Curriculum Vitae – August 2025

Peter D. LUND

Short resume:

Dr. Peter D. Lund (b. 1957) is Professor Emeritus (03/2025-) in Advanced Energy Systems and Engineering Physics at Aalto University School of Science (Finland), where he initiated new energy and multidisciplinary energy science education. He has written and lectured extensively on new energy technologies, systems, and policies for the energy transition. He is most well-known for his contributions to clean energy and systems issues, and nanomaterials for new energy devices, e.g., solar and hydrogen technologies. He led Finland's first national R&D programme on new energy technologies 1988-98. He was Founding Member and Chair 1993-98 of the Energy Institute at Helsinki University of Technology and Director of National Graduate School in Energy Science & Technology 2003-08. He has been Visiting Professor at Technical University of Dresden (Germany), Southeast University in Nanjing (Professor High-Level Prg. 2025), South China University of Technology in Guangzhou, among others.

His research has been published in the leading energy and materials journals such as Energy and Environmental Science, Advanced Materials, Advanced Energy Materials, Nanoenergy, ACS Energy Letters, Applied Energy, Renewable Energy, Energy Policy, and Energy. He has also co-edited volumes (e.g., Advances in Bioenergy, Wiley 2016; Advances in Energy Systems: The Large-scale Renewable Energy Integration Challenge, Wiley 2019; Advances in Digitalization and Machine Learning for Integrated Building-Transportation Energy System, Elsevier 2024).

He was elected Member of Swedish Engineering Academy in Finland in 1998 (Board 2008-13, Silver Medal 2021) and Member of Finnish Academy of Science and Letters in 2018. He chaired the Advisory Group Energy of European Commission 2002-06, chaired the Energy Steering Panel of European Academies Science Advisory Council 2013-17, co-chaired European Academies' science advice to leaders of the European Commission 2019-21 on policy for the energy transition. He was vice-chair of the Finnish Climate Change Panel 2019-23. He is Founding Co-Editor-in-Chief for Interdisciplinary Reviews: Energy & Environment (Wiley), Founding Editor-in-Chief of Oxford Open Energy (OUP) and he serves on editorial boards of many other journals. He has supervised more than 50 PhDs and co-authored over 490 peer-reviewed scientific articles, with more than 27,000 citations. He has received several awards, e.g., in 2021 the China Friendship Award. He is member in several boards.

Examples of positions of trust: Board Member of Finnish Solar Energy Society 1980-84 (Chair 1984-85), International Energy Agency Solar R&D 1987-2004 (Vice-Chair 1989-93), International Solar Energy Society 1996-99, Finnish Physical Society 1997-99, Helsinki Institute of Physics 1999-2006, Swedish Engineering Academy in Finland 2008-13, WWF Finland Vice-Chair 2004-10, Gasum Foundation 2004-18, Instituto Madrileño de Estudios Avanzados Energia Spain 2007-11, Fortum Foundation 2013-18, Finland-Austria Society 2021- (Chair 2022-), Sweden-Finland Society 2025-. Advisory Board Member (past and present) Research Council of Norway Energy Prog., Swedish Fuel Cell Prog., Austrian Arsenal Research Centre, King Fahd University of Petroleum and Materials (Saudi-Arabia), Johns Hopkins University Initiative for Sustainable Energy Policy (USA), Finland Futures Research Centre, Oulu University 6G-enabled Sustainable Society Flagship-Prg., Nordic Energy Research Progs., Finland TEKES&Govt Progs.

