Hjörtur Jóhannsson - DTU Orbit (15/11/2017)

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Department of Electrical Engineering - Senior Scientific Consultant
Center for Electric Power and Energy
Electric power systems

Publications:

An Improved On-line Contingency Screening for Power System Transient Stability Assessment
Publication: Research - peer-review › Journal article – Annual report year: 2017

Detecting Topological Errors with Pre-Estimation Filtering of Bad Data in Wide-Area Measurements
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Super-Positioning of Voltage Sources for Fast Assessment of Wide-Area Thévenin Equivalents
Møller, J. G., Jóhannsson, H. & Østergaard, J. 2017 In : IEEE Transactions on Smart Grid. 8, 3, p. 1488-1493
Publication: Research - peer-review › Journal article – Annual report year: 2017

Energy Optimization for Distributed Energy Resources Scheduling with Enhancements in Voltage Stability Margin
Publication: Research - peer-review › Journal article – Annual report year: 2016

Fault Tolerant Emergency Control to Preserve Power System Stability
Publication: Research - peer-review › Journal article – Annual report year: 2015

Improved Thévenin equivalent methods for real-time voltage stability assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

On-Line Generation and Arming of System Protection Schemes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Real-Time Countermeasures Preventing Power System Instability by using PMU data from RTDS simulation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Real-time remedial action against aperiodic small signal rotor angle instability
Publication: Research - peer-review › Journal article – Annual report year: 2016
Unweighted Betweenness Centrality for Critical Fault Detection for Cascading Outage Assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Thévenin equivalent based static contingency assessment
Publication: Research › Patent – Annual report year: 2015

Convex Relaxation of Power Dispatch for Voltage Stability Improvement
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Critical machine cluster identification using the equal area criterion
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Derivation and application of sensitivities to assess transient voltage sags caused by rotor swings
Publication: Research - peer-review › Journal article – Annual report year: 2015

Early Prevention Method for Power System Instability
Publication: Research - peer-review › Journal article – Annual report year: 2015

Evaluation of HVDC interconnection models for considering its impact in real-time voltage stability assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Improved method for considering PMU's uncertainty and its effect on real-time stability assessment methods based on Thévenin equivalent
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Improved method for considering PMU's uncertainty and its effect on real-time stability assessment methods based on Thévenin equivalent
Perez, A., Jóhannsson, H., Østergaard, J. & Martin, K. 2015
Publication: Research - peer-review › Paper – Annual report year: 2015

Investigation of Suitability of Cascading Outage Assessment Methods for Real-Time Assessment
Petersen, P. F., Jóhannsson, H. & Nielsen, A. H. 2015
Publication: Research - peer-review › Paper – Annual report year: 2015

Thevenin Equivalent Method for Dynamic Contingency Assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Wide-Area Emergency Control In Power Transmission
Publication: Research › Ph.D. thesis – Annual report year: 2015
Wind farms generation limits and its impact in real-time voltage stability assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Computation of Steady State Nodal Voltages for Fast Security Assessment in Power Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Early Prediction of Transient Voltage Sags caused by Rotor Swings
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Evaluation of enhancements to Thevenin equivalent based methods for real-time voltage stability assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Publication: Research › Ph.D. thesis – Annual report year: 2015

Sensitivity based Assessment of Transient Voltage Sags caused by Rotor Swings
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Publication: Research - peer-review › Journal article – Annual report year: 2014

Stabiliser Fault Emergency Control using Reconfiguration to Preserve Power System Stability
Publication: 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
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Technical Resource Potential of Non-disruptive Residential Demand Response in Denmark
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Uncertainty in real-time voltage stability assessment methods based on Thevenin equivalent due to PMU's accuracy
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014
Wide-Area Assessment of Aperiodic Small Signal Rotor Angle Stability in Real-Time
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Wide Area Prosumption Control and Sensitivities of Aperiodic Small Signal Stability Indicators
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

An implementation and test platform for wide area stability assessment methods
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Coordination of system needs and provision of services
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Early Prevention Method for Power Systems Instability
Publication: Research › Ph.D. thesis – Annual report year: 2014

Impact of Model Detail of Synchronous Machines on Real-time Transient Stability Assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Influence of current limitation on voltage stability with voltage sourced converter HVDC
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Method of determining remedial control actions for a power system in an insecure state
Jóhannsson, H. & Weckesser, J. T. G. 2013
Publication: Research › Patent – Annual report year: 2011

Real-Time Thevenin Impedance Computation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Suitability of voltage stability study methods for real-time assessment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013
System security assessment in real-time using synchrophasor measurements
Publication: Research - peer-review › Book chapter – Annual report year: 2013

