

Curriculum Vitae
Dr. Lina Bertling Tjernberg (Tjernberg from 2011)
ORCID 0000-0003-4763-9429

KTH Royal Institute of Technology School of Electrical Engineering and Computer Sciences (EECS)
Department of Electromagnetic Engineering SE-100 44 Stockholm, Sweden Phone: +46-736441421,
Email: linab@kth.se Web: www.kth.se/profile/linab, Twitter: <https://twitter.com/linabertling>

Present position

- Deputy Head of the School of Electrical Engineering and Computer Science (EECS) with a focus on the conditions and impact of research, from April 2024.
- Professor in Power Grid Technology at Royal Institute of Technology (KTH), Stockholm, Sweden since September 2013. Director of the KTH Energy Platform, from November 2018 – June 2024.

Education qualification

- Docent degree in Electric Power Systems, KTH, Stockholm, 2008
- Ph.D. in Electric Power Systems, KTH, Stockholm, 2002
- M.Sc. in Vehicle Engineering, Systems Engineering, KTH, Stockholm, 1997.

Previous employments

- Professor in Sustainable Electric Power Systems at Chalmers University of Technology (Chalmers) and Department of Energy and Environment and Division of Electric Power Engineering, Gothenburg, 2009 – 2013.
- Director of Research and Development at the National Grid (Svenska Kraftnät). 2007- 2009.
- Assistant Professor at KTH School of Electrical Engineering, Department of Electromagnetic Engineering, Stockholm. 2006-2009. (Part time leave 2007- 2009).
- Research Associate KTH School of Electrical Engineering, Division of Electrotechnical Design, Stockholm. 2003 – 2006.
- Researcher KTH School of Electrical Engineering, Division of Electrotechnical Design, Stockholm. 2002 – 2003.

Other previous academic positions

- Visiting Scholar with the SP Group and Nanyang Technological University (NTU) joint lab for the Project 3 (Failure Mode Analysis and Mitigation Optimisation). December 2022 to December 2023.
- Visiting Professor at Stanford University and the Civil Engineering and Environmental Engineering Department, and the research group and laboratory for creating sustainable engineering systems with renewable energy systems. January-July 2014.
- Post-doctoral visitor at Dep. of Electrical Engineering, University of Toronto, associated with Kinectrics Inc., Toronto, Canada. November 2002 – July 2003.
- Visiting researcher with University of Saskatchewan, Saskatoon, Canada. February-July 2000.

Previous research funding and research supervision

Prof. Bertling Tjernberg has in total been examiner and main supervisor of 15 P.h.D. students of these have 6 finalized the PhD under her supervision and 9 the TechLic (around half of a PhD thesis). She has also supervised around 50 M.Sc. projects. The main funding for the research are from centers funded by the Swedish Energy Agency and industry (including EKC, EKC2, SWPTC and SweGRIDS). Prof. Bertling Tjernberg has taken an active role in all these centers including both as PI and leadership roles. Other main funding are for several years of research in wind power (mainly funded by Vattenfall but also by SWPTC and an earlier research program with industry). Other main funding are from E.ON

and Gothenburg Energy. Several shorter projects have been funded directly from industry including the harbor in Gävle and SAAB. Below are some more details of the research funding and a list of the researchers. Most of the former research students are in the energy industry today.

Example of previous research founding (indicating amount of funding with PI Bertling Tjernberg)

2023 A first industrial deployment of hydrogen for industrial heat with increased flexibility for the electricity grid and a sector coupling to transport, a pre-study founded by Vinnova, Industrial partners of Ovako, Volvo Trucks and Hitachi Energy.(a post-doc and one research assistant).

2013-2021 SweGRIDS the *Swedish Centre for Smart Grids and Energy Storage*. A partnership of academia, industry and public utilities, with major funding from the [Swedish Energy Agency](#) as well as the corporate [partners](#) . Bertling Tjernberg has a role as international advisor and was PI for several projects (listed in recent research funding). (one post-doc and three shorter research projects (several of the projects being sponsored by the Swedish National Grid).

