Qiuwei Wu - DTU Orbit (01/12/2018)

Wu, Qiuwei
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Department of Electrical Engineering - Associate Professor
Center for Electric Power and Energy
Electric Power Systems

Research outputs:

Distributed Service Restoration of Active Electrical Distribution Systems using ADMM
Research output: Research - peer-review › Article in proceedings – Annual report year: 2019

Combined active and reactive power control in an operation of a wind farm
Research output: Research › Patent – Annual report year: 2018

Adaptive Control of Wind Turbines for Maximum Power Point Tracking
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Analyzing and Validating the Economic Efficiency of Managing a Cluster of Energy Hubs in Multi Carrier Energy Systems
Research output: Research - peer-review › Journal article – Annual report year: 2018

An Optimal Coordinated Method for EVs Participating in Frequency Regulation under Different Power System Operation States
Research output: Research - peer-review › Journal article – Annual report year: 2018

A Numerical Approach for Hybrid Simulation of Power System Dynamics Considering Extreme Icing Events
Research output: Research - peer-review › Journal article – Annual report year: 2018

Bi-level decentralised active power control for large-scale wind farm cluster
Research output: Research - peer-review › Journal article – Annual report year: 2018

Bi-Level Decentralized Active Power Control for Large-Scale Wind Farm Cluster
Research output: Research - peer-review › Journal article – Annual report year: 2018

Clustering-based Wind Turbine Generator Model Linearization
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Comprehensive Congestion Management for Distribution Networks based on Dynamic Tariff, Reconfiguration and Re-profiling Product
Research output: Research - peer-review › Journal article – Annual report year: 2018
Comprehensive Power Losses Model for Electronic Power Transformer
Yue, Q., Li, C., Cao, Y., He, Y., Cai, B., Wu, Q. & Zhou, B. 2018 In : IEEE Access. 6, p. 14926 - 14934
Research output: Research - peer-review › Journal article – Annual report year: 2018

Coordinated Pitch & Torque Control of Large-Scale Wind Turbine Based on Pareto Eciency Analysis
Research output: Research - peer-review › Journal article – Annual report year: 2018

Day-Ahead Congestion Management Scheme for Distribution Networks with Dynamic Tariff and Re-profiling Products
Research output: Research - peer-review › Journal article – Annual report year: 2018

Decentralized Coordinated Voltage Control for VSC-HVDC Connected Wind Farms Based on ADMM
Research output: Research - peer-review › Journal article – Annual report year: 2018

Distributed coordinated active and reactive power control of wind farms based on model predictive control
Research output: Research - peer-review › Journal article – Annual report year: 2018

Distributed Model Predictive Active Power Control of Wind Farms
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Distributed Multi-Energy Coordination of Multi-Microgrids with Biogas-Solar-Wind Renewables
Research output: Research - peer-review › Journal article – Annual report year: 2018

Distributed Optimization based Dynamic Tariff for Congestion Management in Distribution Networks
Huang, S., Wu, Q., Zhao, H. & Li, C. 2018 (Accepted/In press) In : I E E E Transactions on Smart Grid. 10 p.
Research output: Research - peer-review › Journal article – Annual report year: 2018

Distribution Locational Marginal Pricing for Optimal Electric Vehicle Charging through Chance Constrained Mixed-Integer Programming
Research output: Research - peer-review › Journal article – Annual report year: 2017

Dynamic Power Tariff for Congestion Management in Distribution Networks
Huang, S., Wu, Q., Shahidehpour, M. & Liu, Z. 2018 In : I E E E Transactions on Smart Grid. 10 p., 1-10
Research output: Research - peer-review › Journal article – Annual report year: 2018

Research output: Research - peer-review › Journal article – Annual report year: 2018

Enabling strategies of electric vehicles for under frequency load shedding
Research output: Research - peer-review › Journal article – Annual report year: 2018
Enhanced Voltage Control of VSC-HVDC Connected Offshore Wind Farms Based on Model Predictive Control
Research output: Research - peer-review › Journal article – Annual report year: 2018

