltage Magnitude for Double-Circuit Transmission Lines. *Mahamedi, B., +, TPWRD Aug. 2014 1901-1908*

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. Nayak, P. K., +, TPWRD Aug. 2014 1970-1977

Power transmission lines

A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part I: Methodological Aspects. Salari, J. C., TPWRD Aug. 2014 1578-1585

A Methodology for Computing Transmission-Line Short Circuits Caused by Direct and Nearby Ground Lightning Incidence—Part II: Application Examples. *Salari, J. C., TPWRD Aug. 2014 1586-1590*

A New Cross-Differential Protection Scheme for Parallel Transmission Lines Including UPFC. *Tripathy, L. N.,* +, *TPWRD Aug. 2014 1822-1830*

A Novel Backup Distance Protection Scheme for Series-Compensated Transmission Lines. *Hashemi, S. M.*, +, *TPWRD April 2014 699-707*

A Novel Method of Ground Fault Phase Selection in Weak-Infeed Side. Huang, S., +, TPWRD Oct. 2014 2215-2222

An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines. *Rubeena*, R., +, TPWRD April 2014 876-883

An Approach for Controlled Reclosing of Shunt-Compensated Transmission Lines. *Dantas, K. M. C.*, +, *TPWRD June 2014 1203-1211*

An Interphase Distance Relaying Algorithm for Series-Compensated Transmission Lines. Xu, Z. Y., +, TPWRD April 2014 834-841

Breakdown Process Experiments of 110- to 500-kV Insulator Strings Under Short Tail Lightning Impulse. *Wang, X., +, TPWRD Oct. 2014 2394-2401* Characteristics of Secondary AC Arc Column Motion Near Power Trans-

mission-Line Insulator String. *Li*, *Q*., +, *TPWRD Oct. 2014 2324-2331* Circulating Unbalanced Currents of EHV/UHV Untransposed Double-Circuit Lines and Their Influence on Pilot Protection. *Li*, *B*., +, *TPWRD April 2014 825-833*

Comparison of the Characteristics of Upward Leader Emerging From the Ground Wire and Conductor. *Li*, *Z.*, +, *TPWRD April 2014 708-715*

Corona Onset Characteristics of the 750-kV Bundle Conductor in Sand and Dust Weather in High-Altitude Area. *Liu, Y., +, TPWRD April 2014 615-623*

Development of a Novel Protection Device for Bipolar HVDC Transmission Lines. *Kong, F., +, TPWRD Oct. 2014 2270-2278*

Effects of System Characteristics on Geomagnetically Induced Currents. Zheng, K., +, TPWRD April 2014 890-898

Enhanced Fitting to Obtain an Accurate DC Response of Transmission Lines in the Analysis of Electromagnetic Transients. *Ramirez, A., +, TPWRD Dec.* 2014 2614-2621

Enhanced Voltage Drop Control by VSC-HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

Fault-Induced Transient Detection Based on Real-Time Analysis of the Wavelet Coefficient Energy. Costa, F. B., TPWRD Feb. 2014 140-153

Identification of Lightning Stroke Due to Shielding Failure and Back-flashover for Ultra-High-Speed Transmission-Line Protection. *Morales*, *J.*, +, *TPWRD Aug. 2014 2008-2017*

Improved Fault Location Through Analysis of System Parameters During Autoreclose Operations on Transmission Lines. *Ji, L.,* +, *TPWRD Dec.* 2014 2430-2438

Induced Voltage of Overhead Ground Wires in 50 0-kV Single-Circuit Transmission Lines. Wang, J., +, TPWRD June 2014 1054-1062

Influence of Ambient Electric Field on the Corona Performance of HVdc Transmission Lines. *Maruvada, P. S., TPWRD April 2014 691-698*

Leak Detection in Slow Oscillation High-Pressure Fluid-Filled Circuits. Tylman, W., +, TPWRD April 2014 769-776

Morphology Singular Entropy-Based Phase Selector Using Short Data Window for Transmission Lines. Zhang, L. L., +, TPWRD Oct. 2014 2162-2171

Multiport High-Power LCL DC Hub for Use in DC Transmission Grids. *Jovcic*, D., +, *TPWRD April 2014 760-768*

