

Poster sessions

Session 1A – RES Integration I

Tuesday, 30 June, 9:00 - 10:30

Paper ID	Title / Author(s)
462084	Inertial Frequency Response Estimation in a Power System With High Wind Energy Penetration <i>Lara-Jimenez J.D., Ramirez J.M.</i>
459721	A Comparative Analysis of Intelligent Classifiers for Passive Islanding Detection in Microgrids <i>Azim R., Sun K., Li F., Zhu Y., Saleem H.A., Shi D., Sharma R.</i>
465528	Small and Large Signal Stability Analysis of IMPSA Wind Power Plant Integration on Vietnamese Power System <i>Duong M.Q., Le K.H., Tran V.T., Nguyen-Huu H., Grimaccia F., Leva S., Mussetta M.</i>
462268	Dynamic Reserves Quantification for Variable Time Resolution Scheduling <i>Bakirtzis E.A., Biskas P.N., Bakirtzis A.G.</i>
461375	The Large-scale Wind Power Integration Using The Integrated Heating Load and Heating Storage Control <i>Yang Y., Wu K., Yan X., Gao J., Long H.</i>
461127	Improvement of DC and AC Side Performance of Renewable Source Inverters Under Asymmetrical Fault Conditions <i>de Almeida P.M., Barbosa P.G., Duarte J.L., Ribeiro P.F.</i>
462499	The Voltage Control for Reactive Power Management by Decentralized Wind Farms <i>Cabadag R.I., Schmidt U., Schegner P.</i>
476656	Fair Power Curtailment of Distributed Renewable Energy Sources to Mitigate Overvoltages in Low-Voltage Networks <i>Viyathukattuva Mohamed Ali M.M., Nguyen P.H., Kling W.L., Chrysochos A.I., Papadopoulos T.A., Papagiannis G.K.</i>
463417	Intelligent Day-Ahead Scheduling for Distribution Networks With High Penetration of Distributed Renewable Energy Sources <i>Swaminathan B.P., Debusschere V., Caire R.</i>
461386	Hour-ahead Energy Resource Management in University Campus Microgrid <i>Silva M., Fernandes F., Morais H., Ramos S., Vale Z.</i>
473079	Primary Reserve Studies for High Wind Power Penetrated Systems <i>Das K., Altin M., Hansen A.D., Sørensen P.E., Abildgaard H.</i>
458393	Review of Technical and Economic Challenges for Implementing Rural Microgrids in South Africa <i>Patel H.P., Chowdhury S.</i>

- [475117](#) **Integration of PV System into LV Distribution Networks with Demand Response Application**
Gan C.K., Shamshiri M., Pudjianto D.
- [461644](#) **Optimal Operational Planning for PV-Wind-Diesel-Battery Microgrid**
Moshi G.G., Bovo C., Berizzi A.
- [476965](#) **Trade-offs between energy-environmental-economic objectives for China's power decarbonization policies**
Li Y., Lukszo Z., Weijnen M.
- [462094](#) **Integration of DG Sources for Compensation of Unbalanced Loads in the Power Grid**
Pouresmaeil E., Shaker H.R., Veje C.T., Shokridehaki M., Rodrigues E.M.G., Catalão J.P.S.

Session 1B - RES Integration II

Tuesday, 30 June, 9:00 - 10:30

Paper ID	Title / Author(s)
459918	A statistical analysis of the frequency response in an isolated power system with an increasing share of photo-voltaic generation <i>Cardozo C., Capely L., Lacoste J., Dessante P.</i>
462500	Multifunctional Control of an NPC Converter for the Grid Integration of Renewable Energy Sources <i>Pouresmaeil E., Shaker H.R., Jørgensen B.N., Shokridehaki M., Rodrigues E.M.G., Catalão J.P.S.</i>
462448	Developing a Hierarchical Scheme for Outage Management in Multi-Microgrids <i>Farzin H., Fotuhi-Firuzabad M., Moeini-Aghtaie M.</i>
464388	PV Architectures for DC Microgrids using Buck or Boost Exclusive Microconverters <i>Marafante E., Mackay L., Hailu T.G., Chandra Mouli G.R., Ramirez-Elizondo L., Bauer P.</i>
461384	Study and Analysis of Wind Curtailment Situations and Developing an Appropriated Methodology for its Management <i>Boldt D., Faria P., Vale Z.</i>
463005	On Determining the Control Techniques Embedded in a Commercial Single-Phase Grid-Tied PV Inverter <i>Peng W., Blackstone B., Mohammad Z., Ginobbi P., Baghzouz Y.</i>
462280	Optimal Sizing and Management of a Smart Microgrid for Prevailing Self-Consumption <i>Ghiani E., Vertuccio C., Pilo F.</i>
461757	Smart design is more effective than smart grids <i>McKula Gutierrez L.P., Kling W.L., van Blijderveen M., Kamerbeek S., Wustmans M., van der Velde R., Bongaerts M.</i>
424847	Spinning Reserve Computation for a Power System with WPG using Point-Estimate Methods <i>Achury N., Rios M.A.</i>
462456	Operating power reserve quantify through PV generation uncertainty analysis of a microgrid <i>Yan X., Francois B., Abbas D.</i>
462794	Stochastic Day-Ahead Scheduling of Thermal and Hybrid Units in Insular Power Systems with High Wind Penetration <i>Ntomaris A.V., Bakirtzis A.G.</i>
461985	Smart voltage control in distribution networks with a large share of distributed renewable generation <i>Papazacharopoulos N., Gibescu M., Vaessen P.</i>
457168	Power System Transient Stability Analysis in the Case of High-Penetration

Photovoltaics (Part 2)

Yagami M., Ishikawa S., Ichinohe Y., Misawa K., Tamura J.

[457242](#)

Impact of a Photovoltaic Power Plant Connection on the Power System

Dulau L.I., Abrudean M., Bica D.

[462569](#)

Under Frequency Load Shedding Schemes in Systems with High PV Penetration: Impact and Improvements

De Boeck S., Van Hertem D.

[461935](#)

Use of Energy Storage Systems in Low Voltage Networks with High Photovoltaic System Penetration

Klabunde C., Moskalenko N., Styczynski Z., Lombardi P., Komarnicki P.