Evaluation Method of Distribution Network Resilience Focusing on Critical Loads
Research output: Research - peer-review › Journal article – Annual report year: 2018

Fatigue load minimization in an operation of a wind farm
Research output: Research › Patent – Annual report year: 2018

Fault Ride Through Enhancement of VSC-HVDC Connected Offshore Wind Power Plants
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Fractal Characteristics Analysis of Blackouts in Interconnected Power Grid
Research output: Research - peer-review › Journal article – Annual report year: 2018

Fractional-Order Modeling and Sliding Mode Control of Energy-Saving and Emission-Reduction Dynamic Evolution System
Research output: Research - peer-review › Journal article – Annual report year: 2018

Grid Code Requirements for Wind Power Integration
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Guest Editorial: Coordinated Control and Protection of Offshore Wind and Combined AC/DC Grid
Research output: Research - peer-review › Editorial – Annual report year: 2018

Guest Editorial: Coordinated Control and Protection of Offshore Wind Power and Combined AC/DC Grid
Research output: Research - peer-review › Journal article – Annual report year: 2018

Hierarchical Control of Thermostatically Controlled Loads for Primary Frequency Control
Zhao, H., Wu, Q., Huang, S., Zhang, H. & Xue, Y. 2018 In : IEEE Transactions on Smart Grid. 9, 4, p. 2986-2998
Research output: Research - peer-review › Journal article – Annual report year: 2017

Mixed H2/H∞ Pitch Control of Wind Turbine with a Markovian Jump Model
Research output: Research - peer-review › Journal article – Annual report year: 2017
Sparsity Prevention Pivoting Method for Linear Programming
Research output: Research - peer-review › Journal article – Annual report year: 2018

Status of Wind Power Technologies
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Stochastic Economic Dispatch with Wind using Versatile Probability Distribution and L-BFGS-B Based Dual Decomposition
Huang, S., Sun, Y. & Wu, Q. 2018 In : IEEE Transactions on Power Systems. 33, 6, p. 6254 - 6263
Research output: Research - peer-review › Journal article – Annual report year: 2018

Transactive Real-time Electric Vehicle Charging Management for Commercial Buildings with PV On-site Generation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Two-Stage Load Shedding for Secondary Control in Hierarchical Operation of Islanded Microgrids
Research output: Research - peer-review › Journal article – Annual report year: 2018

Two-Stage Optimal Scheduling of Electric Vehicle Charging based on Transactive Control
Research output: Research - peer-review › Journal article – Annual report year: 2018

Voltage Balancing for Bipolar DC Distribution Grids: A Power Flow based Binary Integer Multi-Objective Optimization Approach
Research output: Research - peer-review › Journal article – Annual report year: 2018

A Combined Reliability Model of VSC-HVDC Connected Offshore Wind Farms Considering Wind Speed Correlation
Guo, Y., Gao, H. & Wu, Q. 2017 In : IEEE Transactions on Sustainable Energy. 8, 4, 10 p., 7912299
Research output: Research - peer-review › Journal article – Annual report year: 2017

A Meteorological Information Mining-Based Wind Speed Model for Adequacy Assessment of Power Systems With Wind Power
Research output: Research - peer-review › Journal article – Annual report year: 2017

Combined Active and Reactive Power Control of Wind Farms based on Model Predictive Control
Research output: Research - peer-review › Journal article – Annual report year: 2017

Combined time-varying forecast based on the proper scoring approach for wind power generation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Coordinated Voltage Control Scheme for VSC-HVDC Connected Wind Power Plants
Research output: Research - peer-review › Journal article – Annual report year: 2018
Fatigue Load Sensitivity Based Optimal Active Power Dispatch For Wind Farms
Research output: Research - peer-review › Journal article – Annual report year: 2017

Guest Editorial: Special Issue: Smart Grid Voltage Control
Research output: Research - peer-review › Editorial – Annual report year: 2017

