

IEEE PES/PELS Jt Chapter

Annual Meeting 2024

Agenda

IEEE PES/PELS Jt Chapter Annual Meeting

- Activity Report 2023
- Presentation of the 2024 Board
- Miscellaneous news
- Keynote speech by Dr. Alireza Nami
- MSc thesis award 2023
- AOB / Questions

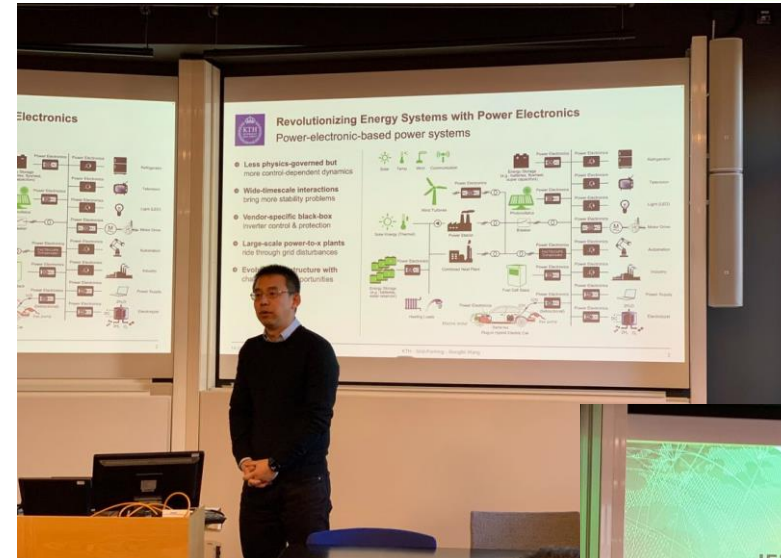


2023 Activity Report

Activities in 2023

Annual Meeting

- Held on March 16, 2023, hybrid with over 60 participants
- Keynote speech on “Grid forming converters” by Prof. Xiongfei Wang, KTH



Welcome!

Date and time:
Wednesday
March 16th 2023,
15:15-17:15 CET

Hybrid event at
KTH and on Zoom

Registration
(by March 13th) in
vTools

Open to IEEE
members and non-
members alike

Contact:
ambra.sannino@ieee.org






Xiongfei Wang
IEEE Fellow 2023

Annual Meeting
IEEE PES/PELS Sweden Chapter
including Keynote Speech:
“Powering the Future: Grid-Forming Converter
Technology and Implementation”
by **Professor Xiongfei Wang,**
Royal Institute of Technology, Sweden

For more information: <http://sites.ieee.org/sweden/pepel-chapter/>

Activities in 2023

M.Sc. Thesis award

- The award is intended to support MSc students involved in Power and Energy & Power Electronics area in Swedish Universities.
- The 1st prize for best thesis was awarded to **Kalle Bjurek & Victor Hagman** for their thesis presented at Chalmers University



IEEE PES/PELS Sweden Jt Chapter Award
for Best MSc Thesis

Presented to

Kalle Bjurek & Victor Hagman

for the M.Sc. thesis
“Vehicle-to-Everything Optimization Considering
Battery Degradation”

