



Dirk Van Hertem

KU Leuven
& EnergyVille

power system operations
power system planning
HVDC
supergrid
power system reliability

	All	Since 2013
Citations	3301	2841
h-index	28	25
i10-index	56	51

TITLE	CITED BY	YEAR
Multi-terminal VSC HVDC for the European supergrid: Obstacles D Van Hertem, M Ghandhari Renewable and sustainable energy reviews 14 (9), 3156-3163	473	2010
Prospects and challenges of future HVDC SuperGrids with modular multilevel converters N Ahmed, A Haider, D Van Hertem, L Zhang, HP Nee Power Electronics and Applications (EPE 2011), Proceedings of the 2011-14th ...	179	2011
Wavelet-based protection strategy for DC faults in multi-terminal VSC HVDC systems K De Kerf, K Srivastava, M Reza, D Bekaert, S Cole, D Van Hertem, ... IET Generation, Transmission & Distribution 5 (4), 496-503	172	2011
Feasibility of DC Transmission Networks D Jovicic, D Van Hertem, K Linden, JP Taisne, W Grieshaber Proceedings of the IEEE PES Innovative Smart Grid Technologies Europe 2011	170	2011
Phase shifting transformers: principles and applications J Verboomen, D Van Hertem, PH Schavemaker, WL Kling, R Belmans Future Power Systems, 2005 International Conference on, 6 pp.-6	136	2005
VSC MTDC systems with a distributed DC voltage control-A power flow approach J Beerten, D Van Hertem, R Belmans PowerTech, 2011 IEEE Trondheim, 1-6	117	2011
Usefulness of DC power flow for active power flow analysis with flow controlling devices D Van Hertem, J Verboomen, K Purchala, R Belmans, WL Kling AC and DC Power Transmission, 2006. ACDC 2006. The 8th IEE International ...	103	2006
Technical limitations towards a SuperGrid—A European prospective D Van Hertem, M Ghandhari, M Delimar Energy Conference and Exhibition (EnergyCon), 2010 IEEE International, 302-309	101	2010
Grid Inertia and Frequency Control in Power Systems with High Penetration of Renewables P Tielens, D Van Hertem status: published	93	2012
HVDC SuperGrids with modular multilevel converters—The power transmission backbone of the future N Ahmed, S Norrga, HP Nee, A Haider, D Van Hertem, L Zhang, ... Systems, Signals and Devices (SSD), 2012 9th International Multi-Conference ...	80	2012
The relevance of inertia in power systems P Tielens, D Van Hertem Renewable & Sustainable Energy Reviews 55, 999-1009	67	2016
Transmission investment problems in Europe: Going beyond standard solutions P Buijs, D Bekaert, S Cole, D Van Hertem, R Belmans Energy Policy 39 (3), 1794-1801	65	2011
Economic comparison of VSC HVDC and HVAC as transmission system for a 300 MW offshore wind farm B Van Eeckhout, D Van Hertem, M Reza, K Srivastava, R Belmans International Transactions on Electrical Energy Systems 20 (5), 661-671	65	2010
Non-unit protection of HVDC grids with inductive dc cable termination W Leterme, J Beerten, D Van Hertem IEEE Transactions on Power Delivery	56	2015
Protection requirements for a multi-terminal meshed DC grid D Van Hertem, M Ghandhari, JB Curis, O Despouys, A Marzin Cigré symposium The electric power system of the future, Bologna	53	2011
Transmission system topology optimization for large-scale offshore wind integration H Ergun, D Van Hertem, R Belmans IEEE Transactions on Sustainable Energy 3 (4), 908-917	49	2012
Transmission system topology optimization for large-scale offshore wind integration H Ergun, D Van Hertem, R Belmans IEEE Transactions on Sustainable Energy 3 (4), 908-917	49	2012
HVDC grids: for offshore and supergrid of the future D Van Hertem, O Gomis-Bellmunt, J Liang Wiley-IEEE Press 1, 528	45	2016
HVDC grids: for offshore and supergrid of the future D Van Hertem, O Gomis-Bellmunt, J Liang John Wiley & Sons	45	2016