Observability of Hybrid AC/DC Power Systems With Variable-Cost PMUs. Aminifar, F., +, TPWRD Feb. 2014 345-352

Oscillation Damping of a Distributed Generator Using a Virtual Synchronous Generator. Shintai, T., +, TPWRD April 2014 668-676

Parallel Massive-Thread Electromagnetic Transient Simulation on GPU. *Zhou, Z., +, TPWRD June 2014 1045-1053*

Power Transmission Over Long Distances: Economic Comparison Between HVDC and Half-Wavelength Line. dos Santos, M. L., +, TPWRD April 2014 502-509

Power-Line Communication Channel Characteristics Under Transient Model. Liu, S., +, TPWRD Aug. 2014 1701-1708

Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part II: Conductor and Damper Model. *Langlois, S., +, TPWRD June 2014 1176-1183*

Preventing Bird Streamer Outages Using Alternative Tower Configurations. Taklaja, P., +, TPWRD Oct. 2014 2402-2409

Relevant Parameters in a Statistical Analysis—Application to Transmission-Line Energization. *Mestas, P., +, TPWRD Dec. 2014 2605-2613*

Robust Calculation of Frequency-Dependent Transmission-Line Transformation Matrices Using the Levenberg-Marquardt Method. *Chrysochos, A. I., +, TPWRD Aug. 2014 1621-1629*

Skewness-Based Differential Protection Scheme for EHV/UHV Transmission Lines. Zhang, L. L., +, TPWRD June 2014 1518-1520

Technical Guidelines and Prestandardization Work for First HVDC Grids. Akhmatov, V., +, TPWRD Feb. 2014 327-335

The Loadability of Overhead Transmission Lines—Part II: Analysis of Double-Circuits and Overall Comparison. *Lauria*, *D.*, +, *TPWRD April* 2014 518-524

Unsynchronized Fault Location Based on the Negative-Sequence Voltage Magnitude for Double-Circuit Transmission Lines. *Mahamedi, B., +, TPWRD Aug. 2014 1901-1908*

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. Nayak, P. K., +, TPWRD Aug. 2014 1970-1977

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A New Cross-Differential Protection Scheme for Parallel Transmission Lines Including UPFC. *Tripathy, L. N.,* +, *TPWRD Aug. 2014 1822-1830*

A Novel Backup Distance Protection Scheme for Series-Compensated Transmission Lines. *Hashemi, S. M.,* +, *TPWRD April 2014 699-707*

A Novel Distance Protection Algorithm for the Phase-Ground Fault. *Zhong*, *Y.*, +, *TPWRD Aug*. 2014 1718-1725

A Novel Method of Ground Fault Phase Selection in Weak-Infeed Side. Huang, S., +, TPWRD Oct. 2014 2215-2222

An Accurate Offline Phasor Estimation for Fault Location in Series-Compensated Lines. Rubeena, R., +, TPWRD April 2014 876-883

An Interphase Distance Relaying Algorithm for Series-Compensated Transmission Lines. Xu, Z. Y., +, TPWRD April 2014 834-841

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Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators. He, L., +, TPWRD April 2014 493-501

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Skewness-Based Differential Protection Scheme for EHV/UHV Transmission Lines. Zhang, L. L., +, TPWRD June 2014 1518-1520

System-Level Tests of Transformer Differential Protection Using an IEC 61850 Process Bus. *Ingram, D. M. E.,* +, *TPWRD June 2014 1382-1389* Transmission-Line Fault Analysis Using Synchronized Sampling. *Dutta, P.,* +, *TPWRD April 2014 942-950*

Wide-Area Measurement-Based Backup Protection for Power Network With Series Compensation. Nayak, P. K., +, TPWRD Aug. 2014 1970-1977

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Circulating Unbalanced Currents of EHV/UHV Untransposed Double-Circuit Lines and Their Influence on Pilot Protection. *Li, B., +, TPWRD April* 2014 825-833

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Identification of Lightning Stroke Due to Shielding Failure and Back-flashover for Ultra-High-Speed Transmission-Line Protection. *Morales*, *J.*, +, *TPWRD Aug. 2014 2008-2017*

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Effective Noise Cancellation Using Single-Carrier FDMA Transmission in Power-Line Channels. Rabie, K. M., +, TPWRD Oct. 2014 2110-2117