Wide-Area Assessment of Aperiodic Small Signal Rotor Angle Stability In Real-Time
Publication: Research - peer-review › Journal article – Annual report year: 2013

Addressing the security of a future sustainable power system: The Danish SOSPO project
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Assessment of the impact that individual voltage source has on a generator's stability
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Early prevention of instability - search for optimal grid nodes for applying countermeasures
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Identification of Critical Transmission Limits in Injection Impedance Plane
Publication: Research - peer-review › Journal article – Annual report year: 2012

Investigation of the Adaptability of Transient Stability Assessment Methods to Real-Time Operation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Assessment of Power Systems
Jóhannsson, H. 2011
Publication: Research › Patent – Annual report year: 2011

Development of Early Warning Methods for Electric Power Systems
Publication: Research › Ph.D. thesis – Annual report year: 2011

Real-Time Stability Assessment based on Synchrophasors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Ecogrid.dk Phase 1 WP4 report: New measures for integration of large scale renewable energy
Publication: Research › Report – Annual report year: 2008
Projects:

Development of methods for element-wise assessment of oscillatory rotor-angle stability
Müller, D., Nielsen, A. H., Jóhannsson, H. & Uhlen, K.
01/11/2017 → 31/10/2020
Project: PhD

High Performance Algorithms Enabling Real-Time Security Assessment of Sustainable Electric Power Systems
Hildebrandt, C. B., Nielsen, A. H., Jóhannsson, H. & Sommer, S. H.
15/05/2017 → 14/05/2020
Project: PhD

Modelling of renewable energy under stressed power system stability conditions
Sarkar, M., Sørensen, P. E., Altin, M., Hansen, A. D. & Jóhannsson, H.
15/11/2016 → 14/11/2019
Project: PhD

Voltage Stability in RES based power systems
Karatas, B. C., Nielsen, A. H. & Jóhannsson, H.
15/05/2016 → 14/05/2019
Project: PhD

Security Assessment of Renewable Power Systems
Jóhannsson, H., Sørensen, P. E., Karatas, B. C., Sarkar, M. & Hildebrandt, C. B.
01/04/2016 → 31/03/2020
Project

Early Warning for Cascading Outages in Electric Power Systems
Petersen, P. F., Nielsen, A. H., Jóhannsson, H., Wu, Q., Repo, S. P. & Terzija, V.
01/11/2013 → 31/12/2016
Project: PhD

Static Security Assessment and PMU Data Validation
01/08/2013 → 12/04/2017
Project: PhD

Wide-Area Prosumption Modelling and Control
Wittrock, M. L., Nielsen, A. H., Jóhannsson, H., Sørensen, P. E., Erlich, I. & Glavic, M.
01/03/2013 → 12/04/2017
Project: PhD

Real-Time Assessment of Voltage Stability (tentative)
Perez, A., Østergaard, J., Jóhannsson, H., Træholt, C., Chow, J. H. & Uhlen, K.
15/01/2013 → 30/09/2016
Project: PhD

Emergency Control in Power Transmission
Pedersen, A. S., Blanke, M., Jóhannsson, H., Tabatabaeipour, M., Niemann, H. H., Erlich, I. & Stoustrup, J.
01/11/2012 → 20/01/2016
Project: PhD

Secure Operation of Sustainable Power Systems
On-line Dynamic Security Assessment in Power Systems
Weckesser, J. T. G.; Østergaard, J.; Jóhannsson, H.; Pinson, P.; Glavic, M. & Kundur, P.
01/09/2011 → 07/05/2015
Project: PhD

Methods for Early Warning and Early Prevention of Voltage Instability
Dmitrova, E.; Nielsen, A. H.; Jóhannsson, H.; Jóhannsson, H.; Træholt, C.; Makarov, Y. V. & Samuelsson, O.
01/06/2010 → 26/11/2013
Project: PhD

EcoGrid DK: 50% wind power in the Danish Electric Power System
Jóhannsson, H.; Saleem, A.; You, S.; Garcia-Valle, R. & Vlachogiannis, I. (. 
01/05/2007 → 01/07/2008
Project

Activities:

Real-Time Stability Assessment based on Synchrophasors: IEEE PowerTech 2011
Jóhannsson, H. (Speaker)
20 Jun 2011
Activity: Talks and presentations › Conference presentations

Udvikling af nye metoder for realtidsstabilitetsovervågning af elforsyningsystemer: PMU/WAMS seminar hos Energinet.dk
Jóhannsson, H. (Speaker)
1 Jan 2011 → ...
Activity: Talks and presentations › Conference presentations