You are here: [Home](#) / [Professors](#) / Dirk Van Hertem

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Dirk Van Hertem graduated as a M.Eng. in 2001 from the KHK, Geel, Belgium and as a M.Sc. in Electrical Engineering from the KU Leuven, Belgium in 2003. In 2009, he has obtained his PhD, also from the KU Leuven. In 2010, Dirk Van Hertem was a member of EPS group at the Royal Institute of Technology (KTH), in Stockholm. Since spring 2011 he is back at the University of Leuven where he is an associate professor in the ELECTA group. His special fields of interest are power system operation and control in systems with FACTS and HVDC and building the transmission system of the future, including offshore grids and the supergrid concept.

Dr. Van Hertem is an active member of both IEEE (PES and IAS) and Cigré, currently acting as chair of the IEEE Benelux section and as chair of the steering committee of the ISGT Europe conference. He was the general chair of the IEEE EnergyCon 2016 conference, held in Leuven.

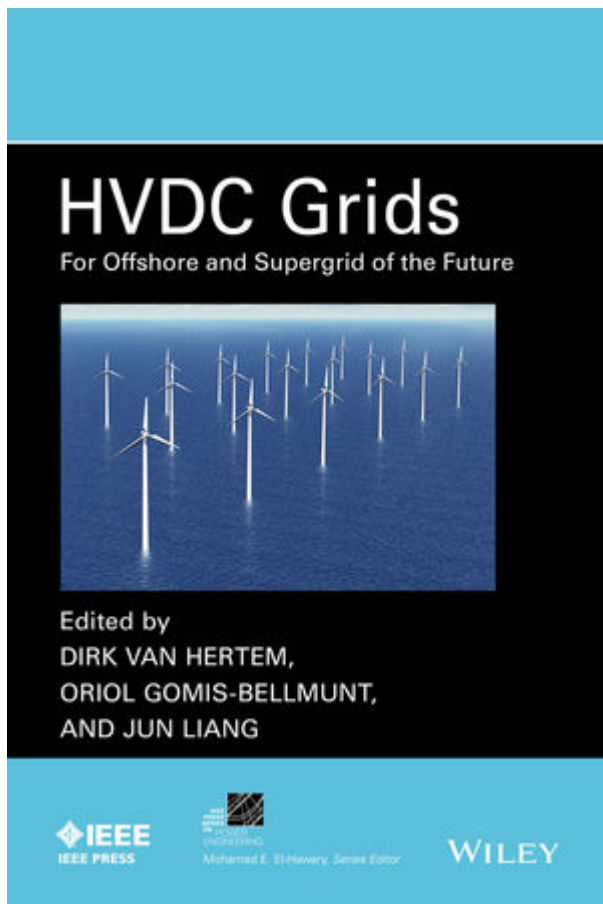
RESEARCH

My research focusses on power system planning, operation and control. More specifically I am interested in three components:

- › Building and operating the transmission system of the future, including HVDC and HVDC grids
- › A cost-effective reliable energy supply
- › Large scale integration of renewables

HVDC GRIDS BOOK

Together with my colleagues Oriol Gomis-Bellmunt from UPC Barcelona and Jun Liang from Cardiff University, we edited the first book fully dedicated to the entire value stream of HVDC grids. The book is titled HVDC GRIDS: for offshore and supergrid of the future, and is a collaborative work of our research groups in Leuven, Barcelona and Cardiff.