Session 2A - Advanced diagnostic and monitoring techniques

Tuesday, 30 June, 11:00 - 12:30

Paper ID	Title / Author(s)
443875	Transmission Line Parameter Error Detection, Identification, and Correction With Geometrical View: Topological Errors <i>Bretas N.G., Martins A.C.P.</i>
461217	A Fuzzy Approach for Disturbances Diagnosis and Fault Classification in Power Plants <i>Cieslak D.A.G., Moreto M.</i>
460697	Intelligent System for Fault Detection in Wind Turbines Gearbox <i>Brandão R.F.M., Carvalho J.A.B., Barbosa F.P.M.</i>
458390	Warm-commissioning Tool of the Data Chain of Digital Measurement Systems <i>Aprilia E., Le T., Campfens F.</i>
462164	On-Line Performance Monitoring of a Transmission Line using Synchrophasor Measurements <i>de Jager F.A., Rens A.P.J.</i>
462925	Impact of thermal and electrical aging on Breakdown Strength of Oil-impregnated Paper <i>Ghaffarian Niasar M., Taylor N., Edin H., Clemence kiiza R.</i>
497529	Expert system to support maintenance scheduling of high voltage circuit breakers <i>dos Santos D.T., Gisèle Rolim J.</i>
447043	A New Method of Fault Loop Resistance Measurement in Low Voltage Systems with Residual Current Devices <i>Czapp S., Borowski K., Dobrzynski K., Klucznik J., Lubosny Z.</i>
473884	Underground Power Cable Diagnostics: Online Defect Positioning <i>Dong Z., Li Y., Wouters P.A.A.F., Wagenaars P., Steennis E.F.</i>
461840	A Simplified Approach to Detect Undervoltage Tripping of Wind Generators <i>Sigrist L., Rouco L.</i>
460843	Distribution transformer mid-term heavy load and overload pre-warning based on logistic regression <i>Li M., Zhou Q., Yang Z.</i>
462130	Comparison of IEEE and CIGRE methods for predicting Thermal Behaviour of Powerlines and their relevance to Distribution Networks <i>Bangay J., Coleman M., Batten R.</i>
462468	Fault Prevention by Recognition and Localization of Self-Extinguishing Faults <i>Gu T., Provoost F., Bos W.</i>
461863	A Comparative Case Study of Online Voltage Instability Monitoring <i>Duong D.T., Uhlen K., Taranto G.N., Løvlund S.</i>

[477012](#) **Disturbance Detection of Wide Area Power Systems by use of Short-term Synchrophasor Data**
Ota Y.

[459407](#) **Impact of Measurement Signals on the Accuracy of On-line Identification of Power System Dynamic Signature**
Papadopoulos P.N., Guo T., Wang X., Milanovic J.V.

[478210](#) **Synchronized measurements and power quality assessment**
Dumitrescu A.M., Roman R., Albu M.

Session 2B - Network protection and distribution automation

Tuesday, 30 June, 11:00 - 12:30

Paper ID	Title / Author(s)
461830	On the Problem of Shunt Reactor Tripping during Single- and Three-Phase Auto-Reclosing <i>Panasetsky D.A., Osak A.B.</i>
462142	Two-Terminal Out-of-Step Protection for Multi-Machine Grids Using Synchronised Measurements <i>Sauhats A., Svalova I., Svalovs A., Antonovs D., Utans A., Bochkarjova G.</i>
461848	Impact of arc impedance on earth fault currents in medium voltage cable networks <i>Bernards R., Morren J., Slootweg J.G.</i>
467638	Voltage Profile Analysis for Fault Distance Estimation in Distribution Network <i>Teninge A., Pajot C., Raison B., Picault D.</i>
465892	Fault Distance Estimation in Distribution Network for high impedance faults <i>Dasco A., Marguet R., Raison B.</i>
461842	Protection Strategies for LVDC Distribution System <i>Satpathi K., Ukil A.</i>
455833	Differentiation of Fault and Load Change in HVDC System using Amplitude Tracking Square Wave <i>Yeap Y.M., Ukil A.</i>
459058	A Fault Location Method for Double-circuit HVDC Transmission Lines on the Same Tower Based on Mixed Modulus <i>Qiu Y., Li H., Guo L., Wu J., Liang Y.</i>
459365	Influence of Ion Current on Current Transformers of AC Systems in near vicinity of DC Systems <i>Romeis C., Jaeger J., Steckler K., Keil T.</i>
473691	Reduced DC Circuit Breaker Requirement on Mixed Converter HVDC Networks <i>Chaffey G., Green T.C.</i>
462580	Distribution Automation System for Service Restoration Involving Simultaneous Disconnection and Reconnection of Distributed Generators <i>Kawano S., Fujimoto Y., Wakao S., Hayashi Y., Takenaka H., Irie H., Nakajima T.Y.</i>
463232	Test Bed: 4G LTE Pertinence for Power Distribution Networks <i>Sanchez J., Braconnier T., Caire R., Sibileau N., Chotard L.</i>
464715	Voltage-controlled Overcurrent Relay for a Wind Farm Having Looped Collection Circuits <i>Kim T., Kang S., Seo W., Kim M.</i>
447210	Optimal Number, Type and Location of Remotely Controlled and Supervised Devices

in Distribution Networks

Popovic Z., Knezevic S., Brbaklic B.

[462533](#)

Precise Impedance Based Fault Location Algorithm with Fault Resistance Separation

Washer M., Maun J., Dzienis C., Kereit M., Yelgin Y., Blumschein J.

[461132](#)

Elimination of transmission system overloads through branch switching

Pinheiro D.C., Castro C.A.

[462049](#)

Systematic Method for the Development of Future Active Distribution Network Automation Architectures

Riccobono A., Angioni A., Ponci A., Monti A., Giustina D.D., Dedé A., Repo S.

Session 3A - Electric vehicle prospects and network interaction

Tuesday, 30 June, 13:30 - 15:00

Paper ID	Title / Author(s)
463479	Reactive Power Support of Electrical Vehicle Charging Station Upgraded with Flywheel Energy Storage System <i>Sun B., Dragicevic T., Savaghebi M., Vasquez J.C., Guerrero J.M.</i>
462415	Improving and Handling Electric Vehicle Penetration Level by Different Smart Charging Algorithms in Distribution Grids <i>Kordkheili R.A., Bak-Jensen B., Pillai J.R., Bhattarai B.P.</i>
424843	Demand Forecasting Associated with Electric Vehicle Penetration on Distribution Systems <i>Botero A.F., Rios M.A.</i>
424416	Grid Impact of Charging Electric Vehicles; Study Cases in Denmark, Germany and The Netherlands <i>van der Burgt J., Vera S.P., Wille-Haussmann B., Andersen A.N., Tambjerg L.H.</i>
460015	Investigation of the impact of electric vehicles on the German market for control reserve <i>Wolfram M., Schlegel S., Westermann D.</i>
460742	Impact of Peak Electricity Demand in Distribution Grids: A Stress Test <i>Hoogsteen G., Molderink A., Hurink J.L., Smit G.J.M., Schuring F., Kootstra B.</i>
462804	Integration of traffic and grid simulator for the analysis of e-mobility impact on power distribution networks <i>Bedogni L., Bononi L., Borghetti A., Bottura R., D'Elia A., Salmon Cinotti T.</i>
462073	Quantum-based PSO applied to Hour-Ahead Scheduling in the Context of Smart Grid Management <i>Soares J., Silva M., Vale Z., de Moura Oliveira P.B.</i>
462657	Hierarchical Approach for Optimal Operation of Distribution Grid and Electric Vehicles <i>Paudyal S., Bharati G.R.</i>
425227	System Frequency Control by LFC Signal Equipartition Method Based on Slow Smart Charging of Electric Vehicle <i>Adachi T., Yokoyama A.</i>
462608	Optimal Allocation of PHEV Parking Lots to Minimize Distribution System Losses <i>Mazidi M., Fotuhi-Firuzabad M., Abbaspour A., Rastegar M.</i>
462695	Modeling the PEV Traffic Pattern in an Urban Environment with Parking Lots and Charging Stations <i>Neyestani N., Damavandi M.Y., Shafie-khah M., Catalão J.P.S.</i>
462827	Impacts of Different Renewable Energy Resources on Optimal Behavior of Plug-in Electric Vehicle Parking Lots in Energy and Ancillary Services Markets

Gil F.A.S, Shafie-khah M., Bizuayehu A.W., Catalão J.P.S.

