

IEEE Denmark (IEEE-DK)

Amjad Anvari-Moghaddam, Section Chair

Section Vitality

Section Elections:

- Last Elections: December 2023 (Chair, Vice-Chair, Treasurer)
Last elections have been in December 2023, and Amjad Anvari-Moghaddam (who was the Vice-Chair) was elected as a Chair starting January 2024 and Subhra Samanta as the Vice-Chair. We also appointed Johannes Hejselbaek as the Treasurer.
- Next Elections: December 2025

Executive Committee (ExCom) Meetings:

- Frequency: Monthly (Online – Physical)

10-01-2023	<ol style="list-style-type: none"> 1. Check Bylaw status – submitted to IEEE R8 regional board. 2. Check on the nomination committee members, and the nominations process. 3. agree on the next physical meeting at AAU 2023 May.
17-03-2023	<ol style="list-style-type: none"> 1. Look into the voting results in VTools /IEEE 2. Agree to create IEEE DK public communication emails, social media accounts (e.g., LinkedIn), IEEE DK website – to be done when the public relations officer is on position. 3. Agree on the next physical meeting at AAU 2023 May – theme: how to enhance IEEE DK visibility to members.
25-04-2023	Prepare agenda and practicals of IEEE Denmark Section ExCom/Chapters Meeting
20-11-2023	<ol style="list-style-type: none"> 1. Check on the Nomination status -Sanja will step down as a chair. Nomination open for Vice-chair/Treasure, and Candidates are signing up. 2. Agree on to upload the section financial report before Feb. 16th.
- Key Meeting: May 10, 2023 (Physical):
 - *IEEE DK Activities Overview*
 - *Joint Chapter Updates (Control System Society, Robotics and Automation Society, Computer Society, Signal Processing Society, Power & Energy Systems Society, Vehicular Technology Society, Aerospace and Electronic Systems Society, Information Theory and Communications Society, Industrial Electronics Society, Industry Applications Society, Power Electronics Society, Circuits and Systems Society, Electromagnetic Compatibility Society)*
 - *Public Relations and Young Professionals (YPR) Affinity Group Presentation*
 - *Women-in-Power/Student Activities*
 - *Financial Updates & Guidelines*
 - *IEEE DK Activity Boosters, Visibility Plan, Liaison, Plan for 2024*

Membership Engagement Activities:

- *Joint Administrative Meetings of the BENELUX/GERM/SWITZ/AUSTR/POL/ DK / FR Chapters for Coordination of Events (21 Sep 2023)*
- *IEEE Power and Energy Society Denmark - Vision for PES DK (03 Jul 2023)*
- *Joint Administrative Meetings of the BENELUX/GERM/SWITZ/AUSTR/POL/ DK / FR Chapters for Coordination of Events (01 Jun 2023)*
- *IEEE WiE Denmark Annual Committee Meeting (24 Apr 2023)*
- *IEEE Power and Energy Society Denmark - Chapter coordination meeting (07 Apr 2023)*
- *Joint Administrative Meetings of the BENELUX/GERM/SWITZ/AUSTR/POL/ DK / FR Chapters for Coordination of Events (06 Apr 2023)*

- *Joint Administrative Meetings of the BENELUX/GERM/SWITZ/AUSTR/POL/ DK / FR Chapters for Coordination of Events (09 Feb 2023)*
- *IEEE Power and Energy Society Denmark - Chapter coordination meeting (03 Feb 2023)*

Initiatives:

- *Workshops, Thematic Days, Keynote Talks by Each Chapter.*
- *WORKSHOP: Environmental and economical feasibility to recover glass fibers (15 Sep 2023)*
- *2D-TECH Seminar/webinar: The Chinese Graphene Decade: A Rising Industry (06 Sep 2023)*
- *IEEE EPS Nordic Chapter Distinguished Lecture: Lateral Communications (Bridges) between Chipllets and Heterogeneous Integration Packaging (13 Jun 2023)*
- *IEEE EPS Nordic Chapter Seminar: Interconnect Reliability in Advanced Packaging & Heterogeneous Integration (09 Jun 2023)*
- *IEEE EPS Nordic Chapter Seminar -- Graphene for Electronics, Packaging & Energy Storage (30 May 2023)*
- *IEEE Power Electronics Society Distinguished Lecture "Wide Bandgap (WBG) Power Electronics Systems for Heavy-Duty Vehicles" (26 May 2023)*
- *48-Hours Hackathon on residue glass fiber material circular use and economy (10 May 2023)*
- *Emerging Chip Technologies (09 May 2023)*
- *Future Computing via Quanta and Neurons (15 Mar 2023)*