RESEARCH TEAM

Post-doctoral researchers

- › [Hakan Ergun](#)
- › [Frederik Geth](#)
- › [Willem Leterme](#)
- › [Geraint Chaffey](#)
- › [Evelyn Heylen](#)
- › [Mohammad Meraj Alam](#)

PhD students / Research assistants

- › [Muhajir Tadesse Mekonnen](#) (co-promotor)
- › [Hanspeter Höschle](#) (co-promotor)
- › [Diyun Huang](#)
- › [Alejandro Bayo Salas](#)
- › [Tom Van Acker](#)
- › [Mian Wang](#)
- › [Mudar Abedrabbo](#)
- › [Firew Zerihun Dejene](#)
- › [Jaykumar Dave](#)
- › [Rick Loenders](#)

Master in energy: Thesis students

Vacancies

All vacancies for PhD research or other will be posted on the [KU Leuven job site](#). If there are no vacancies listed, it is unlikely that I have immediate opportunities, but feel free to send me your CV (although I might not respond to it). At this moment, there is no official vacancy for a PhD student in my group. That being said, there are currently two positions within the field of decision support for grid operators (send me an email if you are interested to know more, in particular if you have an optimization/mathematical background), and I hope to announce some positions in the field of DC grids soon.

Teaching

- › [Power system calculations](#)
- › [Electrical drives; Advanced topics in electrical machines, including implementation aspects](#) (together with prof. Johan Driesen)
- › [Design and management of electrical power systems](#) (together with Markus Berger)
- › [Flexible electrical power systems](#) (together with dr. Jef Beerten)

PUBLICATIONS (2012-NOW)

The full list of publications can be found on the [lirias server](#).

A selection (the last 5 years) can be found below.



PROJECTS



PUBLICATIONS

SELECTED PUBLICATIONS

Articles in international reviewed journals (32)

- › Renner R., Van Hertem D. 2017. [Potential of wind farms connected to HVDC grid to provide DC ancillary services](#). *IEEE Transactions on Sustainable Energy*, vol.PP (99) , pp. 1-1
- › Wang M., Beerten J., Van Hertem D. 2017. [Frequency domain based DC fault analysis for bipolar HVDC grids](#). *Journal of Modern Power Systems and Clean Energy*, vol.5 (4) , pp. 548-559
- › Mokhberdoran A., Van Hertem D., Silva N., Leite H., Carvalho A. 2017. [Multi-port Hybrid HVDC Circuit Breaker](#). *IEEE Transactions on Industrial Electronics*, vol.99 , pp. 1-1
- › Barnes M., Van Hertem D., Teeuwsen S., Callavik M. 2017. [HVDC Systems in Smart Grids](#). *Proceedings of the IEEE*, vol. (99) , pp. 1-17
- › Tielens P., Van Hertem D. 2017. [Receding Horizon Control of Wind Power to Provide Frequency Regulation](#). *IEEE Transactions on Power Systems*, vol.32 (4) , pp. 2663-2672
- › Heylen E., Labeeuw W., Deconinck G., Van Hertem D. 2016. [Framework for Evaluating and Comparing Performance of Power System Reliability Criteria](#). *IEEE Transactions on Power Systems*, vol.31 (6) , pp. 5153-5162
- › Pirooz Azad S., Leterme W., Van Hertem D. 2016. [Fast breaker failure backup protection for HVDC grids](#). *Electric Power Systems Research*, vol.Volume 138 (Special Issue: Papers from the 11th International Conference on Power Systems Transients (IPST)) , pp. 99-105