2010-2014 EU project Grid4Vehicles (one post doc project)

2009-2013 the Chalmers Energy Initiative (CEI) and the research area Large-scale renewable electricity generation and grid integration. Financed by the Governmental strategic funds. (Around 3 PhD student projects).

2012-2015 Gothenburg Energy Smart Meters (Industrial PhD student project).

2009-2013 E.ON Future Electric Power Systems (PostDoc project).

2006-2013 Wind power research funding.(Around 2 PhD students and one post doc)

- The first project 2005-2006 was funded by the Energiforsk
- 2006-2012 several projects funded within the research program Vindforsk
- 2009-2012 Gothenburg Energy (Post doc).
- 2009-2013 Swedish Wind Power Center (SWPTC)

2001-2007 Manager of the maintenance management program within EKC - Competence centre in Electric Power Engineering (EKC) respectively EKC2, at KTH. Financed by the Swedish Energy Authority and Industry. (Around 4 PhD students)

Overview of the previous researchers

Researchers

- Jose Eduardo Urrea Cabus 2021-2022 (currently with Hitachi Energy)
- Hamza Shafique 2020-2022 (currently with CheckWatt)
- Pavithra Gopalakrishnan 2021 -2021 (from 2021 with Power to Hydrogen Modeling Lead, from 2023 at RISE)
- Parnian Alikhani 2020-2021 (currently with Copernicus Institute of Sustainable Development, Utrecht University)

Post-doc

- Yue Cui 2021 (currently with Hitachi Energy)
- Carl Johan Wallnerström 2014 (currently with Energy Market Inspectorate)
- Chris Saunders, 2011-2013 (currently with KTH)
- Antonis Papaemmanouil, 2010-2013 (currently Lucerne University of Applied Sciences and Arts)
- Katharina Fischer, 2009-2012 (currently Fraunhofer Institute for Wind Energy Systems IWES)

Visiting Ph.D. students

- Li Yuan the Inner Mongolia University of Technology (IMUT), 2019-2020.
- Azim Heydari (currently visiting researcher at Alberta University), Meysam Majidi Nezhad (currently post-doc in Mälardalen University), Sapienza University of Rome, April to September 2019.
- Du Mian, Tsinghua University & China Electric Power Research Institute (currently with CEPRI), 2015-2016.

Ph.D. students (graduated)

1. Yue Cui 2021 January (currently with Hitachi Energy).
2. Peyman Mazidi 2018 March (currently at E.ON.).
3. Yasir Arafat 2015 August, LicEng (currently Associate Professor with International Islamic University Chittagong).
4. Pavan Balram 2014 August, LicEng (currently at Chalmers).
5. Pramod Bangalore 2014 May, LicEng (currently at Power Factors).
6. Francois Besnard, 2013 Ph.D., 2009 LicEng (currently at Vattenfall)
7. Feng Wang, 2013 LicEng (currently at ABB)
8. David Steen, 2012 LicEng (currently at Chalmers)
9. Mebtu Beza, 2012 LicEng (currently Associate Professor at Chalmers)
10. Mauro Rosso, 2010 Ph.D. (double degree with INESC Porto), (currently at INESC)
11. Julia Westberg (Nilsson), 2009 LicEng (currently at Ad Lantic Media)
12. Johan Setréus, 2009 LicEng (currently at Swedish National Grid)
13. Carl Johan Wallnerström, 2008 LicEng (currently at Swedish Energy Market Inspectorate)
14. Tommie Lindquist, 2008 Ph.D., 2005 LicEng (currently with RISE)
15. Patrik Hilber, 2008 Ph.D., 2005 LicEng (promoted as professor at KTH in 2023)

Scientific papers:

- Complete list of publications is available from:
<https://www.kth.se/profile/linab/page/publications?l=en>
 1. In total 30 (journal papers) + 111 (conference papers with referee-system)
 2. Google citations (240422)
https://scholar.google.com/citations?user=avw6_okAAAAJ
 - All: 7697, h-index 36, 10-index 95
 - Since 2019: total: 2888, h-index, 25, 10-index 46
- Books
 1. J. Tietjen, M. D. Ilic, L. Bertling Tjernberg, N. N. Schulz (Eds.), [Women in Power Research and Development Advances in Electric Power Systems](#). Springer Cham, DOI <https://doi.org/10.1007/978-3-031-29724-3>, July 2023.
 2. L. Bertling Tjernberg, [Infrastructure Asset Management with Power System Examples](#), CRC Press Taylor and Francis, April 2018.

Leadership experience and managerial position

- 2018 – 2024 Director of the KTH Energy platform.
 - KTH's Energy Platform supports and catalyses interdisciplinary research in the energy field. An important goal is to facilitate interaction between expertise at KTH and external partners within academia, public organisations and companies with an interest in energy research.
 - The platform arrange internal and external workshops and seminars including the annual KTH Energy Dialogue, which attracts around 300 persons (of which around 100 external from industry and policy makers). [About the KTH Energy Dialogue | KTH](#)
- 2009-2012. Professor and Head of the Electrical Engineering Division, Chalmers.
 - During the recruitment, a special leadership evaluation was performed led by an external expert on leadership.

- A mentor program for leadership was followed with one mentor from the university and one from industry
- Leadership evaluations from employees were conducted as well as self evaluations.
- Several courses were followed including topics as: difficult discussions with employees, alcohol habits.
- 2007-2009 Research Director at the National Grid (Svk)
 - Direct recruitment by the technical director to take over the position as Research Director after Dag Holmberg (formally leaving his position in 2008).
 - Following a leadership program developed for management at Svk. This was a one year program including several full days of course days with practical training.
- 2003-2009 Assistant Professor at KTH
 - Mentor program for Assistant Professors at KTH. Including an initiative with ten recruited female assistant professors at KTH.
 - Part of a research project “Kvinnor som maktresurs”, by Pia Höök 2006-2007.
 - KTH leadership program including a study visit at EPFL in Lausanne.

Other selected current appointments:

- Independent expert for the EU Horizon Europe call
- Program committee of the Swedish Electro mobility Center (SEC).
- National expert the ISGAN Academy of Smart Grid (appointed by the Swedish Energy Agency).
- Member of the Nomination Committee of Polhelmspriset.
- Vice chair of the Parliament Members and Researchers (Rifo), (appointed by IVA).
- National Committee of CIRED.
- Chairman of SEK Svensk Elstandard.
- Member of the Steering committee of the IEEE PES ISGT Europe.

Other selected previous appointments:

- Member of the Program Committee of the World Energy Council (WEC), 2020-2022.
- Member of the Strategic Council for Wind Power, Swedish Energy Agency, 2017-2021.
- Member of the Advisory council of the Energy Markets Inspectorate (EI), 2010-2019.
- Member of the Scientific Board of the Swedish Civil Contingencies Agency (MSB), 2009-2019
- Member of the Governing Board of the IEEE Power & Energy Society 2012-2016.
- Member of the Swedish Government Coordination Council for smart grid, 2012-2014.
- EU project Grid for vehicles (G4V), Partner representative and project leader, 2010-2011.
- Program Manager within Centre of Excellence on Electric Engineering (EKC), KTH, 2001-2008.
- Member of the IVA, Section I, and the Industrial Research Group (IFG) during 2007-2009.