Method to Assess the Power-Quality Impact of Plug-in Electric Vehicles. Jiang, C., +, TPWRD April 2014 958-965

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Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

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Impact of Unified Power-Quality Conditioner Allocation on Line Loading, Losses, and Voltage Stability of Radial Distribution Systems. *Ganguly, S., TPWRD Aug. 2014 1859-1867*

Importance of Voltage Reduction and Optimal Voltage Setting During Reactive Power Compensation. Paul, S., +, TPWRD Aug. 2014 1999-2007

Investigation Into Islanding Detection With Capacitor Insertion-Based Method. Bejmert, D., +, TPWRD Dec. 2014 2485-2492

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Chaotic PSO-Based VAR Control Considering Renewables Using Fast Probabilistic Power Flow. Hong, Y.-Y., +, TPWRD Aug. 2014 1666-1674

Distance Protection of AC Grid With HVDC-Connected Offshore Wind Generators. He, L., +, TPWRD April 2014 493-501

Enhancing the Ride-Through Capability of DC-Link Voltage in NPC Multilevel Unified Power-Flow Controllers. *Santos, N. M. R.*, +, *TPWRD Aug.* 2014 1542-1550

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Enhancing the Ride-Through Capability of DC-Link Voltage in NPC Multilevel Unified Power-Flow Controllers. *Santos, N. M. R.*, +, *TPWRD Aug.* 2014 1542-1550

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A Multifeature-Based Approach for Islanding Detection of DG in the Subcritical Region of Vector Surge Relays. *Alam, M. R.*, +, *TPWRD Oct. 2014* 2349-2358

A New Method of Current-Transformer Saturation Detection in the Presence of Noise. *Schettino, B. M.,* +, *TPWRD Aug. 2014 1760-1767*

A Novel Backup Distance Protection Scheme for Series-Compensated Transmission Lines. *Hashemi, S. M.*, +, *TPWRD April 2014 699-707*

A Novel Distance Protection Algorithm for the Phase-Ground Fault. *Zhong*, Y., +, TPWRD Aug. 2014 1718-1725

A Novel Fault Current Control Scheme to Reduce Synchronous DG's Impact on Protection Coordination. *Yazdanpanahi, H.,* +, *TPWRD April 2014*

An Innovative Directional Relaying Scheme Based on Postfault Current. Jalilian, A., +, TPWRD Dec. 2014 2640-2647

An Interphase Distance Relaying Algorithm for Series-Compensated Transmission Lines. Xu, Z. Y., +, TPWRD April 2014 834-841

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Impact of Midpoint STATCOM on Generator Loss of Excitation Protection. Elsamahy, M., +, TPWRD April 2014 724-732 Impact of UPFC on Power Swing Characteristic and Distance Relay Behavior. Moravej, Z., +, TPWRD Feb. 2014 261-268

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Lightning Performance of Distribution Transformer Feeding GSM Base Station. Mikropoulos, P. N., +, TPWRD Dec. 2014 2570-2579

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Behavior of Single-Phase Transformers Under Geomagnetically Induced Current Conditions. *Rezaei-Zare, A., TPWRD April 2014 916-925*

Cascaded Two-Level Inverter-Based Multilevel STATCOM for High-Power Applications. Surendra Babu, N. N. V., +, TPWRD June 2014 993-1001

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Evaluation of Power Transformers' Effective Hot-Spot Factors by Thermal Modeling of Scrapped Units. *Feng, D., +, TPWRD Oct. 2014 2077-2085* Finite-Element Modeling for Analysis of Radial Deformations Within Transformer Windings. *Zhang, Z. W., +, TPWRD Oct. 2014 2297-2305*

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A Tripole HVDC System Based on Modular Multilevel Converters. Xu, F., +, TPWRD Aug. 2014 1683-1691

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Improved Coupled Ion-Flow Field Calculation Method for AC/DC Hybrid Overhead Power Lines. *Guillod, T., +, TPWRD Dec. 2014 2493-2501* Influence of Wind on the Electric Field and Ion Current Environment of HVDC Transmission Lines. *Maruvada, P. S., TPWRD Dec. 2014 2561-2569*

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Prediction of Aeolian Vibration on Transmission-Line Conductors Using a Nonlinear Time History Model—Part II: Conductor and Damper Model. *Langlois, S., +, TPWRD June 2014 1176-1183*