- › Leterme W., Pirooz Azad S., Van Hertem D. 2016. A Local Backup Protection Algorithm for HVDC Grids. *IEEE Transactions on Power Delivery*, vol.31 (4) , pp. 1767-1775
- › Ergun H., Rawn B., Belmans R., Van Hertem D. 2016. Stepwise Investment Plan Optimization for Large Scale and Multi-Zonal Transmission System Expansion. *IEEE Transactions on Power Systems*, vol.31 (4) , pp. 2726-2739
- › Pirooz Azad S., Van Hertem D. 2016. A Fast Local Bus Current-Based Primary Relaying Algorithm for HVDC Grids. *IEEE Transactions on Power Delivery*, vol.7523993
- › De Boeck S., Das K., Trovato V., Turunen J., Halat M., Sorensen P., Van Hertem D. 2016. Review of Defence Plans in Europe: Current Status, Strenghts and Opportunities. *CIGRE Science & Engineering*, vol.5 , pp. 6-16
- › De Boeck S., Van Hertem D. 2016. Integration of Distributed PV in Existing and Future UFLS Schemes. *IEEE Transactions on Smart Grid*, vol. (99), accepted
- › Renner R., Van Hertem D. 2016. Potential of using DC voltage restoration reserve for HVDC grids. *Electric Power Systems Research*, vol.134 , pp. 167-175
- › Bayo Salas A., Beerten J., Rimez J., Van Hertem D. 2016. Analysis of control interactions in multi-infeed VSC HVDC connections. *IET Generation Transmission & Distribution*, vol.10 (6) , pp. 1336-1344
- › Leterme W., Beerten J., Van Hertem D. 2016. Nonunit protection of HVDC grids with inductive dc cable termination. *IEEE Transactions on Power Delivery*, vol.31 (2) , pp. 820-828
- › Babazadeh D., Van Hertem D., Nordstrom L. 2016. Study of Centralized and Distributed Coordination of Power Injection in Multi-TSO HVDC Grid with Large Off-shore Wind Integration. *Electric Power Systems Research*, vol.EPSR4606
- › Tielens P., Van Hertem D. 2016. The Relevance of Inertia in Power Systems. *Renewable & Sustainable Energy Reviews*, vol.55 , pp. 999-1009
- › De Rijcke S., Tielens P., Rawn B., Van Hertem D., Driesen J. 2015. Trading Energy Yield for Frequency Regulation: Optimal Control of Kinetic Energy in Wind Farms. *IEEE Transactions on Power Systems*, vol.30 (5) , pp. 2469-2478
- › Nguyen N., Vanfretti L., Driesen J., Van Hertem D. 2015. A Quantitative Method to Determine ICT Delay Requirements for Wide-Area Power System Damping Controllers. *IEEE Transactions on Power Systems*, vol.30 (4) , pp. 2023-2030
- › Renner R., Van Hertem D. 2015. Ancillary Services in Electric Power Systems with HVDC Grids. *IET Generation Transmission & Distribution*, vol.9 (11) , pp. 1179-1185
- › Egea-Alvarez A., Beerten J., Van Hertem D., Gomis O. 2015. Hierarchical power control of multiterminal HVDC grids. *Electric Power Systems Research*, vol.121 , pp. 207-215
- › Guha Thakurta P., Belmans R., Van Hertem D. 2015. Risk-based Management of Overloads caused by Power Injection Uncertainties using Power Flow Controlling Devices. *IEEE Transactions on Power Systems*, vol.TPWRS-00378
- › Leterme W., Tielens P., De Boeck S., Van Hertem D. 2014. Overview of Grounding and Configuration Options for Meshed HVDC grids. *IEEE Transactions on Power Delivery*, vol.29 (6) , pp. 2467-2475
- › Guha Thakurta P., Maeght J., Belmans R., Van Hertem D. 2014. Increasing Transmission Grid Flexibility by TSO Coordination to Integrate More Wind Energy Sources While Maintaining System Security. *IEEE Transactions on Sustainable Energy*, vol.TSTE-00532
- › Ergun H., Rawn B., Belmans R., Van Hertem D. 2014. Technology and Topology Optimization for Multizonal Transmission Systems. *IEEE Transactions on Power Systems*, vol.29 (5) , pp. 2469-2477
- › Vande Meerssche B., Van Ham G., Van Hertem D., Deconinck G. 2013. Balancing renewables by demand side management: Local and global potential. *International Journal of Distributed Energy Resources*, vol.9 (4) , pp. 383-397