Load Flow Analysis of Hybrid AC-DC Power System with Offshore Wind Power
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Measurement-Based Transmission Line Parameter Estimation with Adaptive Data Selection Scheme
Li, C., Zhang, Y., Zhang, H., Wu, Q. & Terzija, V. 2017 In : IEEE Transactions on Smart Grid. 9, 6, p. 5764 - 5773
Research output: Research - peer-review › Journal article – Annual report year: 2017

Non-Cooperative Regulation Coordination Based on Game Theory for Wind Farm Clusters during Ramping Events
Research output: Research - peer-review › Journal article – Annual report year: 2017

Optimal approach for the interaction between dosos and aggregators to activate der flexibility in the distribution grid
Research output: Research - peer-review › Conference article – Annual report year: 2017

Optimal Day-ahead Charging Scheduling of Electric Vehicles through an Aggregative Game Model
Research output: Research - peer-review › Journal article – Annual report year: 2018

Optimal Power Flow Modelling and Analysis of Hybrid AC-DC Grids with Offshore Wind Power Plant
Research output: Research - peer-review › Conference article – Annual report year: 2017

Optimized dispatch of wind farms with power control capability for power system restoration
Research output: Research - peer-review › Journal article – Annual report year: 2017

Phasor Measurement Unit under Interference Conditions
Research output: Research - peer-review › Journal article – Annual report year: 2018

Phasor model of full scale converter wind turbine for small-signal stability analysis
Research output: Research - peer-review › Journal article – Annual report year: 2018

Predictive Control of Wind Turbine for Load Reduction during Ramping Events
Research output: Research - peer-review › Journal article – Annual report year: 2017
Real-Time Congestion Management in Distribution Networks by Flexible Demand Swap
Huang, S. & Wu, Q. 2017 In : IEEE Transactions on Smart Grid. 9, 5, p. 4346 - 4355
Research output: Research - peer-review › Journal article – Annual report year: 2018

Remote Off-Grid Solutions for Greenland and Denmark
Research output: Research - peer-review › Journal article – Annual report year: 2017

Stability and Accuracy Considerations in the Design and Implementation of Wind Turbine Power Hardware in the Loop Platform
Research output: Research - peer-review › Journal article – Annual report year: 2017

Stability Boundaries for Offshore Wind Park Distributed Voltage Control
Research output: Research - peer-review › Journal article – Annual report year: 2016

Three Phase Power Imbalance Decomposition into Systematic Imbalance and Random Imbalance
Kong, W., Ma, K. & Wu, Q. 2017 In : I E E E Transactions on Power Systems. 33, 3, p. 3001 - 3012
Research output: Research - peer-review › Journal article – Annual report year: 2018

Transactive Energy A Review of State of The Art and Implementation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Wind Power Plant Voltage Control Optimization with Embedded Application of Wind Turbines and Statcom
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Adaptive ultra-short-term wind power prediction based on risk assessment
Research output: Research - peer-review › Journal article – Annual report year: 2016

A Sufficient Condition on Convex Relaxation of AC Optimal Power Flow in Distribution Networks
Research output: Research - peer-review › Journal article – Annual report year: 2016

Autonomous Voltage Security Regions to Prevent Cascading Trip Faults in Wind Turbine Generators
Research output: Research - peer-review › Journal article – Annual report year: 2016

Congestion management of distribution networks with day-ahead dynamic grid tariffs
Huang, S. & Wu, Q. 2016 Technical University of Denmark, Department of Electrical Engineering. 54 p.
Research output: Research › Report – Annual report year: 2016

Convex relaxation of Optimal Power Flow in Distribution Feeders with embedded solar power
Research output: Research - peer-review › Journal article – Annual report year: 2016
Coordinated Control of Multi-terminal DC Grid for Wind Power Integration
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Coordinated Voltage Control of a Wind Farm based on Model Predictive Control
Research output: Research - peer-review › Journal article – Annual report year: 2016

Dynamic Subsidy Method for Congestion Management in Distribution Networks
Huang, S. & Wu, Q. 2016 In : IEEE Transactions on Smart Grid. 9, 3, p. 2140 - 2151
Research output: Research - peer-review › Journal article – Annual report year: 2017

