

Books and Book Chapters

In Work:

Ackermann, Thomas: “*The Design of the Power Collection System and of the Interconnection of Offshore Wind Farms*” (Draft Title), in: Offshore Wind Power Handbook, Editor: Gaetano Gaudiosi, to be published mid 2008, by Multi Science, UK.

Published:

Ackermann, Thomas [Editor]: “*Wind Power in Power Systems*”, 691 pages, published in January 2005, by Wiley & Sons, Chichester, UK.

Ackermann, Thomas: “*Historical Development and Current Status of Wind Power*”, in: Wind Power in Power Systems, Editor T. Ackermann, published in January 2005, Wiley & Sons, Chichester, UK.

Söder, Lennart; Ackermann, Thomas: “*Wind Power in Power Systems: An Introduction*”, in: Wind Power in Power Systems, Editor T. Ackermann, published in January 2005, Wiley & Sons, Chichester, UK.

Ackermann, Thomas; Matevosyan, Julija, Bolik, Sigrid: “*Technical Regulations for Wind Power Interconnection: A Comparison*”, in: Wind Power in Power Systems, Editor T. Ackermann, published in January 2005, Wiley & Sons, Chichester, UK.

Ackermann, Thomas; Morthorst, Poul Erik: “*Economic Aspects of Wind Power in Power Systems*”, in: Wind Power in Power Systems, Editor T. Ackermann, published in January 2005, Wiley & Sons, Chichester, UK.

Ackermann, Thomas: “*Transmission Systems for Offshore Windfarms*”, in: Wind Power in Power Systems, Editor T. Ackermann, published in January 2005, Wiley & Sons, Chichester, UK.

Liliegren, Christer; Ackermann, Thomas: “*Wind Power on the Swedish Island of Gotland*”, in: Wind Power in Power Systems, Editor T. Ackermann, published in January 2005, Wiley & Sons, Chichester, UK.

Theses

Ackermann, Thomas: “*Distributed Resources in a Re-regulated Market*”, Ph.D. thesis, Royal Institute of Technology, Department of Electrical Engineering, Stockholm, Sweden, May 2004.

Ackermann, Thomas: “*Development and Analysis of a Computer Simulation Tool to Integrate Large Wind Farms into the New Zealand Hydroelectric Grid System*”, MSc (Physics) thesis, University of Otago, Dunedin, New Zealand. May 1997.

Ackermann, Thomas: “*Means to Reduce CO₂-Emissions in the Chinese Electricity System by Using Renewable Energy*”, MSc (Mechanical Engineering) thesis, Technical University Berlin, Germany, February 1995.

Ackermann, Thomas: “*Privatisation of Government-Owned Businesses in Russia*”, MBA thesis, Technical University Berlin, Germany, June 1994.

Journals Papers (Reviewed)

Ackermann, Thomas; Juan Rivier Abbad, Ivan M. Dudurych, Istvan Erlich, Hannele Holttinen, Jesper Runge Kristoffersen, Poul Ejnar Sørensen: “*Impact of High Wind Penetration on Balancing and Frequency Control – Selected European Experience and Solutions*”, to be published in IEEE PES Magazine, Power and Energy for a Special Issue on Wind Power, November/December 2007

Ackermann, Thomas: “*Distributed Resources In A Re-regulated Market Environment: Impact of Market Regulations*”, Electric Power Systems Research, Elsevier, Elsevier, Volume 77, Issue 9, July 2006, Pages 1148-1159.

Barberis Negra, Nicola; Todorovic, Jovan; **Ackermann, Thomas:** “*Loss Evaluation of HVAC and HVDC Transmission Solutions for Large Offshore Wind Farms*”, Electric Power Systems Research, Elsevier, Volume 76, Issue 11, July 2006, Pages 916-927.

Eriksen, Peter Børre; **Ackermann, Thomas;** Winter, Wilhelm; Rodriguez, Juan; Smith, Paul: “*System Operation Under High Wind Penetration Scenarios: An International Perspective*”, IEEE PES Magazine, Power and Energy for a Special Issue on Wind Power, November/December 2005.

