



Symposium on Topical Issues in Electrical Power Engineering and Mechatronics: Building on Competencies

7-10 January 2026

PROGRAMME

7 JANUARY 2026
11:00-12:00 – ARRIVAL AND REGISTRATION
12:30-13:30 – Lunch
13:30-14:00 - OPENING CEREMONY
Welcome Address from the Department of Electrical Power Engineering and Mechatronics Mart Landsberg, <i>Head of the Department of Electrical Power Engineering and Mechatronics, TalTech</i>
Symposium Information Toomas Vaimann, <i>Programme Director of Electrical Power Engineering and Mechatronics PhD studies</i>
14:00-15:30 – RESEARCH IN THE DEPARTMENT OF ELECTRICAL POWER ENGINEERING AND MECHATRONICS I Chairman: Tarmo Korõtko
Electrical Machines Research Group Ants Kallaste, <i>TalTech</i>
Power Systems Research Group Jako Kilter, <i>TalTech</i>
Fundamentals of Electrical Engineering Research Group, incl. Measurement Center for Electrical Technologies Lauri Kütt, <i>TalTech</i>
15:30-16:00 – Coffee Break
16:00-18:00 –RESEARCH IN THE DEPARTMENT OF ELECTRICAL POWER ENGINEERING AND MECHATRONICS II Chairman: Hans Tiismus
Energy Economics and High Voltage Engineering Research Group Ivo Palu, <i>TalTech</i>
Power Electronics Research Group Dmitri Vinnikov, <i>TalTech</i>
Microgrids and Metrology Research Group, incl. Laboratory of Lighting Technology Argo Rosin, <i>TalTech</i>
Mechatronics and Autonomous Systems Research Group Anton Rassõlkin, <i>TalTech</i>
18:00-19:00 – Dinner
20:00-00:00 – Exploring Hidden Treasures of Pärnu (Optional)

8 JANUARY 2026
9:00-11:00 – Regular Session STUDENT REPORTS I Chairman: Ivar Kiitam
Integrated Energy System Modelling and Simulation Analysis with AI support Kristopher Raik, <i>TalTech</i>
Intelligent Energy Routers for Grid-Interactive DC Buildings Salamat Ali, <i>TalTech</i>
Extensible Data Acquisition System for Monitoring the Characteristics of State of Operation and Automated State Awareness Taavi Salum, <i>TalTech</i>
Resilient DC Microgrids with Cyber-Physical Security Monitoring Saqib Ali, <i>TalTech</i>
Diagnosis and Monitoring of Additive Manufacturing-Induced Deformations in 3D-Printed Electrical Machines Mehroz Fatima, <i>TalTech</i>
New Methodology for Assessing the Dynamic Response of Demand-Side Energy Flexibility Measures Zeeshan Ali Shah, <i>TalTech</i>
High Power Density Non-Isolated DC-DC Converters for Harsh Operating Environments Abdul Majid Bhat, <i>TalTech</i>
Monitoring and Allocation of Power System Reserves in Converter-Rich Power Systems Ahmed Bassiouny Abdelfattah Bassiouny Faioud, <i>TalTech</i>
11:00-11:30 – Coffee Break
11:30-13:30 – Regular Session STUDENT REPORTS II Chairman: Lauri Kütt
Additive Manufacturing of NdFeB Permanent Magnets from Recycled Raw Materials Waqas Ahmed Sarwar, <i>TalTech</i>
Optimizing the Baltic Energy System Transition: Integrated Scenario Modeling and Market Design Analysis for Climate-Neutrality by 2050+ Johan Felix Blumfeldt, <i>TalTech</i>
Impacts of Electrification-Induced Load Patterns on the Grid Alexander Varushchenkov, <i>TalTech</i>
Behind-the-meter Usage Models of Energy Storage Technologies for Optimization of Long-term Cost to the Society Ahto Päril, <i>TalTech</i>
New Methodology for Distribution Grid Planning Considering Impact of Power Flow Pattern Changes on Coincidence Factor Merilin Metsik, <i>TalTech</i>
Advanced Design Approaches for Additively Manufactured Electrical Machines Sumeet Khalid, <i>TalTech</i>
Bidirectional Isolated Wide Range Battery DC Charger for Electromobility Hans Anniste, <i>TalTech</i>
Enhancing Renewable Energy Penetration Through Improved Hosting Capacity and Flexibility of Electric Energy Production, Storage and Management Applications Rana Muhammad Arslan Qadar, <i>TalTech</i>
13:30-14:30 – Lunch