Presented at Chalmers University

IEEE Power & Energy Society
IEEE Power Electronics Society
2023

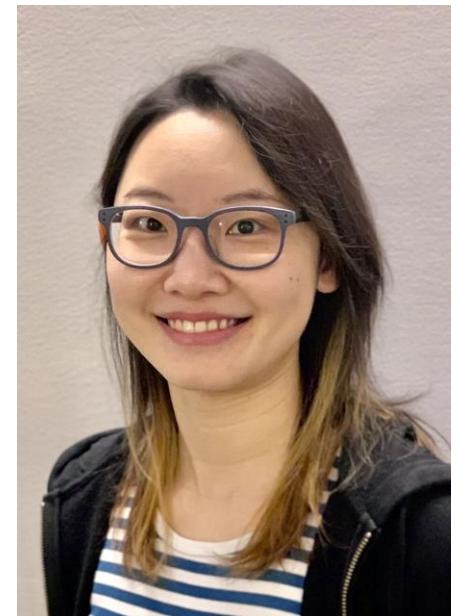


Ambra Sannino
Chair, PES/PELS Sweden Jt Chapter

Activities in 2023

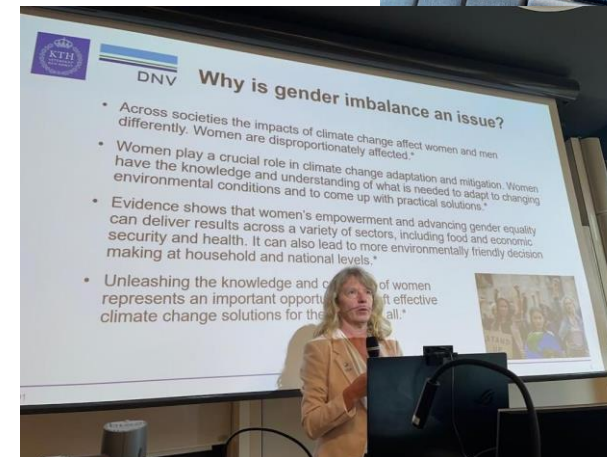
PhD. Thesis award

- The award is intended to support PhD students involved in Power and Energy & Power Electronics area in Swedish Universities.
- The award, consisting in a diploma and a monetary award of 5000 SEK, was presented to the recipient Dr. **Zeyang Geng** for her thesis defended at Chalmers University.



Other Activities in 2023

- IEEE Seminar “Career paths in the energy sector in transition”, Sep 1, 2023 by
 - Sonja Berlijn, Business Director, DNV, and Professor, KTH, and
 - Ambra Sannino, Vice President R&D, Vattenfall and chair of IEEE PES/PELS Sweden
- Arranged in collaboration with IEEE PES Women in Power, with ca 60 participants



Other Activities in 2023 (2)

- IEEE Seminar “Future energy system with focus on grids in distribution and wind power”, on Sep 29, 2023 by
 - Dr. Fredrik Carlsson, R&D portfolio manager, Distribution, Vattenfall and
 - Viktorija Dudjak, Senior R&D Engineer, Vattenfall





2024 Board Election

Board Election

Here is the “new” 2024 Board!

- Voter turn-out: **49/201 (24%) !!**
- Significantly higher than 2023: **35/203 (17%)**

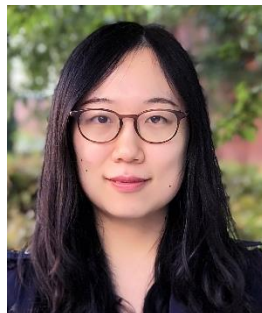
Re-elected members

Chair



Ambra Sannino
Vice President R&D
Vattenfall

Vice Chair



Qianwen Xu
Assistant Professor
Royal Inst of Tech

Treasurer



Sarah Rönnerberg
Professor
Luleå Univ of Tech

Secretary



Fran Marquez
Senior Lecturer
Lund University

Membership
Development



Johanna Rosenlind
Swedish Defence
Research Agency

Webmaster



Daniel Johannesson
Scientist
Hitachi Energy



Other news

Membership updates, etc

Sister organizations

Student Branch @ KTH

- Welcome! To the new student branch chair:
Ali El Mohajer, M.Sc. Student @ KTH

New STB Chair



Ali El Mohajer
MSc student
KTH

Retiring Chair

Student Activities



Roberto Messina
MSc student
KTH

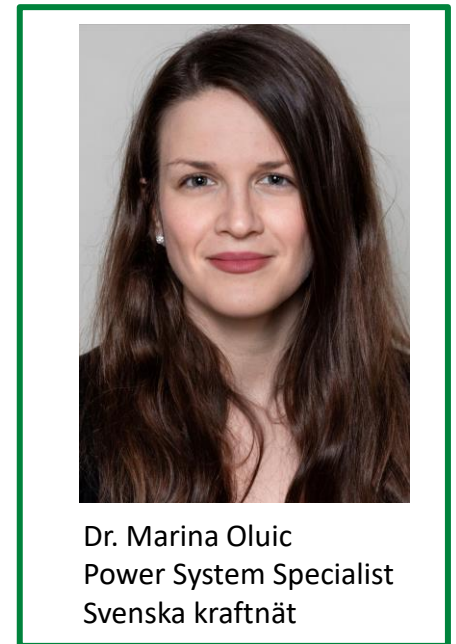
Thank you!

