

IEEE Estonia Section & IES/PELS/IAS/PES Joint Societies Chapter

in cooperation with

Center of Excellence in Energy Efficiency

FUTURE-PROOF ELECTRIFICATION TECHNOLOGIES

Program

12:30 – 13:00 Light Snack

13:00 – 14:00 Energy Efficiency Research in Estonia

13:00-13:05 **Formal Opening** – Andrei Blinov, TalTech

13:05-13:15 **“Mission and Vision of the Estonian Center of Excellence in Energy Efficiency”** — Dmitri Vinnikov, TalTech

13:15-13:30 **“Estimating the Energy Production of BI/BAPV Systems from Civil Engineering Viewpoint”** — Jaanus Hallik, TalTech

13:30-13:45 **“Data-Driven Approach to Improvement of Buildings Energy Performance”** — Eduard Petlenkov, TalTech

13:45-14:00 **“Renovation Wave as a socio-technical transition”** — Veiko Lember, TalTech

14:00-15:15 Trends, Plans and Smart Solutions for Future Electricity Systems

14:00-14:15 **“Broadband Identification Techniques for Power-Electronics and Grid-Connected Systems in DC Electrification”** — Tomi Roinila, Tampere University, Finland

14:15-14:30 **“Photovoltaic Cooling with Hydro Capillary Systems”** — Janis Zakis, Riga Technical University, Latvia

14:30-14:45 **“Future and Future-proofing Tallinn Urban Lighting”** — Joan-Tähven Vene, Tallinn Urban Environment and Public Works Department

14:45-15:00 **“Emerging Thin-Film Chalcogenides for Scalable, Tailored PV in Sustainable Electronics & Electrified Infrastructures”** — Maciej Sibiński, TalTech

15:00-15:15 **“Digitally Unlocking Grid Flexibility with Heat Pumps”**, Marc Schreurs, Daikin Europe, Belgium

15:15-15:30 Coffee Break

15:30-16:15 DC Technologies for Efficient Renewable Production and Delivery

15:30-15:45 **“Improving Photovoltaic Production in Snowy Conditions Using Bidirectional Microinverter for Active Snow Melting”** – Sachin Chauhan, TalTech

15:45-16:00 **“Shifting to DC for a More Efficient and Flexible Lighting System”** — Niwton Gabriel Feliciani Dos Santos, TalTech

16:00-16:15 **“Fuel Cells for EV and Energy storage: Principles, Technologies, and Future Prospects”** — Vinod Kumar Yadav, TalTech

16:15-17:45 Future-Proof Power Electronics Systems for Sustainable Electrification

16:15-16:30 **“Improved Bidirectional Partial Power Converter for Efficient DC Power Transfer”** — Tuhin Mitra, TalTech

16:30-16:45 **“Electromagnetic Compatibility of DC-DC Converters for DC Microgrids”** — Hetal Sharma, TalTech

16:45-17:00 **“Wide-Range Bidirectional Electric Vehicle DC Charger”** — Hans Anniste, TalTech

17:00-17:15 **“Sizing of PV and Battery Storage for Single-Family Estonian Residential Buildings”** — Tofopefun Nifise Olayiwola, TalTech


17:15-17:30 **“Smart Energy Router for Prosumer Buildings”** — Salamat Ali, TalTech

17:30-17:45 **“High Power Density Non-Isolated DC-DC Converters for Harsh Operating Environments”** — Abdul Majid, TalTech

17:45-18:00 Wrap-up and open discussion

 **Date: June 3, 2025, 13:00-18:00**

 **Location: TalTech Energy Building, NRG-226**

 **Join: <https://shorturl.at/pTNs8>**



Register



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