

STandUP Academy 2023

Posters

1. Future Climate Impacts of Sodium-ion Batteries

Shan Zhang^a; Bernhard Steubing^b; Hanna Karlsson Potter^a; Per-Anders Hansson^a; Åke Nordberg^a

^aDepartment of Energy and Technology, SLU, ^bCML, Leiden University

Corresponding author:

Shan Zhang, Department of Energy and Technology, SLU

2. Optimal Planning for large Scale Solar Energy in the Built Environment

Mohamad Koubar, Dept of Civil and industrial engineering, Uppsala University

3. Synchrotron Research for More Efficient Thin Film Solar Cells

Natalia M. Martin, Division of Solar Cell Technology, Department of Materials Science and Engineering, Uppsala University

4. Availability of Solar, Wind and Hydropower Across Europe

Anders Wörman¹, Ilias Pechlivanidis², Daniela Mewes¹, Joakim Riml¹, Dong An⁴, Cintia Bertacchi Uvo^{3,4}

¹ KTH – Royal Institute of Technology, Stockholm, Sweden; ² Swedish Meteorological and Hydrological Institute, Norrköping, Sweden; ³ Finnish Environmental Institute, Helsinki, Finland; ⁴ Lund University, Sweden

Corresponding author:

Anders Wörman, KTH

5. Grid-forming control for the linear-generator-based wave energy converter for the electrification of remote islands

Md Imran Ullah, Jéssica S. Döhler, Vinicius Albuquerque, Cecilia Boström, Irina Temiz
Department of Electrical Engineering, Uppsala University, Uppsala

Corresponding author: Md Imran Ullah, Department of Electrical Engineering, Uppsala University, Uppsala

6. Dansmästaren Project: smart charging strategies

Marina Mattos, Alexander Wallberg, Valeria Castellucci, Uppsala University

Corresponding author: Marina Martins Mattos, PhD Student, Division of Electricity, Department of Electrical Engineering, Uppsala University.

7. Forest landscape trajectories with green infrastructure – alternative forest management strategies, bioenergy potential and land owner perspectives

Renats Trubins, SLU; Magnus Svensson, KTH; Xi-Lillian Pang, KTH; Ulla Mörtberg, KTH

Corresponding author: Ulla Mörtberg, KTH

8. Analysis, Forecasting and Optimization of Hybrid Wind and Solar Power Parks

Oskar Lindberg, Civil Engineering and Built Environment, Uppsala University

Corresponding author: Oskar Lindberg, Civil Engineering and Built Environment, Uppsala University

9. Complementarity of offshore renewable energy sources

Erik Jonasson & Irina Temiz, Division of Electricity, Department of Electrical Engineering, Uppsala University

Corresponding author: Erik Jonasson, Division of Electricity, Department of Electrical Engineering, Uppsala University

10. Vortex Filament Simulations of Counter Rotating Axis Floating Tilted Turbine

Emil Andersson, Uppsala Universitet; Hans Bernhoff, Uppsala Universitet and World Wide Wind Tech AS; Anders Goude, Uppsala Universitet

Corresponding author: Emil Andersson, Uppsala Universitet

11. Ecohydraulic Models for Social and Economic Effects of Hydropower

Anders Andersson Höller, Gunnar Hellström; Division of Fluid & Experimental Mechanics, Luleå University of Technology
Corresponding author: Bastian Höller, Division of Fluid & Experimental Mechanics, Luleå University of Technology

12. Chalcogenide-Based Thin-Film Tandem Solar Cells: Prospects and Challenges

Kostiantyn V. Sopiha, Jes K. Larsen, Jan Keller, Marika Edoff, Charlotte Platzer-Björkman, Jonathan J. S. Scragg; Solar Cell Technology, Department of Materials Science and Engineering, Uppsala University, Sweden

Corresponding author: Kostiantyn V. Sopiha, Solar Cell Technology, Department of Materials Science and Engineering, Uppsala University, Sweden

13. Multi-objective analysis of air-cooled battery packages based on the simplified modeling approach

Amin Moosavi, Anna-Lena Ljung, Staffan Lundström; Division of Fluid and Experimental Mechanics, Luleå University of Technology

Corresponding author: Amin Moosavi, Division of Fluid and Experimental Mechanics, Luleå University of Technology

