

THOMAS ACKERMANN, Ph.D.

CEO

Energynautics GmbH
 Robert-Bosch-Straße 7
 64293 Darmstadt, Germany

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Languages: German, English



WORK EXPERIENCE

in Germany, Sweden, Denmark, New Zealand, China, Croatia, Australia, USA, Oman, Chile, India, Philippines, Kenya, Seychelles, Japan, Costa Rica, Barbados, Guatemala, Honduras, Mongolia, Indonesia, Czech Republic, Estonia, Armenia, Jordan, Lebanon, Vietnam, Austria, United Arab Emirates, Netherlands, Kenya, Bahamas, Thailand, Cyprus, Greece, Ireland.

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| since 06/2000 | CEO and founding partner of Energynautics GmbH, a Germany-based research and consulting company in the area of renewable and distributed generation
http://www.energynautics.com/ |
| since 07/1998
(part time since 2002) | Research fellow at the Royal Institute of Technology (KTH), Department of Electric Power Engineering, Stockholm, Sweden |
| 07/1997 – 06/1998 | Industrial Research Limited (IRL), Science and Technology Research Company, Christchurch, New Zealand, Position: Research Engineer |
| 03/1996 – 05/1997 | DesignPower Ltd., Engineering Consultants, Wellington, New Zealand, Position: Project leader |
| 03/1995 – 01/1996 | Tacke Windtechnik GmbH, Wind Turbine Manufacturer, Germany |

EDUCATION

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|-------------------|---|
| 07/1998 – 05/2004 | Ph.D. from Royal Institute of Technology (KTH), Department of Electrical Engineering, Stockholm, Sweden |
| 02/1996 – 05/1997 | Master of Science in Physics, University of Otago, Dunedin, New Zealand |

09/1988 – 02/1995 Dipl.-Ing. der Fachrichtung Wirtschaftsingenieurwesen,
equivalent to a combined Master's Degree in Mechanical
Engineering & Business Administration, TU Berlin, Germany

EDUCATIONAL ACTIVITIES

Continuously Lecturing various courses related to wind/renewable energy and
wind/renewable power integration into power system, such as:

- **Wind Energy Systems Course**, KTH, Stockholm, Sweden
(since 2000, annually)
- **Wind Energy Part of the Renewable Energy Technology
Course 1**, KTH, Stockholm, Sweden (since 2000, annually)
- **Wind Energy Part of the Renewable Energy Technology
Course 2**, KTH, Stockholm, Sweden (since 2005, annually)
- **Renewable Energy Short Course**, Hector Business School,
KIT Karlsruhe, Germany (since 2015, annually)

07/2016 **Visiting Erskine Fellow**, Department of Electrical and Computer
Engineering, College of Engineering at the University of
Canterbury, Christchurch, New Zealand (1 month)

2011 – 2014 Lecturing the course on **Renewable Energies** at Technische
Universität Darmstadt, Germany

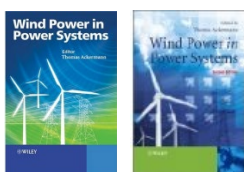
2009 – 2014 Lecturing the course on **Wind Power Development and Use**,
SIDA/Life.se, Karlstad, Sweden

2008 – 2012 Lecturing the course on **Frontiers of the Multidimensional
Energy Society on Smartgrids**, School of Industrial Engineering
and Management, KTH, Stockholm, Sweden

2005 – 2012 Lecturing the **Wind Power Short Course**, UWIG, USA

SELECTED PUBLICATIONS

Books and contributions to books



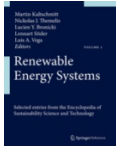
1. Ackermann, T. (ed.): **“Wind Power in Power Systems“**,
2nd Edition, 1120 pages, April 2012, Wiley & Sons, UK.
The book includes 7 chapters completely or partly written
by Ackermann, T. (1st Edition: January 2005).



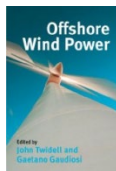
2. Ackermann, T. (ed.): **“Wind Power in Power Systems“**, Japanese Edition, November 2013, Ohmsha Ltd., Japan.



3. Ackermann, T.; Kuwahata, R.: **“Global Wind Power Installations.”** In Robert A. Meyers (ed.) **Encyclopedia of Sustainability Science and Technology**, 2012, Springer Verlag. Volume 7, pp. 4474- 4492.



4. Ackermann, T.; Kuwahata, R.: **“Global Wind Power Installations.”** In Martin Kaltschmitt, Nickolas J. Themelis, Lucien Y. Bronicki, Lennart Soeder and Luis A. Vega (eds.) **Renewable Energy Systems**, 2013, Springer, New York. pp. 1020-1038.



5. Ackermann, T.: Chapter 6: **“Windfarm Power Connection”**. In Gaetano Gaudiosi and John Twidell (eds.): **Offshore Wind Power**, 2009, Multi Science, UK.

Journals



1. Ackermann, T. (Editor) **IET Renewable Power Generation**, Vol. 9., Issue 1, January 2015
2. Ackermann, T. (Co-editor): **Wind Energy** Journal (since November 2004), Wiley & Sons.

Reports

1. Ackermann, T., Fernández, F., Schierhorn, P.-P., Montoya, F.: **“Red Costa Rica Study - Analysis of Options for Managing a Greater Incorporation of Renewable Variable Energies”**, Inter-American Development Bank, 2017.
2. IRENA, (Authors: Ackermann, T., Martensen, N., Brown, T., Schierhorn, P.-P., Boshell, F. G., & Ayuso, M.): **“Scaling up variable renewable power: The role of grid codes”**, 2016.
3. Ackermann, T.; Martensen, N.; Untsch, S.; Brown, T.; et al: **“Entwicklung und Durchführung einer Impactanalyse für den Klimaschutzplan Nordrhein-Westfalen”**, Berlin, September 2014.