Geometry of power flows and convex-relaxed power flows in distribution networks with high penetration of renewables
Research output: Research - peer-review › Journal article – Annual report year: 2016

Guest Editorial for Special Issue: Distributed & Autonomous Dispatch and Control for Active Distribution Networks/Microgrids Potential Scheme to Realise Plug & Play of DER
Research output: Research › Editorial – Annual report year: 2017

Hardware-in-the-loop (HIL) Test of Demand as Frequency Controlled Reserve (DFR)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

H∞ Robust Current Control for DFIG Based Wind Turbine subject to Grid Voltage Distortions
Research output: Research - peer-review › Journal article – Annual report year: 2016

Optimal Active Power Control of A Wind Farm Equipped with Energy Storage System based on Distributed Model Predictive Control
Research output: Research - peer-review › Journal article – Annual report year: 2016

Optimal Operation of EVs and HPs in the Nordic Power System
Liu, Z., Nielsen, A. H. & Wu, Q. 2016 Technical University of Denmark, Department of Electrical Engineering. 149 p.

Optimal Planning of the Nordic Transmission System with 100% Electric Vehicle Penetration of passenger cars by 2050
Research output: Research - peer-review › Journal article – Annual report year: 2016

Optimal reconfiguration-based dynamic tariff for congestion management and line loss reduction in distribution networks
Research output: Research - peer-review › Journal article – Annual report year: 2016

Probabilistic modeling of nodal electric vehicle load due to fast charging stations
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016
Real-time Distributed Economic Dispatch for Distributed Generation Based on Multi-Agent System
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Review of Energy Storage System for Wind Power Integration Support
Research output: Research - peer-review › Journal article – Annual report year: 2014

Sensitivity Analysis of Dynamic Tariff Method for Congestion Management in Distribution Networks
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

The qualitative criterion of transient angle stability
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Wind turbine inverter robust loop-shaping control subject to grid interaction effects
Research output: Research - peer-review › Journal article – Annual report year: 2015

关于短期及超短期风电功率预测的评述
Research output: Research - peer-review › Journal article – Annual report year: 2015

Closure to Discussion on "Distribution Locational Marginal Pricing for Optimal Electric Vehicle Charging Management"
Research output: Research - peer-review › Journal article – Annual report year: 2014

Coordinated control of wind power and energy storage
Research output: Research › Ph.D. thesis – Annual report year: 2015

Day-Ahead Congestion Management in Distribution Systems through Household Demand Response and Distribution Congestion Prices
Liu, W., Wu, Q., Wen, F. & Østergaard, J. 2014 In : IEEE Transactions on Smart Grid. 5, 6, p. 2739-2747
Research output: Research - peer-review › Journal article – Annual report year: 2014

Day-Ahead Energy Planning with 100% Electric Vehicle Penetration in the Nordic Region by 2050
Research output: Research - peer-review › Journal article – Annual report year: 2014

Development of Energy and Reserve Pre-dispatch and Re-dispatch Models for Real-time Price Risk and Reliability Assessment
Research output: Research - peer-review › Journal article – Annual report year: 2014

Distributed Model Predictive Control for Active Power Control of Wind Farm
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015
Electromagnetic Transient Response Analysis of DFIG under Cascading Grid Faults Considering Phase Angle Jumps
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

EV Charging Analysis Based on the National Travel Surveys of the Nordic Area
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Experimental study on EV purchases assisted by multi-agents representing a set of questionnaires
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Fast Coordinated Control of DFIG Wind Turbine Generators for Low and High Voltage Ride-Through
Research output: Research - peer-review › Journal article – Annual report year: 2014

Frequency Control for Island Operation of Bornholm Power System
Research output: Research - peer-review › Conference article – Annual report year: 2014

Hardware-in-the-loop Test for Demand as Frequency Controlled Reserve
Research output: Research › Report – Annual report year: 2014

Impact study of PV integration in Bornholm power system
Korompili, A., Zimmermann, J. K. & Wu, Q. 2014 Technical University of Denmark, Department of Electrical Engineering. 27 p.
Research output: Research › Report – Annual report year: 2014