[470119](#)

The Car as Power Plant: Towards socio-technical systems integration

Park Lee E., Chappin E, Lukszo Z., Herder P.

[462846](#)

Multi-objective Distribution Planning Approach for Optimal Network Investment with EV Charging Control

Dias A., Carvalho P.M.S., Almeida P., Rapoport S.

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Fuzzy Approach for Online Coordination of Plug-In Electric Vehicle Charging in Smart Grid

Masoum A., Deilami S., Abu-Siada A., Masoum M.

¹ IEEE Transactions on Sustainable Energy, Vol. 6, No. 3, July 2015, pp. 1112-1121

Session 3B - Applications of storage technologies

Smart energy systems in the built environment

Tuesday, 30 June, 13:30 - 15:00

Paper ID	Title / Author(s)
493908	Assessing Distributed Storage Management in LV Grids with the Smart Grid Metrics Framework <i>Rui H., Wellssow W.H.</i>
462120	Option Value of Soft Open Points in Distribution Networks <i>Giannelos S., Konstantelos I., Strbac G.</i>
462856	Day-ahead Primary Power Reserve Planning and Day-D Primary Frequency Control of a Li-Ion Battery <i>Amamra S., Francois B., Lugaro J.</i>
462930	Impacts of future residential electricity demand and storage systems on 'classic' LV-network design <i>Coumans D.J.S., Grond M.O.W., Coster E.J.</i>
462273	Agent Based Coordination of Distributed Energy Storage Devices in Future Distribution Grids <i>Unger D., Myrzik J.M.A.</i>
461706	Battery Energy Storage Efficiency Calculation Including Auxiliary Losses: Technology Comparison and Operating Strategies <i>Gatta F.M., Geri A., Lauria S., Maccioni M., Palone F.</i>
443552	Optimal Operation of Combined Cooling Heat and Power Microgrid With PEVs <i>Wu T., Mai W., Qin M., Zhang C., Li J., Nie Y., Liu J., Chung C.Y.</i>
424442	Demonstration of the Smart Energy Neighbourhood Management System in the VIMSEN Project <i>van der Burgt J., Sauba G., Varvarigos E., Makris P.</i>
460789	Energy Hub Modelling and Optimisation: An Analytical Case-Study <i>Beccuti G., Demiray T., Batic M., Tomasevic N., Vranes S.</i>
477561	Benchmarking algorithms for resource allocation in smart buildings <i>Markidis S., Mocanu E., Gibescu M., Nguyen P.H., Kling W.L.</i>
462135	Model Analysis of a Residential Building for Demand Response <i>Zhao Z., Verbic G., Fiorito F.</i>
462928	PV Penetration Scenario Generator based on Maximum Hosting Capacity and Statistic Data <i>Stifter M., Zehetbauer P., Bletterie B.</i>
460736	Quantifying the Flexibility of Residential Electricity Demand in 2050: a Bottom-Up Approach

van Stiphout A., Engels J., Guldentops D., Deconinck G.

[460832](#)

A Framework for Grid-Edge Resilience Improvement Using Homes and Microgrids Coordination

Roche R., Celik B., Bouquain D., Miraoui A.

[461341](#)

Optimal Power Flow with Energy Storage Systems: Single-period Model vs. Multi-period Model

Nguyen N.T.A., Le D.D., Bovo C., Berizzi A.

[469002](#)

Hourly Electricity Load Modelling of non-residential Passive Buildings in a Nordic Climate

Lindberg K.B., Doorman G., Chacon J.E., Fischer D.

[474026](#)

Control of a Battery Energy Storage System Accounting for the Charge Redistribution Effect to Dispatch the Operation of a Medium Voltage Feeder

Sossan F., Torregrossa D., Namor E., Cherkaoui R., Paolone M.

Session 4A - Power system dynamics and stability

Tuesday, 30 June, 15:30 - 17:00

Paper ID	Title / Author(s)
501917	DREAM: an ICT architecture framework for heterarchical coordination in power systems <i>Kamphuis I.G., Wijbenga J.P., van der Veen J.S., Macdougall P., Faeth M.</i>
456270	Impact of Penetration of Non-Synchronous Generators on Power System Dynamics <i>Papadopoulos P.N., Milanovic J.V.</i>
459255	A Novel Approach for Analytical Modeling of Line Commutated Converter based HVDC Systems for Electromagnetic Transient Analysis <i>Probst L., Hahn C., Luther M.</i>
462812	Direct Methods for Stability Assessment of Two-Time-Scale Electrical Power System Models <i>Pillco E.C., Alberto L.F.C.</i>
441352	Effect of DG modeling and controllers on the transient stability of micro-grids in EMT simulation <i>Amiri M., Vega T.Y., Gole A.M.</i>
461913	Development of Phasor Type Model of PMSG based Wind Farm for Dynamic Simulation Analysis <i>Rosyadi M., Umemura A., Takahashi R., Tamura J., Konda S., Ide K.</i>
461342	Transient Stability of Doubly-Fed Induction Machine in parallel to Synchronous Machine <i>Azbe V., Mihalic R.</i>
460271	Examination of different voltage asymmetry norms under transient behavior of three-phase low voltage power systems containing small domestic power plants <i>Neukirchner L., Görbe P., Magyar A.</i>
455946	Power System Instability Prevention and Remedial Measures with Online Dynamic Security Assessment <i>Chychykina I., Styczynski Z.A., Heyde C.O., Krebs R.</i>
449325	Network-Free Voltage Stability Assessment of Power Systems using Phasor Measurements <i>Giraldo J.S., Castrillón J.A., Castro C.A.</i>
462829	Enhancing Power System Voltage Stability Through a Centralized Control of Renewable Energy Sources <i>Hadjidemetriou L., Asprou M., Demetriou P., Kyriakides E.</i>
475865	A parametric investigation on the effects of inertia on the stability of power systems <i>Roberts L.G.W., Kafanas G., Champneys A., di Bernardo M., Bell K.</i>
474082	Wind farms generation limits and its impact in real-time voltage stability assessment

Perez A., Johannsson H., Østergaard J.

[462819](#) A Multi-Step Optimization Approach for Power Flow with Transient Stability Constraints

Alamo A.C.M., Alberto L.F.C.

[456724](#) Estimation, Control and Prediction of Voltage Level and Stability at Receiving Node

Brusilowicz B., Szafran J.

[433334](#) A New Technique for Improving the Performance of Active Power Filter in Power Systems with Isolated Neutral Point

Fereidouni A., Masoum M.A.S.