Main Contributions and Achievements:

Dr. Peter Lund's interests include energy technology, systems analysis and multidisciplinary aspects for the energy transition, and nanomaterial applications in energy. Recent measures of esteem:

- 2025 Fellow/Member of European Academy of Sciences
- 2025 Fellow of World Society of Sustainable Energy Technologies
- 2025 Board Member of the Sweden-Finland Community (Samfundet Sverige-Finland, Stockholm)
- 2024 Fellow of International Artificial Intelligence Industry Alliance (AIIA, Hong Kong)
- 2024 Keynote talk at CAETS 2024 (International Council of Academies of Engineering and Technical Sciences), Helsinki
- 2023 Espoo City Ambassador
- 2023 Conferrer, Ceremonial conferment of doctoral degrees in the field of technology at Aalto University
- 2023 Keynote IMF &Croatia National Bank High-Level Conference on "Policymaking in a fragmented world", Dubrovnik
- 2021- Editor-in-Chief, Oxford Open Energy (Oxford University Press)
- 2021 China Friendship Award (China's highest award to foreign experts)
- 2021 Silver Medal, Swedish Engineering Academy in Finland
- 2021 Invited talk at National Academy of Technologies of France (Systemic approach to energy transition in Europe)
- 2020 Keynote at 'Meet the Energy Leaders-series' by Delft University of Technology
- 2019-23 Vice-Chair of Finnish Climate Change Panel
- 2019-21 Co-Chair:A systemic approach to the energy transition in Europe,Science Advice for Policy by EUR Academies toEC

Dr. Lund has made original contributions in clean energy, in particular advanced fuel cells, 3rd generation solar cells, energy storage, energy system flexibility, but also in large R&D initiatives and science-to-policy advice. He pioneered solar energy and energy storage research in Finland since late 1970s. His achievements have been recognized with the Finnish Solar Industry Life-Work Award, Imatran Voima and Fortum Foundation Awards, among others. International awards include World Society of Sustainable Energy Technologies, ISES Löf-Duffie, China Friendship Awards.

He has contributed to key energy initiatives in EU (SET-Plan, EIT/KIC, FET Flagship), science-to-policy advice (EASAC, SAM, SAPEA), and Nordic collaboration. He was invited by Commissioner Philippe Busquin to chair the Advisory Group of Energy of the European Commission 2002-06, which provided among the first input to European Research Area (ERA) in energy and the European Strategic Energy Technology Plan (SET-Plan), now the largest energy R&D effort in Europe. He was member of the European Commission's High-Level Group for Peer-Review on economic, social, and environmental impacts of the Joint Technology Initiative on Fuel Cell and Hydrogen Technologies in 2007, which evolved to the 1billion €+ Joint-Undertaking on

Fuel Cells and Hydrogen (JU FCH). He has also had several evaluator assignments to the European Institute for Innovation and Technology (EIT) and EU Future Emerging Technologies (FET) Flagship initiatives, which are energy technology breakthrough initiatives in Europe. He is former Chair of the Energy Steering Panel of the European Academies Science Advisory Council, which provided science-to-policy advice to EU's decision-makers, e.g., on biofuels and bioenergy sustainability, shale gas, energy storage, nuclear waste. He co-chaired (2019-2021) a group of top scientists under Science Advice for Policy by European Academies on evidence-based policy options for the European Commission's Scientific Advice Mechanism on the energy transition in Europe advising the Commissioners and decision-makers of the E.C. (correspondence in *Nature* 596, 486 (2021), doi: https://doi.org/10.1038/d41586-021-02311-1).

He was the Chairman (2012-2015) of the Science Council for the Strategic Centre for Science, Technology and Innovation of the Finnish Energy and Environment Cluster, which was a major public-private effort to combine excellence and relevance for breakthroughs and commercialization of new energy technologies. He was team lead of Nordic Prime Minister's Research Excellence initiative in Energy and Climate (2008), the largest project in Nordic cooperation. He coordinated Finland's first advanced energy R&D national programme (TEKES) for 10 years, with unique industry-academia innovation ecosystems leading to ground-breaking innovations in arctic wind energy, BIPV, superconductive motors, among others, but also establishing the foundation on clean energy R&D in Finland. He has participated in more than 120 strategic reviews & evaluations in 20 countries incl. European Commission with a R&D value of over $4B.