L1 Adaptive Speed Control of a Small Wind Energy Conversion System for Maximum Power Point Tracking
Research output: Research - peer-review › Journal article – Annual report year: 2014

Phasor Measurement Unit and Phasor Data Concentrator test with Real Time Digital Simulator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

PowerFactory model for multi-terminal HVDC network with DC voltage droop control
Korompili, A. & Wu, Q. 2014 Technical University of Denmark, Department of Electrical Engineering. 17 p.
Research output: Research - peer-review › Report – Annual report year: 2014

Power Hardware In The Loop Validation of Fault Ride Through of VSC HVDC Connected Offshore Wind Power Plants
Research output: Research - peer-review › Journal article – Annual report year: 2014

Real-Time Market Concept Architecture for EcoGrid EU—A Prototype for European Smart Grids
Research output: Research - peer-review › Journal article – Annual report year: 2014
Review of Congestion Management Methods for Distribution Networks with High Penetration of Distributed Energy Resources
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Robust Current Control of Doubly Fed Wind Turbine Generator under Unbalanced Grid Voltage Conditions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Scenarios for a Nordic Power System without Greenhouse Gas Emissions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

SW-platform for R&D in Applications of Synchrophasor Measurements for Wide-Area Assessment, Control and Visualization in Real-Time
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

基于实验经济学仿真构建碳排放交易的多代理模型
Chao, J., Yusheng, X., Jie, H., Wu, Q. & Yang, G. 2014 In : Dianli Xitong Zidonghua. 38, 17, p. 80-86
Research output: Research - peer-review › Journal article – Annual report year: 2015

电动汽车和可控负荷参与配电系统阻塞管理的市场机制
Research output: Research - peer-review › Journal article – Annual report year: 2015

Distribution Locational Marginal Pricing for Optimal Electric Vehicle Charging Management
Research output: Research - peer-review › Journal article – Annual report year: 2013

Distribution Network Expansion Planning Based on Multi-objective PSO Algorithm
Research output: Research - peer-review › Journal article – Annual report year: 2014

Economical evaluation of large-scale photovoltaic systems using Universal Generating Function techniques
Research output: Research - peer-review › Journal article – Annual report year: 2013

Electricity demand profile with high penetration of heat pumps in Nordic area
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

EV Charging Analysis with High EV Penetration in the Nordic Region
Liu, Z. & Wu, Q. 2013 Technical University of Denmark, Department of Electrical Engineering. 83 p.
Research output: Research › Report – Annual report year: 2013

Extension of market concept with market-driven optimisation of distribution system operation
Wu, Q. & Østergaard, J. 2013 100 p.
Research output: Research › Report – Annual report year: 2013

Generation Expansion Planning Considering Integrating Large-scale Wind Generation
Grid Integration of Electric Vehicles in Open Electricity Markets
Research output: Research - peer-review › Book – Annual report year: 2013

Impact and Cost Evaluation of Electric Vehicle Integration on Medium Voltage Distribution Networks
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Implementation of draft IEC Generic Model of Type 1 Wind Turbine Generator in PowerFactory and Simulink
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Implementation of IEC Generic Model of Type 1 Wind Turbine Generator in DlgSILENT PowerFactory
Research output: Research - peer-review › Journal article – Annual report year: 2013

Large Scale Deployment of Electric Vehicles (EVs) and Heat Pumps (HPs) in the Nordic Region
Liu, Z., Wu, Q. & Petersen, P. F. 2013 Technical University of Denmark, Department of Electrical Engineering. 60 p.
Research output: Research › Report – Annual report year: 2013

Policies and Initiatives for Carbon Neutrality in Nordic
Research output: Research - peer-review › Journal article – Annual report year: 2012

Study on VSC HVDC Modeling and Control Strategies for Wind Power Integration
Korompili, A. & Wu, Q. 2013 Technical University of Denmark, Department of Electrical Engineering. 118 p.
Research output: Research › Report – Annual report year: 2013