- › Van Hertem D., Rimez J., Belmans R. 2013. Power Flow Controlling Devices as a Smart and Independent Grid Investment for Flexible Grid Operations: Belgian Case Study. *IEEE Transactions on Smart Grid*, vol.4 (3):6497544 , pp. 1656-1664
- › Henry S., Despouys O., Adapa R., Barthold L., Bayfield C., Bell K., Binard J., Edris A., Egrot P., Hung W., Irwin G., Karady G., L'Abbate A., Li M., Manchen M., Messner J., Migliavaca G., Muttik P., Nourizian M., Peard A., Rauhala T., Sakai T., Sanz S., Song Z., Temtem S., Van Hertem D., Zhang L. 2013. Influence of Embedded HVDC Transmission on System Security and AC Network Performance. *Electra* , pp. 79-86
- › Asplund G., Lindén K., Barker C., Marzin A., Baur U., Pahalawaththa N., Beerten J., Rashwan M., Christensen P., Rittiger J., Cole S., Søgaaard K., Van Hertem D., Westermann D., Jialiang W., Wilkening E., Jovcic D., Yue C., Labra P. 2013. HVDC Grid Feasibility Study. *Electra* , pp. 50-59
- › De Rijcke S., Van Hertem D., Driesen J., Ergun H. 2012. Grid Impact of Voltage Control and Reactive Power Support by Wind Turbines Equipped With Direct-Drive Synchronous Machines. *IEEE Transactions on Sustainable Energy*, vol.3 (4) , pp. 890-898
- › Ergun H., Van Hertem D., Belmans R. 2012. Transmission System Topology Optimization for Large-Scale Offshore Wind Integration. *IEEE Transactions on Sustainable Energy*, vol.3 (4) , pp. 908-917
- › Westermann D., Küster A., Van Hertem D., Soerangr D., Real G., Meisingset M., Takasaki M., Rauhala T., Klöckl B., Kurrat M., Deppe B., Bennet M., Atmuri R., Friedrich K. 2012. Voltage Source Converter (VSC) HVDC for Power Transmission - Economic Aspects and Comparison with other AC and DC Technologies. *Electra*, vol. (261) , pp. 59-65

Books from international publisher (3)

- › Asplund G., Barker C., Baur U., Beerten J., Christensen P., Cole S., Van Hertem D., Jialiang W., Jovcic D., Labra P., Lindén K., Marzin A., Pahalawaththa N., Rashwan M., Rittiger J., Søgaaard K., Westermann D., Wilkening E., Yue C. 2013. CIGRE TB 533 - Working Group B4.52 - HVDC Grid Feasibility Study. CIGRÉ
- › Henry S., Despouys O., Adapa R., Barthold C., Bell K., Binard J., Edris A., Egrot P., Hung W., Irwin G., Karady G., L'Abbate A., Li M., Manchen M., Messner J., Migliavacca G., Muttik P., Nourizian M., Peard A., Rauhala T., Sakai T., Sanz S., Song Z., Temtem S., Van Hertem D., Zhang L. 2013. Influence of Embedded HVDC Transmission on System Security and AC Network Performance. Cigré (Paris)
- › Westermann D., Van Hertem D., Real G., Rauhala T., Meisingset M., Kurrat M., Deppe B., Atmuri R., Küster A., Soerangr D., Asplund G., Takasaki M., Klöckl B., Bennett M., Friedrich K. 2012. Voltage Source Converter (VSC) HVDC for Power Transmission – Economic Aspects and Comparison with other AC and DC Technologies. Cigré (Paris)

Chapters in books from international publisher (11)

- › Li G., Li C., Van Hertem D. 2016. HVDC Technology Overview. In *HVDC Grids - For Offshore and Supergrid of the Future edition:1* Van Hertem D., Gomis-Bellmunt O., Liang J. (eds.) IEEE Press, Wiley , pp. 45-79
- › Van Hertem D. 2016. Drivers for the Development of HVDC Grids. In *HVDC Grids - For Offshore and Supergrid of the Future edition:1* Van Hertem D., Gomis-Bellmunt O., Liang J. (eds.) IEEE Press, Wiley , pp. 3-25
- › Leterme W., Van Hertem D. 2016. DC Fault Phenomena and DC Grid Protection. In *HVDC Grids for Offshore and Supergrid of the Future edition:1*, vol.17 Van Hertem D., Gomis-Bellmunt O., Liang J. (eds.) Wiley-IEEE Press (Hoboken, NJ) , pp. 345-370
- › Ergun H., Van Hertem D. 2016. COMPARISON OF HVAC AND HVDC TECHNOLOGIES. In *HVDC Grids: For Offshore and Supergrid of the Future* Van Hertem D., Gomis - Bellmunt O., Liang J. (eds.) Wiley-IEEE Press , pp. 79-96
- › Van Hertem D., Renner R., Rimez J. 2016. POWER SYSTEM OPERATIONS WITH HVDC GRIDS. In *HVDC Grids: For Offshore and Supergrid of the Future* Wiley-IEEE Press , pp. 213-239