Domestically he has actively contributed to science-to-policy advice to climate and energy policy; he was vice-chair of the Finnish Climate Change Panel, mandated by the Government to provide scientific advice to Finnish climate policymaking, e.g., Ministries and the Parliament; he has participated in many parliamentary hearings, too. For his societal contributions, he was awarded the Finnish Nature League Award in 2014 and the Finnish Nature Conservation Society's Prize in 2004. He is member of the Finnish Academy of Science and Letters and Swedish Engineering Academy in Finland (world's 2nd oldest engineering academy, former board member), received Honors in Silver for his achievements.

He has collaborated with China on new energy (e.g. solar energy and fuel cells) since 2008. Examples of achievements include contributions to high efficiency concentrating solar collectors with storage, next generation fuel cells using mixed metal oxides, record sensitive fast light detector based on perovskite solar cells, complex energy systems optimization, applying AI to energy forecasting, etc. He has received several Chinese Awards, e.g. the China Friendship Award 2021 (highest award commended to foreign experts in China). He has participated several times in international advisory capacity in foreign expert symposia on research, development, innovation, and education in China.

Highlights on his media appearance include hundreds of interviews on energy in Finnish (TV, newspapers, magazines) and foreign media. He has been interviewed and citied e.g. by German Die Zeit, Chinese CCTV news and JSTV, Danish TV2 News, Italian RAI TV, USA Today, New York Times, Reuters, Yahoo, Scientific American, Science Daily, Forbes, etc.

He pioneered seasonal solar energy storage. He was PI for one of world's first large-scale seasonal/long-term solar storage pilot project; he did ground-breaking work in their optimization and design for which work he received the International Solar Energy Society's Löf-Duffie Award. He pioneered H_2 technology for energy storage (Power-to-H_2-to-Power), and piloted world's 2nd PV-H_2 seasonal storage system also serving as one of the first solar-to-fuel systems. Later, he took on photochemical hydrogen production, in which his group radically reduced catalyst demand through multi-physics device modelling coupling mass/charge transport, light absorption, interfacial reactions and recombination, and co-developed new type of black titania photocatalysts.

He co-pioneered first international cooperation on zero-energy houses and PV in buildings (BIPV) for the International Energy Agency's solar R&D agreement in late 1980s and early 1990s. He was subtask leader on system design and engineering of photovoltaics in buildings laying the ground for BIPV engineering principles. He contributed to first commercial BIPV panels using a-Si thin films; also, to better sizing of grid-connected photovoltaic system finding an analytical solution to the optimum ratio of photovoltaic array capacity to rated inverter input capacity, now commonly used in PV systems.

His team's work on dye-sensitized solar cells (DSC) thin-film solar cell focused on better and cheaper counter electrode design using alternative substrates and coatings for higher charge transfer and better stability to enable a flexible form and roll-to-roll manufacturing techniques, but also on better understanding of degradation mechanisms in the cell and improving its lifetime, s. This work was supported by profound theoretical efforts on the basic physical and electrochemical concepts of DSCs, which lead to a novel engineering model for DSCs. Using carbon nanomaterials, his team produced one of the best non-platinized counter electrode and world-record efficiency of metallic flexible dye solar cells. They found key ageing factors for DSC and co-developed pivotal DSC ageing tests. This works continued in perovskite solar cells research.

In fuel cells, his team innovated 2D current density measurements for polymer electrolyte membrane fuel cells (PEMFC) to optimize flow and transport conditions inside the fuel cell, also the first open-cathode free-breathing (natural convection driven heat and mass transfer) PEMFC using special thin gas diffusion backing carbon paper overcoming mass transfer limitations and reaching high power density of 360 mW cm^{-2} inspiring both portable and aerial use. His group developed tertiary compounds with nanostructures yielding highest ever measured ionic conductivity at intermediate temperature for high-power ceramic fuel cells (>1Wcm^{-2}). With Chinese groups lead by Prof. Zhu he co-established a new field on ionic-semi-conductors leading to novel advanced composite fuel cells with high performance. This work was recognized with the World Society of Sustainable Energy Technologies Innovation Award. He is co-inventor to an invention on additive manufacturing technique (3D printing) for fuel cell material layers using special ink composition and surface morphology reaching high power density (1 Wcm^{-2}) and long stability (pat.pend. EP23157073).