Students

- *kick-off meeting for the new students' Engineering club at Aarhus University Herning, Denmark (02 Feb 2023).*

Affinity Groups

One active student branch at AAU and Three affinity groups

- *Women in Engineering (chaired by Sanja Lazarova-Molnar - SDU)*
- *Young Professionals (chaired by Jacob Thomas Puthukeril - SDU)*
- *Public Relations (chaired by Jacob Thomas Puthukeril - SDU)*

Chapters

1. Joint Chapter Control System Society and Robotics and Automation Society

- *Chaired by Rafael Wisniewski, Prof. at Aalborg University (AAU), raf@es.aau.dk*
- *Vice Chair Roberto Galeazzi, Associate Prof. (DTU)*
- *Secretary Christoffer Sloth, Associate Prof. (SDU)*

List of past events:

- workshop "Theory of data driven safe machine-decisions" during 29th Nordic Congress of Mathematicians with European Mathematics Society in Aalborg, July 4th and 5th, 2023

Organisers:

- Maryam Kamgarpour, Mihaly Petreczky and Rafal Wisniewski

Lecture:

- Rafael Wisniewski, Aalborg University, Department of Electronic Systems, Learning & Decisions Lab; raf@es.aau.dk
- Maryam Kamgarpour, EPFL, Systems and Multi-agent Optimisation Lab; maryam.kamgarpour@epfl.ch
- Mihaly Petreczky, Centre de Recherche en Informatique, Signal et Automatique de Lille; mpetrec@gmail.com

Invited speakers:

- Roland Toth, Eindhoven University of Technology, Institute for Computer Science and Control (SZTAKI)
- Maria Prandini, Politecnico di Milano, Italy
- Martin Gonzalez, ITR-Systems, Paris, France

- Mihaly Petreczky, Centre de Recherche en Informatique, Signal et Automatique de
- Rafal Wisniewski (Aalborg University Department of Electronic Systems Fr. Bajers Vej 7 9220 Aalborg)
- Maryam Kamgarpour, Sycamore lab, EPFL, Switzerland
- Anders Rantzer, Lund University, Sweden
- Florian Dörfler, ETH, Zurich, Switzerland

2. Computer Society

- *Chaired by Jilin Hu, Associate Prof. at Aalborg University (AAU), hujilin@cs.aau.dk*
- *Vice Chair Kaixuan Chen, Assistant Prof. (AAU)*
- *Secretary Haomin Yu, Postdoc (AAU)*

3. Signal Processing Society

- *Chaired by Zheng-hua Tan, Prof. at Aalborg University (AAU), zt@es.aau.dk*
- *Vice Chair Tommy Sonne Alstrøm, Associate Prof. (DTU)*

List of past events:

- In 2023, IEEE Denmark SPS Chapter submitted an extensive proposal to organize the IEEE SPS flagship conference in signal processing - the International Conference on Acoustics, Speech, and Signal Processing (ICASSP) - in Copenhagen in 2028.
 - a strong focus on the diversity and the involvement of industry and young professionals including undergraduate and postgraduate students.
 - The organizing committee consists of more than 30 members from all over the world. T
 - The proposal has been selected by the IEEE SPS as a finalist.
 - Zheng-Hua Tan from Aalborg University has been leading the effort.

2024 Planned Activities

- In 2024, IEEE Denmark SPS Chapter will organize a "Deep Learning for Signal Processing" course targeted at the audience from Danish sound industry as well as university students.
 - Will be a 2-3 day intensive course and take place in Copenhagen, August 2024.
 - Covers a broad range of topics including backprop through time, representation learning, unsupervised learning, supervised learning, sequency labeling, transformers, etc.
 - Tommy Sonne Alstrøm from DTU will lead the effort.
- Working on the ICASSP 2028 proposal based on the feedback to receive from the IEEE SPS.
 - The conference expects 4000 participants.
 - Hosting ICASSP 2028 in Copenhagen is expected to significantly boost the signal processing related activities in Denmark.