4. Ackermann, T.; Brown, T.; Martensen, N.; Langanke, S.; Narasimhan, B.; Geidel, S.; Becker-Birck, C.; Ferrey, S.; Chessin, E.; Crowe, J.; Rickerson, W.: **“Consultancy Services for The Assessment of Grid Absorption Capacity, Grid Code, Feed-In Tariffs and Model Power Purchase Agreements for Renewable Energy Systems”**, Darmstadt/Boston, August 2014.
5. Teske, S.; Brown, T.; Tröster, E.; Schierhorn, P.-P.; Ackermann, T.: **“powE[R] 2030 – A European Grid for 3/4 Renewable Electricity by 2030”**, Greenpeace Germany, March 2014.
6. Tröster, E.; Untsch, S.; Brown, T.; Geidel, S.; Narasimhan, B.; Schierhorn, P.-P.; Ackermann, T.: **“Kurzugutachten zur Eigenstromerzeugung in Rheinland-Pfalz”**, Darmstadt, March 2014.
7. Ackermann, T.; Martensen, N.; Brown, T.; Untsch, S.; Troester, E.; Geidel, S.; et al: **“Distribution System Study Rhineland-Palatinate”** (English Summary), Darmstadt, Freiburg, Munich, January 2014.
8. Ackermann, T.; Kuwahata, R. (main authors): **“A Guide to Operational Impact – Analysis of Variable Renewables: Application to the Philippines”**, The World Bank Group, May 2013.
9. Ackermann, T.; Cherevatskiy, S.; Brown, T.; et al: **“Smart Modeling of Optimal Integration of High Penetration of PV (Smooth PV)”**, May 2013.
10. Ackermann, T.; Kuwahata, R.: **“Lessons learned from international Wind Integration Studies - AEMO Wind Integration WP4(A)”**, Langen, Germany, December 2011.
11. Fürsch, M.; Hagspiel, S.; Jägemann, C.; Nagl, S.; Lindenberger, D.; Glotzbach, L.; Tröster, E.; Ackermann, T.: **“Roadmap 2050 – a closer look: Cost-efficient RES-E penetration and the role of grid extensions”**, Cologne and Langen, Germany, October 2011.

12. Tröster, E., Kuwahata, R., Ackermann, T.: **"European Grid Study 2030/2050"**, Langen, Germany, January 2011.

Scientific articles with review

1. Ackermann, T. ; Prevost, T. ; Vittal, V; Roscoe, A. J. ; Matevosyan, J.; Miller, N.: **"Paving the Way: A Future Without Inertia Is Closer Than You Think"**, 18th October 2017, Published in: IEEE Power and Energy Magazine (Volume: 15 , Issue: 6 , Nov.-Dec. 2017)
2. Brown, T.; Ackermann, T.; Martensen, N.: **"Solar Power Integration on the Seychelles Islands" / "Intégration de l'énergie solaire aux Seychelles"**, FACTS Reports, Veolia Institute, Second Semester 2016, pp. 46-53.
3. Ackermann, T.; Carlini, E. M.; Ernst, B.; Groome, F.; Orths, A.; O'Sullivan, J.; de la Torre Rodriguez, M.; Silva, V.: **"Integrating Variable Renewables in Europe: Current Status and Recent Extreme Events"**, IEEE power & energy magazine, Volume 13, Number 6, November/December 2015.
4. Ackermann, T.; Ellis, A.; Fortmann, J.; Matevosyan, J.; Muljadi, E.; Piwko, R.; Pourbeik, P.; Quitmann, E.; Sorensen, P.; Urdal, H.; Zavadil, B.: **"Code Shift – Grid Specifications and Dynamic Wind Turbine Models"**, IEEE power & energy magazine, November/December 2013.
5. Martensen, N.; Lund, P.; Kley, H., Tröster, E.; Ackermann, T.: **"The Danish cell project – Status and perspective of a smart grid demonstration"**, VGB Power Tech., Vol. 91/2011, pp. 64-68.
6. Dubaric, E.; Giannoccaro, D.; Bengtsson, R.; Ackermann, T.: **"Patent data as indicators of wind power technology development"**, World Patent Information, (2011), Volume 33, Issue 2, June 2011, pp. 144-149.

7. Ackermann, T.; Ancell, G.; Borup, L.D.; Eriksen, P.B.; Ernst, B.; Groóme, F.; Lange, M.; Möhrten, C.; Orths, A.G.; O'Sullivan, J.; DeLa Torre, M.: **"Where the Wind Blows"**, IEEE Power and Energy Magazine, 7 (6), 2009, pp. 65-75.
8. Smith, J.C., Thresher, R., Zavadil, R., DeMeo, E., Piwko, R., Ernst, B., Ackermann, T.: **"A Mighty Wind"**, IEEE Power and Energy Magazine, 7 (2), 2009, pp. 41-51.
9. Ackermann, T.; Abbad, J. R.; Dudurych, I. M.; Erlich, I.; Holttinen, H.; Kristoffersen, J. R. ; Sørensen, P. E.: **"European Balancing Act"**, IEEE PES Magazine, Power and Energy for a Special Issue on Wind Power, November/December 2007, pp. 90-103.
10. Ackermann, T.: **"Distributed Resources and Re-Regulated Electricity Markets"**, Electric Power Systems Research (Elsevier), Volume 77, Issue 9, July 2007, pp. 1148-1159.

Total number of reviewed scientific publications: >60
plus approximately 80 workshop/seminar publications

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