Jauch, Clemens; Matevosyan, Julija; **Ackermann, Thomas;** Bolik, Sigrid: “*International Comparison of Requirements for Connection of Wind Turbines to Power Systems*”; Wind Energy, **Special Issue: Grid Integration**, Vol. 8, July 2005, pp. 295-306, Wiley & Sons.

Ackermann, Thomas: “*Transmission Systems For Offshore Wind Farms*”, IEEE Power Engineering Review, December 2002, pp. 23-27.

Ackermann, Thomas; Söder, Lennart: “*An Overview Of Wind Energy – Status 2002*”, Renewable & Sustainable Energy Reviews (Elsevier), 6/ 2002, Pp. 67 – 128.

Ackermann, Thomas; Andersson, Göran; Söder, Lennart: “*Distributed Generation: A Definition*”, published in Electric Power Systems Research, Vol. 57, 2001, pp. 195-204.

Ackermann, Thomas; Söder, Lennart: “*Wind Energy Technology And Current Status: A Review*”; published in: Renewable & Sustainable Energy Reviews, 4 / 2000, pp. 315 - 374.

Ackermann, Thomas; Andersson, Göran; Söder, Lennart : “*Overview Of Government And Market Driven Programs For The Promotion Of Renewable Power Generation*”; *Renewable Energy*, Elsevier, 22/ 2001, pp. 197-204. Also presented at the World Renewable Energy Congress, 10-13 February 1999, Perth, Australia, [Proceedings: Renewable Energy: Technologies & Policies for Sustainable Development, WREC’99, Perth, Australia, pp. 215-219].

Ackermann, Thomas; Garner, Karen; Gardiner, Alister; “*Wind Power Generation In Weak Grids - Economic Optimisation And Power Quality Simulation*”; *Renewable Energy*, Vol. 18, 2/ 1999, pp. 205 - 221, Elsevier.

The paper was also presented at the following conferences:

- [1] Keith Dawber Memorial Presentations on Wind Energy, 24 July 1998, Dunedin, New Zealand.
- [2] Deutsche Windenergie Konferenz DEWEK’98, 20-22 October 98, Wilhelmshaven, Germany, [Proceedings: DEWEK’98, published by DEWI, Wilhelmshaven, Germany, pp. 168 – 170]
- [3] Solar’98 - The Australian and New Zealand Solar Energy Society Annual Conference, 25-27 November 1998, Christchurch, New Zealand.
- [4] World Renewable Energy Congress, 10-13 February 1999, Perth, Australia, [Proceedings: Renewable Energy: Technologies & Policies for Sustainable Development, WREC’99, Perth, Australia, pp. 527-532].

Ackermann, Thomas: *”Means To Reduce CO₂- Emissions In The Chinese Electricity System With Special Consideration To Wind Energy”*, *Wind Engineering*, Vol. 21, No 6 1997, pp. 399 - 411, Essex, UK.

The paper was also presented at the following conferences:

- [1] Wind Energy Workshop, 9-11 July 1997, Monash University, Melbourne, Australia.
- [2] World Renewable Energy Congress, 20-25 September 1998, Floren, Italy; [Proceedings: Renewable Energy – Energy Efficiency, Policy and the Environment, edited by A. A. M. Sayigh, Part 2, pp. 899 – 903].
- [3] 12th CEPSI - Conference of the Electricity Power Supply Industry, 2-6 November 1998, Bangkok, Thailand.
- [4] Deutsche Windenergie Konferenz DEWEK’98, 20-22 October 1998, Wilhelmshaven, Germany, [Proceedings: DEWEK’98, published by DEWI, Wilhelmshaven, Germany, pp. 307 – 310].

Ackermann, Thomas: *”Simulation Study Of An Embedded Grid Connected Wind - Hydro Hybrid System Based On New Zealand Climate Conditions”*; *Wind Engineering*, Vol. 21, No 5 1997, pp. 283 - 293, Essex, UK.