Test of RTDS and SCADA integration using IEC 60870-5-104
Zimmermann, J. K. & Wu, Q. 2013 Technical University of Denmark, Department of Electrical Engineering. 15 p.
Research output: Research › Report – Annual report year: 2013

Voltage control of distribution systems with high penetration of DERs using optimal power flow
Wu, Q. 2013 95 p.
Research output: Research › Report – Annual report year: 2013

A Generic Danish Distribution Grid Model for Smart Grid Technology Testing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Agent based Particle Swarm Optimization for Load Frequency Control of Distribution Grid
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Cooperative Operation of Battery Energy Storage System and Dispatchable Distributed Generations in Microgrid System
Zhao, H., Cha, S-T., Rasmussen, C. N. & Wu, Q. 2012 8 p.
Research output: Research - peer-review › Paper – Annual report year: 2012

Coordinated Control Scheme of Battery Energy Storage System (BESS) and Distributed Generations (DGs) for Electric Distribution Grid Operation
Current Electric Distribution Network Operation and Grid Tariffs
Research output: Research › Report – Annual report year: 2012

Day-ahead tariffs for the alleviation of distribution grid congestion from electric vehicles
Research output: Research - peer-review › Journal article – Annual report year: 2012

Definition of multi-state weighted k-out-of-n: F systems
Research output: Research - peer-review › Journal article – Annual report year: 2012

Efficient determination of distribution tariffs for the prevention of congestion from EV Charging
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Evaluation of Energy Storage System to Support Danish Island of Bornholm Power Grid
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Frequency Stabilizing Scheme for a Danish Island Grid
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Heuristic Optimization Techniques for Determining Optimal Reserve Structure of Power Generating Systems
Research output: Research - peer-review › Book chapter – Annual report year: 2012

Impact Study of Electric Vehicle (EV) Integration on Low Voltage (LV) Grids
Research output: Research › Article in proceedings – Annual report year: 2012

Implementation of IEC Generic Model Type 1A using RTDS
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Implementation of IEC Generic Model Type 1 Wind Turbine Generators using RTDS
Cha, S-T., Wu, Q., Zhao, H., Margaris, I., Sørensen, P. E. & Østergaard, J. 2012
Research output: Research - peer-review › Paper – Annual report year: 2012

Policies and initiatives for carbon neutrality in nordic heating and transport systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012
Power-Hardware-in-the-Loop Test of VSC HVDC Connection for Offshore Wind Power Plants
Cha, S-T., Sharma, R., Wu, Q. & Østergaard, J. 2012
Research output: Research > Sound/Visual production (digital) – Annual report year: 2012

Real-Time Analysis of an Active Distribution Network - Coordinated Frequency Control for Islanding Operation
Cha, S-T., Østergaard, J. & Wu, Q. 2012 Technical University of Denmark, Department of Electrical Engineering. 174 p.

Real-Time Hardware-in-the-Loop Testing for Digital Controllers
Research output: Research - peer-review > Article in proceedings – Annual report year: 2012

Real-time Intelligent Control Laboratory (RT-ICL) of PowerLabDK for smart grid technology development
Research output: Research - peer-review > Article in proceedings – Annual report year: 2012

Reliability Evaluation considering Structures of a Large Scale Wind Farm
Research output: Research - peer-review > Article in proceedings – Annual report year: 2012

Designing incentive market mechanisms for improving restructured power system reliabilities
Research output: Research - peer-review > Article in proceedings – Annual report year: 2011

Electric Vehicle (EV) Charging Management with Dynamic Distribution System Tariff
Research output: Research - peer-review > Article in proceedings – Annual report year: 2011

Impact Study of Electric Vehicle (EV) Integration on Medium Voltage (MV) Grids
Research output: Research - peer-review > Article in proceedings – Annual report year: 2011

Modeling and Control for Islanding Operation of Active Distribution Systems
Research output: Research - peer-review > Book chapter – Annual report year: 2011

Multi-agent based controller for islanding operation of active distribution networks with distributed generation
Research output: Research - peer-review > Article in proceedings – Annual report year: 2011