Session 4B - Power systems modeling, simulation, and analysis I

Tuesday, 30 June, 15:30 - 17:00

Paper ID	Title / Author(s)
458105	Probabilistic Estimation of Rated Demand at Bulk Supply Point <i>Xu Y., Milanovic J.V.</i>
460796	On Reverse Operating Conditions Identification <i>Marujo D., Zambroni de Souza A.C., Prada R.B.</i>
476211	Model Development and Validation of Brushless Exciters <i>Bertes T.</i>
455867	3-Phase 4-Wire Hybrid Calculation - Analysis Method for Clustering Power Systems Philosophy <i>Wirasanti P., Ortjohann E.</i>
425242	Platform Based on Hybrid Real-Time Power System Simulator for Development and Research of Intelligent Power Systems with Active-Adaptive Networks <i>Andreev M., Sulaymanov A.</i>
457450	Identification of Small Signal Oscillation Mode Parameters from Simulated and Actual PMU Ringdown Data <i>Iswadi H.R., Best R.J., Morrow D.J.</i>
461734	A Test Distribution Grid for Study of Slow Coherency Concept <i>Preda T.N., Uhlen K.</i>
498348	A Toolbox for Efficient Parameter and Structure Variation of Time Domain Power System Simulation Models in Simulink <i>Wippenbeck T., Bertram R., Schnettler A.</i>
462652	Stochastic Unit Commitment via Progressive Hedging - Extensive Analysis of Solutions Methods <i>Ordoudis C., Zugno M., Pinson P., Morales J.M.</i>
459704	Approach to Choice of Controls for Probabilistic Constrained Load Flow in the Electric Power System <i>Golub I.I., Boloev E.V., Voitov O.N.</i>
462480	Component Importance Driven Test Scheduling for Circuit Breakers and Protective Relays <i>Lamponen J., Haarla L., Hirvonen R.</i>
461986	Sumatra-Java HVDC Transmission System Modelling And System Impact Analysis <i>Faizal R., Pack S., Plesch J., Nurdin M., Hariyanto N.</i>
462459	Dynamic Study Model for the Interconnected Power System of Continental Europe in Different Simulation Tools <i>Semerow A., Höhn S., Luther M., Sattinger W., Abildgaard H., Garcia A.D., Giannuzzi G.</i>

- [462388](#) **A simplified steady-state characterization of long AC transmission lines**
del-Pino-López J.C., Cruz-Romero P., Gómez-Expósito A.
- [485431](#) **Non-Convex Economic Dispatch using Trelea Particle Swarm Optimization**
Oliveira E.S., Silva Junior I.C., de Oliveira L.W., Dias B.H., Oliveira E.J.
- [461511](#) **Modelling of corrective actions in power system reliability analysis**
Sperstad I.B., Jakobsen S.H., Gjerde O.
- [455457](#) **Specialized Genetic Algorithm of Chu-Beasley Applied to the Distribution System Reconfiguration Problem Considering Several Demand Scenarios**
Souza S.S.F., Romero R., Saraiva J.T., Pereira J.C.
- [475536](#) **A simulation tool for extended distribution grids with controlled distributed generation**
Kryonidis G.C., Kontis E.O., Chrysochos A.I., Demoulias C.S., Bozalakov D., Meersman B., Vandoorn T.L., Vandevælde L.
- [462901](#) **Non-Technical Losses Identification Using Optimum-Path Forest and State Estimation**
Trevizan R.D., Rossoni A., Bretas A.S., Gazzana D.D.S., Martin R.P., Bretas N.G., Bettiol A.L., Carniato A.

Session 5A - State estimation and situational awareness

Wednesday, 1 July, 9:00 - 10:30

Paper ID	Title / Author(s)
462781	Bad Data Detection and Handling in Distribution Grid State Estimation Using Artificial Neural Networks <i>Cramer M., Goergens P., Schnettler A.</i>
462207	Load Pseudomeasurements in Distribution System State Estimation <i>Pieri G., Asprou M., Kyriakides E.</i>
461603	Improving Operation of Medium Voltage Grid with State Estimator and Advanced Metering System <i>Xiang Y., Cobben J.F.G.</i>
473386	Impact of Synchrophasor Measurement Types and Uncertainties on the Accuracy of Distribution System Linear State Estimators <i>Zanni L., Colangelo D., Cherkaoui R., Paolone M.</i>
461142	Observability, Redundancy and Gross Error Processing in State Estimation Using SCADA and Synchronized Phasor Measurements <i>Fantin C.A., Massignan J.A.D., Castillo M.R., London Jr J.B.A.</i>
462867	An ELM-AE State Estimator for Real-Time Monitoring in Poorly Characterized Distribution Networks <i>Pereira Barbeiro P.N., Teixeira H., Pereira J., Bessa R.</i>
475820	A structured approach to increase situational awareness in low voltage distribution grids <i>Helmholt, K.A., Grootte Schaarsberg M., Broersma T., Morren J., Kruizinga B., Wouters P.A.A.F., Steennis E.F., Baldinger F.</i>
462083	Three Phase Distribution State Estimation Utilizing Common Information Model <i>Magnago F, Zhang L, Nagarkar R.</i>
462764	Nodal Load Approximation in Sparsely Measured 4-Wire Electrical Low-Voltage Grids by Stochastic Optimization <i>Huppertz P., Schallenburger M., Zeise R., Kizilcay M.</i>
444236	Robust Self Healing Two-level State Estimation in Systems with Optimally Allocated PMUs <i>Müller H.H., Castro C.A.</i>
427533	Phasor estimation under transient conditions <i>Paternina M.R.A., Zamora A., Vázquez M.E., Ramirez J.M.</i>
48²	Enhanced Bad Data Processing by Phasor-Aided State Estimation <i>Do Coutto Filho M.B., Stacchini de Souza J.C., Guimaraens R.</i>

Session 5B - Power quality issues and mitigation techniques Development in power system planning I

Wednesday, 1 July, 9:00 - 10:30

Paper ID	Title / Author(s)
447677	Model-Based Volt-Var Optimization Using Advanced Metering Infrastructure in Distribution Networks <i>Zhang C., Dai B., Wu T., Mai W., Qin M., Li J., Nie Y., Liu J., Chung C.Y.</i>
466557	Power system optimal wide area control based on identified models <i>Nieto J.D., Mauricio J.M.</i>
462698	Harmonic Study in LV networks with high penetration of PV systems <i>Kouveliotis-Lysikatos I., Kotsampopoulos P., Hatziaargyriou N.</i>
493918	Evaluation and Updating of Harmonic Voltage Limits <i>Cobben J.F.G., Geldtmeijer D.A.M., Almering A.F.J., van Waes J.B.M.</i>
460528	Seasonal Variations in Long-Term Measurements of Power Quality Parameters <i>Domagk M., Meyer J., Schegner P.</i>
462297	Voltage-Current and Harmonic Characteristic Analysis of Different FC-TCR Based SVC <i>Shawon M.H., Hanzelka Z., Dziadecki A.</i>
463255	Multiobjective MILP Model for Optimal Allocation of Automated Switching Devices in Electric Power Distribution Systems <i>Ferreira G.D., Gazzana D.S., Bretas A.S., Bettiol A.L., Carniato A., Passos L.F.N., Homma R.Z., Molina F.H.</i>
463212	A Fuzzy-Based Approach for Harmonic Contribution Determination at Points of Common Coupling <i>Silva C.B.S., Silva I.N., Aravechia J.V.P., Fernandes R.A.S.</i>
464499	Mitigation of Transformer Inrush Current Associated with DER Facilities connected on the Distribution grid <i>Lacroix M., Taillefer P., Mercier A.</i>
462550	The Study of Supercapacitor' Transient Power Quality Improvement on Microgrid <i>Zheng D., Wei D., Zhang W., Meng Z.J.</i>
462542	Power quality measurements and analysis for a Romanian WPP <i>Sava G.N., Costinas S., Porumb R., Golovanov N.</i>
460805	Power Converters in Distribution Grids - New Alternatives for Grid Planning and Operation <i>Schnelle T., Schmidt M., Schegner P.</i>
476156	Stability Assessment of VSC-HVDC Connected Large-Scale Offshore Wind Power: a North-Sea Region Case Study <i>van der Meer A.A., Ndreko M., Bos J.A., Gibescu M., van der Meijden M.A.M.M., Kling</i>