The paper was also presented at the following conferences:

- [1] NZWEA 1997 Conference, 30 June 1997, Wellington, New Zealand.
- [2] Wind Energy Workshop, 9-11 July 1997, Monash University, Melbourne, Australia.
- [3] Solar World Congress 1997, ISES, 24-30 August 1997, Taejon, South-Korea.
- [4] Deutsche Windenergie Konferenz DEWEK’98, 20-22 October 1998, Wilhelmshaven, Germany, [Proceedings: DEWEK’98, published by DEWI, Wilhelmshaven, Germany, pp. 336 – 340].

Conference Papers (Reviewed)

Zhang, Xiolei and **Ackermann, Thomas:** *”Overloading Possibilities for HVAC Offshore Transmission Cables”*, presented at Sixth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”, Delft, Netherlands, 26-28 October 2006.

Giannoccaro, Dimitris; Rehman, Abaid and **Ackermann, Thomas:** *“Sizing Statcom for the Interconnection of Offshore Wind Farms with HVDC and HVAC Technology”* presented at Sixth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”, Delft, Netherlands, 26-28 October 2006.

Ackermann, Thomas; Barberis Negra, Nicola; Todorovic, Jovan; Lazaridis, Lazaros: *“Evaluation of Electrical Transmission Concepts for Large Offshore Wind Farms”* presented at Copenhagen Offshore Wind 2005, Denmark, 26-28 October 2005.

Barberis Negra, Nicola; Todorovic, Jovan; **Ackermann, Thomas:** *“Loss Evaluation of HVAC and HVDC Transmission Solutions for Large Offshore Wind Farms”*, in Proceedings of “Fifth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”, Glasgow, Scotland, 7-8 April 2005.

Lazaridis, Lazaros; **Ackermann, Thomas:** *“Economic Comparison of HVAC and HVDC Solutions for Large Offshore Windfarms under Special Consideration of Reliability”*, in Proceedings of “Fifth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”, Glasgow, Scotland, 7-8 April 2005.

Ackermann, Thomas: *“Transmission Systems for Offshore Windfarms: An Overview”*, presented at Global Windpower Conference, Chicago, Illinois, USA, 28-31 March 2004.

Matevosyan, Julija; **Ackermann, Thomas,** Bolik, Sigrid; Söder, Lennart: *“Comparison of Interconnection Regulations for Wind Farms World Wide”*, Poster at Global Windpower Conference, Chicago, USA, 28-31 March 2004.

Matevosyan, Julija; **Ackermann, Thomas;** Bolik, Sigrid; Söder, Lennart: *“Comparison of International Regulations for Connection of Wind Turbines to the Network”*, presented at the Nordic Wind Power Conference on “Grid Integration and Electrical Systems of Wind Turbines and Wind Farms”, Göteborg, Sweden, 1-2 March 2004.

Ackermann, Thomas; Knyazkin, Valery: *“Interaction Between Distributed Generation And The Distribution Network: Operation, Control, And Stability Aspects”*, CIRED’03 - 17th International Conference on Electricity Distribution, Barcelona, Spain, 12-15 May 2003.

Ackermann, Thomas; Knyazkin, Valery: *“Interaction Between Distributed Generation And The Distribution Network: Operation Aspects”*, presented at the “Second International Symposium On Distributed Generation: Power System And Market Aspects”, Proceedings, 2-4 October 2002, Stockholm, Sweden.

Ackermann, Thomas: “*Impact Of Distribution Network Regulations On The Development Of Distributed Power Generation*”, presented at the “*Second International Symposium On Distributed Generation: Power System And Market Aspects*”, Proceedings, 2-4 October 2002, Stockholm, Sweden.

Ackermann, Thomas; Knyazkin, Valery: “*Interaction Between Distributed Generation And The Distribution Network: Operation Aspects*”, presented at the IEEE/PES Transmission and Distribution Conference and Exhibition 2002: Asia Pacific, 6- 10 October 2002, Yokohama, Japan.

Ackermann, Thomas; Söder, Lennart: “*Impact Of Electricity Market Regulation On The Development Of Distributed Power Generation*”, presented at the ISES 2001 Solar World Congress, 25 November - 2 December 2001, Adelaide, Australia.

