

IEEE Estonia Section

Dmitri Vinnikov, Chair

Section Vitality

Last elections of the IEEE Estonia Section Board have been conducted in November-December 2020. Starting from January, 2021 the Section Board is represented by the following volunteers:

- Dmitri Vinnikov, Chair
- Vladimir Kuts, Vice-Chair
- Roya Ahmadi, Secretary
- Urmet Jänes, Treasurer

In 2022 the ExCom meetings have been organized monthly. Meetings are conducted online and attended by most of the board members. Twice a year (June and December) the extended ExCom meetings are organized in person for better interaction between the members. The largest ExCom meeting is hosted during the annual seminar of the IEEE Estonia Section. In 2021 for meeting both the recruitment and retention goals the Estonia Section was recognized by the golden medal. In 2022 our overall performance of the section was kept on the same level.



Students

Student Branches of the IEEE Estonia Section:

1. Tallinn University of Technology - 60 student & graduate student members, Chair: Saleh Alsaleh (elected in 2021), Counselor: Omar Abdelghafour (elected in 2021)
2. University of Tartu - 15 student & graduate student members, Chair: Junming Ke (elected in 2021)
3. Tallinn University of Technology Industrial Electronics Society Student Branch Chapter, 12 graduate student members, Chair: Vadim Sidorov, Vice-Chair: Pietro Emiliani (elected in January 2022).

IEEE Estonia Section actively supports all students and YP activities, both technically and financially. Tallinn University of Technology SB demonstrated an outstanding activity and helped the section in the following actions:

1. Promotion of the section and chapters activities to students through social media channels and the IEEE.EE webpage.
2. Providing technical assistance to the chapter members for using the IEEE Section webpage.
3. Help with re-activation of the Tartu SB branch by organizing elections for a new Tartu SB chair.
4. Seeking of official registration possibility as a student organization at Tallinn University of Technology.

The list of events organized by the student branches of the IEEE Estonia Section:

- 15.02.2022: Public lecture of visiting PhD student Antoine Gautier (IEEE student member, CAS society), “Low-power Wearable Sleep-Apnea Detection IC”.
- 02.05.2022: Public lecture of Prof. Paolo Rech, Università di Trento, Italy, “Can we Rely on Self-Driving Cars? Evaluation and Mitigation of Neutron-Induced Errors in Convolutional Neural Networks for Autonomous Vehicles”
- 05.05.2022: Early Stage Researchers at TalTech Introduction Series “Universal dc-dc isolated converter for dc-microgrid” by Vadim Sidorov, PhD student of TalTech Power Electronic Group
- 20.05.2022: Workshop organized jointly by VAM Realities partners at Tallinn University of Technology and IEEE Student Branch at Tallinn University of Technology “VAM Realities: Workshop on Extended Reality for Small and Medium Enterprise”
- 16.06.2022: IES Night at the 21st International Symposium “Topical Problems in the Field of Electrical and Power Engineering” and “Doctoral School of Energy and Geotechnology III”

Affinity Groups

1. **IEEE Estonia Section Young Professionals AG** – 110 student & graduate student members, chair: Aleksei Tepljakov). AG has organized 2 events in 2022: “Unreal Tallinn meetup in the Young Professionals in Game Development series” on 20.05.2022 and FOMCON (“Fractional-order Modeling and Control”) toolbox for MATLAB developers on 06.05.2022.
2. **Tallinn University of Technology Women in Engineering AG** – 14 members as of 01.09.2022. Aleksandra Sidorova (aleksandra.sidorova@taltech.ee) was elected a new Chair of the AG in September 2022. This AG hosted 2 online webinars in 2021 and scheduling at least 2 new events for 2022.

Chapters

1. Education [E25 (CH08649)], Chair: Valery Vodovozov; Vice-Chair: Zoja Raud (both elected in 2022). 12 members in September 2022 (9 in Aug 2021).
2. Computer/Communications/Information Theory [C16/COM19/IT12 (CH08494)], Chair: Alar Kuusik, 41 members in September 2022 (42 in Aug 2021).

3. Instrumentation and Measurement/Electron Devices/Engineering in Medicine and Biology [IM09/ED15/EMB18 (CH08500)], Chair: Paul Annus. 14 members in September 2022 (12 in Aug 2021).
4. Signal Processing/Circuits and Systems/Solid-State Circuits [SP01/CAS04/SSC37 (CH08269)], Chair: Gert Tamberg. 18 members in September 2022 (18 in Aug 2021).
5. Industrial Electronics / Power Electronics / Industry Applications / Power & Energy Joint Societies Chapter [PE31/IA34/PEL35/IE13], Chair: Andrii Chub, Vice-Chair: Indrek Roasto. 41 members in September 2022 (38 in Aug 2021).
6. Robotics and Automation Society Chapter [*under formation*], Leader: Vladimir Kuts, 15 members in Aug 2021.

Industry

Dr. Jüri Joller was elected as Industry Ambassador of the Section in September 2022. In the next 2 years we expect to refresh our contacts with industry, improve the dissemination and information exchange with the local industrial companies, which will allow them to take the advantages of the opportunities given by the IEEE.

Activities since the last report

- Starting from 2021 the IEEE Estonia Section pays special attention to organization of monthly webinars and online meetings with experts in different disciplines. These events are hosted by different chapters in a sequential manner and became especially popular among the students and YPs.
- Chair Elections for the Education Chapter and Women in Engineering AG. Election of the Industry Ambassador.
- Technical co-sponsorship of the 14th International Conference on Cyber Conflict (CyCon'2022) which was held in Tallinn, Estonia from 31 May through 3 June 2022.
- Technical co-sponsorship of the 18th Biennial Conference on Electronics and Embedded Systems (BEC'2022), which was held in Tallinn, Estonia on October 4-6, 2022.
- Organization of the Annual Seminar of the IEEE Estonia section in Nelijärve Spa and Recreation Centre on September 9-10, 2022.

Planned activities till the end of 2022

- The Section will be focusing on boosting the members' activity, which has been rather moderate. To this end, we are planning to experiment with several kinds of social events to have members interact more closely.
- Technical co-sponsorship of the 17th IEEE International Conference on Compatibility, Power Electronics and Power Engineering CPE-POWERENG'2023, which will be held in Tallinn, Estonia on June 14-16, 2023.
- Organization of an Industrial seminar and Christmas ExCom meeting of the Section (both in December 2022).



Attendees of the Annual Seminar of the IEEE Estonia section in Nelijärve Spa and Recreation Centre (September 9-10, 2022)