

IEEE Denmark**Sanja Lazarova-Molnar****Section Vitality**

Please provide information about the date of last Section elections, date of next elections, and do you have the practice of Vice-Chair becoming the next Section Chair. Section ExCom meetings (list them and provide brief summary if appropriate). List the activities carried out to retain and recruit members and the results obtained.

Last elections have been before 2019, and the upcoming elections are being prepared and will take place end of 2021. We could not keep up with the practice of the vice-chair becoming the new chair due to our chair leaving the country and the section. Thus, the section is being led by an Interim Section Chair from February 2021, and there has been a slight disruption. The Vice Chair of the Section is from the Danish industry, who has been striving to connect the local industry with the section. There was an ExCom meeting in April 2021, and there will be another one in November 2021. Throughout the year there has been an active email communication among the ExCom members.

Because of the COVID-19 impact, the Section has been a bit idle during the past year. It did help the IEEE Denmark Section YP and WiE AGs and support their activities. This will be continuingly going on in the next months. The Section will also focus on organizing virtual events to attract different groups of people, hoping that soon physical events will once again become more common. Additionally, there have been a number of events that have shown an increased level of activities, such as: two professional talks by the EMC Chapter, IEEE Nordic Countries Nanotechnology Council Board Meeting, a number of events by the YP (Joint ADIoT 2021 for IEEE Denmark Young Professionals, Joint DenYP Talk on Engineering High-quality and Secure Mobile Apps, Young Professionals - Meet the experts). Furthermore, Women in Power Denmark – an affinity group of IEEE PES-Denmark – was preliminarily established in Sep. 2021. The idea is to improve gender balance of PES-Denmark, there was as well an event by the IEEE PES Women in Power. The WiE held a virtual seminar in June that was very well attended. The level of activity with this have substantially increased. The section will also keep supporting the student branches.

The total number of section members have gone significantly up from six months ago (782). The Section has now 929 members. This is an increase of ca. 19%, ca. 9% are female and ca. 10% are of unknown gender. By the next reporting cycle, we would expect a slight increase of members, as well as female members, along with the organization of various online events, but also physical ones. In addition, the section offers are well balanced between industrial and academic members, which is another aspect benefiting the membership development of the entire section. We provide more details on the activities in the information on the section vitality, which are both very tightly related.

Students

List of Student Branches (SB) in your Section, the newly formed or dissolved SBs, if any since the last meeting reporting (Oct 2020). List the student meetings held and Section activities addressed to Students and Young Professionals.

Since the last report in March 2021, there have been a number of activities for students and young professionals, despite COVID-19. In those past months, the IEEE Denmark Section YP AG has organized a number of events, as webinars/workshops online and joint conferences (e.g., Joint ADIoT 2021 for IEEE Denmark Young Professionals, Joint DenYP Talk on Engineering High-quality and Secure Mobile Apps, Young Professionals - Meet the experts). The two student branches in the IEEE Denmark Section have been a bit idle during the lockdown period, and now, are gradually resuming the activities, e.g., making newsletters, organizing online events, etc. The Section as usual will continue support students and young professionals, keep the student branches active, and co-organize events with YP and WiE AGs, in order to attract more students and young professionals.

Affinity Groups

List of Affinity Groups (YP, LM, WiE, SIGHT, etc.), list of SB AGs, newly formed or dissolved AGs/SB AGs, if any since the last meeting reporting (Oct 2020). List the activities intended to support affinity groups.

We have three active affinity groups: YP and WiE, and one new - Women in Power Denmark – an affinity group of IEEE PES-Denmark. IEEE Denmark Section YP AG has organized a number of events, as webinars/workshops online and joint conferences (e.g., Joint ADIoT 2021 for IEEE Denmark Young Professionals, Joint DenYP Talk on Engineering High-quality and Secure Mobile Apps, Young Professionals - Meet the experts). The IEEE Denmark Section WiE AG has had a webinar in June 2021, and there is a plan for a another one in the coming months.

Furthermore, Women in Power Denmark – an affinity group of IEEE PES-Denmark – was preliminarily established in Sep. 2021. The idea is to improve gender balance of PES-Denmark, there was as well an event by the IEEE PES Women in Power. The WiE held a virtual seminar in June that was very well attended. The level of activity with this have substantially increased. The section will also keep supporting the student branches.

Chapters

List of Chapters and SB Chapters in your Section, the newly formed or dissolved Chapters, if any since the last meeting reporting (Oct 2020). Indicate how many have reported on time and received rebate. Highlight some of the activities.