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- [458301](#) **Transmission Line Reinforcements Considering Security Constraints**
de Oliveira E.J., Crisafulli V.M., Poubel R.P., Honorio L.M., Marcato A.L.M.
- [476556](#) **Preemptive Network Reinforcement at LV Level Considering Uncertainty in Prediction of PV Penetration Scenarios**
Idlbi B., Scheidler A., Stetz T., Braun M.
- [460450](#) **Stochastic Optimization of Power Line Design**
Sauhats A., Beryozkina S., Petrichenko L., Neimane V.
- [462147](#) **Transmission Expansion Planning Based on Hybrid EDA/DE Algorithm Considering Wind Power Penetration**
Liu W., Li H., Xu H., Zhang J., Zheng D.
- [462429](#) **Using Stochastic Dual Dynamic Programming and a Periodic Autoregressive Model for Wind-Hydrothermal Long-Term Planning**
Pereira I.F., Hoffmann L., de Oliveira L.W., Silva Junior I.C., de Oliveira E.J., Ramos T.P., Marcato A.L.M.
- [462828](#) **Technical and economic impact on the DG insertion rate of storage system facilities in LV network planning**
Hadj-said A., Alvarez-Herault M., Debusschere V., Caire R.
- [464270](#) **Assessing the Impacts of Distribution Grid Planning Rules on the Integration of Renewable Energy Sources**
Dutrieux H., Delille G., Francois B.
- [462849](#) **A Modular AC Optimal Power Flow Implementation for Distribution Grid Planning**
Hauswirth A., Summers T., Warrington J., Lygeros J., Kettner A., Brenzikofer A.
- [465037](#) **Involving residual load intraday forecast for network reconfiguration**
Shapovalov A., Spieker C., Rehtanz C., Engelmeyer T.
- [460880](#) **Power System Planning Benefits of Hybrid Heating Technologies**
Heinen S., O'Malley M.

Session 6A - Electricity markets design and regulatory issues

Wednesday, 1 July, 11:00 - 12:30

Paper ID	Title / Author(s)
439634	Reformulation for Nash-Cournot Equilibrium in Pool-based Electricity Market Supported by Introducing the Potential Function <i>Zou P., Chen Q., Zhong H., Xia Q., Kang C., Ge R.</i>
460723	Balancing Energy Market Integration Considering Grid Constraints <i>Gebrekiros Y., Doorman G., Jaehnert S., Farahmand H.</i>
456700	A new electricity market design for power systems with large share of hydro: Improving flexibility and ensuring efficiency and security in the Brazilian case <i>Calabria F.A., Tome Saraiva J., Rocha A.P.</i>
462307	Clustering Approach for Determination of Congestion Zones on Nodal Electricity Markets in Long Term Periods <i>Volodin D.V., Vaskovskaya T.A.</i>
459760	Embracing Renewables – Overcoming Integration Challenges from Malaysia’s Utility Perspective <i>Zainol-Abidin N.Z., Ibrahim J.B.</i>
462525	Security-Constrained Nodal-Based Clearing of the European Day-Ahead Electricity Market Formulated as a MILP Model <i>Chatziyiannis D.I., Biskas P.N., Bakirtzis A.G.</i>
462788	A Top-Down Market Model for Demand Response Procurement via Aggregators <i>Wei M.</i>
467455	A Balancing Market under Uncertainty with a Rolling Horizon for European Market Structure <i>Abbaspourtorbati F., Cherkaoui R., Zima M.</i>
462574	Bi-Level Approach for Modeling Multi-Energy Players’ Behavior in a Multi-Energy System <i>Damavandi M.Y., Bahramara S., Moghaddam M.P., Haghifam M.-R., Shafie-khah M., Catalão J.P.S.</i>
491063	Implementation and evaluation of an electricity market operated at district level <i>Ampatzis M., Nguyen P.H., Kling W.L.</i>
461352	Optimal Generic Energy Storage System Offering in Day-Ahead Electricity Markets <i>de la Nieta A.A.S., Tavares T.A.M., Martins R.F.M., Matias J.C.O., Catalão J.P.S., Contreras J.</i>
475007	Market clearing model for microgrids with probabilistic reserve <i>Luna L.E., Torres H., Pavaas A.</i>
514553	Supply and Demand Balance Control of Power System with Renewable Energy

Integration by Introducing Congestion Management

Bae H., Tsuji T., Oyama T., Uchida K.

[428176](#)

Improving offering strategies for wind farms enhanced with storage capability

Ding H., Hu Z., Song Y., Pinson P.

Session 6B - Power system interoperability, standards and codes

Wednesday, 1 July, 11:00 - 12:30

Paper ID	Title / Author(s)
461947	Facilitating Distribution Grid Network Simulation Through Automated Common Information Model Data Conversion <i>Armendariz M., Saleem A., Nordström L., Brugeron M.</i>
458639	Comparison of current and future voltage regulation measures on German low voltage grids <i>Arnold M., Friede W., Myrzik J.</i>
501921	Frequency Response using MTDC Grids: A Comparative Study of Common Methods <i>Bucurenciu A., Ndreko M., Popov M., Meijden M.A.M.M.</i>
456980	Security Constraints for Wind Power Operation <i>de Oliveira E.J., Mayrink S.M., Rodrigues M.L., Dias B.H., de Oliveira L.W., Silva Junior I.C.</i>
464259	Automatic Voltage and Reactive Power Regulator for Wind Farms participating to TSO Voltage Regulation <i>Chiandone M., Campaner R., Arcidiacono V., Sulligoi G., Milano F.</i>
440921	Ensuring a reliable operation of modern power systems <i>Bricman Rejc Z., Cepin M.</i>
460542	On Grid Code Compliance of Offshore MTDC grids: Modeling Needs and Analysis <i>Ndreko M., Bucurenciou A., Popov M., van der Meijden M.A.M.M.</i>
460806	Network Redundancy versus Generation Reserve in Combined Onshore-Offshore Transmission Networks <i>Tuinema B.W., Rueda J.L., van der Meijden M.A.M.M.</i>
462964	Identification of observables for future grids - the framework developed in the ELECTRA project <i>Visscher K., Marinelli M., Morch A.Z., Hofsmo Jakobsson S.</i>
462100	Estimation of the Flexibility Range in the Transmission-Distribution Boundary <i>Heleno M., Soares R., Sumaili J., Bessa R.J., Seca L., Matos M.A.</i>
462837	Preliminary Study on Voltage level Standardization of DC Grid based on VSC-HVDC Technology in China <i>Yao M., Cai X.</i>
483250	Experimental Sensitivity Analysis of Low Voltage Control Strategies on Communication Properties <i>Faschang M., Schwalbe R., Kupzog F.</i>
476597	Integration of an IEEE Std. C37.118 Compliant PMU into a Real-Time Simulator <i>Romano P., Pignati M., Paolone M.</i>

[462283](#)

Asset-management decision-support modeling, using a health and risk model

Vermeer M., Wetzer J., van der Wielen P., de Haan E., de Meulemeester E.