14:30-16:00 PRE-DEFENCES Chairman: Muhammad Usman Naseer
Power System Substation Asset Monitoring and Condition Analysis in Future Power Systems Sajjad Asefi, <i>TalTech</i>
Aggregation of Energy Flexibility in nZED from Different Flexibility Vectors Arqum Shahid, <i>TalTech</i>
16:00-19:00 – Free time (optional visit to water and sauna spa)
19:00-20:00 – Dinner
20:00-23:00 – IEEE STUDENTS & YOUNG PROFESSIONALS’ NIGHT Moderator: Sreenath Sukumaran

9 JANUARY 2026
9:00-13:30 MY FIRST PROJECT/COORDINATION: COMPASS TO SUCCESS Chairman: Mari-Liisa Parder
Journey Through the PUTJD Postdoc: Social and Administrative Challenges Abroad Oleksandr Matiushkin, <i>TalTech</i>
WORKSHOP: Stepping Into Coordination: What Really Matters I Instructor: Mari-Liisa Parder, <i>University of Tartu</i>
11:00-11:30 – Coffee Break
WORKSHOP: Stepping Into Coordination: What Really Matters II Instructor: Mari-Liisa Parder, <i>University of Tartu</i>
13:30-14:30 – Lunch
14:30-17:00 RESEARCHCOMP: THE EUROPEAN COMPETENCE FRAMEWORK FOR RESEARCHERS Chairman: Anton Rassõlkin
HANDS-ON WORKSHOP: Tool to Assess and Develop Researchers' Transferable Skills and Foster Career Development Instructors: Ilona Oja-Acik and Anton Rassõlkin, <i>TalTech</i>
17:00-20:00 – Free time (optional visit to water and sauna spa)
20:00-24:00 – GALA DINNER

10 JANUARY 2026
10:00 – DEPARTURE TO TALLINN

INSTRUCTIONS FOR PRESENTERS

NB! As the symposium is co-funded by the European Union, we kindly ask you to add a logo (coloured version) to the title page of your presentation.

You find the logos (horizontal or vertical option) here:
<https://pilv.rtk.ee/s/5JcFsjMFJqedZq2?path=%2FKaasrahashtanud%20EL%20kaksiklogod%20ENG>

SYMPOSIUM VENUE

The symposium will be held at the Hestia Hotel Strand (A. H. Tammsaare pst 35, 80010 Pärnu; <https://www.hestiahotels.com/strand/>). The presentations and workshops will take place in the Lahe Hall on the 5th floor.

Parking is free for hotel guests, but the car still needs to be registered for parking. This can be done at the kiosk located by the hotel reception.

You can enjoy unlimited access to the water and sauna spa. The spa is open from Sunday to Thursday, 7:00 to 21:00, and on Friday and Saturday, from 7:00 to 22:00. The saunas open at 10:00 AM.

BUS TRANSFER FROM TALLINN TO PÄRNU AND BACK

Special bus transfers from Tallinn to the Symposium venue and back will be organized for registered participants according to the information provided in their registration forms.

On Wednesday, 7 January 2026, the bus will depart at 9:15 from the main parking lot of Tallinn University of Technology near the Energy Building (NRG) (Ehitajate tee 5).

On Saturday, 10 January 2026, the bus will depart from the Hestia Hotel Strand at 10:00.