Optimal charging schedule of an electric vehicle fleet
Research output: Research - peer-review > Article in proceedings – Annual report year: 2011

Potential Analysis of Electric Vehicle (EV) Grid Integration
Research output: Research > Report – Annual report year: 2011
Potential Analysis of Regulating Power from Electric Vehicle (EV) Integration in Denmark
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Power-Hardware-In-the-Loop (PHIL) Test of VSC-based HVDC connection for Offshore Wind Power Plants (WPPs)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Research Developments on Power System Integration of Wind Power
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Review of Integration of Distributed Energy Resources (DERs) Into Power Systems
Research output: Research › Report – Annual report year: 2011

Towards a European renewable-based energy system enabled by smart grid: status and prospects
Research output: Research - peer-review › Journal article – Annual report year: 2011

A Real-Time Simulation Platform for Power System Operation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Average Behavior of Battery - Electric Vehicles for Distributed Energy System Studies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Communication Test for ‘MatrikonOPC Server for SCADA DNP 3’ with RTDS
Wu, Q., Cha, S.-T., Saleem, A. & Østergaard, J. 2010
Research output: Research - peer-review › Report – Annual report year: 2010

Direct Load Control (DLC) Considering Nodal Interrupted Energy Assessment Rate (NIEAR) in Restructured Power Systems
Research output: Research - peer-review › Journal article – Annual report year: 2010

DNP Communication Function with RTDS: GTNET-DNP& ASE Interface Test Results
Research output: Research - peer-review › Report – Annual report year: 2010

Driving Pattern Analysis for Electric Vehicle (EV) Grid Integration Study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Fuzzy logic-based direct load control of air conditioning loads considering nodal reliability characteristics in restructured power systems
Research output: Research - peer-review › Journal article – Annual report year: 2010
Grid Integration Issues for Large Scale Wind Power Plants (WPPs)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Long-Term Reserve Expansion of Power Systems With High Wind Power Penetration Using Universal Generating Function Methods
Research output: Research - peer-review › Journal article – Annual report year: 2010

Modeling of Electric Vehicles (EVs) for EV Grid Integration Study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

System Architecture Design for Electric Vehicle (EV) Systems
Research output: Research › Report – Annual report year: 2010

EV Portfolio Management and Grid Impact Study
Research output: Research › Report – Annual report year: 2009

Nodal price volatility reduction and reliability enhancement of restructured power systems considering demand-price elasticity
Research output: Research - peer-review › Journal article – Annual report year: 2008

Projects:

**Coordinated Operation of Integrated Energy Systems**
Wu, Q., Turk, A., Kazempour, J., Schwele, A. & Nielsen, A. H.
01/09/2017 → 31/08/2020
Project: Research

**Voltage control on the transmission grid using wind power at other voltage levels**
Wu, Q.
01/03/2016 → 31/08/2018
Project: Research

**Optimal operation and real time control of integrated energy systems**
Turk, A., Wu, Q. & Zeng, Q.
01/10/2018 → 30/09/2021
Project: PhD

**Coordinated Control of Wind Power and Combined AC/DC Grid**
Wang, P., Wu, Q. & Nielsen, A. H.
15/10/2018 → 14/10/2021
Project: PhD

**Optimal Operation of Integrated Electricity and Heat Systems with Large Amounts of Wind and Solar Power**
Tan, J., Wu, Q. & Zeng, Q.
15/10/2018 → 14/10/2021
Project: PhD
Robust Congestion Management and Self-healing for Active Distribution Networks
Shen, F., Wu, Q., Huang, S. & Xu, Y.
Institut stipendie (DTU)
01/09/2017 → 31/08/2020
Project: PhD

Phasor Measurement Unit Applications for Small Signal Stability Assessment and Improvement of Power Systems
Ghiga, R., Nielsen, A. H., Wu, Q., Yang, G., Fu, Y. & Uhlen, K.
Samfinansieret - Andet
01/01/2014 → 13/09/2017
Project: PhD