14. Supraharmonic interaction of MW-chargers for long haul electric trucks

Egil Schultz, Uppsala university, Karin Thomas, Uppsala university

15. Stable and metastable materials for permanent magnet applications from crystal structure prediction

Alena Vishina, Olle Eriksson, Heike C. Herper, Uppsala University

Corresponding author: Alena Vishina, UU

16. Design and simulation study of 40 MW PM Generator the CRAFT

Izabella Simonsson, Sandra Eriksson and Hans Bernhoff, Uppsala University

17. Modelling of a MW charger truck stop combined with a local energy storage system and photovoltaics

Christoffer Aalhuizen, PhD Student och Karin Thomas, Associate Professor

18. Design of Rare Earth Elements Free Motors for Electromobility

Professor Sandra Eriksson, Department of Electrical Engineering, Uppsala University

Marcelo Silva, Department of Electrical Engineering, Uppsala University

Corresponding author: Marcelo Silva, Department of Electrical Engineering, Uppsala University

19. De-carbonization of maritime sector transportation with e-fuels – a feasibility study

Jeevan Jayasuriya, Energy Technology KTH; Andres Villarroel Contreras Fernando, KTH/ EIT InnoEnergy -RENE; Azfar Shaikh Mohammed, KTH/ EIT InnoEnergy -RENE; Lauren Arianna Mahdi, KTH/ EIT InnoEnergy -RENE

Corresponding author: Jeevan Jayasuriya, Energy Technology KTH

20. Partitioned negative correlation peak shaving control at parking garage in Uppsala, Sweden

Alexander Wallberg, Valeria Castellucci, Carl Flygare, Marina Martin Mattos, Rafael Waters; Division of Electricity, Department of Electrical Engineering, Uppsala universitet

21. Data-driven control oriented modelling of Point-Absorber type Wave Energy Converter

Antoine Dupuis, Jens Engström; Uppsala University

22. Typical load profiles from schools in Uppsala municipality

Carl Flygare, department of electrical engineering, division of electricity; Marcus Nystrand, Uppsala municipality; Valeria Castellucci, department of electrical engineering, division of electricity; Rafael Waters, department of electrical engineering, division of electricity

Corresponding author: Carl Flygare, Department of Electrical Engineering, Division of Electricity, Uppsala Universitet

23. Marine Current Power using Vertical axis turbines

Johan Forslund, Christoffer Fjellstedt, Anders Goude and Karin Thomas.

Corresponding author: Johan Forslund, Electrical Engineering at Uppsala University

24. Lithium ore in Sweden - The promising Bergby Li-Cs-Ta-type granitic pegmatite field in central Sweden

Karin Högdahl^a, Erik Jonsson^{a,b}, Magnus Leijd^c, Anders Zetterqvist^c, Alexander Hansson^d, Mikael Bergqvist^d, Mikael Kördel^d, Hannes Mattsson^a, Jaroslaw Majka^a and Pablo Petri^a
^aDepartment of Earth Sciences, University of Uppsala, ^bDepartment of Mineral Resources, Geological Survey of Sweden, ^cBergby Lithium AB, Bollnäs, Sweden; ^dOrexplora, Kista, Sweden

Corresponding author: Karin Högdahl, Department of Earth Sciences, University of Uppsala

25. High temperature cycling stability of Prussian white – Hard carbon sodium-ion cells using sodium bis(oxalato)borate in triethyl phosphate electrolytes

Jonas Welch, Simon Colbin, Andrew J. Naylor, Jonas Mindemark and Reza Younesi, Department of Chemistry – Ångström Laboratory

Corresponding author: Jonas Welch, Department of Chemistry – Ångström Laboratory

26. How 2D Perovskites Enable Stable Solar Cells

Mahboubeh Jamshidisemiromi, James, M. Gardner (corresponding author)
KTH Royal Institute of Technology, School for Engineering Sciences in Chemistry, Biotechnology, and Health, Department of Chemistry

27. Towards graphene-diamond integration for electronics application

Aisuloo Aitkulova, Nattakarn Suntornwipat, Saman Majdi, Viktor Djurberg and Jan Isberg, Division for Electricity, Department of Electrical Engineering, Uppsala University

28. Synergy between photovoltaic power generation and electric vehicle charging in urban energy systems: optimization models for smart charging and vehicle-to-grid

Reza Fachrizal, Div. of Civil Engineering and Built Environment, Dept. of Civil and Industrial Engineering, Uppsala University

29. Fast time domain model for the preliminary design and control of wave power farms

Charitini Stavropoulou, Uppsala University