[442039](#)

Synchronously rotating onshore wind turbines analysis

Dobric G., Kotur D., Djuricic Z.

Session 7A - Power systems modeling, simulation, and analysis II

Wednesday, 1 July, 13:30 - 15:00

Paper ID	Title / Author(s)
462002	Equation-Based Modeling of Three-Winding and Regulating Transformers using Modelica <i>Murad M.A.A., Gómez F.J., Vanfretti L.</i>
461996	Equation-Based Modeling of FACTS using Modelica <i>Murad M.A.A., Gómez F.J., Vanfretti L.</i>
462042	Analytical Approach to Large-Scale System Splitting for the Regulation of Fault Levels <i>Vovos P., Song H.</i>
461774	Assessment of Model Parameters to Identify an Equivalent Wind Power Plant <i>Cari E.P.T., Alberto L.F.C., Erlich I.</i>
462529	Mutual Information based Bayesian Analysis of Power System Reliability <i>Khuntia S.R., Rueda J.L., van der Meijden M.A.M.M.</i>
476823	Optimization of microgrids short term operation based on an enhanced genetic algorithm <i>Nemati M., Bennimar K., Tenbohlen S., Tao L., Mueller H., Braun M.</i>
460706	Resonances due to Long HVAC Offshore Cable Connections: Studies to verify the Immunity of Dutch Transmission network <i>Jansen K., van Hulst B., Engelbrecht C., Hesen P., Velitsikakis K., Lakenbrink C.</i>
462715	Integrated Scheduling Model for Central Dispatch Systems in Europe <i>Marneris I.G., Biskas P.N.</i>
462773	Assessment of load shifting potential on large insular power systems <i>Vagropoulos S.I., Katsolas I.M.D., Bakirtzis A.G.</i>
478274	Temperature-based Instanton Analysis: Identifying Vulnerability in Transmission Networks <i>Kersulis J., Hiskens I., Chertkov M., Backhaus S., Bienstock D.</i>
462630	Approaching the Diversity of Unbalanced Residential Load in Low-Voltage Grids by Probabilistic Load-Flow Simulation of Cross-Sectional Data <i>Huppertz P., Kopczynski L., Zeise R., Kizilcay M.</i>
462020	Effects of Nuclear Power Phase-out in Germany on the Austrian Power System <i>Holzer A., Tuan L.A.</i>
462097	Smart Grid and Electricity Market joint Simulation using complementary Multi-Agent platforms <i>Pinto T., Silva M., Santos G., Gomes L., Canizes B., Vale Z.</i>
477007	Aggregated Wind Power Plant Models Consisting of IEC Wind Turbine Models

Altin M., Göksu O., Hansen A.D., Sørensen P.E.

[490487](#) Evaluation of scenario reduction methods for stochastic inflow in hydro scheduling models

Larsen C.T., Doorman G.L., Mo B.

[462941](#) Optimal Power Flows with Voltage Stability Constraint Based on Voltage Stability Indices and Artificial Neural Networks

Lage G.G., Fernandes R.A.S., da Costa G.R.M.

57³ On Control Actions Effects by Using QV Curves

Marujo D., Zambroni de Souza A.C., Lima Lopes B.I., Santos M.V., Lo K.L.

1017⁴ A Hybrid MILP and Benders Decomposition Approach to Find the Nucleolus Quota Allocation for a Renewable Energy Portfolio

Freire L., Street A., Lima D.A., Barroso L.A.

³ IEEE Transactions on Power Systems, Vol. 30, No. 3, May 2015, pp. 1298-1305

⁴ Accepted for publication in IEEE Transactions on Power Systems

Session 7B - Power systems modeling, simulation, and analysis III

Wednesday, 1 July, 13:30 - 15:00

Paper ID	Title / Author(s)
464372	Laboratory Test Set-up for the Assessment of PMU Time Synchronization Requirements <i>Singh R.S., Hooshyar H., Vanfretti L.</i>
474089	Improved method for considering PMU's uncertainty and its effect on real-time stability assessment methods based on Thevenin equivalent <i>Perez A., Johannsson H., Østergaard J., Martin K.</i>
476131	Simplified Dynamic Modelling of Variable Speed Wind Turbine Generators Based on Capability Diagrams <i>Raoofsheibani D., Schneider M., Loitz S., Wellssow W.H., Spanel U., Roggatz C.</i>
462099	Impact of Value of Lost Load on Performance of Reliability Criteria and Reliability Management <i>Heylen E., Deconinck G., Van Hertem D.</i>
460027	Factor influence and correlation of short term demand for control reserve <i>Wolfram M., Bokhari H., Westermann D.</i>
463988	Assessment methods for the targeted reconfiguration in distribution networks <i>Touré S., Vanet E., Caire R., Bésanger Y.</i>
462001	Automating, monitoring, and control of an ICE based micro-CCHP system using LabVIEW and Android <i>Rey G., Arce M.E., Ulloa C., Cacabelos A., Míguez J.L.</i>
462745	Identification of critical States regarding Voltage Stability by using a Continuation Power Flow combined Contingency Analysis <i>Mittelstaedt M., Barrios H., Schnettler A.</i>
462558	Analysis of the Maximum Available Time to Switch the Operation Control Mode of a Distributed Generation During an Islanding Occurrence <i>Neves R.V.A., Agnoletto E.J., Reis G.B., Machado R.Q., Oliveira V.A.</i>
456591	Framework for sensitivity Analysis of Stability of Torsional Modes <i>Adrees A., Milanovic J.V.</i>
462586	Dynamic line rating forecasting based on numerical weather prediction <i>Fernandez E., Albizu I., Buigues G., Valverde V., Etxegarai A., Olazarri J.G.</i>
460693	Distribution System Short-term Operation Loss Analysis with Stochastic Wind Integration <i>Bizuayehu A.W., Sanchez de la Nieta A.A., Catalao J.P.S., de Quevedo P.M., Contreras J.</i>
445179	Identification and Monitoring Inter-area Oscillations in Power Systems <i>Calderón-Guizar J.G., Ramirez-González M., Castellanos-Bustamante R.</i>

- [462545](#) **Investigation of Suitability of Cascading Outage Assessment Methods for Real-Time Assessment**
Petersen P.F., Jóhannsson H., Nielsen A.H.
- [494107](#) **Voltage stability analysis using Newton method**
Chusovitin P., Pazderin A., Shabalin G., Tashchilin V., Bannykh P.
- [462706](#) **Cost-benefit analysis of unreliable system protection scheme operation**
Calvo de Miguel J.L., Ramírez P.J., Tindemans S.H., Strbac G.
- [514898](#) **Evaluation of Substation Configurations and Distribution Automation with the Aid of Reliability Calculations**
Coster E.J., Boender D., Staarink B.
- [470587](#) **Energy and Reserve Scheduling for Electric Railway Power System using Stochastic Optimization**
Bozorg M., Cherkaoui R.