Dr. Lund's work has helped to integrate PV and wind into energy systems and develop flexibility measures. He showed that through power-to-thermal measures the self-consumption share of variable renewable power could be 2-3-folded almost anywhere globally. His work on storage systems for PV yielded universal optimal PV to storage sizing guidelines, important also to better flexibility with high shares of PV.

His work on market penetration of new renewable energy technologies presented at pre-COP13 conference in Copenhagen in 2009 received broad global coverage and foresaw the coming development trends in clean energy. Dr. Lund has contributed to multi-disciplinary energy science by combining socio-economic and technical disciplines, which he has applied to energy justice, inclusion, regime issues in sustainable energy transitions.

He was among the first in Finland to start university teaching in new energy technologies. Several thousand students have attended his courses, which have covered technologies, systems, and multidisciplinary themes in new energy; examples of themes covered include solar, wind, H_2, fuel cells, storage, energy systems, etc. He has instructed and supervised >50 doctoral theses. He has assisted with academic evaluations and reviews in 29 countries. His service to society includes also strong dissemination to the public: For example, he has regularly been asked to comment topical energy themes in public media, he has given numerous lectures to the public and professional organizations, executive education and schools.

Detailed CV:

Work: Aalto University School of Science, Puumiehenkuja 2, P.O. Box 15100, FI-00076, Aalto, Espoo, Finland
Tel. +358405150144; e-mail: peter.lund@aalto.fi ; linkedin.com/in/peter-lund-20135b61; ORCID: 0000-0002-4819-3847

Education:

M.Sc.(Tech.), Helsinki University of Technology, 1980 (Engineering Physics, Nuclear Engineering and Reactor Physics)
Lic.Sc.(Tech.), Helsinki University of Technology, 1981 (Engineering Physics, Semiconductor Physics)
D.Sc.(Tech.), Helsinki University of Technology, 1984 (Engineering Physics, Solar Energy & Storage)
18th Graduate Study Programme, United Nations, Geneva, 1980 (UN operations, Diplomacy, Energy, Environment)
Accelerated Development Programme (ADP1), London Business School, 1989 (Business Management)

Employment:

Technical Research Centre of Finland (VTT), Reactor Laboratory (research student), 1978
Helsinki University of Technology, Finland: Research and teaching positions, 09/1978-1987
Ministry of Trade and Industry and Finnish Funding Agency for Technology and Innovation (via HUT):
Research Director and Coordinator of National New Energy R&D Programme, 1988-1998
Helsinki University of Technology:
- Adjunct Professor (Docent) in Energy Physics, 1988
- Associate Professor of Engineering Physics and Advanced Energy Systems, 1992-1998
- Full Professor of Engineering Physics and Advanced Energy Systems, 1998-2010
- Head & Vice-Head, Department of Engineering Physics and Mathematics, 1998-2007
- Founding Member, Energy Institute, 1988; Vice-Chair 1988-1993; Chair, 1993-1998
- Director, National Graduate School of Energy Science & Technology, 2003-2008

Aalto University School of Science:
- Professor Emeritus, 03/2025-
- Professor of Engineering Physics and Advanced Energy Systems, 2010-2025
- Chair, Aalto Energy Science Initiative, 2011-2018
- Member of Board, Aalto Energy Platform, 2013-2018
- Chair and Initiator, Multi-Disciplinary Energy Science Programme (Minor), 2013-2024

Visiting and other academic positions:

Hubei University, Wuhan, China:
- Part-time Visiting Professor, 2014- (nanomaterials for energy applications)
- Chu Tian Chair Professor, 2015-2017 (photovoltaics, fuel cells)

Technische Universität Dresden, Germany; TÜV Guest Professor, 2015-2016
- (Energy systems, energy storage, multidisciplinary issues in energy and mobility, exnovation)

Southeast University, Nanjing, China (new and clean energy technologies):
- Overseas Teacher, 2015-2017; Guest Professor, 2019-2024; Honorary Professor, 2020-2022
- Professor (High-Level Prg.), School of Mechanical Engineering, 2025