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Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. *Elserougi, A. A., +, TPWRD June 2014 1249-1261*

Control Strategies for AC Fault Ride Through in Multiterminal HVDC Grids. Silva, B., +, TPWRD Feb. 2014 395-405

Enhanced Voltage Drop Control by VSC–HVDC Systems for Improving Wind Farm Fault Ridethrough Capability. *Erlich, I.,* +, *TPWRD Feb. 2014* 378-385

Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study. *Mitra*, *P.*, +, *TPWRD Feb.* 2014 453-461

Optimizing Wind Power Hosting Capacity of Distribution Systems Using Cost Benefit Analysis. *Nursebo*, S., +, *TPWRD June 2014 1436-1445*

Stochastic Multiperiod OPF Model of Power Systems With HVDC-Connected Intermittent Wind Power Generation. *Rabiee, A., +, TPWRD Feb.* 2014 336-344

Transformer-Less Series Reactive/Harmonic Compensation of Line-Commutated HVDC for Offshore Wind Power Integration. *Jafar, M., +, TPWRD Feb. 2014 353-361*

Tuning of a Damping Controller for Multiterminal VSC-HVDC Grids Using the Probabilistic Collocation Method. *Preece, R., +, TPWRD Feb. 2014* 318-326

Wind tunnels

A Numerical Approach to Reproduce Subspan Oscillations and Comparison With Experimental Data. *Diana, G.,* +, *TPWRD June 2014 1311-1317* Wind Tunnel Tests on Two Cylinders to Measure Subspan Oscillation Aerodynamic Forces. *Diana, G.,* +, *TPWRD June 2014 1273-1283*

Wind turbines

A Dynamic Master/Slave Reactive Power-Management Scheme for Smart Grids With Distributed Generation. *El Moursi, M. S.*, +, *TPWRD June 2014* 1157-1167

A Hierarchical Framework for Generation Scheduling of Microgrids. Wu, X., +, TPWRD Dec. 2014 2448-2457

Application of Series Voltage Boosting Schemes for Enhanced Fault Ridethrough Performance of Fixed Speed Wind Turbines. *El Moursi, M. S.*, +, *TPWRD Feb. 2014 61-71*

Windings

Correction to "Estimation of Series Capacitance of a Transformer Winding Based on Frequency-Response Data: An Indirect Measurement Approach" [Oct 11 2870-2878]. *Pramanik, S., +, TPWRD Feb. 2014 302-303*

Interfacing k-Factor Based White-Box Transformer Models With Electromagnetic Transients Programs. *Gustavsen, B., +, TPWRD Dec. 2014 2534-2542*

Wireless channels

Diversity Relaying for Parallel Use of Power-Line and Wireless Communication Networks. *Lee, J.-H., +, TPWRD June 2014 1301-1310*

Evaluation of ZigBee Wireless Sensor Networks Under High Power Disturbances. Sallabi, F. M., +, TPWRD Feb. 2014 13-20

Wireless sensor networks

Evaluation of ZigBee Wireless Sensor Networks Under High Power Disturbances. Sallabi, F. M., +, TPWRD Feb. 2014 13-20

Wires (electric)

Comparison of the Characteristics of Upward Leader Emerging From the Ground Wire and Conductor. *Li*, *Z*., +, *TPWRD April 2014 708-715*

Wood

Age-Dependent Fragility Models of Utility Wood Poles in Power Distribution Networks Against Extreme Wind Hazards. *Shafieezadeh, A., +, TPWRD Feb. 2014 131-139*

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XLPE insulation

An Improved Technique for Online PD Detection on Covered Conductor Lines. Zhang, W., +, TPWRD April 2014 972-973

 \mathbf{Z}

Zero current switching

A Transformerless DC–DC Converter With Large Voltage Ratio for MV DC Grids. *Athab, H.,* +, *TPWRD Aug. 2014 1877-1885*

Zero voltage switching

A Transformerless DC–DC Converter With Large Voltage Ratio for MV DC Grids. *Athab, H.,* +, *TPWRD Aug. 2014 1877-1885*

Zigbee

Evaluation of ZigBee Wireless Sensor Networks Under High Power Disturbances. Sallabi, F. M., +, TPWRD Feb. 2014 13-20