IEEE Estonia IES/PELS/IAS/PES Joint Chapter

in collaboration with the Power Electronics Group of TalTech
and the Estonian Centre of Excellence in Energy Efficiency

9th INTERNATIONAL SUMMER SEMINAR
"Industrial Electronics in Future DC-based Electrification"

Place: Võtikmetsa talu, Lööra küla, Kose vald, Harjumaa
Time: 13.06.2025-15.06.2025

PROGRAM

FRIDAY, 13 JUNE 2025

14:00-15:00	***Arrival, accommodation, and welcome coffee***
15:00-15:05	***Opening of the Seminar.*** Dr. Andrei Blinov, Chair of the IEEE Estonia IES/PELS/IAS/PES Joint Chapter

IEEE IES Workshop on Baltic State Cooperation

15:05-15:20	***From Election to Action: Lessons from My First Half-Year Leading IEEE Estonia.*** Dr. Andrii Chub, Chair of the IEEE Estonia Section
15:20-15:40	***Strengthening IEEE Society Engagement Among Students and Young Professionals.*** Dr. Edivan Carvalho, Chair of the IEEE Estonia Section Young Professionals Affinity Group
15:40-16:00	***IEEE IES Estonia: Building Opportunities for Members.*** Dr. Andrei Blinov, Chair of the IEEE Estonia IES/PELS/IAS/PES Joint Chapter
16:10-16:20	***IEEE IES Latvia Chapter Highlights.*** Dr. Ilya Galkin, Chair of the IEEE Latvia IES/PELS/IAS Joint Chapter
16:20-16:40	***Engaging the Future: IEEE Student Branch Activities at TalTech.*** Mr. Sayeed Hasan, Chair of the IEEE IES Student Branch Chapter of the TalTech, Estonia
16:40-17:00	***Driving Visibility: Strategic Plans for Media and Promotion*** Dr. Newton Gabriel Feliciani, IEEE Estonia Section Young Professionals Affinity Group, Media and Promotion Secretary
17:00-18:00	***Next Steps in the Baltic IEEE Activities: Upcoming Events - RTUCON 2025, BEC 2026, and PEMC2026 conferences.*** Prof. Dmitri Vinnikov, TalTech, Estonia
18:00-19:00	***Workshop on "Effective Practices for Successful Publication in Top IEEE Journals".*** Prof. Dmitri Vinnikov and Dr. Andrii Chub, TalTech, Estonia

Social Events

19:00-20:00	***Baltic States Inter-Chapter Social Activities: Cultural Exchange, Electrical Engineering Experience, and Quiz.*** Dr. Andrei Blinov, TalTech, Estonia, and Prof. Ilya Galkin, RTU, Latvia
20:00-22:00	***Dinner & Networking***

SATURDAY, 14 JUNE 2025

9:00-10:00	***Breakfast***

Reports on Ongoing R&D Activities for Future DC Electrification

10:00-10:20	***Collaboration and Our Role in the Estonian Centre of Excellence in Energy Efficiency.*** Prof. Dmitri Vinnikov, TalTech, Estonia
10:20-10:40	***Project activities: ETAG PRG2055 "EFFicient, rellable, and seCure partlal powEr electroNic sysTems (EFFICIENT)" and Impact of Industrial Electronics on the Fundamental Physics Research in the Estonian Centre of Excellence "Foundations of the Universe".*** Dr. Andrii Chub, TalTech, Estonia
10:40-11:00	***Project PUTJD1209 "DC Ready Microinverter for Solar Application"*** Dr. Oleksandr Matiushkin, PostDoc Researcher, Universidad de Extremadura
11:00-11:20	***TalTech Development Fund Project "UbiCharge: Re-Thinking City EV Charging".*** Mr, Hans Anniste, TalTech, Estonia
11:20-11:40	***Coffee Break***
11:40-12:20	***Final Steps in the Project ETAG PRG1086 "Future-Proof Power Electronic Systems for Residential Microgrids" and Plans for the Future.*** Prof. Dmitri Vinnikov, TalTech, Estonia
12:20-12:40	***Progress Report on EU Project VHE23052 "SHIFT to Direct Current".*** Dr. Andrii Chub, TalTech, Estonia
12:40-13:00	***EU Project VFP21053 "Research and Training Network for Smart and Green Energy Systems and Business Models ".*** Prof. Dmitri Vinnikov, TalTech
13:00-14:00	***Lunch***
14:00-15:00	***Teamwork and Group activities.*** Coordinator – Dr. Edivan Carvalho, TalTech, Estonia

Upcoming R&D Activities for Future DC Electrification

15:00-15:20	**Challenges of Growing Electricity Dependence and Grid Congestion.** Dr. Anna Andrijanovits, Eesti Energia, Estonia
15:20-15:40	***Adapting R&D Strategies in a Changing Market Impacted by Tariffs.*** Dr. Viktor Beldjajev, ABB, Estonia
15:40-16:00	***Future Roles of Street Lighting Systems.*** Dr. Elena Armas, AS Elektrilevi, Estonia
16:00-16:20	***Advanced Cooling Systems for Industrial Electrinics.*** Prof. Ilya Galkin, RTU, Latvia.
16:20-16:40	***Innovations in On-Site Energy Generation and Storage Solutions for Buildings.*** Dr. Janis Zakis, RTU, Latvia
16:40-17:00	***Industrial Electronics Doctoral Education: Role in Innovation and Increasing Interest*** Dr. Lauris Bisenieks, RTU, Latvia.
17:00-17:30	**Coffee Break**

Mentoring of IES SYP Members

17:30-18:00	***Mastering Research Presentations: From Slides to Clear Speech*** Prof. Dmitri Vinnikov and Dr. Andrei Blinov, TalTech, Estonia
18:00-20:00	***Competition for the Best Professional and Newcomer Presentation and Award Ceremony:*** **"Transitioning to DC-Based Lighting for Greater Efficiency and Flexibility"** — Niwton Gabriel Feliciani Dos Santos, TalTech

"*Fuel Cells for Electric Vehicles and Storage: Fundamentals, Tech Advances, and Future Outlook*" — Vinod Kumar Yadav, TalTech

"*Enhancing Solar Output in Snowy Climates Through Active Snow Removal with a Bidirectional Microinverter*" – Sachin Chauhan, TalTech

"*Optimized Partial Power Converters for Efficient Bidirectional DC Energy Flow*" — Tuhin Mitra, TalTech

"*Intelligent Energy Routing Solutions for Residential Prosumers*" — Salamat Ali, TalTech

"*DC-DC Converter EMC Challenges in Microgrid Applications*" — Hetal Sharma, TalTech

"*Compact Non-Isolated DC-DC Converters Designed for Rugged Conditions*" — Abdul Majid, TalTech

"*Versatile Bidirectional DC Fast Charger for Electric Vehicles*" — Hans Anniste, TalTech

"*Optimal Sizing of Solar and Battery Systems for Estonian Homes*" — Tofopefun Nifise Olayiwola, TalTech

20:00-22:00 ***Dinner combined with RAP Session on the Role of Industrial Electronics in Future DC-based Electrification*** Dr. Andrii Chub, TalTech, Estonia

SUNDAY, 15 JUNE 2025

09:00-10:00 ***Breakfast***

10:00-11:30 ***Engaging with IEEE IES and Expanding Industry Collaboration.*** Dr. Andrei Blinov, TalTech, Estonia, and Prof. Ilya Galkin, RTU, Latvia

11:30-12:00 ***Final Conclusions and Closing of the Seminar.*** Prof. Dmitri Vinnikov, TalTech

E-mails: andrei.blinov@taltech.ee
telephone: +372 6203802