Nanjing Xiaozhuang University, China; Guest Professor, 2017-2020 (novel fuel cells)
South China University of Technology, China; Guest Professor, 2023-2026 (flexible energy systems)

Academic duties (part-time):

Solar Energy (Elsevier): Associate Editor, 2001-2005
Energy Research (Wiley): Editor-Europe, 2004-2018
Interdisciplinary Reviews-Energy and Environment (Wiley): Founding Co-Editor-in-Chief, 2010-
Nano Energy (Elsevier): Associate Editor, 2014-2015
Global Challenges (Wiley): Founding Co-Editor, 2015-2016; Executive Advisory Committee 2017-
Energy Materials (OAE Publishing); Advisory Editor and Editorial Board Member, 2021-
Oxford Open Energy (Oxford University Press): Founding Editor-in-Chief, 2021-
Editorial Board Member: Applied Energy (Elsevier) 2010-, Int. J. Low-Carbon Technologies (Oxford University Press): 2010-, Energy Science & Engineering (Wiley) 2012-, Energies (MDPI) 2017-, Environmental and Climate Technologies

(RTU Press) 2019-, Nanomaterials (MDPI) 2021-, Nanoenergy Advances (MDPI) 2021-, Sci (MDPI) 2019-, Future Cities and Environment (WSSET) 2021-, Global Decarbonization (WSSET) 2025-, Electron (Wiley) 2025-

International Hydrogen Council, Canada, Member, 1988-1997
International Energy Agency Solar R&D, Executive Committee Member, 1987-2004; Vice-Chair 1989-1993
IEA Photovoltaic Power Systems, Executive Committee, Member 1993-2004
IEA Energy Conservation through Energy Storage, Executive Committee, Member 1987-88
Research Council of Norway Energy Programme, Steering Committee Member, 2000-2008
Swedish Fuel Cell Programme, Board Member, 2002-2005
Austrian Arsenal Research Centre, Scientific Advisory Board Member, 2005-2008
Instituto Madrileño de Estudios Avanzados Energia Spain, Board Member, 2007-2011
Finland Futures Research Centre, Advisory Board Member, 2011-2015
King Fahd University of Petroleum and Materials, National Center of Excellence, Advisory Board Member, 2011-2013
Johns Hopkins University (Washington D.C.), Initiative for Sustainable Energy Policy, Advisory Board Member, 2017-
Oulu University, 6G-enabled Sustainable Society Flagship-Programme, Advisory Board Member, 2022-

Finnish Solar Energy Society, Board Member, 1980-1984; Chair, 1984-1985
International Council for Thermal Energy Storage, Chair, 1994-1997
International Solar Energy Society, Board Member, 1996-1999
International Solar Energy Society, Science and Technology Committee, Chair 1998-1999
Finnish Physical Society, Board Member, 1997-1999
Helsinki Institute of Physics, Board Member, 1999-2006
WWF Finland, Vice-Chair, 2004-2010 & Board of Trustees, 2000-2005

Academic evaluations (professorships, doctoral theses, universities, progs.): Austria, Australia, Belgium, Canada, China, Cyprus, Denmark*, Estonia*, Finland*, France, Germany, Hong Kong, IEA R&D, India, Ireland, Israel, Jordan, Kazakhstan, Latvia*, Netherlands, Norway*, Pakistan*, Poland, Qatar, South-Africa, Sweden*, Switzerland, Turkey, UK, USA; *several

Awards and honors:

Imatran Voima Utility Foundation, Best Doctoral Thesis Award in Energy (1st), 1987
International Solar Energy Society, Löf-Duffie Award, 1991
Swedish Engineering Academy in Finland, Member, 1998-; Board Member, 2008-2013
Finnish Nature Conservation Society's Prize, 2004
Lyceum Award of Pori City, 2006
Knight, First Class, of the Order of the White Rose of Finland, 2007
Fortum Prize, 2008
World Society of Sustainable Energy Technologies, Best Paper Award (with J. Lindgren), 2014
Finnish Nature League Award, 2014
Jinling Friendship Award (Nanjing, China), 2016
Finnish Solar Industry, Life-Work Award, 2016
NanoEnergy, Poster Recognition Award (with group), 2017
World Society of Sustainable Energy Technologies, Innovation Award (with B. Zhu), 2018
Finnish Academy of Science and Letters, Member, 2018-
Tutoring of 1st Prize Entry for Nat. Coll. New Energy Vehicle Big Data Appl. Innovation Competition (China), 2020
Jiangsu Friendship Award and Medal, 2020
Jiangsu Province International Science and Technology Cooperation Award, 2021
Best Research Article Award 2020 in Tech,Tallinn Univ. of Technology (coauthored Nano Energy 67(2020)104183), 2021
China Government Friendship Award, 2021
Espoo City Ambassador, 2023
Fellow, International Artificial Intelligence Industry Alliance (AIIA), 2025
Fellow, World Society of Sustainable Energy Technologies, 2025
Fellow/Member of European Academy of Sciences, 2025

Professional engagements (part-time):

European Commission, Advisory Group of Energy, Member and Chairman, 2002-2006
European Commission, Peer-Review on economic, social, and environmental impacts of the Joint Technology Initiative on Fuel Cell and Hydrogen Technologies, Member of High-Level Group, 2007
European Strategy Forum on Research Infrastructures-Energy, Steering Committee, 2007-2011; Chair of Panel, 2007-08
European Platform of Universities in Energy Research, Member of Steering Committee, 2009-2018
European Academies Science Advisory Council (EASAC), Member of Energy Panel, 2009-2018; Chair, 2013-2017
European Commission, SET-Plan, Member of European Energy Education and Training Initiative, 2011-2014
Euro-CASE, Energy Platform, Member of Steering Committee, 2013-2017
European Academies, Science Advice for Policy:
- Task Force on Meeting the Future Challenges of the European Energy System, Member, 2019-2020
- WG on a systemic approach to the energy transition in Europe, Co-Chair, 2020-2021

European Commission Grant or Programme Evaluation Panels, Member/Advisor:
FP4/5 Joule, Altener, Save 1997, 1998, 1999; FP5 Altener, Save, 2000, 2001, 2002
FP7 Novel Materials for Energy, Co-Chair, 2008; FP7 Energy, Co-Chair, 2009
EU-India Energy, Vice-Chair, 2010; Fuel Cells and Hydrogen JTI, Vice-Chair, 2011, 2017
Horizon 2020 Energy Storage, 2014; European Institute of Technology and Innovation (EIT), 2013, 2016-2017
Erasmus+, 2019, 2021, 2022, 2023, 2024; FET-Flagship, 2018, 2020
Battery, ICT Photonics, 2020, 2023-24; European Green Deal, 2021
Horizon Europe Energy 2022 (2), EIC Pathfinder 22, 24,25;ERC 23, Twin-Transition 24, EIC Single Market Prg. 25
Nordic Energy Research:
Committee on Fuel Cells, Board Member, 1990-2001
Integration of advanced H-storage materials and systems into the hydrogen society, Board Member, 2002-2006
Nordic Center of Excellence in Photovoltaics, Board Member, 2007-2010
Nordic Flagship Project on Energy System Flexibility (Flex4RES), WG leader, 2016-2019
Finnish-Russian Science and Technology Cooperation on New Energies, Co-Chair, 1996-2000
Senior Officials Energy Efficiency Group of Baltic Sea Region Cooperation, Chair, 2004-2005
Finnish Government/PMO/TEKES:
Climate Change (Climtech), Advisory Board, 2000-2002
Foresight Process of Finnish Industry, Advisory Board Member, 2006
Minister of Trade and Industry Working Group on Biomass Use in Finland, Member, 2007
Foresight Report on Long-term Climate and Energy Policy, Specialist Group, 2007-2009
Strategic Programme for Environmental Operations, Advisory Board, 2011-2015
Cleantech Strategic Programme, Advisory Board, 2012-2015
Nordic Council of Ministers, Prime Ministers' Initiative on Excellence in Research and Innovation on Energy, Environment and Climate, Team Leader, 2008
Strategic Centre for Science, Technology & Innovation of Finnish Energy and Environment Cluster, Science Council, Chair, 2011-2015
Finnish Climate Change Panel, Vice-Chair, 2019-2023
Western Finland Knowledge Center, Ekoenergy Programme, Member of Steering Group, 2000-2004
Solpros (Consulting), Co-Founder and Partner,1994- ; Uniscience Ltd., Board, 1997-1998; Gasum Foundation, Board, 2004-2018; Ahlstrom Capital Cleantech Management Ltd., Board, 2010-2019; Fortum Foundation, Board, 2013-2018; Finnish Innovation Fund SITRA, Advisor, 2015-2016