- › Beerten J., Van Hertem D. 2016. Models for HVDC grids. In *HVDC Grids: For Offshore and Supergrid of the Future* Van Hertem D., Gomis-Bellmunt O., Liang J. (eds.) Wiley-IEEE Press , pp. 257-265
- › Ergun H., Van Hertem D. 2016. HVDC GRID PLANNING. In *HVDC Grids: For Offshore and Supergrid of the Future* Van Hertem D., Gomis - Bellmunt O., Liang J. (eds.) Wiley-IEEE Press , pp. 143-170
- › Van Hertem D. 2016. HVDC Grid Layouts. In *HVDC Grids - For Offshore and Supergrid of the Future edition:1* Van Hertem D., Gomis-Bellmunt O., Liang J. (eds.) IEEE Press, Wiley , pp. 171-193
- › Vanfretti L., Van Hertem D., Gjerde J. 2014. Smart Transmission Grids Vision for Europe: Towards a Realistic Research Agenda. In *Smart Grid Applications and Developments* Mah D., Hills P., Li V., Balme R. (eds.) Springer-Verlag (London) , pp. 185-220
- › Van Hertem D., Delimar M. 2013. High Voltage Direct Current (HVDC) electric power transmission systems. In *Electricity transmission, distribution and storage systems* Melhem Z. (eds.) Woodhead Publishing (Cambridge, UK) , pp. 143-173
- › Van Hertem D., Delarue E., Vandezande L., Dupont B., Geth F., Büscher J., D'haeseleer W., Belmans R. 2012. The role of smart electricity grids in facilitating the interaction between intermittent renewables and nuclear power in integrated electricity systems. In *Nuclear Energy and Renewables - System effects in low-carbon electricity systems* , pp. 191-202

International conference papers (57)

- › Wang M., Abedrabbo M., Leterme W., Van Hertem D., Spallarossa C., Oukaili S., Grammatikos I., Kuroda K. 2017. A Review on AC and DC Protection Equipment and Technologies: Towards Multivendor Solution. CIGRÉ WINNIPEG 2017 INTERNATIONAL COLLOQUIUM & EXHIBITION, Winnipeg Canada, 30 Sep - 6 Oct.
- › Abedrabbo M., Leterme W., Van Hertem D. 2017. Analysis and Enhanced Topologies of Active-Resonance DC Circuit Breaker. In *2017 19th European Conference on Power Electronics and Applications (EPE'17 ECCE Europe)*, vol.2017 European Conference on Power Electronics, Warsaw, 11-14 September 2017. , pp. 1-10
- › Heylen E., Troffaes M., Kazemtabrizi B., Deconinck G., Van Hertem D. 2017. Qualitative Comparison of Techniques for Evaluating Performance of Short Term Power System Reliability Management , accepted ISGT, Torino, 26-29 September 2017.
- › Bayo Salas A., Beerten J., Van Hertem D. 2017. Analytical methodology to develop frequency-dependent equivalents in networks with multiple converters. In *Proc. IEEE PowerTech 2017* IEEE Manchester PowerTech, Manchester, UK, 18-22 June 2017. , pp. 1-6
- › Geth F., D'hulst R., Van Hertem D. 2017. Convex power flow models for scalable electricity market modelling. In *Proceedings of the 24th International Conference on Electricity Distribution (CIRED)* International Conference on Electricity Distribution (CIRED), Glasgow, UK, 12-15 June 2017. , pp. 1-5
- › Wang M., Leterme W., Beerten J., Van Hertem D. 2017. Robustness Evaluation of Fast Breaker Failure Backup Protection in Bipolar HVDC Grids. In *Proc. International Conference on AC and DC Power Transmission*, vol.P18 International Conference on AC and DC Power Transmission, Manchester, UK, 14-16 February 2017.
- › Mokhberdoran A., Pirooz Azad S., Van Hertem D., Silva N., Carvalho A. 2017. Protection of HVDC Grids Using Unidirectional DC Circuit Breakers and Fast Local Protection Algorithm. In *IET ACDC 2017: Conference on AC and DC power transmission* IET ACDC 2017, Manchester, 14-16 February 2017. , pp. 1-6 , ISSN 0537-9989
- › Bayo Salas A., Beerten J., Van Hertem D., Prieto Araujo E., Gomis O. 2017. Mitigation of harmonic interactions by the VSC-HVDC converter in variable networks. In *Proc. International Conference on AC and DC Power Transmission*, vol.C4.4 IET ACDC 2017
- › Abedrabbo M., Wang M., Tielens P., Dejene F., Leterme W., Beerten J., Van Hertem D. 2017. Impact of DC grid contingencies on AC system stability. In *Proc. International Conference on AC and DC Power Transmission*, vol.C3.1 IET ACDC 2017, Manchester, UK, 14-16 February 2017.