4. Power & Energy Systems Society

- *Chaired by Tilman Weckesser, Assistant Prof. (DTU), tweck@dtu.dk*
- *Vice Chair Saeed Peyghami, Assistant Prof. (AAU)*
- *Secretary Haris Ziras, Assistant Prof. (DTU)*

List of past events:

- Feb 3, 2023: IEEE PES DK introduction meeting at DTU Wind and online
First meeting of the new IEEE PES DK chapter ExCom. The goal of the meeting was to introduce the members to each other and agree on how to coordinate the collaboration. It was agreed on meeting regularly to coordinate the efforts within the chapter.
- April 7, 2023: IEEE PES DK coordination meeting at DTU Wind and online
Follow up meeting of the IEEE PES DK chapter ExCom to coordinate our efforts. It was agreed to organize another meeting to develop a vision for the next 2 years.
- July 3, 2023: IEEE PES DK Vision meeting at DTU Wind and online
The goal with the meeting was to develop a vision for the chapter. The starting point for the meeting was

the IEEE PES strategic direction 2021-2025. The result of the meeting was that the board members' goal is to contribute to the further development of a strong network between academia and industry. Moreover, the board would like to contribute to disseminating research results from academia.

- Dec 14, 2023: PhD Defense - Chunjun Huang - Modeling and Control of Power-to-Hydrogen Technology for Renewables Integration
At this event, Chunjun Huang presented the recent results of his PhD project.
- Dec 19, 2023: PhD Defense - Ilaria Sorrenti - Model-based planning and operation of Power-to-X for costs and carbon emissions assessment during the green transition in Denmark
At this event, Ilaria Sorrenti presented the recent results of her PhD project.

Future events:

- Planning to promote research dissemination events from academia, e.g. by promoting PhD defenses
- Invited talks by Line Roald and Josh Taylor
- Event on flexibility in power systems
- Event on trusted AI in power systems

5. Joint Chapter Vehicular Technology Society, Aerospace and Electronic Systems Society, Information Theory and Communications Society (dissolved)

6. Joint Chapter Industrial Electronics Society, Industry Applications Society and Power Electronics Society

- *Chaired by Tomislav Dragičević, Prof. at the Danish Technical University (DTU), tomadr@dtu.dk*

7. Circuits and Systems Society

- *Chaired by Farshad Moradi, Assoc. Prof. Aarhus University (AU), moradi@eng.au.dk*
- *Vice Chair Alberto Nannarelli, Associate Prof. (DTU)*
- *Treasurer Hooman Farkhani, Assistant Prof. (AU)*
- *Secretary Sonal Shreya, Postdoc (AU)*

List of past events:

- IEEE CASS event 2023
- Organized two-day workshop titled 'Emerging Chip Technologies - Academia Meets Industry' on 8-9th May 2023:
 - This event highlighted the state-of-the-art chip technologies within Academia and Industry setups. The event brought several experts from industry and academia together to highlight cutting-edge chip technologies.
 - Day 1: Hands-on session- Introduction to Open source chip design by 'Jørgen Kragh Jakobsen'
 - Day 2: Talks and interaction session, Speakers list (8 speakers): Dr. Sanjeev Aggarwal (Everspin Technologies, USA), Dr. Charles Augustine (Intel Labs, USA), Dr. Danilo Pietro Pau (ST Microelectronics, Italy), Dr. Evangelos Eleftheriou (Axelera AI, Switzerland), Prof. Danilo Demarchi (Politecnico di Torino, Italy) who is also IEEE CASS Distinguished Lecturer, Dr. Sebastien Couet (IMEC Belgium) Dr. Jannik Hammel Nielsen (Presto Engineering), Prof. Farshad Moradi (Aarhus University, Denmark)
 - Mode- Hybrid (physical and two talks were virtual)
 - Attendees – 50+

2024 Planned Activities

- IEEE CASS events 2024
- One-day chip workshop on 27th February 2024
 - One day seminar titled 'HOW CAN THE DANISH CHIP ECOSYSTEM WIN IN THE FUTURE?' to be held on 27th February 2024 with several speakers and experts from Danish Universities and Industry.
 - Event announced - <https://events.vtools.ieee.org/m/406332>
 - Mode- Physical
 - Registration and attendees – 100+
- Distinguished lecture – planning – contacted CASS DLs – tentatively in August or September 2024