Session 8A - Smart metering, demand side management and demand response

Wednesday, 1 July, 15:30 - 17:00

Paper ID	Title / Author(s)
443543	Change Detection of Electric Customer Behavior Based on AMR Measurements <i>Chen T., Mutanen A., Jarventausta P., Koivisto H.</i>
461759	Economics of Distributed Flexibilities for the Grid Considering Local Short-Term Uncertainties <i>Marinho N., Phulpin Y.</i>
462241	A Contribution to the Load Forecast of Price Elastic Consumption Behaviour <i>Klaiber S., Bretschneider P., Waczowicz S., Mikut R., Konotop I., Westermann D.</i>
462650	Analysis of load shedding strategies for battery management in pv-based rural off-grids <i>Sridhar J., Chandra Mouli G.R., Raaijen E., Bauer P.</i>
462954	Evaluating cooling zonal set point temperature operation strategies for peak load reduction potential: case based analysis of an office building <i>Aduda K.O., Vink W., Boxem G., Zhao Y., Zeiler W.</i>
462469	Scheduling Demand Response and Smart Battery Flexibility in a Market Environment: Results from the Reflexe Demonstrator Project <i>Siebert N., Ammari S., Cao X., Delaplagne T., Mamadou K., Chouiter M., Buttin H., Gaci O., Lagorse J., Bertone Y.</i>
461383	Scheduling and Aggregation of Distributed Generators and Consumers Participating in Demand Response Programs <i>Spinola J., Faria P., Vale Z.</i>
459453	Quantifying the Demand-Side Response Capability of Industrial Plants to Participate in Power System Frequency Control Schemes <i>Mohd Noor I., Thornhill N.F., Fretheim H., Thorud E.</i>
470791	Demand Flexibility Time Intervals for Aggregate Residential Load Patterns <i>Sajjad I.A., Chicco G., Napoli R.</i>
476085	Open Source Hardware and Software to Support Energy Efficiency and Demand Response in LV Installations <i>Andreou G.T., Chatzigeorgiou I.M.</i>
460412	Effective dynamic tariffs for price-based Demand Side Management with grid-connected PV systems <i>Philippou N., Hadjipanayi M., Makrides G., Efthymiou V., Georghiou G.E.</i>
428022	Optimized Energy Management of a Single-House Residential Micro-Grid With Automated Demand Response <i>Anvari-Moghaddam A., Monsef H., Rahimi-Kian A., Guerrero J.M., Vasquez J.C.</i>

- [462969](#) **Distributed and Coordinated Demand Response for Frequency-controlled reserve supply**
Lebel G., Wang D., Caire R., Hadjsaid N., Bediou S., Glatigny A.
- [461871](#) **Effect of Demand Response on Residential Energy Efficiency with Direct Load Control and Dynamic Price Control**
Basnet S.M.S., Aburub H., Jewell W.
- [462050](#) **Electricity market model for demand response stability analysis based on structural approach to electricity price modelling**
Hlava J., Tuma L.
- [462482](#) **Field test on multiple Smart Meter switching to study the effect on power quality at customers level**
Arafat Y., Bertling Tjernberg L., Gustafsson P.
- [461378](#) **Geospatial visualization of Smart data for improved network management**
Poursharif G., Brint A., Holliday J., Black M., Marshall M.
- [464300](#) **Quantification of Variable Effects of Demand Response Resources on Power Systems with Integrated Energy Storage and Renewable Resources**
Santoro P., Galdi V., Calderaro V., Gross G.
- [462624](#) **Benefits of Demand Response on a Wind Power Producer Bidding Strategy**
Simoglou C.K., Kardakos E.G., Bakirtzis A.G.
- [462134](#) **Time-Horizont Distributed Energy Resources Scheduling Considering the Integration of Real-Time Pricing Demand Response**
Silva M., Morais H., Sousa T., Faria P., Vale Z.
- [462590](#) **Real-Time Load Estimation for Distribution Feeders**
Massignan J.A.D., Fantin C.A., London Jr J.B.A., Camillo M.H.M.

Session 8B - New energy conversion and (hybrid AC/DC) distribution technologies

Wednesday, 1 July, 15:30 - 17:00

Paper ID	Title / Author(s)
462604	Security Constrained Optimal Power Flow for Mixed AC and Multi-Terminal HVDC Grids <i>Saplamidis V., Wiget R., Andersson G.</i>
457846	Dynamic Thermal Rating of a Modular Multilevel Converter HVDC Link with Overload Capacity <i>Judge P.D., Green T.C.</i>
476682	Coordinated Frequency and Voltage Overload Control of Smart Transformers <i>De Carne G., Buticchi G., Liserre M., Marinakis P., Vournas C.</i>
468917	Flux pump for HTS rotating machinery applications <i>Kulkarni R., Prasad K., Lie T.T.</i>
462414	Control of DC bus voltage with a Modular Multilevel Converter <i>Samimi S., Gruson F., Guillaud X., Delarue P.</i>
462375	A Comparison of Backstepping and LQG control for stabilizing MVDC Microgrids with Constant Power Loads <i>Cupelli M., Mirz M., Monti A.</i>
477976	Investigation of the impact of embedded VSC-HVDC active and reactive power control on power system stability <i>Chodura P., de Graaff R.A.A., Gibescu M., Kling W.L.</i>
462088	Phase Compensation Scheme to Improve the Accuracy of a Power Hardware-in-the-Loop Experiment Based on a Synchronous Generator <i>Castro Lopez A., Zuñiga P., Uribe F.A., Barocio E.</i>
462043	A Mixed-Integer Linear Model for Optimal Operation of Hybrid AC-DC Microgrid Considering Renewable Energy Resources and PHEVs <i>Teimourzadeh Baboli P., Bahramara S., Parsa Moghaddam M., Haghifam M.R.</i>
462948	Feasibility of geographically distributed real-time simulation of HVDC system interconnected with AC networks <i>Stevic M., Vogel S., Monti A., D'Arco S.</i>
498370	Mixed AC/DC OPF using Differential Evolution for Global Minima Identification <i>Marten A.K., Sass F., Westermann D.</i>
460533	Impact of Offshore Wind and Conventional Generation Outages on the Dynamic Performance of AC-DC Transmission Systems <i>Ndreko M., Popov M., Rueda-Torres J.L., van der Meijden M.A.M.M.</i>

143⁵ **Coordinated Control for an Offshore Wind Power Plant to Provide Fault Ride Through Capability**

Aragues Penalba M., Gomis-Bellmunt O., Martins M.

[462722](#) **Designing a fuel cell model in application of a CHP-system**

Balzarek S., Kröger K., Haubrock J.

[462947](#) **Cooperative Frequency Control for Autonomous AC Microgrids**

Shafiee Q., Vasquez J. C., Guerrero J.M., Nasirian V., Davoudi A.