- › Abedrabbo M., Van Hertem D. 2016. A Primary and Backup Protection Algorithm based on Voltage and Current Measurements for HVDC Grids. In *2016 International High Voltage Direct Current Conference (HVDC 2016)*, vol.FP0281 2016 International High Voltage Direct Current Conference (HVDC 2016), Shanghai, 25-27 October 2016. , pp. 854-859
- › Heylen E., Deconinck G., Van Hertem D. 2016. Analysis Framework for Performance Evaluation of Reliability Management in Power Systems with Increased Uncertainty. In *Risk, reliability and safety: Innovating theory and practice* ESREL, Glasgow, 25-29 September 2016. , pp. 2322-2329
- › Van Acker T., Van Hertem D. 2016. Linear Representation of Preventive and Corrective Actions in OPF Models. Young Researchers Symposium, Eindhoven, 12-13 May 2016.
- › Wang M., Beerten J., Van Hertem D. 2016. DC fault analysis in bipolar HVDC grids. In *Proc. IEEE YRS 2016*, vol.4_5 IEEE Benelux PELS/PES/IAS Young Researchers Symposium, Eindhoven, Netherlands, 12-13 May 2016.
- › De Boeck S., Van Hertem D. 2016. Security Index to Mitigate Overloads with PFC Devices During Alert and Emergency Situations. In *IEEE ENERGYCON 2016* IEEE Energycon, Leuven, Belgium, 4-8 April 2016. , pp. 1-6
- › Ergun H., Rawn B., Belmans R., Van Hertem D. 2016. Long Term Investment Optimization Methodology for Multi-Zonal Transmission Expansion. IEEE EnergyCon, Leuven, 4 - 8 April 2016. , pp. 1-6
- › Leterme W., Beerten J., Van Hertem D. 2016. Equivalent Circuit for Half-Bridge MMC Dc Fault Current Contribution. In *Proc. IEEE ENERGYCON 2016* IEEE Energycon, Leuven, Belgium, 4-8 April 2016. , pp. 1-6
- › Nentwig C., Haubrock J., Renner R., Van Hertem D. 2016. Application of DC Choppers in HVDC Grids. In *IEEE International Energy Conference (ENERGYCON)*, vol.BG6QX IEEE EneeryCon 2016, Leuven, 4-8 April 2016.
- › Heylen E., Deconinck G., Van Hertem D. 2016. Impact of Increased Uncertainty in Power Systems on Performance of Short Term Reliability Management. In *2016 International conference on Probabilistic methods applied to power systems*, vol.78 PMAPS, Beijing, 16-20 October 2016. , pp. 343-348
- › N. Sakamuri J., Tielens P., Kaushik D., Altin M., A. Cutululis N., D. Hansen A., Van Hertem D. 2016. Improved Frequency Control from Wind Power Plants Considering Wind Speed Variation. PSCC , pp. 1-6
- › Tielens P., Van Hertem D. 2016. Influence of system wide implementation of virtual inertia on small-signal stability. EnergyCon, Leuven, 4-8 April 2016. , pp. 1-6
- › Deroost D., Tielens P., Srivastava K., Velotto G., Van Hertem D. 2015. Analysis and coordination of delivering inertial response by wind power plants. Wind Integration Workshop, Brussels, Belgium, 20-22 October 2015.
- › Van Acker T., Rawn B., Van Hertem D., Hendrix S., Lemaire E. 2015. Optimal Design of the Mvar Controller of Far Shore HVAC Grid Connections. Wind Integration Workshop, Brussel, Belgium, 20-22 October 2015.
- › Pirooz Azad S., Leterme W., Van Hertem D. 2015. A DC grid primary protection algorithm based on current measurements. In *EPE Journal* European Conference on Power Electronics and Applications, Geneva, Switzerland, 8-10 September 2015. , pp. 1-10
- › Beerten J., Van Hertem D. 2015. Analysis of Power Redispatch Schemes for HVDC Grid Secondary Voltage Control. In *Proc. IEEE PES GM 2015* IEEE PES General Meeting 2015, Denver, USA, 26-30 July 2015. , pp. 1-5
- › Van Acker T., Van Hertem D., Bekaert D., Karoui K., Merckx C. 2015. Implementation of Bus Bar Switching and Short Circuit Constraints in Optimal Power Flow Problems. Powertech, Eindhoven, 29 June- 02 July 2015.
- › Ergun H., Rawn B., Belmans R., Van Hertem D. 2015. Optimization of Transmission Technology and Routes for Pan – European Electricity Highways Considering Spatial Aspects. PowerTech, Eindhoven, 29 June - 02 July.
- › De Boeck S., Van Hertem D. 2015. Under Frequency Load Shedding Schemes in Systems with High PV Penetration: Impact and Improvements. Powertech, Eindhoven, 29 June - 2 July 2015.
- › Leterme W., Pirooz Azad S., Van Hertem D. 2015. Fast Breaker Failure Backup Protection for HVDC Grids. In *Proc. IPST 2015* IPST, Cavtat, Croatia, 15-18 Jun. 2015. , pp. 1-6