8. Electromagnetic Compatibility Society

- *Chaired by Pooya Davari, Associate Prof. at Aalborg University (AAU), pda@et.aau.dk*
- *Vice Chair Morten Sørensen, Associate Prof. (SDU)*
- *Technical Activities, Per Thåstrup, Senior Technology Specialist (Force Technology)*
- *Secretary Zhongting Tang, Research Assistant (AAU)*

List of past events:

- Executive officers' election in August 2023
- Hosted IEEE Distinguished Lecturer
 - “Conducted EMI of an inverter driven Electric Drive Train” by Dr. Ing. Robert Keibel Expert EMC and Lightning Protection Airbus
- Bimonthly meetings with EMC Europe Chapters (Germany, Poland, France, Sweden,...)
- Student competition/contest and prize
- Two webinars from DK chapter hosted by German EMC Chapter

2024 Planned Activities

- Hosting 2-3 Webinars
- Strengthen industry relations (now we have a chair for that)
- Bimonthly meetings with EMC Europe Chapters (Germany, Poland, France, Sweden,...)
- Student competition/contest and prize
- 1-2 webinars from DK chapter hosted by German EMC Chapter
- Plan to increase number of Danish Chapter members (currently 23)

Industry

In the IEEE Denmark Section, fostering strong relations with industry has been a key focus, resulting in successful collaborations and valuable outcomes. Here are some notable activities carried out to strengthen ties with industry:

- *Industry Workshops and Seminars:* Conducted specialized workshops and seminars with industry experts addressing current challenges and emerging trends in various sectors, fostering knowledge exchange.
- *Industry Partnership Initiatives:* Actively engaged with leading industry players to establish partnerships, enabling joint initiatives and collaborative projects that align with IEEE objectives.
- *Guest Lectures and Speaker Series:* Organized guest lectures and speaker series featuring industry leaders, providing members with insights into real-world applications and industry best practices.

Successful Recruitment of Industry Professionals:

- The IEEE Denmark Section achieved a milestone by recruiting industry professionals to key leadership positions. Notably, the Vice-Chair is Subhra Samanta, Lead Electrical Engineer at Vattenfall VindKraft A/S, adding valuable industry expertise to the Section's leadership.

Diverse Industry Representation:

- The Section's leadership team showcases a diverse representation from prominent industries, with the Secretary, Rui Wu, serving as Lead Engineer at Vestas, and the Treasurer, Johannes Hejselbæk, contributing as a Senior Standardization Specialist at Nokia.

Diversity, Equity and Inclusion

The IEEE Denmark Section has demonstrated a strong commitment to diversity and inclusion through targeted initiatives and practices. Tracking various metrics, including gender, age, geography, and employment, the Section actively promotes diversity within its leadership and membership. New initiatives, such as the establishment of a Diversity and Inclusion Task Force and outreach programs, highlight the Section's dedication to fostering an inclusive environment. Best practices, such as inclusive event planning and mentorship programs, ensure that diversity considerations are integrated into various aspects of Section activities. The progress made is evident in increased diversity within leadership roles, positive member feedback, and ongoing efforts to continually enhance the Section's inclusivity and representation.

Activities since the last report

Highlight some of the activities in your Section, with special attention to the things that work well, and things that don't, so that your acquired know-how can be used by other Sections.

Planned activities

Highlight some of the future activities and initiatives in your Section.

How Region 8 can be of help to your Section, members, and activities

The IEEE Denmark Section faces several challenges that could benefit from support and discussion within Region 8. Challenges include maintaining consistent member engagement, especially during virtual events, ensuring diversity and inclusion initiatives are effective and impactful, and addressing resource constraints for organizing larger-scale activities. Support from Region 8 in terms of sharing best practices for virtual engagement, offering guidance on effective diversity and inclusion strategies, and providing resources for organizing events would be valuable. Additionally, discussions during the R8 Committee meeting on fostering collaboration among neighboring Sections, addressing shared challenges, and exploring joint initiatives could provide insights and solutions. Suggestions for agenda items include a focus on member retention strategies, sharing successful virtual event models, and exploring collaborative opportunities to maximize the impact of IEEE activities in the region.

Any other issues of interest

N/A