Ackermann, Thomas; Leutz, Ralf; Hobohm, Jens: “*World-wide Offshore Wind Potential and European Projects*”, presented at the IEEE Power Engineering Society Summer Power Meeting, 15-19 July 2001, Vancouver, Canada at the special session on Large Off - and Onshore Wind Farms: Transmission Networks and Grid Connection Issues. Also Co-Chairman of the session.

Leutz, Ralf; Ackermann, Thomas; Suzuki, Akio; Akisawa, Atsushi; Kashiwagi, Takao: “*Technical Offshore Wind Energy Potentials Around The Globe*”, 2001 European Wind Energy Conference, 2-6 July 2001, Copenhagen, Denmark, Proceedings pp. 789 – 792.

Montaño, Raul; Ackermann, Thomas; Söder, Lennart: “*Impact Of The Utgrunden Offshore Wind Farm On Network Losses*”, 2001 European Wind Energy Conference, 2-6 July 2001, Copenhagen, Denmark, Proceedings pp. 1063 – 1066.

Jones, Lawrence; Ackermann, Thomas: “*Transmission Networks For Offshore Wind Farms: Special Report*”, 2001 European Wind Energy Conference, 2-6 July 2001, Copenhagen, Denmark, Proceedings pp. 1059 – 1062.

Poza, Elena; Ackermann, Thomas: “*Centralised Power Generation versus Distributed Power Generation: a System Analysis*”, presented at the International Symposium on Distributed Generation: Power System and Market Aspects, 11-13 June, 2001, Stockholm, Sweden.

Ackermann, Thomas: “*Distributed Generation – A Definition*”, presented at the International Symposium on Distributed Generation: Power System and Market Aspects, 11-13 June 2001, Stockholm, Sweden. Also Chairman of a session.

Leutz, Ralf; Akisawa, A.; Kashiwagi, T. (Tokyo University of Agriculture and Technology) & Ackermann, Thomas/ Royal Institute of Technology & A. Suzuki/ UNESCO: “*World-Wide Offshore Wind Energy Potential*”, presented at the Second International Workshop on Transmission Networks for Offshore Wind Farms, 29-30 March 2001, Royal Institute of Technology, Stockholm, Sweden. Also Chairman of a session.

Kaiser, Franz; Ackermann, Thomas; Liljegren, Christer; Diez-Castro, Ana; Söder, Lennart: “*High Wind Energy Penetration On Gotland – A Grid Investigation*”; presented at: The Challenge of High Wind Power Penetration for the New Energy Markets Convention Centre Kassel, Germany, 25 - 27 September 2000.

Ackermann, Thomas; Andersson, Göran; Söder, Lennart: “*Electricity Market Regulations And Their Impact On Distributed Generation*”; presented at the International Conference on Electric Utility Deregulation and Restructuring, and Power Technologies 2000 (DRPT 2000), 4-7 April 2000, London, UK [Proceedings: DRPT 2000, London, UK 2000, pp. 608 – 613].

Ackermann, Thomas; Hobohm, Jens: “*Some Thoughts On Market Regulations And Business Models For HVDC Networks For Offshore Wind Farms*”; presented at the International Workshop on Feasibility of HVDC Transmission Networks for Offshore Wind Farms”, 23-24 March 2000, Stockholm, Sweden. (Also Chairman).

Ackermann, Thomas; Söder, Lennart: “*Impact of Market Regulations on the Development of Wind Power – An International Comparison*”; presented at Nordic Wind Power Conference (NWPC 2000), 13 – 14 March 2000, Trondheim, Norway [Proceedings: NWPC 2000, Trondheim, Norway 2000, pp. 29 – 35].

Ackermann, Thomas; Andersson, Göran; Söder, Lennart: “*What Is Distributed Generation?*”; presented at 31st North American Power Symposium, 11-12 October 1999, San Luis Obispo, USA [Proceedings: NAPS’99, San Luis Obispo, USA 1999, pp. 232 – 239.].

Leutz, Ralf; Ackermann, Thomas; Akisawa, Atsushi; Kashiwagi, Takao: “*Solar Cooling For Asia And The Pacific: Resources*”; presented at World Renewable Energy Congress, 10-13 February 1999, Perth, Australia. Gardiner,

Alister; Ackermann, Thomas; Brough, Roger: “*Weak Grid Quality - Voltage Stability Improvement Through Distributed Generation*”; presented at Power Systems World’98, 7-13 November 1998, Santa Clara, California, USA.