Sister organizations (2)

IEEE PES Women in Power (WiP)

- Mission of IEEE PES WiP:
 - To advance the world through the creativity and innovation of diverse leadership, and to foster the careers, connections, and talent of women in the Power Industry to achieve their full potential to become the leaders of the future.
- Webpage: <https://pes-women-in-power.org/>
- Contact (Sweden): marina.oluic@ieee.org

IEEE Power & Energy Society
**Women
in Power**



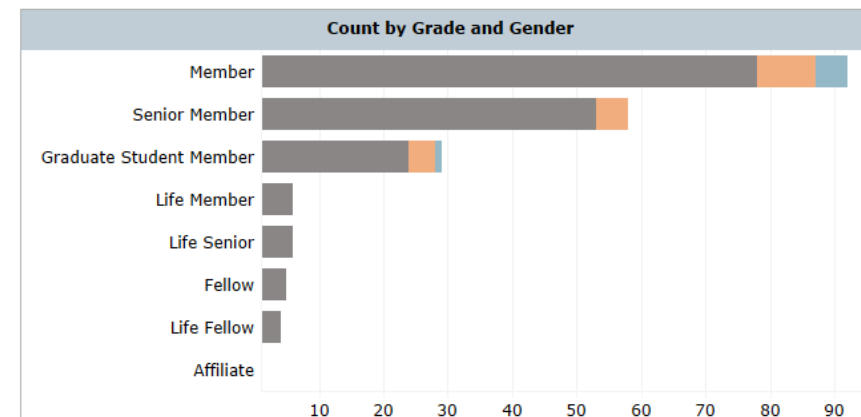
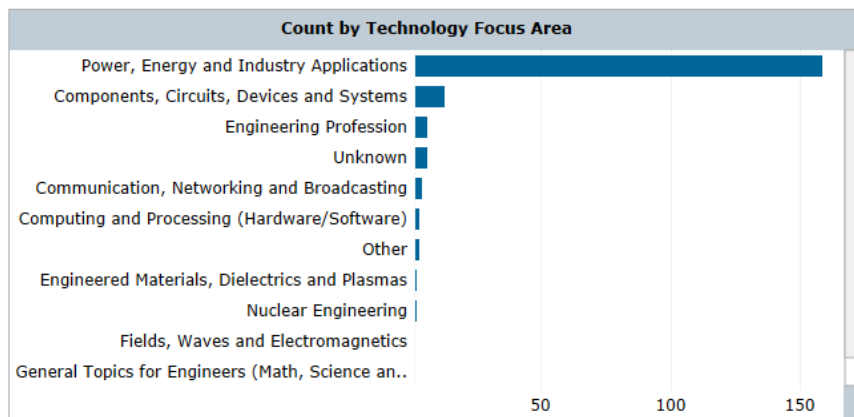
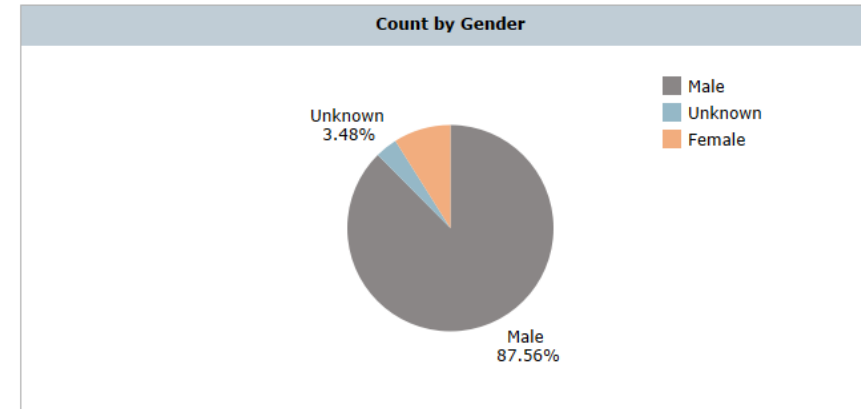
Our Membership

Select OU of your Volunteer Role
Sweden Section Jt. Chapter, PE31/PEL35

Region All
Section All

Grade All
IEEE Status Active
HKN Member All

Count by Region and Grade						
Region	Council	Section	Grade Category	Grade	Total	
R8	Region 8 - No Council	Sweden Section	IEEE Grades	Fellow	5	
				Graduate Student Member	29	
				Life Fellow	4	
				Life Member	6	
				Life Senior	6	
				Member	92	
				Senior Member	58	
				Total	200	
				Other Grades	Affiliate	1
				Total	1	
				Total	Total	201
Total	Total	201				



Note: Data displayed is based upon volunteer access privileges.
Data made available through this platform is IEEE Confidential Information. Please review the [IEEE Guide to Classification of Documents policy](#) for more information.

New! Membership benefits

Free access to IEEE Digital Library

We're excited to announce that ***all IEEE Power & Energy Society (PES) members will receive free access to the IEEE PES digital library*** who join or renew for the 2024 membership cycle. Access to the IEEE PES Digital library includes electronic access to ***Transactions on Energy Conversion, Transactions on Power Delivery, Transactions on Power Systems, Conference Proceedings***, and legacy titles: Transactions on Power Apparatus & Systems and Transaction of the AIEEE Part 3: Power Apparatus & Systems.