There are eight sub-chapters within the section, two of which are new, as indicated:

- *Joint Chapter Control System Society and Robotics and Automation Society*
- *Computer Society*
- *Signal Processing Society*
- *Power & Energy Systems Society (new)*
- *Joint Chapter Vehicular Technology Society, Aerospace and Electronic Systems Society, Information Theory and Communications Society*
- *Joint Chapter Industrial Electronics Society, Industry Applications Society and Power Electronics Society*
- *Circuits and Systems Society*
- *Electromagnetic Compatibility Society (new)*

There have been a number of events that have shown an increased level of activities, such as: two professional talks by the EMC Chapter, Danish Robotics Research Updates webinar (September 2021), 2021 Joint IEEE International Symposium on Electromagnetic Compatibility, Signal & Power Integrity (EMC Chapter, July 2021), IEEE Nordic Countries Nanotechnology Council Board Meeting (May 2021).

More specifically, some events hosted/co-hosted by our chapters:

EMC Chapter

- *Hosted events:*
 - *EMC for Fixed Installations, Virtual lecture given on June 18th 2021*
 - *75 attended*
 - *Topics (5 Lecturers):*
 - *EMC directive 2014/30/EU: Compliance for fixed installations*
 - *EMC management of fixed installation*
 - *Measurement campaign and wind turbines*
 - *Interference examples from Danish center for telecommunications*
 - *Drones for electromagnetics measurements*
 - *EMC Professional Talk series:*
 - *Design of EMC filter for Automotive onboard Charger, 14 October 2021*
 - *Speaker: Prof. Eckart Hoene, Fraunhofer IZM*
 - *Virtual event*
 - *Needs and challenges related to a normative method for grid measurements in the frequency range 2-150 kHz, 28 October 2021*
 - *Speaker: Dr. Jan Meyer, Technical University of Dresden*
 - *Virtual event*
- *Co-Hosted events:*
 - *Active cancellation of electromagnetic emissions of power electronic systems, Jun 28th 2021*
 - *Speaker: Dr. Andreas Bendicks, Infineon Technologies*
 - *Virtual event*
 - *EMC Competence Group Meeting, Aug 30th 2021*
 - *Hosted by SDU*
 - *Nonlinear Shielding: A New Paradigm in EMI Control. Aug 23rd 2021*
 - *Speaker: Dr. Cheng Yang, Hamburg University of Technology*
 - *Virtual event*
 - *Hybrid doctoral student meeting 2021 in Magdeburg IEEE German EMC Chapter, 9-10 Nov 2021*
 - *Hybrid event*

Power & Energy Systems Chapter

- *The first technical event “Large-scale Deployment of Modular Pressurized Alkaline Electrolysers” was held on 25 June as mixture of online webinar using zoom and offline discussion at Technical University of Denmark. The event attracted more than 30 participants and majority of which are IEEE members.*
- *Women in Power Denmark – an affinity group of IEEE PES-Denmark – was preliminarily established in Sep. 2021. The idea is improve gender balance of PES-Denmark.*
- *Since Sep. 2021, PES Denmark has joined application of 2022 International Conference on Renewable Energies and Smart Technologies (REST) as a technical co-sponsor. If succeed, the conference will be held on or about 28-Jul-2022, in Tirana, Albania.*

Industry

List the activities carried out to foster relations with Industry and the results obtained.

We have appointed an Industry Relations Coordinator in the Section, who is also from the Danish Industry, and he has planned virtual events in the coming months for continuing the engagement of industry. One of these events took place on October 8, 2021, i.e., there was a workshop at the Centre for Industrial Electronics, The University of Southern Denmark in Sønderborg, Denmark. In this workshop industry and academia experts delivered their presentations on the topics related to how to strengthen industry academia relationship in terms of knowledge sharing, technology development and technology transfer.

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.

As mentioned throughout the report, activities have been resuming, so we have a broad range of events organized by our chapters and affinity groups, which the section supports. We hope this will further improve as the pandemic situation resolves.

Planned activities

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

Here are some examples of proposed activities that have been planned by our chapters and the section:

- *Job Interview tips/job application writing workshop for IEEE student members*
- *Internet Portal of IEEE Denmark section showcasing available expertise from academia, project, achievements, scholars (industry can be benefitted by sponsoring research projects to academia)*
- *Master and Doctoral Thesis competitions, from DTU, AU, SDU and AAU scholars*
- **EMC Society Denmark Launch:** *Annual EMC Society Denmark Seminar, physical event, Hosted Either at AAU, SDU or FORCE*
- **Distinguished Lectures:** *Physical event, it can be either integrated by annual EMC society seminar or as a separate seminar. In case the event need to be carried out virtually only the gift will be given to the lecturers as a honorarium.*
- **Best thesis award:** *This will be carried out by online submission of thesis and evaluation by a committee. Later awards will be given to the winners at the annual event.*
- **Student competition:** *Which is a competition to solve a common EMC problem and the attendees need to submit their solutions online. An assessment committee will evaluate and select a winner. The awards will be given to the winner at the annual event.*