Real-Time Analysis of an Active Distribution Network - Coordinated Frequency Control for Islanding
Cha, S., Østergaard, J., Wu, Q., Træholt, C., Marnay, C. & Repo, S. P.
1/3 FUU, 1/3 inst 1/3 Andet
01/08/2009 → 04/04/2013
Project: PhD

Offshore Wind Park Control Assessment Methodologies to Assure Robustness and Fault tolerance
ErhvervsPhD-ordningen VTU
01/09/2012 → 20/01/2016
Project: PhD

Early Warning for Cascading Outages in Electric Power Systems
Petersen, P. F., Nielsen, A. H., Jóhannsson, H., Wu, Q., Repo, S. P. & Terzija, V.
Samfinansieret - Andet
01/11/2013 → 06/12/2017
Project: PhD

Exploring Market Models for a European Electricity Grid With a High Penetration of Renewable Energy Sources
Samfinansieret - Andet
01/09/2013 → 13/09/2017
Project: PhD

Congestion Management of Distribution Networks with High Penetration of Distributed Energy Resources (DERs)
Huang, S., Wu, Q., Nielsen, A. H., Træholt, C., Hobbs, B. F. & Repo, S. P.
Samfinansieret - Andet
01/10/2013 → 08/02/2017
Project: PhD

Validation of Control Services in Future Sustainable Power Systems
Institut, samfinansiering
15/09/2012 → 10/05/2017
Project: PhD

Dynamic Coverage and Flow Coordination in Multi-Agent Networks
Institut stipendie (DTU) Samf.
15/05/2013 → 08/02/2017
Project: PhD
Coordinated Control of Wind Power Plants and Energy Storage Systems
Zhao, H., Wu, Q., Rasmussen, C. N., Træholt, C., Pöller, M. & Zhang, B.
Institut stipendie (DTU) Samf.
15/10/2011 → 27/02/2015
Project: PhD

Electric vehicle integration in a real-time market
Institut stipendie (DTU) Samf.
01/02/2011 → 18/03/2015
Project: PhD

Energy and Ancillary Services in Future Electricity Markets
Soares, T., Pinson, P., Wu, Q., Bell, K. R. W. & Ernst, D.
Institut stipendie (DTU)
01/02/2014 → 10/05/2017
Project: PhD

Optimal Operation of Distribution Networks with Electrification of Transport and Heating in Nordic Region
Liu, Z., Nielsen, A. H., Wu, Q., Træholt, C., Sun, H. & Wang, L.
Institut stipendie (DTU) Samf.
01/10/2012 → 16/03/2016
Project: PhD

IDE4L: Ideal grid for all
Wu, Q.
01/09/2013 → 31/08/2016
Project: Research

FA ENDK: Rammeaftale vedrørende udnyttelse af PowerlabDK's faciliteter
Wu, Q.
01/01/2013 → 31/12/2017
Project: Research

Wind Power & VSC-HVDC: Modeling and Simulation of Wind Power & VSC-HVDC and Its Application in Offshore Wind Power Integration
Wu, Q.
01/01/2013 → 31/12/2014
Project: Research

Int. Microgrid: Integrated Microgrid Planning, Operation and Control System with Distributed Generation
Wu, Q.
01/01/2013 → 31/12/2013
Project: Research

NOSTRAT: Nordic power road map 2050: Strategic choices towards carbon neutrality
Wu, Q.
15/08/2012 → 14/08/2016
Project: Research

Vind i Øresund - EU Interreg IV A
Wu, Q.
01/01/2008 → 31/12/2012
Project: Research

EDISON: Electric vehicles in a Distributed and Integrated market using Sustainable energy and Open Networks
Wu, Q.
02/03/2009 → 31/12/2012
Project: Research

Pre-standardisation of wind power modelling
Sørensen, P. E., Margaris, I., Hansen, A. D. & Wu, Q.
01/05/2009 → 30/11/2013
Project: Research

EcoGrid EU: EcoGrid EU - Large scale Smart Grids demonstration of real time market-based integration of DER and DR
EU FP7
01/04/2011 → 30/09/2015
Project: Research