⁵ IEEE Transactions on Sustainable Energy, Vol. 5, No. 4, October 2014, pp. 1253-1261

Session 9A - Power system control

Thursday, 2 July, 9:00 - 10:30

Paper ID	Title / Author(s)
450562	Activation Schemes of Synthetic Inertia Controller for Full Converter Wind Turbine Generators <i>Gonzalez-Longatt F.</i>
458322	Effect of Reactive Power Control by Photovoltaic Power Generation on Short-Term Voltage Stability <i>Kawabe K., Tanaka K.</i>
449294	Dynamic Control Interaction Assessment in Power Systems with Wind Energy Conversion Systems <i>Sotelo-Martínez J.A., Fuerte-Esquivel C.R.</i>
461391	Nonlinear Control for PMSG Wind Turbine via Port-Controlled Hamiltonian System <i>Gui Y., Kim C., Chung C.C.</i>
470173	A Coordinated Control Method to Smooth Short-Term Power Fluctuations of Hybrid Offshore Renewable Energy Conversion System (HORECS) <i>Qin C., Ju P., Wu F., Jin Y., Chen Q., Sun L.</i>
463712	SVC and power transformers controllers coordination <i>Malkowski R., Kowalak R., Klucznik J.</i>
462973	The coordinating control of voltage and reactive power between SVC and DFIG after LVRT <i>Ding R., Meng C., Qiao Y.</i>
462092	Reliability and Stability Analysis of Corrective Topology Control Actions <i>Korad A.S., Hedman K.W.</i>
462282	Flexible Automatic Generation Control System for Embedded HVDC Links <i>Gonzalez-Longatt F., Steliuk A., Hinojosa V.H.</i>
462133	Model Predictive Control for Non-Linear Delayed Power Systems <i>Molina-Cabrera A., Rios M.A., Velasquez M.A.</i>
461662	Smart Grid: Algorithms for Control of Active- Adaptive Network Components <i>Suslov K., Gerasimov D., Solodusha S.</i>
461715	Reactive Power Control Strategy for Voltage Regulation and Power-Factor Correction in MV Distribution Networks <i>Gatta F.M., Geri A., Maccioni M., Mantineo A., Cresta M., Paulucci M.</i>
461395	Payoff Function and Nash Equilibrium in the Game of Automatic Voltage Control <i>Zhang Y., Hu X., Li Q.</i>
462530	Multi-objective Model Predictive Control Strategy for Damping Inter-area Power

Oscillations

Mäki O., Turunen J., Seppänen J., Zenger K., Haarla L.

[467515](#)

A Hybrid Optimization Method for Reactive Power and Voltage Control Considering Power Loss Minimization

Liu C., Qin N., Xu Y., Leth Bak C.

[433335](#)

A New Space-Vector Hysteresis Current-Control Modulation for Active Power Filter Applications

Fereidouni A., Masoum M.A.S.

[462389](#)

Dynamic Power Sharing Control among Converter-Interfaced DERs in an Autonomous Microgrid

Hosseinimehr T., Shahnia F., Ghosh A.

Session 9B - Power systems modeling, simulation, and analysis IV

Thursday, 2 July, 9:00 - 10:30

Paper ID	Title / Author(s)
462898	Simulation for the evaluation of energy management algorithms at the district level – Example of use case from the AMBASSADOR project <i>Bourry F., Wantier A., Ha D.L., Beguery P., Rousset N., Pflaum P.</i>
462472	An Innovative Method to Develop Power System Equivalents with Focus on Inter-Area Oscillations and Primary Control Representation <i>Semerow A., Hohn S., Bauer B., Luther M.</i>
477422	Power Loss Investigation in HVDC for Cascaded H-Bridge Multilevel Inverters <i>Alamri B., Darwish M.</i>
456042	EHV Transmission Lines Wires Location on Line Operation Issues – Case Studies <i>Kluczniak J., Lubosny Z., Dobrzynski K., Czapp S.</i>
462479	Network Usage with Probabilistic Distribution Factors Method <i>Oros C., Barbulescu C., Pop O., Kilyeni S.</i>
462199	The Transient Stability Analysis Based on WAMS and Online Admittance Parameter Identification <i>Zhou H., Tang F., Jia J., Ye X.</i>
461980	Including Forecasting Error of Renewable Generation on the Optimal Load Dispatch <i>Osório G.J., Lujano-Rojas J.M., Matias J.C.O., Catalão J.P.S.</i>
462490	Effects of power-to-gas on power systems: A case study of Denmark <i>Heinisch V., Tuan L.A.</i>
459824	Dispatch of Wind-Thermal Power System Containing Heat Storage Units with Fast Ramping Capabilities <i>Zou X., Li M., Wang W., Niu Y., Liu J.</i>
499362	Analytical Characterization of Nonlinear Modal Interaction in Power Systems with UPFC <i>Rodríguez Villalón O., Medina Rios J.A., Andersson G.</i>
458313	Comparison between the Improved Sequence Network Model of wind turbines and the Classical Model based on Sequence Networks for short-circuit studies <i>González-Vásquez J.A., Toro N., Gutierrez J.F.</i>
462960	Sea-wave power converter modeling for fault conditions analysis <i>de Bosio F., Pastorelli M., Mazza A., Chicco G., Bracco G., Giorcelli E., Mattiazzo G., Raffero M.</i>
425692	Induction Converters: PLL-Less Converters with Induction Machines Characteristics <i>Ashabani M.</i>

[458789](#) **Wind Forecasting Using Kriging and Vector Auto-Regressive Models for Dynamic Line Rating Studies**

Fan F., Bell K., Hill D., Infield D.

[460385](#) **Cost-Benefit Analysis of a Coordinated Grid Development in the North Sea**

Cole S., Martinot P., Rapoport S., Papaefthymiou G.

[450649](#) **Optimal Power Flow in MTDC systems based on a DC-Independent System Operator Objective**

Gonzalez-Longatt F.

[462118](#) **Voltage Regulation for Active Distribution Network: A Generalized Nash Game Approach**

Zhang J., Zhao T., Liu W., Tang Q., Zheng D.

Session 10A - Power system operation

Thursday, 2 July, 11:00 - 12:30

Paper ID	Title / Author(s)
458608	Increasing the Performance of the P/V-Analysis as a System Security Assessment Tool <i>Acker H., Jacobs J., Bloemker M., Vanzetta J., Loitz S., Wellssow W.H.</i>
460654	Frequency Containment Reserves with large deadband <i>Jomaux J., De Jaeger E.</i>
476995	A Probabilistic Indicator of the Optimal Operator Action Time under Short-time Emergency Line Loadings <i>Tumelo-Chakonta C., Kopsidas K.</i>
462618	Real-Time Identification of Coherent Generator Groups <i>Demetriou P., Hadjidemetriou L., Kyriacou A., Kyriakides E., Panayiotou C.</i>
456132	Optimisation of the bidding strategy for wind power trading <i>Hamilton D.I., McMillan D., Catterson V.M.</i>
449298	Software Architecture Development and Implementation of a Synchrophasor-based Real-Time Oscillation Damping Control System <i>Eldrich R., Vanfretti L., Almas M.S.</i>
462927	Smart Grid Control and Communication: the SmartC2net Real-Time HIL Approach <i>Ciontea C.I., Pedersen R., Kristensen T.L.F., Sloth C.E., Olsen R.L., Iov F.</i>
462155	Managing Cascade Transformers Equipped with On-Load Tap Changers in Bidirectional Power Flow Environment <i>Azizmzadeh-Moghaddam F., Kulmala A., Repo S.</i>
461367	Swiss TSO experience with an ac security-constrained optimal power flow application for real-time security management <i>Centeno López P., Sadikovica R., Pinto H., Magnago F.</i>
496516	One Rank Cuckoo Search Algorithm for Short-Term Hydrothermal Scheduling with Reservoir Constraint <i>Nguyen T.T., Vo D.N., Ongsakul W.</i>
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Network Design Tool for the Optimal Design of Offshore Ocean Energy Array Networks

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