Scientific publications: 491 peer-reviewed scientific journal articles, 27,409 citations, h-index (google scholar) 83; Examples of books: P. Lund et al. (Eds.) Advances in Bioenergy, The Sustainability Challenge. Wiley, 2016; P Lund et al. (Eds). Advances in Energy Systems: The Large-scale Renewable Energy Integration Challenge. Wiley, 2019; 3 Co-Eds.& P. Lund (Eds.) Advances in Digitalization and Machine Learning for Integrated Building-Transportation Energy Systems. Elsevier, 2023. Chapters in 30 books.

Keynotes and invited talks: >100 invited talks, plenary talks, and keynotes 2001-2025; Examples:
Market transformation perspective and stakeholder aspects in IEA cases; IEA Technology Needs Markets, Paris, Nov 2001
Creating effective innovation and research approaches to meet society's megachallenges – examples from energy; Nordic Council of Ministers Conference on Investing in Research and Innovation, Copenhagen, Oct 2006
New technologies for clean air; EU-USA Transatlantic Cooperation in Clean Air, Brussels, Apr 2007
Modelling and effective use of LT SOFC for polygeneration applications; Hong Kong Polytechnic University, Feb 2010
Bridging energy and climate gap–can science and innovations provide mainstream solutions? Univ. Rovira i Virgili, June 2011
Major energy impacts &emission reductions through integrated green energy... Int. Green Energy Economy Conf. WA DC, 7/11
Large-scale urban renewable electricity schemes - integration and interfacing aspects; SET-2011, Turkey, Sept 2011
Scaling-up of Nanotechnology Enabled Electrochemical Energy Conversion; World Resources Forum, Beijing, Oct 2012
Leapfrogging Energy System Flexibility for Integrating High Shares of Renewable Electricity; IEEE (SEGE'13), Canada, Aug 2013
Moving single-component fuel cell technology towards practical applications; H_2& Fuel Cell Forum Wuhan, Dec 2017
Policies on energy system flexibility accelerating clean energy transition; Nordic Clean Energy Week, Copenhagen, May 2018
Early experiences from deep decarbonization pathways in the Nordics. Meet the Energy Leaders, TU Delft (NL), November 2020
Systems-embedded clean energy pathways supporting accelerated decarbonization. 14th China Bioindustry Convention, 06/2021
Can Europe become the first carbon-neutral continent in the world?14th Int.Conf. on Applied Energy, Bangkok,Thailand, 11/2021
Systemic challenges with sustainable energy transition–advanced solutions in sight;8th Yangzi River Delta Int. Conf.,Nanjing 12/22
New techn. & innovation-solution for green transition&climate risks.IMF Conf."Policymaking in choppy waters",Croatia 6/23
Energy in transition towards hydrogen – a systemic view, Boysen-TU Dresden-Graduiertenkolleg, Germany 04/24
A systemic approach to energy transition in Europe – a Nordic perspective. Royal Swedish Academy of Sciences. Stockholm 06/24
Accelerating the energy transition through stronger systems view. CAETS, Helsinki 07/24
Global perspectives on energy and sustainability, International Solar Innovation Council ISIC, Kolkata, India 04/25