Renew your membership TODAY!



Keynote Speech

Dr. Alireza Nami, Hitachi Energy



Awards

Best M.Sc. thesis 2023

MSc thesis award

Background

MSc thesis award

- Eligible are MSc thesis examined by a Swedish University in 2023
- By application from the students themselves
- The topic shall be within the area of interest of PES or PELS
- Open to all students, non-IEEE members can also apply
- Applications submitted by January 19th to Qianwen Xu and Ambra Sannino
- A reward of **2000 SEK** will be given to the best MSc thesis



Evaluation carried out by **Dr Daniel Karlsson**

- Senior Principal Engineer at DNV
- Adjunct Professor at Chalmers



M.Sc. thesis award

Applications

- Out of a total of 18 applications,
 - 11 from **KTH** University
 - 4 from **Chalmers** University
 - 3 from **Lund** University
- Six theses were pre-selected by a pre-selection committee for further evaluation

*18 applicants in 2024 vs 12 in 2023!
50% increase!*

M.Sc. thesis award

Pre-selected M.Sc. thesis

1. **Klas Lindgren**, Dynamic Control, Modeling and Sizing of Hybrid Power Plants: Investigating the optimum usage of energy storage for Fortum's hydropower, KTH
2. **Adrian Brasero Romo**, Design of a Blockchain-Based P2P Energy Marketplace within a Single Energy Retailer Framework, KTH
3. **Niklas Pöcklhofer and Philipp Sares**, Techno-economic analysis of innovative storage power plants utilizing existing CCGT systems - An Austrian case study, KTH
4. **Gabriel Malmer and Lovisa Thorin**, Network reconfiguration for renewable generation maximization, Lund University
5. **Carlos Eduardo Gil Simancas**, Price policy estimation for Demand Response of heat-pump-based loads, KTH
6. **Agnimitra Saha**, AC Gate Bias Stress of 4H-SiC MOSFETs: An investigation into threshold voltage instability of SiC Power MOSFETs under the influence of bipolar gate stress, KTH

M.Sc. thesis award

Evaluation Criteria

- **Topic within Power & Energy or Power Electronics area**
 - Applies to all the applications (a yes/no criterion)
- **Relevance for the industry**
 - For my evaluation, this is a yes/no criterion, and not a more/less criterion, to give equal conditions for detailed investigations and for the assignments covering a broad view
- **Technical content / quality of results**
 - For my evaluation, this is a gradual criterion more/less
- **Readability / Quality of the text**
 - For my evaluation, this is a gradual criterion more/less

M.Sc. thesis award

Evaluation – Step 1

- The 6 candidates selected by pre-selection committee, are all good candidates that **fulfil with good margin the minimum level** of the evaluation criteria
- They would all be honourable receivers of the award

M.Sc. thesis award

Evaluation – Step 2

- Out of the 6 pre-selected candidates, I selected the 3 best candidates with respect to the evaluation criteria
- Finally, I ranked these three in the order “gold”, “silver”, and “bronze”
- ...and the “bronze” winner is

Third prize

Excellent Master Thesis Award 2023

The IEEE PES/PELS Sweden – **Excellent Master Thesis Award 2023**
(3rd place winner) goes to

Niklas Pöcklhofer & Philipp Sares
for their thesis

**Techno-economic analysis of innovative storage power plants utilizing
existing CCGT systems - An Austrian case study**

- The thesis is relevant for the industry, technically sound and consistent
- The results are of outstanding quality
- The thesis is well written, clear and effective in its presentation

Second prize

Excellent Master Thesis Award 2023

The IEEE PES/PELS Sweden – **Excellent Master Thesis Award 2023**

(2nd place winner) goes to

Gabriel Malmer & Lovisa Thorin

for their thesis

Network reconfiguration for renewable generation maximization

- The thesis is relevant for the industry, technically sound and consistent
- The results are of outstanding quality
- The thesis is well written, clear and effective in its presentation

First prize

Best Master Thesis Award 2023

The IEEE PES/PELS Sweden – Best Master Thesis Award 2023

goes to

Klas Lindgren

for the thesis

***Dynamic Control, Modeling and Sizing of Hybrid Power Plants
Investigating the optimum usage of energy storage for Fortum's hydropower***

- The thesis is relevant for the industry, technically sound and consistent
- The results are of outstanding quality
- The thesis is well written, clear and effective in its presentation

The winner should contact treasurer Sarah Rönnerberg, sarah.ronnberg@ltu.se

AOB

Any Questions?