Other position of trust within KTH (current and past):

- Chair of the appointment committee of the new faculty boards at KTH EECS, 2023.
- Vice chair of the School Assembly at KTH EECS, from 2022.
- Coordination for lifelong learning at KTH EECS, 2021-2023.
- Faculty representative for industrial collaboration with Hitachi ABB Power Grids, 2020.
- KTH representative in the program board of the Swedish Electro mobility Center (SEC), 2019-
- Scientific Liaison Officer in the Swedish Centre for Smart Grids and Energy Storage (SweGRIDS) at KTH, 2013-2021.
- Program Manager within the Centre of Excellence on Electric Engineering (EKC) at KTH. 2001-2008.

- Faculty board of KTH 2007-2008 (ended prior the term due to external position).
- Program Manager within the Centre of Excellence on Electric Engineering, EKC at KTH. 2001-2008.
- University board of KTH. 2001-2002.
- Head of the PhD student union at KTH. 2000-2001.

Other position of trust within IEEE (current and past)

- Member of the IEEE Herman Halperin Electric Transmission and Distribution Award committee.
- Member of the IEEE PES Industry Technical Support Leadership Committee.
- Treasurer of the IEEE Reliability Society and the joint IEEE Sweden and Norway Reliability Society Joint Section Chapter.
- Member of the IEEE PES ISGT Europe Steering Committee.
- IEEE PES Uno Lamm High Voltage Direct Current Award committee, 2013-2019
- IEEE Power & Energy Society Ramakumar Family Renewable Energy Excellence Award committee, 2014 – 2019.
- Chair on Swedish PE/PEL Chapter 2009-2019.
- Secretary of IEEE Power & Energy Society Governing Board (PES GB), 2014-2016.
- Treasurer of IEEE Power & Energy Society Governing Board (PES GB), 2012-2014.
- Editor board member of the IEEE Transactions of Smart Grid, 2010-2015.
- Chair of the IEEE PES ISGT Europe steering committee, 2010-2014.
- Chair of the IEEE Reliability Risk and Probability Applications (RRPA) Subcommittee, 2011-2013.
- Conference chair of the 1st IEEE PES Innovative Smart Grid Technologies (ISGT) Europe, 2010.
- Vice chair of the IEEE RRPA, 2009-2010.
- Secretary of the IEEE RRPA, 2007-2009.
- Board member of IEEE Sweden Section, 2006-2008.
- Chair of the 9th International conference on probabilistic methods applied for power systems (PMAPS) (co-sponsored by IEEE PES Society and the Sweden Section), 2006.

Distinctions, scholarships and awards

2022: Elected as Fellow of the [Royal Swedish Academy of Engineering \(IVA\) Division of Electrical Engineering](#). (IVA has 1.300 elected national and international Fellows. They are decision-makers, experts and researchers from the academia, private sector and public administration. H.M King Carl XVI Gustaf is the patron and participates in IVA's activities.)

2022: Bonnier Power List in Energy by Dagens Industri. (Interview: [Lina Bertling Tjernberg among the most influential figures in Swedish energy sector | KTH Intranet](#))

2022: [IVAs list of 100 national projects important for the future industry](#) "GreenGrids-Flex".

2021: [Power Women of the Year 2021, Kraftkvinnorna](#).

2019: [IVAs list of 100 national projects important for the future industry](#) "RCAM and predictive maintenance".

2016: Appointed as Distinguished Lecturer of IEEE PES.

2013: Wenner-Gren Foundation, sabbatical scholarship for visit with Stanford University.

2013: Barbro Osher Pro Suecia Foundation for research exchange with Stanford University.

2011: Super Talent 2010 by Veckans Affärer.

2008: Senior member of IEEE.

2007: Travel scholarship within the research exchange program between IVA and Chinese Wind Energy Association (CWEA).

2007: Torsten Lindströms Electrical power system award at KTH.

2003: E.ON. Research scholarship (for the Ph.D.)

2002: Sweden-America Foundation, scholarship for Postdoctoral research studies in Canada.

2000: Elforsk prize awarded for scientific work within the field of maintenance (for the LicEng).

1999: IEEE PES Student poster award (third prize), Edmonton.