Conference and Workshop Papers (Not Reviewed)

- Ackermann, Thomas: *European Experience: History and Prospects***, IEEE Symposium on Wind Power: Technology, Economics, and Politics, organized by IEEE Power Engineering Society held in Washington, USA April 2006.
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- Ackermann, Thomas: *European Wind Power Integration Experience and the Cell Controller Concept***, Solar 2005, ANZSES 43rd Annual Conference, held 28-30 November 2005, Dunedin, New Zealand.
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- Lund, Per; Cherian, Sunil; **Ackermann, Thomas: "A Cell Controller for Autonomous Operation of a 60 kV Distribution Area"**; presented at the **10th Kasseler Symposium Energy Systems Technology** on The Future of Distribution Grids, Kassel, Germany, 10 – 11 November, 2005.
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- Lund, Per; Eriksen, Peter Børre; Cherian, Sunil; **Ackermann, Thomas: "Cell Architecture for Distributed Generation Management for the Danish Electric Power System"**; presented at the International Electrical Equipment Conference (JIEEC) - The Electrical Network of the Future and Distributed Generation; Bilbao, Spain, 27-28 October 2005.
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- Ackermann, Thomas: "Danish Integration Experiences with Wind Power"**, presented at the Wind Integration and Interconnection Workshop, Albuquerque, New Mexico, USA, 17-21 May 2004.
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- Ackermann, Thomas, Matevosyan, Julija; Bolik, Sigrid: "Grid Codes in Europe: An Overview"**, presented at the Wind Integration and Interconnection Workshop, Albuquerque, New Mexico, USA, 17-21 May 2004.
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- Ackermann, Thomas: "Global Perspective of Wind Power"** Wind Energy Town Meeting, Lansing, USA, 18.11.2003.
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- Ackermann, Thomas: "Global Update on Wind Generation Issues"**, MicroGeneration to PowerParks (MGPP) Conference, Lansing, Michigan, USA, 17-18 November 2003.
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- Ackermann, Thomas: "Impact Of Regulations For Network Companies On The Development Of Distributed Power Generation"**, presented at the Nordisk Energiforskings Seminar "Electricity Market Reforms: Experiences and Lessons for the Future", Copenhagen, 14-15 November 2002.
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- Ackermann, Thomas: "Impact Of Electricity Network Regulations On The Development Of Distributed Power Generation"**, presented at a Seminar on The Role of Small-scale Power/ CHP Production in Distributed Generation, organised by CETET, 29 April 2002, Royal Institute of Technology, Stockholm, Sweden.
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- Ackermann, Thomas: "Unbundling Of Power Quality Responsibility In Distribution Network Or Solving Power Quality Issues With The Creation Of Markets"**, presented at a Seminar on Distributed Generation related Power System Behaviour, 24-25 April 2002, Vaasa, Finland.
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- Ackermann, Thomas; Knyazkin, Valery: "Interaction Between Distributed Generation And The Distribution Network: Operation, Control, And Stability Aspects"**, presented at a Seminar on Distributed Generation related Power System Behaviour, 24-25 April 2002, Vaasa, Finland.
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- Ackermann, Thomas: "Distributed Generation – A Definition"**, presented at a Seminar on Distributed Generation related Power System Behaviour, 24-25 April 2002, Vaasa, Finland.
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- Söder, Lennart; **Ackermann, Thomas: "Distribuerad Elproduktion I En Avreglerad Elmarknad"**, presented at Elforskdagen, Stockholm, Sweden, 7 November 2001.
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- Ackermann, Thomas: Overview Of Government And Market Driven Instruments For The Promotion Of Renewable Power Generation**, presented at Energitinget in Eskilstuna/ Sweden, March 2001.
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- Leutz, Ralf; **Ackermann, Thomas; Suzuki, A.; Akisawa, A.; Kashiwagi, T.:** "**Offshore Wind Energy Potentials Of Japan And South Korea**"; submitted to the wind offshore committee of Japan and presented at the annual national conference of the Japan's solar and wind energy societies, November 2000, Tokyo.
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- Ackermann, Thomas; Weise, Eckart: "Instruments To Promote Wind Energy In Different Countries"**; presented by E. Weise at the Fourth International Sarigerme Wind Energy Workshop, Ortaca, Turkey, 6-9 June 2000.
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- Ackermann, Thomas: "Historical Perspective And Economics Of Distributed Generation"**; presented at the Int. Seminar on Standards of Quality of Electrical Service, New Challenges and Technologies in Generation, Transmission, Distribution and End User Power Systems, Pontificia Univ. Católica de Chile, 26-28 April 2000.
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- Ackermann, Thomas: "Distributed Generation: Definition And Network Issues"**; presented at the Int. Seminar on Standards of Quality of Electrical Service, New Challenges and Technologies in Generation, Transmission, Distribution and End User Power Systems, Pontificia Universidad Católica de Chile, 26-28 April 2000.
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- Ackermann, Thomas: "Current Status Of Distributed Generation And Business Opportunities"**; presented at the Int. Seminar on Standards of Quality of Electrical Service, New Challenges and Technologies in Generation, Transmission, Distribution and End User Power Systems, Pontificia Universidad Católica de Chile, April 2000.