- › Leterme W., Van Hertem D. 2015. Classification of Fault Clearing Strategies for HVDC Grids. CIGRE, Lund, 27-28 May 2015.
- › Leterme W., Ahmed N., Beerten J., Ängquist L., Van Hertem D., Norrga S. 2015. A new HVDC grid test system for HVDC grid dynamics and protection studies in EMT-type software. In *Proc. IET ACDC 2015 International Conference on AC and DC Power Transmission*, Birmingham, UK, 10-12 February 2015. , pp. 1-7
- › Geebelen B., Leterme W., Van Hertem D. 2015. Analysis of DC breaker requirements for different HVDC grid protection schemes. In *Proc. IET ACDC 2015*, accepted International Conference on AC and DC Power Transmission, Birmingham, UK, 10-12 Feb. 2015.
- › Bayo Salas A., Beerten J., Rimez J., Van Hertem D. 2015. Impedance-based stability assessment of parallel VSC HVDC grid connections. In *Proc. IET ACDC 2015 International Conference on AC and DC Power Transmission*, Birmingham, UK, 10-12 February 2015. , pp. 1-9
- › Babazadeh D., Van Hertem D., Rabbat M., Nordström L. 2015. Coordination of Power Injection in HVDC Grids with Multi-TSOs and Large Wind Penetration. In *Proceedings of the IET ACDC 2015 IET ACDC*, Birmingham (UK), 10-12 February 2015. , pp. 1-7
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