Ackermann, Thomas: “*Instruments For The Promotion Of Renewable Power Generation*”, presented at a Stockholm Environmental Institute (SEI) Energy Programme Seminar, December 1999.

Ackermann, Thomas; Söder, Lennart: “*Biomass Power Generation In Competitive Markets - The Impact Of Instruments And Regulations*”; presented at the 2nd Olle Lindström Symposium on Renewable Energy – Bioenergy, 9-11 June 1999, Stockholm, Sweden.

Working Paper (Not Reviewed)

Ackermann, Thomas: “*Distributed Power Generation And Its Impact On Distribution Networks*”; Working Paper, August 2000.

Ackermann, Thomas: “*Distributed Power Generation In A Deregulated Market Environment - Part 1: Electricity Market Regulations And Their Impact On Distributed Power Generation*”; Working Paper
Part A: *Background – Definition – Economics* (60 pages),
Part B: *Comparison of Market Regulations* (60 pages),
Part C: *References* (60 pages); Royal Institute of Technology, Department of Electric Power Engineering, Electric Power Systems, Stockholm, Sweden, May 1999.

Editor of Proceedings

Ackermann, Thomas; Ummels, Bart; Hendriks, Ralph [Editors]: *Proceedings, “Sixth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”*, 26-28 October 2006, Delft, the Netherlands.

Ackermann, Thomas [Editor]: *Proceedings, “Fifth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”*, Glasgow, Scotland, 7-8 April 2005.

Ackermann, Thomas; Matevosyan, Julija [Editors]: *Proceedings, “Fourth International Workshop on Large-Scale Integration of Wind Power and Transmission Networks for Offshore Wind Farms”*, 20-21 October 2003, Billund, Denmark.

Ackermann, Thomas [Editor]: *Proceedings, “Second International Symposium On Distributed Generation: Power System And Market Aspects”*, 2-4 October 2002, Stockholm, Sweden.

Ackermann, Thomas [Editor]: *Proceedings, “Third International Workshop On Transmission Networks For Offshore Wind Farms”*, April 11 – 12, 2002, Royal Institute of Technology, Stockholm, Sweden.

Ackermann, Thomas [Editor]: *Proceedings, “First International Symposium On Distributed Generation: Power System And Market Aspects”*, 11-13 June 2001, Stockholm, Sweden.

Ackermann, Thomas [Editor]: *Proceedings, “Second International Workshop On Transmission Networks For Offshore Wind Farms”*, 29-30 March 2001, Royal Institute of Technology, Stockholm, Sweden.

Ackermann, Thomas [Editor]: *Proceedings, “First International Workshop On Feasibility Of HVDC Transmission Networks For Offshore Wind Farms”*, 23-24 March 2000, Stockholm, Sweden.